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Solution 880
Operators Manual

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Solution 880

Operators Manual

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This documentation is provided to suit the *Solution 880* **Control Panel (CC408).**

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Hardware Revision A - J

Table Of Contents

Introduction

Congratulations on selecting the *Solution 880* control panel to protect you and your property. 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 features of this system.   You will notice that in all aspects of planning, engineering, styling, operation, convenience and adaptability, we have sought to anticipate your every possible requirement.

Programming simplicity and speed have been some of the major considerations and we believe that our objectives in this area have been more than satisfied.

This manual will explain all aspects of operating the control panel. All system parameters and options are detailed; however, suitability is left up to the individual. Every system can be tailored to meet all requirements quickly and easily.

Features

The *Solution 880* control panel uses the very latest in microprocessor technology to provide you with more useful features and superior reliability and performance.

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

- Eight Programmable User Codes
- STAY Mode & AWAY Mode Operation
- Six Programmable Burglary Zones
- Two Programmable 24 Hour Zones
- Siren and/or Dialler Lockout Per Zone
- Delayed Reporting
- Built In Telephone Line Fail Monitor
- Day Alarm
- Remote Arming
- Answering Machine Bypass
- Event Memory Recall
- Upload/Download Programmable
- Auxiliary Output (Output 2)
- Relay Output

- Eight Radio Remote User Codes
- Entry & Exit Warning Beeper
- EDMSAT – Satellite Siren Compatible
- Separate Fire Alarm Sound
- Dual Reporting
- Sensor Watch
- Dynamic Battery Testing
- Automatic Arming/Automatic Disarming
- AC Fail and System Fault Indicators
- Walk Test Mode
- Monitored Siren Output (Output 1)
- Strobe Output
- Telco Arm/Disarm Sequence
  (Call Forwarding)

Notice To All Owners

It is recommended that you test the sirens, strobe and zones at weekly intervals. Refer to Testing on page 25 for further information.

Codepad Indicators
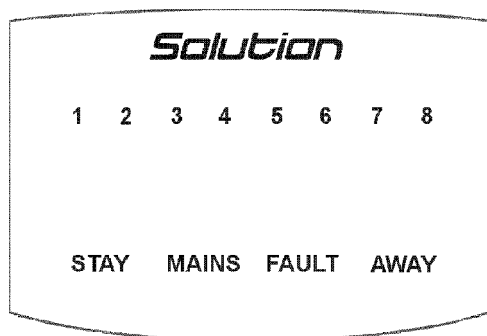
Figure 1: CP5 Eight Zone
LED Codepad
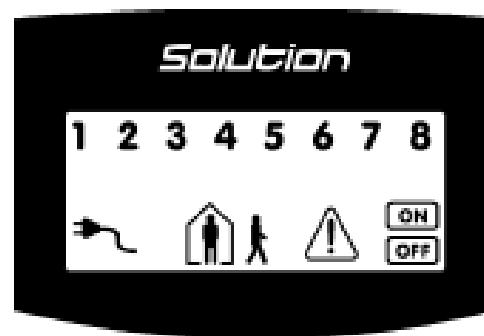
Figure 2: CP5 Eight Zone
LCD Codepad

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 that are used to show the condition of each zone and four others for general status. The following pages outline a list of situations and the relevant indicators that will be seen.

Zone Indicators

1 2 3 ….   The zone indicators (1-8) are used to display the status of the zones. The following table lists the various circumstances that the indicators will display (ie. Zone Sealed / Zone Unsealed).

Zone Indicator	Definition
On	Zone Is Unsealed
Off	Zone Is Sealed
Flashing Fast **(0.25 Sec On/0.25 Sec Off)**	Zone Is In Alarm Condition
Flashing Slow **(1 Sec On/1 Sec Off)**	Zone Is Manually Isolated Or Selected To Be Isolated

Table 1: Zone Indicator

AWAY Indicator

The AWAY indicator is used to display that the system is armed in AWAY Mode. The AWAY indicator will also flash in unison with the STAY indicator when programming various options throughout the operator's manual.

Refer to page 10 for information on the different methods of arming the system in AWAY Mode.

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

Table 2: AWAY Indicator

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STAY Indicator

The STAY indicator is used to display that the system is armed in STAY Mode 1 or STAY Mode 2. The STAY indicator will also flash in unison with the AWAY indicator when programming various options throughout the operator's manual.

Refer to page 11 for information on the different methods of arming in STAY Mode 1. For information and the method of arming in STAY Mode 2, refer to page 12.

STAY Indicator	Definition
On	System Is Armed In STAY Mode 1 Or STAY Mode 2
Off	System Is Not Armed In STAY Mode 1 Or STAY Mode 2
Flashing Twice A Second	Zone Isolating Mode Or Setting STAY Mode 2 Zones
Flashing Once Every 3 Seconds	Day Alarm Status – Day Alarm Turned On

Table 3: STAY Indicator

System Disarmed

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

MAINS Indicator

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

MAINS Indicator	Definition
On	AC Mains Power Normal
Flashing	AC Mains Supply Has Failed

Table 4: MAINS Indicator

Off Indicator / Zone Sealed

The `OFF` indicator will display when the system is in the disarmed state and will flash when a zone becomes unsealed during the disarmed state. The indicator will stop flashing when all zones are sealed.

On Indicator / Zone In Alarm

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

FAULT Indicator

The FAULT indicator is used to display that the system has detected a system fault. Refer to Fault Analysis Mode on page 18 for additional information on system faults.

Every time a new system fault has been detected (eg. FAULT indicator flashing), the codepad will begin to beep once every minute. Pressing the # button once will cancel the once a minute beep and acknowledge the fault (eg. FAULT indicator on steady).

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

Table 5: FAULT Indicator

Audible Indications

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

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

Table 6: Audible Indicators

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Arming The System

There are several different ways to arm the system depending on whether you are leaving the premises and require all active zones to be in a ready state for an intruder, or, if you are remaining in the premises and only require part of the system to be in a ready state for an intruder.

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

The different methods for arming the system include:

➢ **AWAY Mode**
Arms the entire system. Refer to Arming In AWAY Mode on page 10.

➢ **STAY Mode 1**
Arms all zones except those programmed to be automatically isolated by the installer. Refer to Arming In STAY Mode 1 on page 11.

➢ **STAY Mode 2**
Arms all zones except those programmed to be automatically isolated by the Master Code holder. Refer to Arming In STAY Mode 2 on page 12.

Forced Arming

The feature of arming the system when a zone is not sealed is known as forced arming. If the system does not arm 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 can arm the system.

Arming In AWAY Mode

When you leave your premises and require all zones to be in a ready state to detect intrusion, you would arm the system in AWAY Mode. Upon returning to your premises, you will need to disarm your system (refer to page 13) so that you do not sound a false alarm.

There are two different methods for arming the system in AWAY Mode. Method one is standard and will always operate. Method two is optional and may be disabled by your installer if you do not wish to use single button arming.

Method One

How To Arm The System In AWAY Mode

1.   Enter your user code followed by the # button (eg. 2580#).
Two beeps will be heard and the AWAY indicator will display. Exit time will now commence counting.

Method Two

How To Arm The System In AWAY Mode

1.   Hold down the # button until two beeps are heard.
The AWAY indicator will display and exit time will commence counting.

Arming In STAY Mode 1

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

Only your security company can program zones to be automatically isolated in STAY Mode 1.

There are two different methods for arming the system in STAY Mode 1. Method one is standard and will always operate. Method two is optional and may be disabled by your installer if you do not wish to use single button arming.

Entry Guard Timer For STAY Mode

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

If the Entry Guard Timer For STAY Mode has been programmed and a zone that has not been automatically isolated has triggered, the codepad will beep twice a second until the Entry Guard Timer For STAY Mode has expired or the system has been disarmed. If the alarm condition has not been reset by entering your user code followed by the # button (eg. 2580#) before the Entry Guard Time For STAY Mode expires, the sirens will activate into alarm. Only your installer can program this feature.

Method One

How To Arm The System In STAY Mode 1

1.   Enter your user code followed by the * button (eg. 2580*).
Two beeps will be heard and the STAY indicator will display. Exit time will now commence counting.

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

Method Two

How To Arm The System In STAY Mode 1

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

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

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Arming In STAY Mode 2

STAY Mode 2 is only used when the perimeter and unused areas of the premises need to be armed to detect any would be intruder from entering the premises and at the same time, allowing you to move freely within an area that has been automatically isolated. Any Master Code user can program zones to be automatically isolated in STAY Mode 2.

Entry Guard Timer For STAY Mode

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

If the Entry Guard Timer For STAY Mode has been programmed and a zone that has not been automatically isolated has triggered, the codepad will beep twice a second until the Entry Guard Timer For STAY Mode has expired or the system has been disarmed. If the alarm condition has not been reset by entering your user code followed by the # button (eg. 2580#) before the Entry Guard Time For STAY Mode expires, the sirens will activate into alarm. Only your installer can program this option.

How To Arm The System In STAY Mode 2

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

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

Programming STAY Mode 2 Zones

Programming zones to be automatically isolated in STAY Mode 2 can only be carried out if you have a Master Code.

How To Program STAY Mode 2 Zones

1. Enter your Master Code followed by 4 and the # button (eg. 2580 + 4 + #).
Three beeps will be heard and the STAY indicator will begin to flash.

2. Enter the zone number that you wish to have automatically isolated followed by the *
button (eg. 1* = Zone 1 / 2* = Zone 2 etc).

You will notice that the zone you have selected to be automatically isolated in STAY Mode 2 will now flash. If you have made a mistake, enter the same zone number followed by the # button to clear the incorrect zone.

To select additional zones to be automatically isolated in STAY Mode 2, repeat Step 2 as many times as required.

3. Press the # button when you have selected all zones to be automatically isolated in STAY Mode 2 to exit this mode. Two beeps will be heard and the STAY and AWAY indicators will extinguish.

Disarming The System

When you enter the premises after the system has been armed in AWAY Mode, or if you have armed the system in STAY Mode 1 or STAY Mode 2, you will need to disarm the system before entry time expires to disable detection devices that will activate an alarm. Only your installer can program the entry time.

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

How To Disarm The System

1.   Enter your user code followed by the # button (eg. 2580#).
        Two beeps will be heard.

Adding User Codes

Only the Master Code holder can add or change other system user codes including the Master Code itself. Up to eight user codes may be programmed to operate the system.

How To Add A User Code

1.   Enter your Master Code followed by 1 and the # button (eg. 2580 + 1 + #).
        Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2.   Enter the user code number (1 – 8) that you wish to add or change followed by the # button (eg. 2# = User 2 / 8# = User 8 etc). Two beeps will be heard and the user number that you just selected will now display on the codepad indicators.

3.   Enter the digits required for the new code followed by the # button (eg. If you wish the user code to be 5768, you would enter 5768#). Two beeps will be heard and the STAY and AWAY indicators will extinguish.

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

Adding Radio Remote User Codes

Only the Master Code holder can add or change other system user codes (including the Master Code itself). Up to eight radio user codes (User Codes 9 – 16) may be programmed to operate the system.

How To Add A Radio Remote User Code

1.   Enter your Master Code followed by 1 and the # button (eg. 2580 + 1 + #).
        Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2.   Enter the radio remote user code number (9 – 16) that you wish to add followed by the # button (eg. 9# = User 9 / 16# = User 16 etc). Two beeps will be heard and the user number that you just selected will now display on the codepad indicators.

3.   Press a button on the keyfob so that the system will learn the ID number. Two beeps will be heard and the STAY and AWAY indicators will extinguish.

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

Deleting User Codes/Radio User Codes

Only the Master Code holder can delete other system user codes.

How To Delete A User Code

1.   Enter your Master Code followed by 1 and the # button (eg. 2580 + 1 + #).
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2.   Enter the user code number (User Code 1 – 8/Radio User Code 9 - 16) that you wish to delete followed by the # button (eg. 2# = User 2 / 16# = User 16 etc). Two beeps will be heard and the user number that you just selected will now display on the codepad indicators.

3.   Press the * button to delete the user code that you have selected.
Two beeps will be heard and the STAY and AWAY indicators will extinguish. If you wish to delete any further user codes, repeat this procedure as many times as required.

Radio Transmitter Operations
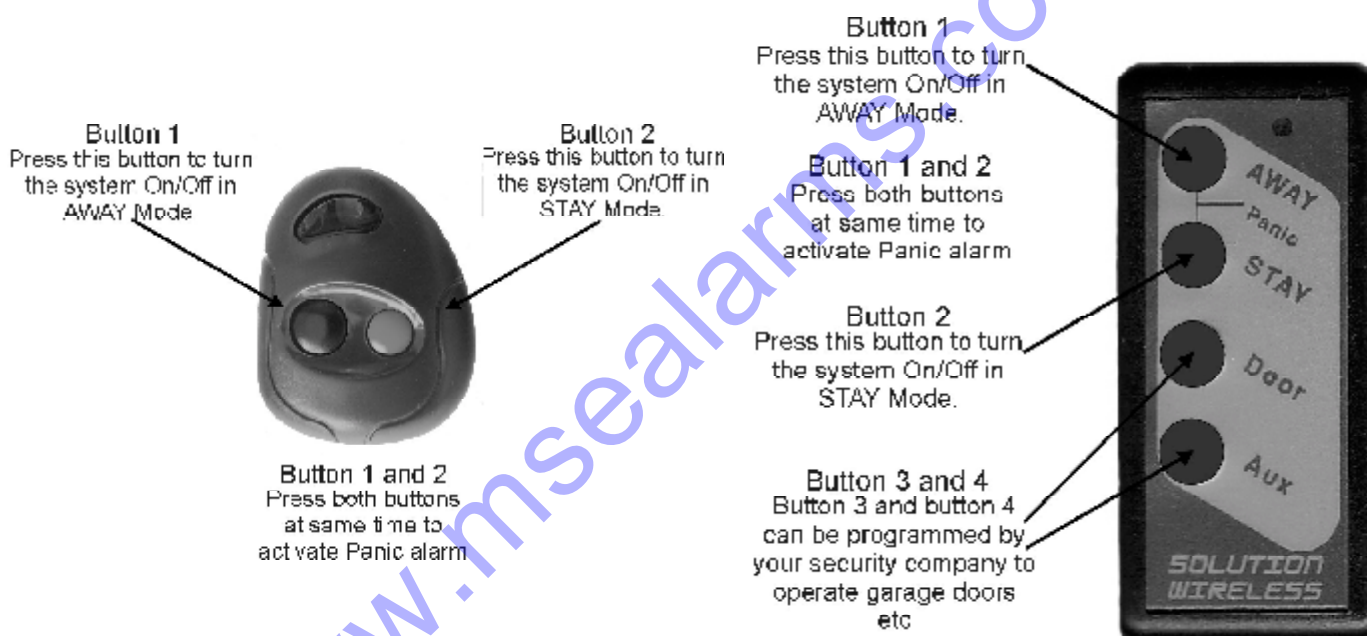
Figure 3: RE012 – 2 Channel Keyfob Transmitter   *Figure 4: RE013 – 4 Channel Keyfob Transmitter*

When using hand held keyfob transmitters to operate the system, audible/visual indications can be programmed by your security company to sound the horn speaker or operate the blue strobe light. This will allow you to operate the system from outside the premises with confidence.

Audible Horn Speaker Beeps
1 Beep = System Disarmed
2 Beeps = System Armed In AWAY Mode
Two-Tone Beep = System Armed In STAY Mode

Visual Strobe Indication
3 Seconds Duration = System Disarmed
6 Seconds Duration = System Armed In AWAY Mode or STAY Mode

Duress Alarm

A codepad duress alarm is used as a silent hold-up alarm. This will only occur when the number 9 is added to the end of any valid user code that us being used to disarm the system (eg. 2580 + 9 + #). A duress alarm is only useful if your system is reporting back to a monitoring station or pocket pager as domestic reporting (ie. mobile phone etc) can't decipher which type of alarm had occurred.

Figure 5: CP5 LED Codepad Showing Audible Alarm Buttons

Panic Alarm

An audible alarm will be activated when both the 1 and 3 buttons or both the * and # buttons are pressed simultaneously. Contact your installer if you wish to disable the ability to activate the codepad panic alarm or if you wish to have the codepad panic alarm to be silent.

Fire Alarm

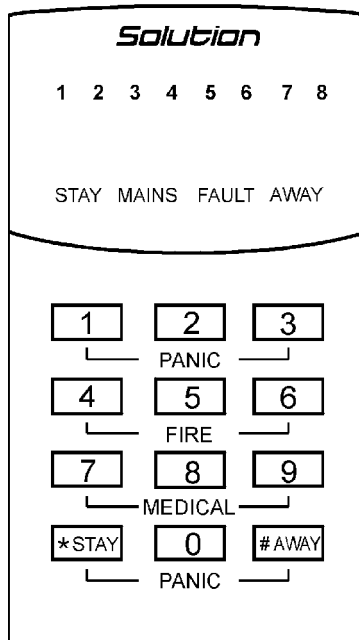A distinct fire sound is emitted via the horn speaker when both the 4 and 6 buttons on the codepad are pressed simultaneously. Contact your installer if you wish to disable the ability to activate the codepad fire alarm or if you wish to have the codepad fire alarm to be silent.

Medical Alarm

An audible alarm will be activated when both the 7 and 9 buttons on the codepad are pressed simultaneously. Contact your installer if you wish to disable the ability to activate the codepad medical alarm or if you wish to have codepad medical alarm to be silent.

Tamper Alarm (Access Denied)

Codepad tamper restricts the number of times an invalid user code can be used in an attempt to operate the system. When the number of incorrect code attempts equals the number programmed by your installer, the system will activate an alarm condition and if reporting back to a security monitoring station, the system will send an access denied report.

If you wish the codepads to shutdown and lockout for a period of time (0 – 150 seconds), ask your installer to program this.

Isolating Zones

Isolating zones allow you to manually disable one or more zones before arming the system. Once a zone has been isolated, access is allowed into that zone during the armed state without activating an alarm.

An example when you may require to isolate a zone before arming the system could be when a PIR detector may be false alarming or that you may need to leave a pet inside a particular zone whilst you are away.

Isolating zones is performed by one of two methods. Method two is optional and only allows those user codes programmed by your installer to have access to isolate zones.

Standard Isolating

Standard Isolating allows all operators to be able to isolate zones without the need to know a valid user code.

How To Isolate A Zone

1. Press the * button twice to enter the isolating mode.
    Three beeps will be heard and the STAY indicator will flash.

2. Enter the zone number (1 – 8) that you wish to select to isolate followed by the * button. (eg. 1* = Zone 1, 2* = Zone 2 etc).

    As you select each zone to be isolated, you will notice that the corresponding zone indicator will begin to flash. If you selected an incorrect zone to be isolated, enter the incorrect zone number again followed by the * button.

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

3. Press the # button after you have selected all zones to be isolated.
    Two beeps will be heard and the system will return to the disarmed state.

Code To Isolate

This method restricts only those user codes that have the priority level 'Code To Isolate' set to be able to isolate zones. Therefore, if any user code has this priority level set, the method of standard isolating will not function.

How To Isolate A Zone

1.   Press the * button followed by your user code and the * button again to enter the isolating mode (eg. *2580*). Three beeps will be heard and the STAY indicator will flash.

2.   Enter the zone number (1 – 8) that you wish to select to isolate followed by the * button. (Eg. 1* = Zone 1, 2* = Zone 2 etc).

      As you select each zone to be isolated, you will notice that the corresponding zone indicator will begin to flash. If you selected an incorrect zone to be isolated, enter the incorrect zone number again followed by the * button.

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

3.   Press the # button after you have selected all zones to be isolated.
      Two beeps will be heard and the system will return to the disarmed state.

Date and Time

Programming the date and time is only required when you need functions such as automatic test reports automatic arming and history events to operate correctly.

How To Program The Date and Time

1.   Enter your Master Code followed by 6 and the # button (eg. 2580 + 6 + #).
      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 (ie. DD = Day of the month, MM = Month of the year, YY = Current year, HH = Hour of the day, MM = Minute of the day).

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

3.   Press the # button to exit and return to the disarmed state.
      Two beeps will be heard and the STAY and AWAY indicators will extinguish. If a long beeps is heard, an error was made when entering the date and time.

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Fault Analysis Mode

If a fault should occur, the FAULT or MAINS indicator will flash and the codepad will beep once ever minute.

If the AC mains supply has failed, the MAINS indicator will flash until the AC mains supply has restored. Pressing the # button once will acknowledge the fault and stop the codepad from beeping once every minute.

How To Determine The Type Of System Fault

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

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

Any zone indicators displayed indicate the type of fault that has occurred. Refer to Table 7: Fault Indicators on page 18 for the list of different system faults that may occur.

2.   To further determine the type of fault condition, you will need to hold down the button that corresponds to the zone indicator displayed.

3.   To exit fault analysis mode and return to the disarmed state, press the # button. The FAULT indicator will remain displayed and the codepad will cease its once a minute beep.

Zone Indicator	Fault Description
1	Battery Fail
2	Date and Time
3	Sensor Watch
4	Horn Speaker Fail
5	Telephone Line Fail
6	E2 Fault
7	Fuse Fail
8	Communication Fail

Table 7: Fault Indicators

Fault Descriptions

Low Battery

A low battery fault will register when the system detects a low capacity back-up battery. The system automatically performs a battery test every 4 hours and also every time you arm the system.

Date and Time

The date and time fault will register every time the system has been powered down. This type of fault will not cause the FAULT indicator to display on the codepad unless your installer has programmed the automatic arming time. Refer to page 17 to program the date and time.

Sensor Watch Fault

A sensor watch fault will register because one or more detection devices has failed to detect any movement during the disarmed state for the time period programmed by your installer. The fault will clear once the zone in question has detected movement and reset.

Whilst you are in fault analysis mode, holding down button 5 until two beeps are heard will display which zone reported the sensor watch fault.

Horn Speaker Fail

This fault will register when the system detects that the horn speaker has been disconnected. This fault will clear once the horn speaker has been reconnected. Your installer will need to program the system for this feature to operate.

Telephone Line Fail

A telephone line fault will register when the system detects that the telephone line has been disconnected from the control panel. Your installer will need to program the system for this feature to operate.

E2 Fault

An E2 fault will register when the system detects an internal checksum error. Contact your installer as soon as this fault is displayed.

Fuse Fail

This fault will occur when either of the two 1 Amp fuses has blown. Contact your installer as soon as this fault is displayed.

Communication Fail

A communication failure fault will register if the control panel was unsuccessful in calling the receiving party after the control panel has exhausted its maximum number of attempts.

AC Mains Fail

An AC mains failure will flash the MAINS indicator, sound the codepad buzzer once every minute and send an 'AC Fail' report to your security company. This fault will clear once the system detects that the AC mains supply has been restored. The system will send an 'AC Restore' report to your security company after the AC mains supply has restore continuously for two minutes.

Telco Arm/Disarm Sequence (Call Forward On/Off)

This feature allows you to program the Telco Arm Sequence and Telco Disarm Sequence.

Telco Arm Sequence

This allows you to program the Call Forward – Immediate On sequence or Call Forward – No Answer sequence that will automatically operate when you arm the system in the AWAY Mode.   This feature is only available if your telecommunications provider has the call-forward option available.

Note: The examples given in this feature are only applicable to Australia.

Call Forward – Immediate On
You can redirect calls to anywhere in Australia, including mobiles, pagers and answering services. When Call Forward is turned on, your telephone will not ring.

Call Forward – No Answer
When your telephone is not answered within 20 seconds, this feature redirects all incoming calls to another number anywhere in Australia, but you can still make outgoing calls.

How To Program The Telco Arm Sequence

1. Enter your Master Code followed by 3 and the # button (eg. 2580 + 3 + #).
Three beeps will be heard and the STAY and AWAY indicators will flash.

2. Press button 1 followed by the # to select the telco arm sequence. Three beeps will be heard.

3. Enter the call forward sequence that you require (eg. *61 Phone Number # if you wish to program the call forward - no answer sequence or *21 Phone Number # if you wish to program the call forward immediate sequence).

Remember that when you program a * in the telco arm sequence, you enter *1 and when you program a # in the telco arm sequence, you enter *2.

4. Press the # button when finished.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

Note: To disable the Telco Arm Sequence, enter the call forward sequence as *4 (break) for Step 3.

Telco Disarm Sequence

This allows you to automatically disable the call forward sequence upon disarming the system.

How To Program The Telco Disarm Sequence

1.   Enter your Master Code followed by 3 and the # button (eg. 2580 + 3 + #).
      Three beeps will be heard and the STAY and AWAY indicators will flash.

2.   Press button 2 followed by the # button to select the telco disarm sequence. Three beeps will be heard.

3.   Enter the call forward disable sequence that you require (eg. #61# if you wish to disable the no answer call forward sequence or #21# if you wish to disable the call forward immediate sequence).

      Remember that when you program a # in the telco disarm sequence, you enter *2.

4.   Press the # button when finished. Two beeps will be heard and the STAY and AWAY indicators will extinguish.

      Note: To disable the Telco Disarm Sequence, enter the call forward sequence as *4 (break) for Step 3.

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

Table 8: Telco Arm/Disarm Dialling Digits

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Turning Outputs On/Off

This feature is only applicable if your installer has set up an output that can be turned on or off via the codepad. The output programmed by your installer could control a pool pump or outside lighting etc. Up to three separate outputs may be programmed.

How To Turn An Output On or Off

1. Enter your Master Code followed by 5 and the # button (eg. 2580 + 5 + #).
Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

2. Enter the output number (1 – 3) that you wish to turn on or off.

3. Press the # button to turn the output on or press the * button to turn the output off.
Three beeps will be heard if the output is turned on and two beeps will be heard if the output is turned off.

Repeat Step 2 and Step 3 if more than one output is required to be turned on of off.

4. Press the # button to exit this function.
Two beeps will be heard and the STAY and AWAY indicators will extinguish.

Reset Latching Outputs

This feature is only applicable if your installer has programmed an output to latch (remain on) until you acknowledge the event that occurred.

How To Reset Latching Outputs

1. Hold down button 7 until two beeps are heard.
The output will now reset.

Codepad ID/Buzzer Tone Change

Holding down button 8 continuously will change the tone of the codepad buzzer. There are fifty different tones to choose from between 1500 Hz – 5000 Hz. If multiple codepads have been installed, each codepad can have a different tone.

If the system has been partitioned, the keypad will first display the area that the keypad has been assigned to.

Zone 1 = Area 1 Codepad
Zone 2 = Area 2 Codepad
Zone 7 = Master Partitioned Codepad

Testing

There are various functions that allow you to test that your system is operating correctly.

Horn Speaker Test

1. Press and hold button 1 until two beeps are heard.
The horn speaker will sound for two seconds.

Bell Test

1. Press and hold button 2 until two beeps are heard.
The bell output will operate for two seconds.

Strobe Test

1. Press and hold button 3 until three beeps are heard.
The strobe will now flash.

2. Press and hold button 3 until two beeps are heard.
The strobe will now stop flashing.

Walk Test Mode

Walk test mode allows you to test detection devices to ensure that they are operating correctly. Every time you test a zone, the codepad will sound one long beep and the horn speaker will sound one short beep to indicate that the zone has been activated when testing.

1. Enter your Master Code followed by 7 and the # button (eg. 2580 + 7 + #).
Three beeps will be heard and the STAY and AWAY indicators will begin to flash. The codepad will beep once every second while the system is in walk test mode.

2. Activate all zones that are required to be tested. The codepad will sound one long beep and the horn speaker will sound one short beep every time a zone is faulted (unsealed) and restored.

3. When you have finished testing all zones required, press the # button to exit this mode. Two beeps will be heard and the STAY and AWAY indicators will extinguish. The system has now returned to the disarmed state.

Test Report

This feature is only applicable if your system is reporting via the telephone. By holding down button 9 until two beeps are heard, the system will send a test report without causing the sirens to sound.

Event Memory Recall

This function allows you to replay back the last forty events that occurred to the system. The event memory history will replay all alarms and arming/disarming of the system in AWAY Mode, STAY Mode 1 and STAY Mode 2. However, the system cannot differentiate between arming the system in STAY Mode 1 or STAY Mode 2.

How To Enter Event Memory

1. Enter your Master Code followed by 8 and the # button (eg. 2580 + 8 + #).
Three beeps will be heard. The last forty events will display one at a time via the codepad indicators starting from the most recent event. A beep will be heard as each event is displayed.

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Day Alarm

Day alarm allows a combination of zones to be monitored during the disarmed state by beeping the codepad buzzer. Only your installer can program zones 1 – 4 to operate for day alarm.

Example

An example set-up of a day alarm could be the front door of a shop that has a pressure mat or electronic beam that customers activate as they enter to and from the shop. As the customers walk onto the pressure mat or break the electronic beam, the codepad buzzer will beep.

How To Turn Day Alarm On

1. Hold down button 4 until three beeps are heard.
    Day alarm will now be turned on. All zones programmed for day alarm operation will cause the codepad buzzer to beep during the disarmed state when activated.

How To Turn Day Alarm Off

1. Hold down button 4 until two beeps are heard.
    Day alarm will now be turned off.

Remote Arming Via Telephone

This feature allows you to arm your system from any remote location via the telephone. For obvious security reasons, the system cannot be disarmed using this method. To make use of this feature, you will require a touch-tone telephone. Your installer needs to program this feature to operate.

How 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 incoming call, a short jingle will be heard. Press the * button on the touch-tone telephone for 1 - 3 seconds to arm the system.

    If you hear modem tones when the control panel answers the incoming call, this means that the system has been programmed for remote programming functions by your installer. Simply wait for a pause between the tones before pressing the * button.

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

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

Note: **If your installer has programmed answering machine bypass, you will need to call the control panel twice to make a connection with the system (eg. Call the telephone number that your control panel is connected to and let the call ring no more than 4 rings and then hang up the telephone. Wait a minimum of 8 seconds before you call the control panel back again).**

Domestic Dialling

Domestic dialling can be used to call your mobile phone or a relative/friend in the event that your control panel has activated an alarm. Up to three different telephone numbers may be programmed for the control panel to call when alarm occurs. Only your installer can set the system to report in the domestic format, however, the Master Code holder may change the domestic telephone numbers at any time.

Acknowledging Domestic Calls

When an alarm condition occurs, the system will call the first telephone number that has been programmed. When you answer an incoming call, you will hear the system emitting a siren tone followed by a pause and repeat continually for two minutes (eg. siren tone – pause – siren tone – pause).

If you do not acknowledge the call from the control panel during a pause between siren tones, the control panel will simply hang up after two minutes has expired and call the next telephone number.

Pressing the * button for 1 – 3 seconds during the pause will acknowledge the call and no further calls will be made for that event. If the call has been successfully acknowledged, a tone of decreasing pitch will be heard.

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

Table 9: Domestic Dialling Telephone Digits

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Programming Domestic Telephone Numbers

If your system has been set-up for domestic dialling, this function allows any Master Code holder to program telephone numbers that the control panel will call in the event of an alarm.

How To Program Telephone Numbers

1.   Enter your Master Code followed by 2 and the # button (eg. 2580 + 2 + #).
      Three beeps will be heard and the STAY and AWAY indicators will begin to flash.

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

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

2.   Enter all digits for the first telephone number (eg. 96721717).
      You will notice that as each digit is entered, the corresponding codepad indicators will display.

3.   If there is more than one telephone number to be programmed, press *4. This will insert a break between the first telephone number and the second telephone number. If there is only one telephone number to be programmed, press the # button to exit this function.

4.   Enter all the digits of the second telephone number (eg. 96721055).
      You will notice that as each digit is entered, the corresponding codepad indicators will display.

5.   After the last digit of the second telephone number has been programmed, press the # button to exit this function unless a third telephone number is required. If there is a third telephone number to be programmed, press the *4 button to insert a break between the second telephone number and the third telephone number.

Disable Domestic Dialling

If at any time you wish to cancel domestic dialling (eg. You are moving house and do not wish the system to continue calling your mobile phone etc), you may enter the following sequence.

1.   Enter you Master Code followed by 2 and the # button (eg. 2580 + 2#).
      Two beeps will be heard and the STAY and AWAY indicators will begin to flash.

2.   Press the * button followed by 4 and the # button (eg. *4#).
      The STAY and AWAY indicators will now extinguish.

Partitioning

The *Solution 880* control panel can be partitioned or split into two individual areas. Both areas can be operated from one Master Partitioned codepad or from separate area addressable codepads.

Master Partitioned Codepad Indicators

The indicators on a Master Partitioned codepad are configured in to four groups. Following is a description of what the indicators show.

Zone Indicators

Zone indicators (1-8) display the status of each zone. These zones belong to the area that has the AREA DISPLAY indicator illuminated (i.e. If a ZONE indicator is illuminated, that zone is unsealed and if the ZONE indicator is not illuminated, that zone is sealed).

Area On/Off Indicators

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

Area Display Indicators

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

Status Indicators

A group of four indicators show the following:

AUX Indicator

The AUX indicator displays when the system is using the telephone line communicating to the receiving party.

The AUX indicator will flash in conjunction with the PARTIAL indicator to indicate successful entry into any programming mode. For example, this will occur when using Master Code functions.

Mains Indicator

This indicator displays the status of the AC mains supply (i.e. On-Steady = AC normal / flashing = AC Fail).

Fault Indicator

This indicator displays the status of the systems fault register (ie. If the FAULT indicator is flashing, the system has detected a fault that 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 system faults.

Partial Indicator

The partial indicator displays whether an area is armed in STAY Mode 1 (i.e. If the PARTIAL indicator is illuminated, an area is armed in STAY Mode 1, and if the PARTIAL indicator is not illuminated, no areas are armed in STAY Mode 1). Whilst isolating zones, the PARTIAL indicator flashes to indicate that you are in the isolate mode. The PARTIAL indicator will flash in conjunction with the AUX indicator to indicate successful entry into any programming mode. For example, this will occur when using Master Code functions.
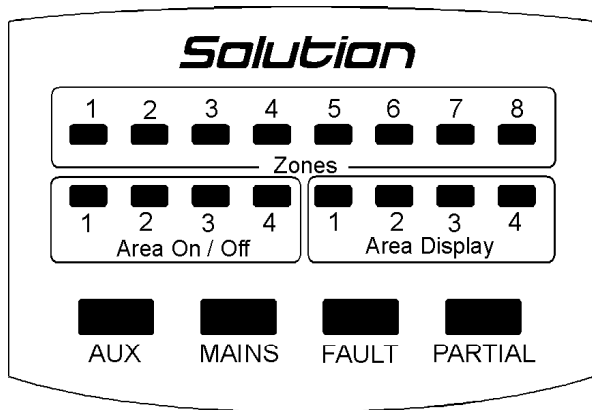
Figure 6: Master Partitioned Codepad

Operating From A Master Partitioned Codepad

If you have a partitioned system with a Master Partitioned 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 is illuminated at the time.

Example

If the 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.

Operating From Area Addressable Codepads

If you have a partitioned system with Area Addressable codepads, the operating procedure is exactly the same as described throughout this manual. Refer to 'Codepad ID/Buzzer Tone Change' on page 22 to determine which area a particular codepad belongs to.

Basic Pager Reporting

This feature is only applicable if your system is reporting to a pocket pager. Basic pager reporting requires some interpretation of the numbers that appear of the display. However, it is possible to differentiate between 1000 different systems when a number of control panels are reporting to the one pocket pager.

Basic Pager Display Information

Subscriber ID Number

This is the identification number of the control panel and can only be programmed by your installer.

Zone Status

The zone status display shows you the status of each zone (1 – 8). The following table describes what each number means when displayed on the zone status display.

Number Displayed	Zone Description
0	**Zone Normal** This indicates that the corresponding zone is in the sealed state.
1	**Alarm** This indicates that the corresponding zone is unsealed and in alarm condition.
2	**Zone Bypassed** This indicates that a system operator has manually isolated the corresponding zone. Refer to Isolating Zones on page 16 for information on how to manually isolate a zone(s) prior to arming the system.
3	**Zone Trouble** This indicates that a zone was left unsealed after the end of exit time.

Table 10: Zone Status Display Descriptions

System Status

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

The second digit on the system status display indicates which codepad alarm was triggered by the operator (0 = No Codepad Alarm / 1 = Codepad Panic or Duress Alarm / 2 = Codepad Fire Alarm / 3 = Codepad Medical Alarm).

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

The fourth digit on the system status display indicates when a system fault has occurred at the control panel (0 = System Normal – There is no faults / 1 = System Fault – There is a fault registered by the control panel).
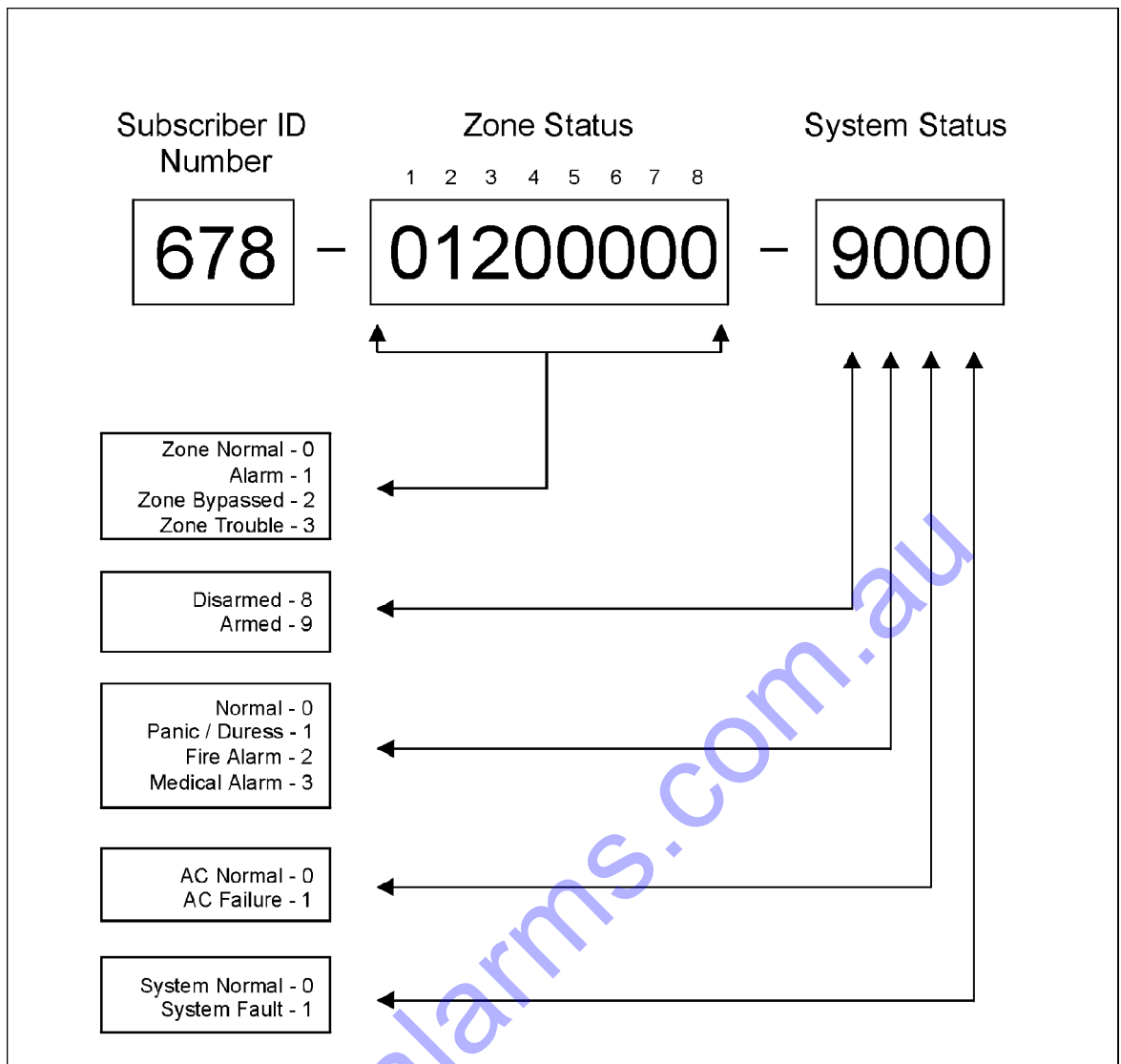
Figure 7: Basic Pager Display

The example above shows that the transmission has come from the control panel that has an ID number of 678 and that zone 2 is in alarm. The example also displays that zone 3 has been manually isolated and the system is armed.

Glossary Of Terms

Term	Description
Alarm Condition	Is when your alarm system is armed and one of the detection devices have been violated. A 24-hour zone (eg. smoke detector) can activate an alarm condition when your system is armed or disarmed.
Answering Machine Bypass	Answering machine bypass has been incorporated so that it is possible to make a connection with the system for remote arming operations when there is an answering machine or facsimile machine on the same telephone line.
Armed	When the system is in a ready state to accept alarms.
Automatic Arming	This feature allows the system to automatically arm at the same time every day in AWAY Mode or STAY Mode 1.
Automatic Disarming	This feature allows the system to automatically disarm at the same time every day.
AWAY Mode	This is the mode used to arm your system when you leave your premises.
Codepad	The codepad allows you to arm/disarm the system and carrying out other functions such as adding and deleting system user codes.
Day Alarm	This feature allows a combination of zones to be monitored while the system is disarmed.
Detectors	Are devices connected to your alarm system used to detect intrusion and cause an alarm condition. Some forms of detection devices include, PIR (Passive Infrared), Smoke detectors, photoelectric beams, reed switches and vibration sensors.
Disarmed	Is when your system is in a state that will not accept alarms except on zones programmed for 24-hour operation.
Dynamic Battery Testing	Is a feature that is used to monitor and test the condition of your back-up battery.
Entry Time / Entry Delay	Is the time allowed after entering your premises via a zone programmed for delayed operation so that you can disarm the system.
External Equipment	Is any device connected to your system such as detectors, codepads and sirens etc.
Forced Arming	Is a situation where your alarm system is permitted to be armed when one or more zones are unsealed.
Handover Delay	When your system is armed and a zone programmed for delay has been violated, the delay zone will handover the remaining delay time to a zone programmed as handover. The handover zone will not activate an alarm until the remaining delay time has expired. A handover zone will act as an instant zone if violated before the delay zone.
Hand Held Remote Control	Can be used to remotely operate your system via hand held transmitters.

Term	Description
Isolating	Allows you to manually disable (isolate) one or more zones before arming the system.
Master Code	Is a numerical code used for arming and disarming the system as well as allowing access to functions such as adding and deleting user codes etc.
Monitoring Station	Is a secure location where a digital receiver monitors numerous alarm systems and deciphers their alarm transmission reports. The operator can then advise the appropriate authorities to take immediate action.
Panic Alarm	This type of alarm indicates to the monitoring station that there is an emergency situation at your premises.
Sealed	Refers to zone status. If a zone is sealed, the detection device is not violated and the zone indicator will not be displayed on the codepad.
Sensor Watch	Sensor watch gives the control panel the ability to recognise that detection devices may have stopped working or that the view to a PIR detector has been blocked, thus unable to detect any movement over the duration of the time programmed by your installer.
Silent Alarm	Your installer may program zones for silent operation. This means that when the zone programmed for silent operation has been violated during the armed period, your alarm system will communicate with the monitoring station without sounding the sirens.
STAY Mode 1	Is a condition that automatically isolates zones when your system is armed in STAY Mode 1. Only your installer can program zones to be isolated automatically in STAY Mode 1.
STAY Mode 2	Is a condition that automatically isolates zone when your system is armed in STAY Mode 2. Only the Master Code holder can program zones to be isolated automatically in STAY Mode 2.
Telco Arm Sequence	Telco arming is a feature that automatically calls the telephone exchange and diverts your telephone number to another telephone when the system is armed in AWAY Mode (In Australia, this feature is called "Call Forward").
Telco Disarm Sequence	Telco disarming automatically calls the telephone exchange and un-diverts your telephone number.
Unsealed	Refers to zone status. A zone is unsealed when a zone has been violated. The corresponding zone indicator will display on the codepad.
User Code	A user code is the personal identification number that the operator uses to arm and disarm the system.
Zones	A monitored input used to trigger an alarm condition when violated.
24-Hour Zones	A monitored input programmed to trigger an alarm condition when violated when the system is armed or disarmed 24-hours a day.

Warranty Statement

Electronics Design and Manufacturing Pty Limited warrants this product to be free from defects in material and workmanship for a period of three years from the date of manufacture as indicated by the date stamp and / or serial number on the product.

Defective units returned by the purchaser at their own expense during this period will be repaired or replaced at the option of the manufacturer. The repair or replacement will be free of charge provided that the defects were not incurred during shipping or handling, or the damage was not due to causes beyond the control of Electronics Design and Manufacturing Pty Limited, such as lightning, excessive voltage, mechanical shock, or damage arising out of abuse, alteration, or improper application of the equipment.

Year 2000 Compliance

This notice is to confirm that all Solution 880 control panels are not susceptible to, or can be corrupted by the "Year 2000 Millennium Bug".

To date, all Solution products that incorporate time keeping functions employ a rotating 100-year calendar. This means that Solution products do not use the century in any time keeping algorithms, only the year within the century.

Specifications

Temperature Range:	0 – 45 Degrees Celsius
Humidity:	10% - 95%
Power Source:	TF008 Plug Pack – 240 Volt / 18 Volt AC @ 1.3 Amp
Stand-By Current:	65 mA
Current Draw In Alarm Condition:	115 mA
Current Draw In Alarm Condition With Codepad:	105 mA
Back-Up Battery:	6Ah / 12 Volt DC Rechargeable Sealed Lead Acid Battery
Dimensions (Case):	306 mm x 262 mm x 84 mm (Packed In Carton)
Weight:	2.5 Kg
Supplier Code:	N771
New Zealand Telepermit:	PTC 211/98/083
Malaysia Approval Number:	Pending

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Advice To Users

The Austel permit that has been issued for this product is subject to the following conditions:

- The Solution 880 control panel may only be powered by an EDM TF008 plug pack (Approval Number Q92128).

New Zealand Telepermit Notes

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

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

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

- The transmit level from this device is set at a fixed level and because of this, there may be circumstances where the performance is less than optimal. Before reporting such occurrences as faults, please check the line with a standard telepermitted telephone and do not report a fault if the telephone performance is satisfactory.

- This device is equipped with pulse dialling while the Telecom standard is DTMF tone dialling. There is no guarantee that Telecom lines will always continue to support pulse dialling.

  Use of dialling, when this equipment is connected to the same line as other equipment, may give rise to bell tinkle or noise and also cause a false answer condition. Should such problems occur, the user should NOT contact the Telecom Faults Service.

- This equipment is set up to carry out test calls at pre-determined times. Such test calls with interrupt any other calls that may be set up on the line at the same time. The timing set for such test calls should be discussed with the installer.

  The timing set for test calls from this equipment may be subject to drift. If this proves to be inconvenient and your calls are interrupted, then the problem of timing should be discussed with the equipment installer. The matter should NOT be reported as a fault to Telecom Faults Service.

- This equipment shall not be set up to make automatic calls to the Telecom 111 Emergency Service.

  This equipment should not be used under any circumstances that may constitute a nuisance to other Telecom customers.

- In the event of any problem with this device, the systems battery, AC mains supply and telephone line should be disconnected. The user is to then arrange with the supplier of the device to make the necessary repairs.

  Should the matter be reported to Telecom as a wiring fault and the fault be proven to be due to this product, a call-out charge will be incurred.

Installation Notes

Installation Company   _____

Technicians Name   _____

Technicians Telephone Number   _____

Installation Date   _____

Warranty Expires   _____

Panel Software Version   _____

Service Notes

_____

_____

_____

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_____

_____

Zone Descriptions

This allows you to describe each zone and tick which zones have been programmed to be automatically isolated in STAY Mode 1 or have been programmed for day alarm operation.

	Description	*Isolated In STAY Mode 1*	*Day Alarm Enabled*
Zone 1	_____	☐	☐
Zone 2	_____	☐	☐
Zone 3	_____	☐	☐
Zone 4	_____	☐	☐
Zone 5	_____	☐	
Zone 6	_____	☐	
Zone 7	_____	☐	
Zone 8	_____	☐	

User Code Names

		Master Code		
Default = 2580 *User Code 1*	_____	Y	*User Code 9*	_____
User Code 2	_____	☐	*User Code 10*	_____
User Code 3	_____	☐	*User Code 11*	_____
User Code 4	_____	☐	*User Code 12*	_____
User Code 5	_____	☐	*User Code 13*	_____
User Code 6	_____	☐	*User Code 14*	_____
User Code 7	_____	☐	*User Code 15*	_____
User Code 8	_____	☐	*User Code 16*	_____

Entry / Exit Times

Entry Timer 1	_____	*Exit Time*	_____
Entry Timer 2	_____	*Entry Guard Time*	_____

Arming Options

Single Button Arming [YES] [NO]   *Forced Arming* [YES] [NO]

Single Button Disarming [YES] [NO] *Remote Arming Via Telephone* [YES] [NO]

Automatic Arming (AWAY Mode) [YES] [NO] *Automatic Arming Time* _____ *AM/PM*

Automatic Arming (STAY Mode) [YES] [NO] *Automatic Disarming Time* _____ *AM/PM*

Output Descriptions

Output 1	_____	*Output 3*	_____
Output 2	_____	*Output 4*	_____

Isolating Method

Standard Isolating [YES] [NO]   *Code To Isolate* [YES] [NO]

Communication Options

Back To Base Reporting [YES] [NO]

Domestic Reporting [YES] [NO] *Domestic Reporting – No Of Beeps* [ ]

Other System Information

Siren Run Time [ ] *Minutes*

Sensor Watch Time [ ] *Increments In Days*

Can Your System Be Serviced [YES] [NO]   *If Yes, Installer's Code* _____
By Another Technician

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