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Solution 8 Installation Manual

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Solution 8

Installation Manual

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This documentation is provided to suit *Solution 8* Control Panel (CC800/LP800)
Firmware Version 1.0 – 3.0

This installation manual includes programming locations to suit Solution 8 (CC800/LP800) control panel.

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Preface

This manual will explain all aspects of programming the *Solution-8* control panel from default to final commissioning. 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. The programming simplicity will make your installation quick, accurate and rewarding each and every time.

This manual assumes that you are familiar with every feature and operation as detailed in the Operators Manual. Therefore certain operational procedures have been omitted. A number of new features and improvements have been introduced in *Solution-8* Issue 3. To make the changes easily noticeable we have prefixed each of them with the following symbol **V3**.

Introduction

Congratulations on selecting the *Solution-8* security control system for your installation. So that you can obtain the most from your unit, we suggest that you take the time to read through this manual and familiarise yourself with the numerous outstanding operating and installation features of this system. You will notice that in all aspects of planning, engineering, styling, operation, convenience and adaptability, we have sought to anticipate your every possible requirement. Programming simplicity and speed have been some of the major considerations and we believe that our objectives in this area have been more than satisfied.

The plug in PROGRAMMING KEY has been a major break through in control panel programming. This unique device offers a much more versatile, accurate and time saving way to configure your systems. The many available programming methods, cabinet design and flexibility of this security control panel will make installation a breeze with total satisfaction every time.

NOTE:

A number of new features and improvements have been introduced in *Solution-8* Issue 3. To make the changes easily noticeable we have prefixed each of them with the following symbol **V3**.

Features

The ***Solution-8*** security control panel is microprocessor controlled with the highest degree of integration ever seen in security control systems to date. This not only means more features but greater reliability and performance. The design of every feature has been accomplished with continual consideration being given to the end user and the installer. The control console is straight forward and uncluttered, so as not to complicate its operation or make programming confusing in any way. Its stylish appearance allows it to easily blend in with modern and contemporary surroundings.

The cabinet has been laid out to allow for easy conduit entry and has ample room for wiring and a 6.5Ah battery. A dynamic battery tester has been incorporated which performs continual testing and monitoring of the backup battery's condition and will report any failure through the system console. A battery can no longer be left accidentally unconnected because the system will detect this failure and report it accordingly.

The Day Alarm feature enables you to monitor the opening of a front door of a shop, or unauthorised access into a particular area. The remote arming feature gives you the ability to arm your system from any telephone in the world.

In situations where the main console is installed in a bedroom and the indicators become annoying at night, the console extinguish mode will automatically turn off all the indicators after sixty seconds. The console indicators will illuminate the next time a key is pressed or an alarm occurs.

Programming has been made child's play with the introduction of the unique Programming Key. This simple device exclusive to E.D.M. will revolutionise programming. Labour costs and the possibility of programming errors will be greatly reduced.

The fully programmable, no compromise output system with its timing and polarity functions has made interfacing as simple as one, two, three. This allows for easy control of all external devices. The Integrated Protection System [I.P.S.] has also been incorporated into this revolutionary security control system adding greater reliability along with incredible tolerance to incorrect wiring or adverse situations. The 24 Hour zones have been enhanced with the addition of a Fire sound available to the horn speakers. This feature can be of great use when using smoke detectors so that a distinctly different alert tone is generated from a 24 Hour Fire zone to that of a standard 24 Hour Burglary zone.

E.D.M. has injected twenty years of knowledge and expertise into the ***Solution-8*** security control system making it the most flexible, tolerant and easy to operate unit available on the market today. E.D.M. proves again that an Australian owned company backed by Australians is by far one of the most technically advanced security manufacturers in the market place today and in the future.

Programming

General

The programming options of this system are stored in a non volatile EEPROM. 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 system 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 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 Expanded High Speed format.

NOTE:

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

There are two programming modes. The Installers programming mode and the Operators programming mode. Both 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 Program mode. The Installers code however, only gives access to the Installers Program mode and does NOT arm and disarm the system. Neither of these programming modes are accessible if the system is in the armed state or a previous alarm memory exists. This condition needs to be corrected before access will be allowed. This is achieved by arming and disarming the system in succession. It should be noted that when in installer programming mode, all alarms will be disabled.

Programming of the *Solution-8* control panel can be carried out via any of the following four methods.

- System console
- Solution* Programmer
- Solution* Programming Key
- Alarm Link Upload/Download software

Throughout this manual, mention is made of the STAY and AWAY buttons. The *Solution* hand held Programmer does not have these buttons, but instead has the * and # symbols.

NOTE:

When using the *Solution* Programmer any reference in this manual made to the HOME button should be considered as the * button and the AWAY button considered as the # button. **STAY = '*' and AWAY = '#'**

Via the System Console

The system must be in a disarmed state with no flashing ZONE alarm memories, this can be achieved by entering the Master Code then Away (the factory default Master Code is 2580).

To access the Installers Program mode, key in the four or six digit Installer code followed by the AWAY key (the factory default installer code is 1234). Three beeps will be heard and both the AWAY and the STAY indicators will flash simultaneously. If a long beep is heard, check the system for alarm memory. The combination of the MAINS, FAULT and ZONE indicators will indicate the data stored in the first location (location zero). The number nine(9) is represented by the FAULT indicator and the number zero(0) is represented by the MAINS indicator. If the value five is being displayed then zone indicator number five will illuminate. If the value thirteen(13) is being displayed then the FAULT indicator and the ZONE-4 indicator will illuminate.

Example: 9+4=13

To go to a particular location, key in the location number followed by AWAY. The indicator will display this locations data. To move to the next location, press AWAY. The indicator will now display this locations data. Pressing STAY without previously entering a location number, will step the system back one location. To change data at the current location key in the new value (remembering that entering the hex values A to F is represented by the decimal values 10 to 15) followed by STAY. This will store the new data and leave you still positioned at the same location. To proceed to the next location press the AWAY key. The new locations data will now be displayed on the indicators.

To exit the Installers Program mode, key in 260 followed by the AWAY key. Two beeps will be heard and the system will return to normal.

The valid address range for a **Solution-8** control panel is 000 to 253.

Via the **Solution** Programmer

The programmer has five, seven segment displays. The three on the left display the location, and the two on the right display the data for that particular location. To connect the **Solution** Programmer, firstly locate the connections marked KEY. This point can be found centrally located on the **Solution-8** printed circuit board. Observe the triangular markings on the **Solution-8** board and line them up with the markings on the programmers connecting socket. Ensure that the select switch is in the EXT position. When the programmer is correctly plugged into the **Solution-8** board, a beep will be heard and four centre bars on the programmer will illuminate with either a 'A' or 'U' suffix to indicate the system is Armed or Un-armed. Only when the Installers Program mode has been accessed will any numerals appear on the displays.

NOTE:

The system must be in a disarmed state with no flashing L.E.Ds indicating alarm memory.

To access the Installers Program mode, key in the four or six digit Installers code followed by # (the default installers code is factory set to 1234). Three beeps will be heard and the display will show the current data stored in location zero. If a long beep is heard, check the system for alarm memory. To go to a particular location, key in the location number followed by #. This locations data will now be displayed. To move to the next location press #. This will step you to the next location, displaying the appropriate data. Pressing * without previously entering a location number will step the system back one location. To change data at the current location, key in the new value (remembering that the hex value A to F is represented by the decimal values 10 to 15) followed by *. This will store the new data and leave you still positioned at the same location. To proceed to the next location, press #. The data for this location will now be displayed.

To exit the Installers Program mode, key in 260 followed by #. Two beeps will be heard and the system will return to normal.

Internal / External

The programmer has a built in programming default key. Use this key to default the control panels data to your specific requirements. To program the internal key enter normal programming mode and select INT on the switch. Now all programming alterations will be recorded into your programmers memory key. Once you have exited programming mode switch to EXT mode. To download the programmers memory to a control panel simply connect your programmer and switch to INT wait for the activity light to start blinking then switch back to EXT. The control panel now has a copy of the programmers memory loaded.

Via the Programming Key

The *Solution* Programming Key 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 Installers Program mode, configure your system as per your requirements then insert the Programming Key while still in the Program mode and enter command 262. This will copy the system data onto your new Programming Key. Exit the program mode by entering command 260, wait two seconds for the activity L.E.D. to return to its normal blinking state and then remove the Programming Key. This Key will now become your standard data pattern for future programming of your systems.

It should be noted that when entering the Installers Program Mode, inserting a Programming Key and then altering any location will cause a simultaneous update of not only the 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.

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 215 you want options 1, 2 and 4 then simply add the numbers together and the total is the number to be programmed. In the example the number to be programmed is '7' (1+2+4=7)

Option Bit	Description
1	Forced arming to be allowed
2	Console panic to be audible
4	Invalid code tamper to be audible
8	Extinguish mode

Program Commands V3

There are several commands that can be invoked to perform the functions as listed below. These commands only operate whilst you are in the Installers Program mode. To invoke the command enter the commands numerical code then press the AWAY key, three beeps will be heard and the command will be executed.

NOTE:

These commands do not operate when using Alarm link.

Command	Function
257	Random Select User Codes
258	Enable and Disable Zone status mode
259	Test key
260	Exit program mode
261	Set back to factory default
262	Copy the panel memory to the key
263	Copy the key data to the panel memory
264	Wipe key
265	<i>Domestic Dialling Setup</i>
266	Enable and Disable automatic stepping of locations during programming

Command 257

This command when entered during programming mode will automatically, randomly select fourteen (14) different four digit user codes. It should be noted that the master, installer and auxiliary codes are not altered by this command.

Command 258

This function enables and disables the zone status display mode. If this command is issued from a system console then the eight ZONE L.E.D.s 1 to 8 will display the zone status accordingly.

When a *Solution* Programmer is used the zones will be displayed on the seven segment displays from left to right. The number 1 indicates that a zone is unsealed and a blank display indicates that a zone is sealed.

The third (or centre) display will show either the number 4 or number 8. The number 4 indicates that zones one to four are being displayed and an eight indicates that zones five to eight are being displayed. Pressing the AWAY key, toggles the display between zones 1 to 4 and zones 5 to 8. This feature will prove to be very useful during installation as it allows you to view the status of the zones directly at the panel without having to connect a temporary console, saving you time and money.

Example:

A 1 in the display indicates the zone is unsealed.

A blank display indicates the zone is sealed.



indicates that zones 1, 2, 3, & 4 are unsealed.



indicates that zones 5 and 8 are unsealed.

Command 259

This command causes a test to be carried out on the Programming Key. This test is non destructive and the data will remain intact after the test has been completed. One long beep indicates that the Key has failed and three beeps indicates a successful test. If the Key is removed before the test is completed or the Key fails, its data will be corrupted. Remember, do not remove the Key while the activity L.E.D. is illuminated or pulsing rapidly.

Command 260

This command is used to exit the Installers program mode after completing your alterations. This is achieved by entering the command 260 followed by the AWAY key. Two beeps will be heard and the system will return to normal. This can be done at any programming stage and from any location.

Command 261

This command will configure the system back to the factory default values. This is achieved by entering the command 261 followed by AWAY. Three beeps will heard indicating a successful operation.

Command 262

This command is used to copy the *Solution-8* configuration memory to the Programming Key. Insert the Key into the socket marked EXTERNAL KEY on the programmer or into the socket marked KEY on the *Solution-8* printed circuit board. Enter the command 262 followed by the AWAY key and three beeps will be heard. The *Solution-8* configuration memory has now been copied to the Key. This feature will prove to be extremely useful in numerous situations.

Command 263

This command is used to copy data from the Programming Key to the *Solution-8* configuration memory. Insert the Program Key into the socket on the programmer and enter the command 263 followed by the AWAY key. Three beeps will be heard and the data in the Key will be transferred to the *Solution-8* configuration memory.

Command 264

This command erases all data from the Programming Key. Insert the Key into the programmer and enter the command 264 followed by the AWAY key. Three beeps will be heard and all data from the Key will be erased. This feature is useful if you wish to give a Key to someone else without them having access to the previous data.

V3 Command 265

Command 265 has been added to make the programming of Domestic Dialling a one step operation. When in Installers programming mode press 265 followed by the AWAY key. This will automatically set the following locations as below.

Location	Description	Setting
Location 49	Handshake	2 (1400 Hz)
Location 50	Transmission Format	11 (Domestic)
Location 52 - 55	Unit ID	0001
Location 196 & 197	AC Fail	0 & 0
Location 198 & 199	Low Battery	0 & 0
Location 200	Open Report	0
Location 201	Close Report	0
Location 203	Alarm Restore	0
Location 204	Trouble Code	0
Location 205	Trouble Restore	0
Location 206	Bypass Code	0
Location 207	Bypass Restore	0
Location 208 & 209	Keyboard Tamper	0
Location 252 & 253	First Test Report	0

No other locations will be altered when the command 265 is issued. This means that things such as entry and exit times, siren run time etc will not change.

Command 266

This feature enables or disables the automatic stepping of locations while programming. When enabled via the *Solution* 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 STAY 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.

Example:

Entering the primary telephone number 02 pause 631-0555. With auto step enabled (decimal point illuminated).
0 + AWAY.

(This will put you at location 0 being the start location required).

1 0 + STAY + 2 + STAY + 1 3 + STAY + 6 + STAY +
3 + STAY + 1 + STAY + 1 0 + STAY + 5 + STAY + 5
+ STAY + 5 + STAY + 0 + STAY

Example:

With auto step disabled (decimal point extinguished). 0 + AWAY

(This will put you at location 0 being the start location required).

1 0 + STAY + AWAY + 2 + STAY + AWAY + 1 3 +
STAY + AWAY + 6 + STAY + AWAY + 3 + STAY + AWAY
+ 1 + STAY + AWAY + 1 0 + STAY + AWAY + 5 +
STAY + AWAY + 5 + STAY + AWAY + 5 + STAY + 0 +
STAY

As you can see from the above examples, Auto Step mode is a very useful feature when programming successive locations.

Zone Types

The zone inputs Z1 to Z8 will need to be programmed to an appropriate zone type. A zone type defines the type of action that a zone will take when triggered. As you can see from the following list, zones can be instant, delayed or 24 hour, with numerous options.

When a zone type is selected with the Stay mode option, it will be automatically isolated when the system is armed in Stay mode. This feature allows easy arming of the perimeter detection zones with all internal detection zones disabled.

A zone selected for instant will have no entry delay unless the previous zone is already entry timing. It will then take on the remaining entry time from the previous zone as the handover time.

Delay 1 zone types will have their entry delay time specified in locations 228 and 229. Delay 2 zone types will have their entry delay time specified in locations 230 and 231. A delay zone when triggered will delay for the specified time before alarming.

NOTE:

If the EDMSAT is connected then the unique fire sound will not be heard unless there is an additional horn speaker connected to SPK1 or SPK2.

Any zone programmed to be a fire zone will not cause the bell output to trigger when an alarm has been activated. In the case where a fire zone alarms, the siren output will sound a fire warning tone. This unique sound allows you to easily distinguish the difference between a fire and a burglary. If an output is required for Fire alarms, see programmable outputs where you can configure a output to operate whenever a Fire Alarm occurs.

NOTE:

Instant zones will automatically accept handover delay from previous zones.
Also see Location 202 if handover delay to all instant zones is required.

A zone programmed as 99 will force the relative zone to appear as if it were normal. No end of line resistor is required and the keypad indicator will show a normally sealed zone.



An unused zone can be programmed to type 99 and therefore eliminate the need to fit an end of line (EOL) resistor.

Zone Configuration Table

Opt	Typ	Instant	Opt	Typ	Delay 2
1	0	Standard Instant	1	2	Standard Delay-2
2	0	Lockout-siren	2	2	Lockout-siren
3	0	Lockout dialler	3	2	Lockout dialler
4	0	Lockout siren + lockout dialler	4	2	Lockout siren + lockout dialler
5	0	Silent	5	2	Silent
6	0	Silent + lockout dialler	6	2	Silent + lockout dialler
7	0	Stay mode	7	2	Stay mode
8	0	Stay mode + silent	8	2	Stay mode + silent
9	0	Stay mode + silent + lockout dialler	9	2	Stay mode + silent + lockout dialler
10	0	Stay mode + lockout siren	10	2	Stay mode + lockout siren
11	0	Stay mode + lockout dialler	11	2	Stay mode + lockout dialler
12	0	Stay mode + lockout siren + lockout dialler	12	2	Stay mode + lockout siren + lockout dialler

Opt	Typ	Delay 1	Opt	Typ	24 Hour
1	1	Standard Delay-1	1	3	Standard 24 Hour
2	1	Lockout-siren	2	3	Lockout-siren
3	1	Lockout dialler	3	3	Lockout dialler
4	1	Lockout siren + lockout dialler	4	3	Lockout siren + lockout dialler
5	1	Silent	5	3	Silent
6	1	Silent + lockout dialler	6	3	Silent + lockout dialler
7	1	Stay mode	7	3	Fire sound
8	1	Stay mode + silent	8	3	Fire sound + lockout siren
9	1	Stay mode + silent + lockout dialler	9	3	Fire sound + lockout dialler
10	1	Stay mode + lockout siren	10	3	Fire sound + lockout siren + lockout dialler
11	1	Stay mode + lockout dialler	Opt	Typ	Spare Zone
12	1	Stay mode + lockout siren + lockout dialler	9	9	Unused Zone

Output Configurations

The *Solution-8* has four outputs, OUT1 to OUT4, and a console beeper which are fully programmable for event, polarity and time. Each output will need to be programmed for an appropriate event type which defines when the output will operate. The next function to be selected is the configuration. This defines the polarity and function for the output terminal such as one shot or pulsing. If the configuration selected was a one shot or pulsing type, then the time parameter will need to be defined. This sets the time that the output operates for. Eg If pulse is selected, then the output will be low for the time set and then high for the same time, repeating for as long as the event type is valid. If a one shot configuration type is selected, the time option will set the duration of the output. The time option can be set from as low as 200ms to as long as 51 seconds. Event types 8 & 9 can only be triggered when the system is disarmed.

Event Types

Event Code	Function
0	EDMSAT (only available on output 1)
0	EDMSTU (only available on output 2)
0	Day alarm (only available on output 3)
0	Entry warning (only available on output 4)
0	Entry warning (only available on console buzzer)
1	System Armed in Away or Stay mode
2	System Armed in Stay Mode
3	Exit with all zones sealed or entry warning
4	Exit warning
5	Entry warning or Day alarm
6	All signals transmitted ok (kiss off)
7	Silent alarm
8	Auxiliary code 1
9	Auxiliary code 2
10	AC Failure
11	Low battery
12	Zone unsealed
13	Fire Zone or Fire Alarm
14	Console Panic or Duress
15	Remote control

V3

Four additional event types are now available for use with the programmable outputs. In Version 2, programming Output 1(Location 232) with a zero would enable it to communicate with an EDMSAT.

The rest of the outputs can now also be programmed with zeros to obtain different output types as listed in the above table.

Event Type Description

Type 0-EDMSAT (On Output 1 only)

This output controls all functions of an EDM satellite siren.

V3 Type 0-EDMSTU (On Output 2 only)

This output type has been added to allow for serial connection to the EDMSTU Securitel Unit. This serial link, plus 13.8v and GND is all that is required to communicate to the EDMSTU. The Hard ID number is programmed in the Client ID locations 52-55.

V3 Type 0-Day Alarm (On Output 3 only)

This output type has been added to provide a separate Day alarm output for jobs where having Entry Warning and Day alarm on the same output is not desired.

V3 Type 0-Entry Warning (On Output 4 only)

This output type has been added to provide a separate Entry Warning output for jobs where having Entry Warning and Day alarm on the same output is not desired.

V3 Type 0-Entry Warning (On Console Buzzer only)

This output type has been added to allow you to use the console buzzer as the Entry Warning sounder and to use Output 3 to drive a Day Alarm sounder.

Type 1-System Armed

This output activates as soon as the panel becomes armed (during and after exit time). It will reset when the panel is next disarmed.

Type 2-System Stay

This event triggers as soon as the panel is armed in the Stay mode. It will reset when the panel is next disarmed.

Type 3-Exit with all Zones Sealed or Entry Warning.

This event type has dual functions. It will activate during exit time when all eight zones are sealed. The next time it will activate will be during entry time.

Type 4-Exit Warning

Activates during exit time only. Zones can be sealed or unsealed.

Type 5-Entry Warning or Day Alarm

This feature will cause the output to trigger for Day alarm when the panel is disarmed. It will also trigger for entry warning when the panel is being disarmed during the entry period. Day alarm zones need to be selected in location 227.

Type 6-All Signals Transmitted Ok (Kiss Off)

This feature will cause the output to activate once the control panel has successfully transmitted all of its stored alarm data.

Type 7-Silent Alarm

Activates whenever any silent alarm is triggered, whether the system is armed or disarmed. It will reset the next time the system changes state.

Type 8-Auxiliary Output Code 1

This event is only functional while the system is in the disarmed state. Locations 152 to 157 defines where this code is programmed. This output can be used to operate an electric door strike.

Type 9-Auxiliary Output Code 2

The conditions for this output are the same as Auxiliary output code 1. Locations 158 to 163 defines where this code is programmed. This output can be used to operate an electric door strike.

Type 10-A.C. Fail

This output will activate as soon as the A.C. mains is removed, whether the system is armed or disarmed. It will reset when the A.C. is re-connected to the system.

Type 11-Low Battery

This output will activate as soon as the system detects the battery voltage to be less than 10.5 volts. This is true whether the system is armed or disarmed.

Type 12-Zone Unsealed

This output will activate as soon as any zone becomes unsealed whether the system is armed or disarmed. It will reset when all zones are sealed.

Type 13-Fire Alarm or Fire Zone

This output is activated whenever a 24 hour zone selected for Fire tone is triggered. This is true whether the system is armed or disarmed. This output will reset at the end of siren time or when the 'One-Shot Timer' times out.

Type 14-Console Panic / Duress

This output activates when the system is being disarmed using the duress feature or when any two buttons in the same horizontal plane are pressed simultaneously. It will reset when the system is next armed.

Type 15-Remote Control

This output can be activated from a personal computer via the ALARM LINK software or it can be toggled by using a master code function.

Polarity Configurations

Polarity configurations that pulse will generate a repetitive pulsing output with the time interval set by the time parameter. The one shot configurations will generate one timed output when the specified event occurs.

Option	Description
0	Output not used
1	Normally open circuit, going low
2	Normally low, going open circuit
3	Normally open circuit, pulsing low
4	Normally low, pulsing open circuit
5	Normally open circuit, one-shot low
6	Normally low, one-shot open circuit

NOTE:

Options 1 to 4 will remain active for the duration of the selected event.

Time

This parameter should be programmed for polarity configurations that pulse or have one-shot operation. The range can be set from 200ms to 51 seconds in increments of 200ms. Use the time parameter to set how long an event will occur for Polarity Options 5 & 6 or the pulse rate for options 3 & 4.

If you have selected an output for one shot to operate a door strike then the Time parameter is used to set how long the strike will operate for.

Programming Locations

The default value for each location are indicated by the hollow numbers shown after each location title. If a value outside the recommended range is selected then the option will revert to the factory default setting. A zero '0' programmed in any location will always disable the function.

For options requiring more than one location, multiple zeros '0' will need to be entered.
All examples assume the client number to be 5678.

Primary Telephone Number

Locations 00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
------------------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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

This number will be called three times in an attempt to contact the monitoring station. If unsuccessful, the secondary number will then be called three times as well. This procedure will be repeated only once again (ie maximum of twelve call attempts) after ten minutes if the first six attempts were unsuccessful.
A '0' is used to indicate the end of the phone number. Therefore the dialling sequence will be terminated when a '0' appears. Entering the value '13' will initiate a 4 second pause in the dialling sequence.

Secondary Telephone Number

Locations 16 - 31
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

See primary telephone number for programming details.

Callback Number

Locations 32 - 47
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

This location contains the telephone number that will be called when upload/download is requested. When triggered, the *Solution-8* will call this number to establish a communications link with the remote computer. The computer must be running EDM ALARM LINK software.

Dialling Format

Location 48

2

The method for dialling telephone numbers is entered here. Options 4 and 5 will alternate the dialling sequence between DTMF and decadic if the call to the monitoring station was not successful.

#	Format
1	DTMF (Touch Tone)
2	Australian decadic (pulse dialling)
3	New Zealand decadic (pulse dialling)
4	Alternate between DTMF and Australian Decadic
5	Alternate between DTMF and New Zealand Decadic

NOTE:

The alternating sequence is as follows,
DTMF - Decadic - DTMF - Decadic - DTMF - Decadic

Handshake Tone

Location 49

1

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

#	Handshake Tone
1	Hi-Lo handshake (High speed DTMF)
2	1400Hz handshake (Low speed Ademco TX at 1900Hz)
3	2300Hz handshake (Low Speed SESCOA TX at 1800Hz)
4	No Handshake required (use this option carefully)
5	Pager Handshake

Transmission Format

Location 50 V3

1

Enter the desired transmission format here. This location selects the data format that will be transmitted to the monitoring receiver.

NOTE:

Please note that some formats may only work to certain monitoring station receivers.

#	Function
1	DTMF Expanded High Speed
2	DTMF Expanded High Speed with checksum
3	4 + 2 DTMF
4	4 + 2 DTMF with checksum
5	4 + 2 Pulsed
6	4 + 2 Pulsed with checksum
7	4 + 1 Pulsed Universal
8	4 + 1 Pulsed Expanded
9	3 + 1 Pulsed Universal
10	3 + 1 Pulsed Expanded
11	Domestic
12	Basic Pager
13	Advanced Pager
14	4 + 2 Express
15	<i>Synthesised Voice</i>

V3

The Synthesised Voice option is a new transmission format which has been incorporated into the domestic dialling option. If Location 50 is programmed with a "15" then all alarm information will be reported verbally via the EDM Synthesised Voice Module. This module will need to be plugged into the Modem pins on the circuit board and therefore will mean that the upload / download option will not be available in this mode.

Transmission Speed

Location 51

2

Altering this location will only effect Transmission Format (location 50).

Options 5 to 10 and sets the pulsing rate for the transmitted data.

The following is a list of compatible receivers, their specific handshake tones and transmission formats.

#	Format Description
1	1 pulse per second (EDM super slow)
2	10 pulses per second
3	15 pulses per second
4	20 pulses per second
5	20 pulses per second fixed digit length (FDL)
6	40 pulses per second

Receiver	Transmission Format
Silent Knight Ademco Slow	10pps, 1400Hz HS, 3+1, 3+2, 4+1, 4+2
Sescoa Franklin DCI Vertex	20pps, 2300Hz HS, 3+1, 3+2, 4+1, 4+2
Silent Knight FAST	20pps, 2300Hz HS, 3+1, 3+2, 4+1, 4+2
Ademco	10pps, 1400Hz HS, 3+1, 3+2, 4+1, 4+2 20pps, 2300Hz HS, 3+1, 3+2, 4+1, 4+2 40pps, 1400Hz HS, 3+1, 3+2, 4+1, 4+2 DTMF, Hi-Low Hs, Expanded Format, 4 +2 Express
FBI	10pps, 1400Hz HS or 2300Hz HS, 3+1, 3+2, 4+1, 4+2 20pps, 1400Hz HS or 2300Hz HS, 3+1, 3+2, 4+1, 4+2 40pps, 1400Hz HS or 2300Hz HS, 3+1, 3+2, 4+1, 4+2 DTMF, 1400Hz HS or 2300Hz or Hi-Low, 4 +2 or 4 +2 + CS DTMF, Hi-Low HS, Expanded Format

If your receiver is not listed above do not despair, there are many combinations of formats, speeds and handshake tones. Try a few combinations and you will more than likely find the one that works for your receiver.

It should be noted that some formats offer much more information than others so take the time to consider the many alternatives being offered.



Do not substitute the value '10' for a '0' in any location between 52 and 163.

Customer Client Code

Locations 52 - 55

0 0 0 0

This code is transmitted to identify the calling unit. Enter the desired client number in the four locations provided. For 3 + 1 and Pager formats, location 52 is ignored and the first digit of the Client Code required must go in location 53. When using domestic format then the identification beep is selected by the number in location 55 thus allowing domestic format the ability to identify 15 different systems calling the same number.

Installer Code

Locations 56 - 61

1 2 3 4 0 0

This code can be four or six digits long and is used to enter the Installers Programming mode. The default code is 123400 however since trailing zeros need not be entered, 1234 will work for both 4 or 6 digit code length modes.

 **WARNING**

DO NOT program "10" for "0" in the Master or User codes.

USER 1 (Master Code)

Locations 62 - 67

2 5 8 0 0 0

This code will be needed when specialised functions are performed from the operators mode. The master code holder is the only person that can alter user codes.

User Codes

Locations 68 - 163



These are the 14 user codes available that can be altered at will by the master code holder. If Openings and Closing's (locations 200 and 201) are programmed, then any code being used to arm and disarm the system, will be transmitted to the monitoring station as the appropriate user number.

User Number	Location
User 2	68 to 73
User 3	74 to 79
User 4	80 to 85
User 5	86 to 91
User 6	92 to 97
User 7	98 to 103
User 8	104 to 109
User 9	110 to 115
User 10	116 to 121
User 11	122 to 127
User 12	128 to 133
User 13	134 to 139
User 14	140 to 145
User 15	146 to 151

Any user code starting with '00' will only arm the system. This can be helpful when you need to give a code to someone who is only allowed to arm but not disarm the system such as a cleaner or guest.

NOTE:

If 6 digit codes are required a '1' must be programmed into location 214.

Auxiliary Codes

There are two auxiliary codes which are capable of triggering any two of the four programmable outputs. As an example these codes could be used to unlock a door to allow access into a secured area. Outputs can only be triggered from these codes while the system is in the disarmed state. An appropriate output will have to be programmed so that this function can operate. These codes can be changed from the operators programming mode (Master code + 1) as they are treated as user codes 16 and 17 respectively. These codes do not arm or disarm the system. Their only function is to operate the programmable outputs.

Auxiliary Code	Location
Aux code 1	152 to 157
Aux code 2	158 to 163

Zone Configuration Table

Opt	Typ	Instant	Opt	Typ	Delay 2
1	0	Standard Instant	1	2	Standard Delay-2
2	0	Lockout-siren	2	2	Lockout-siren
3	0	Lockout dialler	3	2	Lockout dialler
4	0	Lockout siren + lockout dialler	4	2	Lockout siren + lockout dialler
5	0	Silent	5	2	Silent
6	0	Silent + lockout dialler	6	2	Silent + lockout dialler
7	0	Stay mode	7	2	Stay mode
8	0	Stay mode + silent	8	2	Stay mode + silent
9	0	Stay mode + silent + lockout dialler	9	2	Stay mode + silent + lockout dialler
10	0	Stay mode + lockout siren	10	2	Stay mode + lockout siren
11	0	Stay mode + lockout dialler	11	2	Stay mode + lockout dialler
12	0	Stay mode + lockout siren + lockout dialler	12	2	Stay mode + lockout siren + lockout dialler

Opt	Typ	Delay 1	Opt	Typ	24 Hour
1	1	Standard Delay-1	1	3	Standard 24 Hour
2	1	Lockout-siren	2	3	Lockout-siren
3	1	Lockout dialler	3	3	Lockout dialler
4	1	Lockout siren + lockout dialler	4	3	Lockout siren + lockout dialler
5	1	Silent	5	3	Silent
6	1	Silent + lockout dialler	6	3	Silent + lockout dialler
7	1	Stay mode	7	3	Fire sound
8	1	Stay mode + silent	8	3	Fire sound + lockout siren
9	1	Stay mode + silent + lockout dialler	9	3	Fire sound + lockout dialler
10	1	Stay mode + lockout siren	10	3	Fire sound + lockout siren + lockout dialler
11	1	Stay mode + lockout dialler	Opt	Typ	Spare Zone
12	1	Stay mode + lockout siren + lockout dialler	9	9	Unused Zone

Zone Configurations

Locations 164 - 195



Each zone has four programming locations allocated to it. The first of these locations contains the character for the zone option (1 to 12), the second of these locations contains the character for the zone type (0 to 3). The third location contains the channel number for the alarm reporting and the fourth location contains the expansion code.

Example:

To program Zone 1 as a delay-1, lockout siren, lockout dialler : Enter '4' into location 164 and a '1' into location 165. To make Zone 1 report on channel one to a high speed receiver, program a '1' into location 166 and a '9' into 167.

Channel

The code entered in this location will determine on which channel alarms will be reported. For 3+1 or 4+1 formats this location has no effect.

Expansion

If you do not require alarm reports from a zone, program its expansion code to '0'. The dialler will not be triggered by alarms on a zone that has an expansion code of '0'. The zone will function normally otherwise.

In the 3+1 and 4+1 formats this location selects the actual code to be sent.

If you want the zone to report an alarm then you must specify a digit other than '0' (zero) for the expansion code.

When using HI-SPEED expanded format, program a '9' as the expansion code, this will ensure correct transmissions.

If you are using 4+2 format, the expansion code will be sent first as the 10s digit and the channel number will follow as the units digit.

Zone Number	Location Number	Default			
		Option	Type	Channel	Expansion
Zone 1	164 to 167	1	1	1	9
Zone 2	168 to 171	1	0	2	9
Zone 3	172 to 175	1	0	3	9
Zone 4	176 to 179	1	0	4	9
Zone 5	180 to 183	1	0	5	9
Zone 6	184 to 187	1	0	6	9
Zone 7	188 to 191	1	0	7	9
Zone 8	192 to 195	1	3	8	9

Note:

The Zone configuration table is presented on the previous page.

A.C. Fail Code

Locations 196 - 197

1	9
---	---

Location 196 holds the reporting channel and location 197 holds the expansion code. For HI-SPEED expanded format use any number other than '0' in the expansion code. The reporting channel should be programmed with a '1' to comply with the standard HI-SPEED expanded transmission format.

If you do not require an A.C. fail report then program a '0' in the expansion code.

Location	Description
196	Reporting code <i>CH</i>
197	Expansion code <i>AC</i>

Example:

High-Speed Expanded = 5678 1555 5555 6

3 + 1 Format = 678 AC

4 + 2 Format = 5678 AC CH

Low Battery

Locations 198 - 199

2	9
---	---

A low battery report will be sent when the systems battery voltage falls below 10.5 volts or when a Dynamic Battery test detects a low capacity battery. Location 198 holds the reporting channel and location 199 holds the expansion code. For HI-SPEED expanded use any number other than '0' in the expansion code. The reporting channel should be programmed with a '2' to comply with the standard HI-SPEED expanded transmission format.

If you do not require a Low battery report then program a '0' in the expansion code.

A low battery restore will not be reported until a Dynamic Battery test occurs and the battery voltage is above 10.5 volts with acceptable capacity.

Location	Description
198	Reporting code <i>CH</i>
199	Expansion code <i>LB</i>

Example:

High-Speed Expanded = 5678 5155 5555 6

3 + 1 Format = 678 LB

4 + 2 Format = 5678 LB CH

Opening Report Code [OP]

Location 200

8

An opening code is sent when the system is disarmed from the AWAY mode only. If an expanded format is selected then this code will be used as the expansion code and the user number that disarmed the system will follow in the same transmission. If an opening report is not required then a '0' should be programmed in this location.

V3

NOTE:

Open and close codes can be sent in home mode. See location 202.

If an opening code is programmed without a closing code then an opening report will be sent only if a previous alarm had occurred. This is an ideal feature for detecting if an alarm occurs as the premises are being opened.

Example:

High-Speed Expanded	=	5678 u222 2222 2
3 + 1 Format	=	678 OP
4 + 2 Format	=	5678 OP u

Where **u** is the user identification number.

Closing Report Code [CL]

Location 201

9

A closing code is sent at the end of exit time when the system is armed in the AWAY mode only (not HOME mode). If an expanded format is selected then this code will be used as the expansion code and the user number that armed the system will follow in the same transmission. If a closing report is not required then a '0' should be programmed in this location.

Example:

High-Speed Expanded	=	5678 u444 4444 4
3 + 1 Format	=	678 CL
4 + 2 Format	=	5678 CL u

Where **u** is the user identification number.

Advanced Options

Location 202

0

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

V3

OPT	Function
1	<i>Send open & close reports when in Stay Mode</i>
2	Send test reports only if the system is armed
4	Illuminate all indicators during entry time
8	Handover delay to all instant zones

V3

Send Open & Close Reports when in Stay Mode

Programming this location will cause the *Solution* panel to transmit Open and Closing reports when the panel is in the STAY mode.

Bypass and trouble reports will not be transmitted when in the STAY mode.

Test Reports (only when armed)

Send test reports only if system is armed, when programmed means that it is no longer necessary to send a test report as well as an opening and closing report every day. Set the option and program the test report to be sent when the client is normally opened. During the working week most commercial premises would be open and therefore a test is not necessary as open and close codes would have been sent. On the weekend however, the panel would be armed and thus test reports will be sent at the programmed time.

Illuminate Indicators

Illuminate all indicators during entry time will cause the *Solution* panel to turn on all of the console indicators as soon as the entry timer starts. This will allow the user to easily locate the console and keys when it is in a dark location. As soon as the system is successfully disarmed all the indicators will revert back to there normal condition.

Handover Delay

Handover delay to all instant zones will cause all instant zones to have handover delay provided that an entry zone has been triggered first. If this option is not set and an entry zone is violated, it will handover the delay to the next zone in sequence. If the sequence is broken before the entry time expires then an alarm will occur. Setting this option will mean that provided an entry zone is broken first, the entry delay will be handed over to all instant zones regardless of the order they are violated in.

Restore Code [AR]

Location 203

9

This location holds the restoral code and is used as the expansion code in expanded formats. It will be followed by an event code identifying the zone or event that restored. This restoral code is also used for AC, LB and Panic alarms. If restores are not required then a '0' should be programmed in this location.

Example:

High-Speed Expanded	=	5678 3555 5555 7
3 + 1 Format	=	678 AR
4 + 2 Format	=	5678 AR CH

Trouble Code [T]

Location 204

9

A trouble report will be sent at the end of exit time to indicate that one or more zones have been automatically isolated by the system.

Example:

High-Speed Expanded	=	5678 1555 5555 5
3 + 1 Format	=	678 T
4 + 2 Format	=	5678 T CH

Trouble Restore Code [TR]

Location 205

9

A trouble restore will be sent for burglary zones when they reseal or when the system is next disarmed. A 24 hour zone will only restore when it reseals.

Example:

High-Speed Expanded	=	5678 3555 5555 5
3 + 1 Format	=	678 TR
4 + 2 Format	=	5678 TR CH

Bypass Code [B]

Location 206

9

A bypass report will be sent at the end of exit time for zones that have been manually isolated. Bypass reports are not sent when the system is armed in Stay mode. 24 hour zones cannot be isolated therefore they will never send bypass reports.

Example:

High-Speed Expanded = 5678 1555 5555 3
 3 + 1 Format = 678 B
 4 + 2 Format = 5678 B CH

Bypass Restore Code [BR]

Location 207

9

A bypass restore will be sent when the system is next disarmed. If Bypass restore is not programmed then it can be assumed when an opening report is transmitted. All Bypassed zones are automatically cleared when the control panel is next disarmed.

Example:

High-Speed Expanded = 5678 3555 5555 7
 3 + 1 Format = 678 AR
 4 + 2 Format = 5678 AR CH

Invalid Code Tamper

Locations 208 - 209

3 9

This code will be transmitted when the number of incorrect codes entered equals the number programmed in location 210. If a restore code is programmed in location 203 the restore signal will be transmitted the next time the system is armed.

Location	Description
208	Reporting channel <i>CH</i>
209	Expansion code <i>CT</i>

Example:

High-Speed Expanded = 5678 5515 5555 1
 3 + 1 Format = 678 CT
 4 + 2 Format = 5678 CT CH

Invalid Code Attempts

Location 210

6

This location sets the number of incorrect code attempts that will cause an alarm condition and send a console tamper report to the control room. Each time the system is armed or disarmed the counter is reset. The number of attempts can be anywhere between 1 to 15. If you enter '0' into this location then code attempts are unlimited and an invalid code tamper will never be sent. This function works when the system is in the armed or disarmed state.

Ring Count

Location 211

10

This location sets the number of rings to wait for before answering an incoming call. This should be set at an acceptable level bearing in mind that a ring count of 15 (30 rings) represents approximately 90 seconds for an AXE telephone exchange. Note that this location only has an effect if you select remote arming and or upload/download in the system options. If this location is programmed with '0' then answering incoming calls is totally disabled irrespective of any programmed options.

V3 *If Location 211 is programmed with the value 15 then Answering Machine bypass will be enabled. This function used to be enabled in previous versions in location 202.*

Answering Machine Bypass

Answering machine bypass has been incorporated so that it is possible to connect up with a *Solution* panel when there is an answering machine or a facsimile machine on the same line. Simply call the panel and allow the phone to ring once, then hang up. If you then call again within 45 seconds the *Solution* panel will answer the call on the first ring and you will have a connection. This will prevent the answering machine or facsimile from answering the call.

Console Panic Code

Locations 212 - 213

2 9

This code will be sent if any two outside keys in the same horizontal row on a system console are pressed simultaneously. If a restore code is programmed in location 203 the restore signal will be transmitted the next time the system is armed.

Location	Description
212	Reporting channel <i>CH</i>
213	Expansion code <i>CT</i>

Example:

High-Speed Expanded = 5678 5155 5555 1
3 + 1 Format = 678 P
4 + 2 Format = 5678 P CH

System Options 1

Location 214

4

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

OPT	Function
1	Six Digit Code
2	Horn speakers to have burglary sound number two.
4	"0" is allowed to arm the system
8	Instant zones to have Delay-2 when armed in Stay mode.

Six Digit Codes

This option sets the maximum code length to six digits, offering a larger number of code combinations.

Horn Speakers Burglary sound

This option when selected changes the burglary sound allowing you to have two systems in the same area and still maintain individuality between them.

"0" to Arm the system

This option if selected, enables the fast arm feature.

NOTE:

0 + AWAY can arm the system but it cannot disarm the system.

Instant Zones to Delay in Stay Mode

This option when selected will cause all instant zones to have Delay-2 when armed in Stay mode. Stay mode zones will have entry times as shown below.

Zone Type	Entry Time when in Stay Mode
Delay-1	Delay-1
Delay-2	Delay-2
24 Hour	Nil
Instant	Delay-2

System Options 2

Location 215

7

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

OPT	Function
1	Forced arming to be allowed
2	Console panic to be audible
4	Invalid Code tamper to be audible
8	Extinguish the console display after 60 seconds

Forced Arming

This option if selected allows the user to arm the system with zones unsealed. When this option is not selected then all zones will have to be sealed before the user is allowed to arm the system. This feature is ignored if the system is to be remotely armed via a telephone.

Console Panic

This option when selected causes the siren to sound if a console panic is triggered.

Code Tamper

This option when selected causes the sirens to sound if an invalid code tamper is detected.

Console Display

This feature when selected will extinguish all of the console indicators and buzzers. This is especially handy when a system console is located in a bedroom and the indicators become annoying.

Console Duress

Locations 216 - 217

1 9

This code is transmitted when a duress alarm is invoked by adding the digit 9 to the end of your code during a disarming operation.

Location	Description
216	Reporting channel <i>CH</i>
217	Expansion code <i>D</i>

Example:

High-Speed Expanded = 5678 1555 5555 1
3 + 1 Format = 678 D
4 + 2 Format = 5678 D CH

Dialler Options 1

Location 218

0

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

OPT	Function
1	Disable the dialler.
2	Enable smart lockout.
4	Allow horn speaker beeps for radio key operation.
8	Extend zone response time from 100ms to 400ms.

Disable the dialler

This option when set will disable all dialler operations but will still accept upload/download requests.

Enable smart lockout

This feature allows the control panel to remove any locked out zones from the lockout list only while the sirens are running. This feature allows a monitoring station to receive codes from previously locked out zones during siren time.

Allow horn speaker beeps for radio key operation

This feature will enable horn speaker beeps only to be heard when the system is armed via a radio key. Devices connected to the Bell output will not be audible.

Extend zone response time from 100ms to 400ms

This option selects the zone response time for all eight input zones. A zone will have to be broken for the prescribed time before alarming.

Dialler Options 2

Location 219

2

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

Simply add the numbers together and the total is the number to be programmed. Enter a seven (7) if you require options 1, 2 and 4 simultaneously. (ie. $1+2+4=7$).

OPT	Function
1	Enable radio key / key switch functions
2	Enable upload / download via a modem
4	Enable remote arming via the telephone
8	Send HI SPEED transmissions in single event mode.

Enable radio key /key switch module functions

This option must be selected when a Key switch Module is being used.

Enable upload/download via a modem

This option will need to be selected if you require the upload/download feature to operate. The *Solution-8* control panel will not respond to the Alarm Link remote software if this option bit is not selected.

Enable remote arming via the telephone

This option when selected allows you to remotely arm your control panel via a standard telephone. Forced arming is automatically assumed when this feature is being used via a telephone.

Send HI-SPEED transmissions in single event format

This option when selected causes multiple event reports to be individually transmitted one event at a time. This feature will allow a control room operator to identify the exact sequence of occurred events with respect to time.

Test Reports

Locations 220 - 223

9	9	0	0
---	---	---	---

Locations 222 to 223 contain the time to wait between test reports. This time can be set to as little as 1 hour or as long as 255 hours. The resolution however is -1 to +0 hours, which means that if you set the first test report time to five hours then the first test may come in any time from four to five hours. The value entered into location 223 multiplied by 16 plus the value entered in location 222 constitutes the time in hours between successive test reports.

Location	Description
220	Reporting channel <i>CH</i>
221	Expansion code <i>TE</i>
222	1 hour intervals
223	16 hour intervals

Example:

High-Speed Expanded = 5678 5555 5555 9

3 + 1 Format = 678 TE

4 + 2 Format = 5678 TE CH

Exit Time

Locations 224 - 225

12	3
----	---

Location 224 holds the 1 second increments and location 225 hold the 16 second increments. Therefore if you want an exit time of 60 seconds, then store a 12 into location 224 and a 3 into location 225. The range is 1 to 255 seconds.

Location	Description
224	1 second intervals
225	16 second intervals

Siren Run Time

Location 226

10

Location 226 holds the siren run time in minutes. Therefore if you want a siren run time of 5 minutes then store a 5 into location 226. The value stored into these locations is stepped in increments of 1 minute. The range is 1 to 15 minutes.

Day Alarm Mask

Location 227



Day Alarm is a feature that enables a combination of zones as defined in location 227 to be monitored while the system is in the disarmed state. An indication is available via one of the four outputs or the console buzzer. If you program this location with 15 then any of the first 4 zones will cause a Day Alarm.

If you program this location with a 1 then only zone 1 will cause a Day Alarm. This feature is turned on and off by keying in the Master code + 7 + AWAY. If a zone has been programmed for Day Alarm it can be isolated in the normal way so as to not register as a Day Alarm. Only zones 1 to 4 can be used as Day Alarm monitored zones.

V3

In version 3, day Alarm is automatically disabled after exiting Installers Programming mode. This means that if any programming changes are carried out, Day Alarm will need to be re initialised by entering the Master code plus 7 or a new special code function 99997.

#	Z1	Z2	Z3	Z4
0				
1	✓			
2		✓		
3	✓	✓		
4			✓	
5	✓		✓	
6		✓	✓	
7	✓	✓	✓	
8				✓
9	✓			✓
10		✓		✓
11	✓	✓		✓
12			✓	✓
13	✓		✓	✓
14		✓	✓	✓
15	✓	✓	✓	✓

Entry timer 1

Locations 228 - 229

10	0
----	---

Location 228 holds the 1 second increments and location 229 holds the 16 second increments. Therefore if you want an entry time of 60 seconds then store a 12 into location 228 and a 3 into location 229.

Location	Description
228	Entry time in 1 second increments
229	Entry time in 16 second increments

Entry timer 2

Locations 230 - 231

4	1
---	---

Location 230 holds the 1 second increments and location 231 holds the 16 second increments. Therefore if you want an entry time of 60 seconds then store a 12 into location 230 and a 3 in location 231.

Location	Description
230	Entry time in 1 second increments
231	Entry time in 16 second increments

Output 1

Locations 232 - 235

0	0	0	0
---	---	---	---

Outputs consists of three items. The first is the event type being the conditions required to trigger the output. Secondly a configuration option which determines the polarity and operation of the output once the conditions are met. Lastly a time factor which determines the duration of the output. You will find that there are a large number of event types to choose from and the flexibility of the output stage will enable you to control or do almost anything you may require. See the output configurations chapter for more detail. Output 1 configuration parameters are entered in these four locations.

Location	Description
232	Event type
233	Event polarity
234	Time in 200ms intervals
235	Time in 3.2 second intervals second intervals

Output 2

Locations 236 - 239

1	1	0	0
---	---	---	---

Output 2 configuration parameters are entered in these four locations.

Location	Description
236	Event type
237	Event polarity
238	Time in 200ms intervals
239	Time in 3.2 second intervals second intervals

Output 3

Locations 240 - 243

1	6	1	1
---	---	---	---

Output 3 configuration parameters are entered in these four locations.

Location	Description
240	Event type
241	Event polarity
242	Time in 200ms intervals
243	Time in 3.2 second intervals

Output 4

Locations 244 - 247

13	1	0	0
----	---	---	---

Output 4 configuration parameters are entered in these four locations.

Location	Description
244	Event type
245	Event polarity
246	Time in 200ms intervals
247	Time in 3.2 second intervals

Console Beeper

Locations 248 - 251

5	3	1	0
---	---	---	---

Console beeper configuration parameters are entered in these four locations.

Location	Description
248	Event type
249	Event polarity
250	Time in 200ms intervals
251	Time in 3.2 second intervals

Event Types		Polarity	
0	EDMSAT	0	Output not used
1	System ON	1	Normally open, going low
2	System ON in Stay Mode	2	Normally low, going open
3	Exit sealed or entry warning	3	Normally open, pulsing low
4	Exit warning	4	Normally low, pulsing open
5	Entry warning or Day Alarm	5	Normally open, One shot low
6	All signals transmitted OK	6	Normally low, One shot open
7	Silent alarm triggered		
8	Output code 1		
9	Output code 2		
10	AC Fail		
11	Low Battery		
12	Zone unsealed		
13	Fire alarm		
14	Keyboard Panic / Duress		
15	Remote Output		

Next Test Report Time

Locations 252 - 253



These locations contain the time until the next test report is sent. The time can be calculated by multiplying the value displayed in location 253 by 16 and adding it to the value displayed in location 252.

Location	Description
252	Time in 1 Hour increments
253	Time in 16 Hour increments

Domestic Dialling

Programming

There are 32 data locations set aside for domestic dialling, each of which is capable of storing 1 digit. This will allow upto four 7 digit phone numbers to be programmed.

To program the desired phone numbers, first ensure the system is disarmed and that there are no alarm memories present. Enter the Master code + 2 + AWAY. Three beeps will be heard and the HOME and AWAY indicators will flash simultaneously indicating successful entry to the programming mode. If one long beep is heard entry has been denied and you should check to see if domestic dialling has been selected (location 50).

After successful entry, if phone numbers have already been programmed, the panel will begin to display the numbers via the system console using the L.E.D. indicators or via a *Solution* programmer, if connected. 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 HOME key to indicate the end of the first phone number. You may now enter a second, third or fourth phone number if required by following the above procedure.

NOTE:

If there is more than one phone number programmed and you wish to change one of them, then you will need to re-program all of the stored phone numbers as well as the new number.

When all required phone numbers have been programmed, exit the programming mode by pressing the AWAY key.

If at any time you wish to view the stored numbers enter the Master code + 2 + AWAY. 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 keys are pressed within 10 seconds the mode will be exited automatically or you can press the AWAY key to end at any time to exit.

NOTE:

When viewing the numbers via the console the number 9 is represented by the fault indicator. A zero in the phone number is represented by the fault and zone 1 indicators. The end of the number is represented by the fault and zone 5 indicators.

Dialling Function

When the *Solution-8* is triggered, it will commence dialling the first programmed phone number. If a busy or engaged tone is detected the panel will hang up and commence dialling the second 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 simply entering your on/off code.

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 re-triggers and a further 6 attempts will be made. The panel will stop dialling after 6 attempts or 3 successful calls.

If busy tone is not detected the 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 will allow the customer to verify which panel has made the call if more than one panel is reporting to the same phone number. Eg. Home and office reporting to holiday house.

Once the call has been received, if it is not acknowledged using an EDM call acknowledger, (Part Number CC911) the panel will continue sending its transmission for a period of 2 minutes, after which it will hang up and commence dialling the next phone number. If the call is acknowledged, the panel will hang up and no further calls will be made for that event.

V3

In version 3 we have made it easier to acknowledge a call using the EDM Call Acknowledger. The time that the tone is required to be on the line has been halved to approximately 1.5 seconds.

If the panel is not programmed for upload / download, then it is possible to interrogate it after the call has been acknowledged. To do this, simply call the phone number that the panel is connected to and after the programmed ring count the panel will answer the call. The siren tone will again be heard as well as an alarm type indication beep. The alarm type beeps will indicate whether a burglary or 24 hour alarm has occurred.

For most situations alarm indications are all that is required, for that reason when programming the *Solution-8* you should set the A.C. fail, Low battery, Test report, Panic, Trouble, Code tamper and Opening and Closing report codes to zero('0'). If any of expansion codes are programmed to other than zero the dialler will be triggered and report for the respective event.

If any of the above events are allowed to trigger the dialler, then the above sequence of events will occur however if you attempt to interrogate the panel it will not answer the call and therefore no alarm type indication will be given.

Programming Considerations

The unit identification beep is programmable between 1 and 15 thus allowing you to distinguish between 15 separate panels dialling the same phone number. This number is stored as the last digit in the client number (location 55). Therefore, if a panel is programmed with a client number of 6527, the unit identification will be 7, and 7 beeps will be sent.

V3

In version 3 when you press the STAY key to separate the phone numbers a number "14" is inserted instead of a number "13". This will allow you to program 2 second pauses anywhere in the phone numbers by simply programming a "13". The pauses can however only be programmed by the installer as the end user has no access to this function.

If upload / download is programmed, it is not possible to interrogate the panel as the upload / download feature will take precedence.

When interrogating the panel, if 1 beep is heard between the bursts of siren tone then a 24hr zone alarm has occurred. If 2 beeps are heard then a burglary zone alarm has occurred. If more than 1 zone has alarmed, ie. a burglary and a 24hr zone, then only the 24hr zone alarm will be indicated.

When interrogating the panel, it will answer the call after the programmed ring count has expired. This number is programmed in location 211.

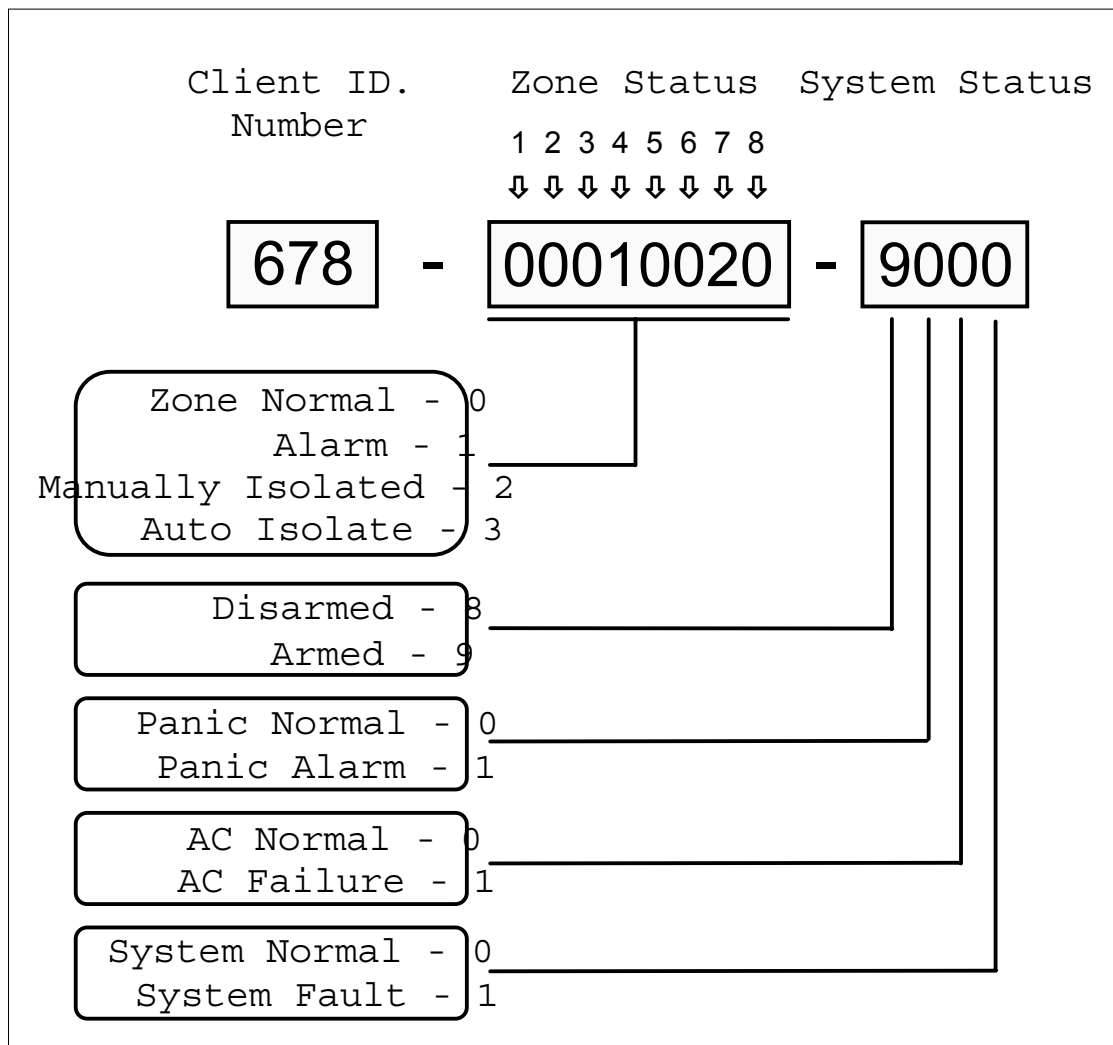
Pager Dialling Formats

Two transmission formats have been added to allow the *Solution-8* dialler to communicate with an alphanumeric pocket pager.

To use this feature you must program the handshake tone (Location 49) to 5 which is the pager handshake and program the desired pager transmission format in location 50. You can select from either Basic or Advanced pager formats. You will also need to program the pager number as the primary phone number, locations 00-15.

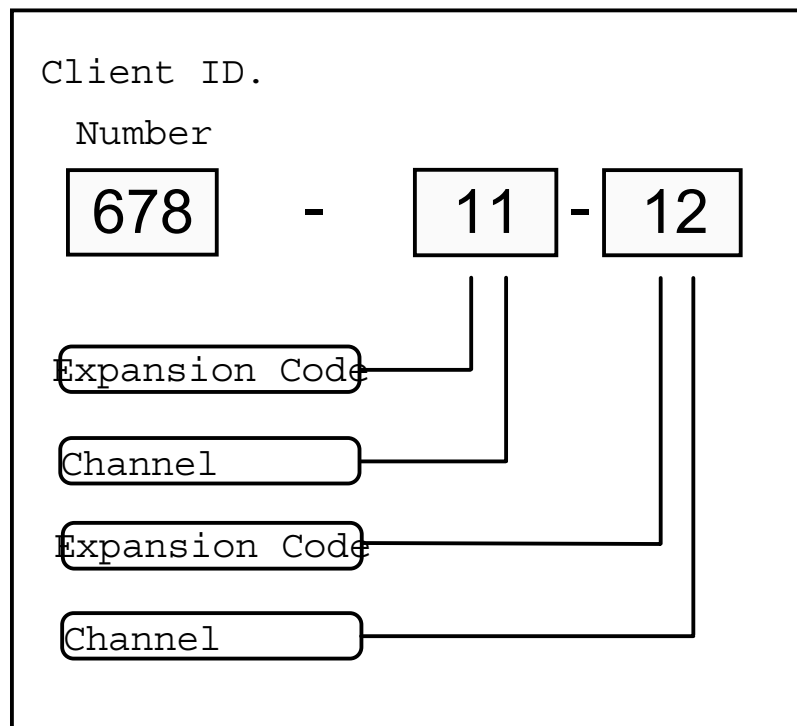
It should also be noted that both formats transmit the last 3 digits of the client number making it possible to differentiate between transmissions when a number of alarms are reporting to the one pager.

Basic Pager Format



The example shows that the transmission has come from client number 678 and that zone 4 is in alarm, zone 7 has been manually isolated, the system is armed, the panic zone is normal, the A.C. is connected and there is no fault condition.

Advanced Pager Format



This example shows that the transmission has come from client number 678 and that 2 new events have occurred. As this format is similar to basic 3+2 format the actual event types are installation dependant. For example the above transmission could represent an alarm on zone 1 and an alarm on zone 2.

V3

Hutchinson Pager

Both pager formats have had the leading "-" deleted in order to make them compatible with the Hutchinson pager network.

Master Code Functions

The master code followed by a FUNCTION digit then the AWAY key will put you into the appropriate mode. These functions can only be carried out while the system is in a disarmed state.

MASTER CODE +
 FUNCTION +
 AWAY

Code	Description
0	Not used
1	User code Alteration Mode
2	Domestic Phone Number Change Mode
3	Alarm Memory Recall
4	Walk test Mode
5	Toggle Remote Output
6	Initiate a Modem Call
7	Toggle Day Alarm
8	Not Used
9	Send a Test Report

1. User Code Alteration Mode

Allows the Master code holder to add or alter any of the system user codes. For a more detailed description please refer to the *Solution-8* Operators Manual.

2. Domestic Phone Number Change Mode

This option allows the Master code holder to view and program the required telephone numbers. For a more detailed description please refer to the *Solution-8* Operators Manual.

3. Alarm Memory Recall

This feature enables the playback of the last ten events that have occurred to the system. For a more detailed description please refer to the *Solution-8* Operators Manual.

4. Walk Test Mode

Allows you to test the detection devices to ensure that they are functioning correctly. For a more detailed description please refer to the *Solution-8* Operators Manual.

5. Toggle Remote Output State

If an output has been programmed for remote control then the on/off state of the output can be changed using this function.

6. Initiate a Modem Call

This function will force the panel to call the telephone number programmed in locations 32 to 47 and attempt to connect to the upload/download computer.

7. Toggle Day Alarm

This function allows the Master code holder to toggle whether or not the pre-programmed day alarm zones perform as normal zones or day alarm while the panel is in the disarm state. For a more detailed description please refer to the *Solution-8* Operators Manual.

8. Not used

9. Initiate a Test Report

By keying in the Master code followed by 9 then AWAY a test report will be immediately sent. This is handy if you wish to test the dialler without causing the sirens to sound.

Installer Code Functions

The installer code followed by a FUNCTION digit then the AWAY key will put you into the appropriate mode. These functions can only be carried out while the system is in a disarmed state.

INSTALLER CODE +
 FUNCTION +
 AWAY

Code	Description
0	Not Used
1	Request Print out of System Configuration
2	Set First Test Report Time
3	Alarm Memory Recall
4	Walk Test Mode
5	Satellite Siren Service Mode
6	Initiate a Modem Call
7	Enable / Disable Telecom Monitor Mode
8	Not Used
9	Send a Test Report

1. Request Print Out of System Configuration

This option will allow you to get a print out of the *Solution-8* panels programmed data. Any serial printer can be used however this feature has been primarily designed for use with the TP10 printer. A printer cable is available to connect the TP10 printer to the *Solution-8* panel (CC809).

2. Set First Test Report Time

To set the first test report time key in the Installer code followed by the number 2 then AWAY. You will hear 3 beeps to indicate successful entry into this mode. Now key in a number from 1 to 255 + AWAY representing the number of hours to wait before sending the first test report. The first test report time has now been set and subsequent test reports will be sent according to the time intervals programmed in locations 222-223.

3. Alarm Memory Recall

This feature enables the playback of the last ten events that have occurred to the system. For a more detailed description please refer to the *Solution-8* Operators Manual.

4. Walk Test Mode

This feature allows you to test the detection devices to ensure that they are functioning correctly. For a more detailed description please refer to the *Solution-8* Operators Manual.

5. Satellite Siren Service Mode

This mode will allow you to perform service work on the EDMSAT siren without triggering the siren or the strobe. The unit will return to its normal working state the next time the system is armed .

6. Initiate a Modem Call

This mode will force the panel to call the telephone number programmed in locations 32 to 47 and attempt to connect to the upload/download computer.

7. Enable / Disable Telecom Monitor Mode

This function enables and disables the audible monitor mode. When enabled the installer can monitor the dialling of phone numbers and the transmission of data to and from the monitoring station. The fault indicator on the remote console will flash while Telecom monitor is active.

8. Not used

9. Initiate a Test Report

By keying in the Master code followed by 9 then AWAY a test report will be immediately sent. This is handy if you wish to test the dialler without causing the sirens to sound.

Special Code Functions

Special function codes have been incorporated to allow temporary staff or non-code holder users to initiate different functions as required.

SPECIAL CODE 9999 +
 FUNCTION +
 AWAY

Code	Description
0	Not Used
1	Not Used
2	Not Used
3	Not Used
4	Not Used
5	Not Used
6	Initiate a Modem Call
7	Toggle Day Alarm
8	Not Used
9	Send a Test Report

6. Initiate a Modem Call

This mode will force the panel to call the telephone number programmed in locations 32 to 47 and attempt to connect to the upload/download computer.

V3 7. Toggle Day Alarm

This code has been added to allow users who do not have access to the master code to activate and disable day alarm. Because Day Alarm is now deactivated when exiting the Installers programming mode this code should be fused to reactivate the mode when required.

9. Initiate a Test Report

By keying in the Special code followed by 9 then AWAY a test report will be immediately sent. This is handy if you wish to test the dialler without causing the sirens to sound.

Uploading & Downloading

The *Solution-8* range of control panels can be programmed or controlled via an IBM compatible personal computer running the EDM Alarm Link software version 2.00 or greater. The facility will allow you to make alterations to your customers control panel without the need to leave your office, improving customer service and saving you time and money. For country locations where a control panel is situated hundreds of miles from your office the upload/download feature is invaluable.

There are different methods of communicating with your control panel, one being via a modem over the telephone lines (Remote) and the other by directly connecting to the RS232 port on the computer with a cable (Direct).

Direct Connect

The direct link feature has been incorporated giving the installer a simple method for programming a *Solution-8* control panel at the office. There is no need for telephone lines or modems and the control panel can be easily programmed in minutes. It can also be used on site visits where the installer is using a portable personal computer.

The direct link cable needs to be connected to the relevant serial port on your IBM PC and the other end to the modem port on the *Solution-8* control panel. There are no special programming requirements needed for the control panel however the client numbers at both the control panel and the client file on the alarm link software must be identical. The control panel comes defaulted with a client number of '0000' locations 52-55.

Remote Connect

The remote connect feature allows you to establish a connection through the telecom network from your IBM PC to a *Solution-8* 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.

The *Solution-8* control panel will need to have a modem module fitted and the amount of pre-programming required will depend on just how you wish the remote connect function to operate.

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 to console, you will need to program the following information.

Locations 32-47 will need to have the call back number programmed and location 219 upload / download option will need to be disabled. The control panel has now been set so that the client has control over when a remote connection can be established.

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 your control panels data. The pass code will become the only line of defence when this method is used. The pass code is the client number which must be identical to that stored at the calling computer's data base.

Locations 32-47 should be cleared and location 219 will need the upload/download option enabled. The control panel will now allow a connection on the first call without calling you 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 pass code which needs to be known for the entire session. Secondly the control panel will call back the pre-programmed callback number to establish the valid connection.

Locations 32-47 must be programmed with the callback number and location 219 will need to have upload / download enabled.

Terminal Definitions and Descriptions

When operated in New Zealand all wiring should comply with New Zealand Wiring regulations 1976.

A.C.	These two terminals are plug on type, and are the termination point for the TF006 or TF007 plug pack. The voltage of the plug pack being used must be 18-22 volts A.C. at 1.3 amps minimum for correct operation.
+BATTERY -BATTERY	The + BATTERY connects to the red positive terminal of the battery and the - BATTERY connects to the black negative terminal of the battery. The battery used should be a 12 Volt sealed lead acid rechargeable type with a capacity of between 1.2AH-6.5AH. The battery is protected by a 3.0 amp 3AG fuse.
GND +12V CLK DATA	This group of terminals are the connection points for your system consoles. All system consoles should connect in a parallel configuration back to these terminals. The only factor restricting the number of consoles that can be connected is the available power and its distribution. Each console has a maximum power requirement of 60mA with all indicators illuminated, therefore this should be taken into consideration when calculating your available continuous power. The total continuous external load on the system should not exceed 500mA maximum.
OUT1 OUT2 OUT3 OUT4 +12V	This group of terminals are the output interface terminals. They can be configured to any combination of the sixteen functions available via the system programming options. They can be used for a variety of functions with incredible flexibility. However, OUT1 is the only terminal that can be used to interface to an EDMSAT satellite siren. All outputs have a common terminal which is positive 12 Volts and each output is capable of sinking a maximum of 400mA. The outputs are protected by EDM's unique Integrated Protection System, [I.P.S.]. This makes them extremely tolerant to abuse or incorrect wiring. It should be noted that each output is open collector and will not source any current but can sink a maximum of 400mA per output.
STRB BELL SPK2 SPK1 +COM	The STRB terminal is the connection point for the negative side of a strobe light. The positive side is connected to the +COM. This output is normally open circuit going low and is capable of sinking 400mA thus providing ample power for general strobe lights. The BELL output is the negative connection used for driving ear piercing screamers with the positive being the +COM. This output is normally open circuit going low and is capable of sinking a maximum of 400mA. SPK1 and SPK2 are reflex horn speaker outputs with their common terminal being the +COM. These outputs can be programmed to three distinctly different sounds. Each output can drive a maximum of two 8 ohm horn speakers each. The entire group of terminals is protected by the solid state I.P.S. system, giving them incredible tolerance against shorts circuits.
+12V Z8 Z7 Z6 Z5	These terminals are zones five to eight and their common terminal is +12V. The zones are E.O.L. monitored by a 3.3K ohm resistor. All normally closed contacts are to be wired in series with the E.O.L. resistor, where all normally open contacts are to be wired in parallel with the E.O.L. resistor. the function of the zones and their response times are programmable via the system programming options.
+12V GND	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 1amp 3AG fuse.

Z4 These terminals are zones one to four and their common terminal is +12V. The zones are E.O.L. monitored by a 3.3K ohm resistor. All normally closed contacts are to be wired in series with the E.O.L. resistor, where all normally open contacts are to be wired in parallel with the E.O.L. resistor. The function of the zones and their response times are programmable via the system programming options.

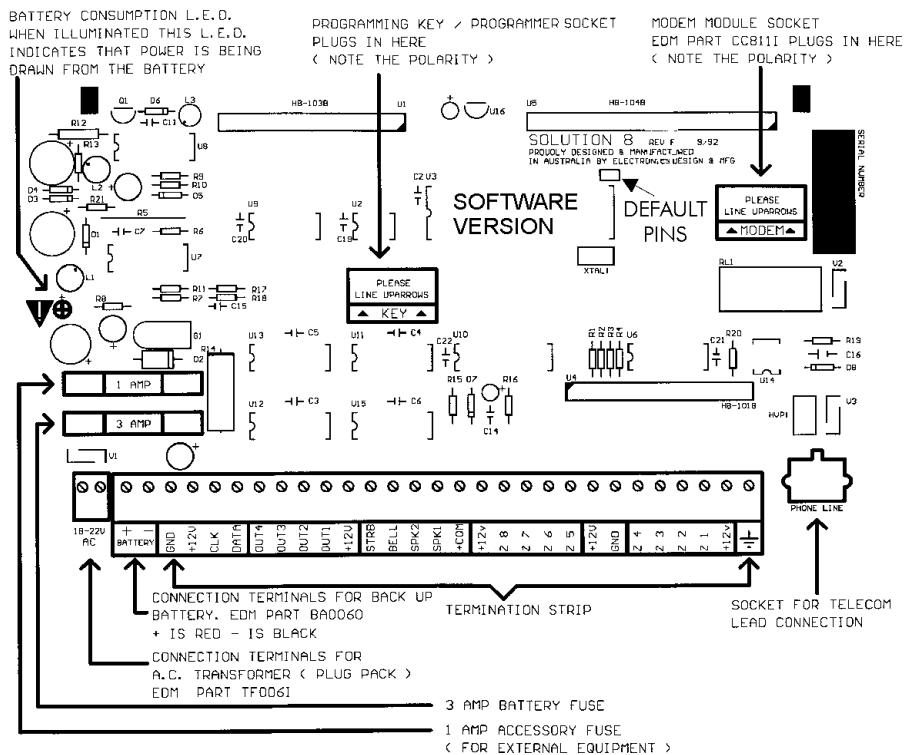
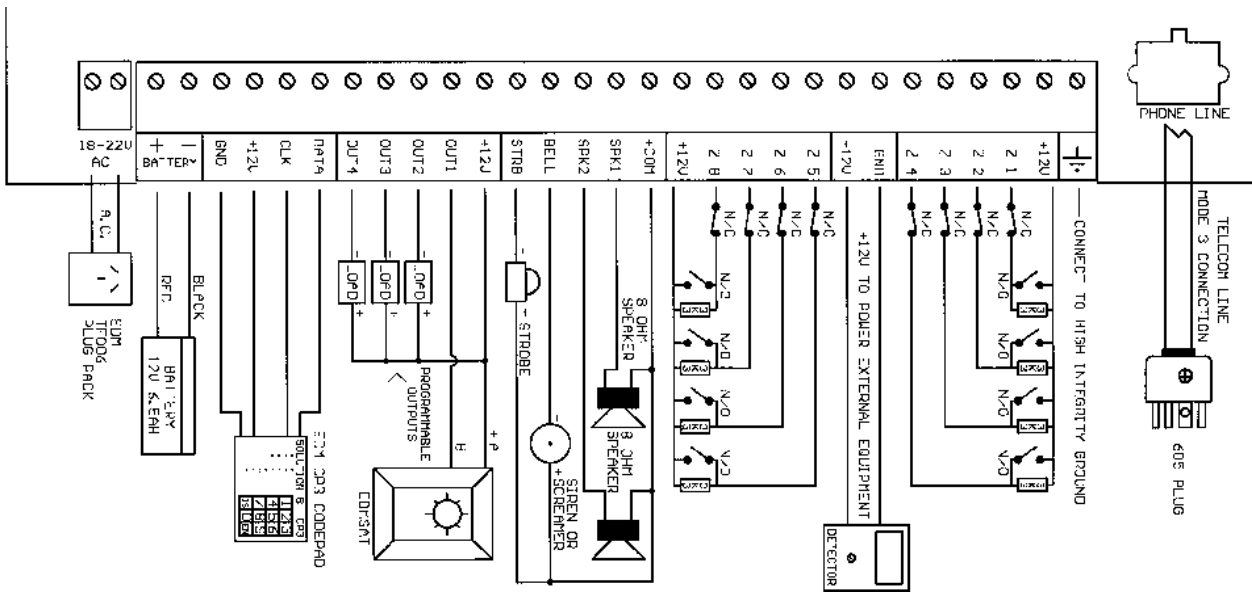
Z3

Z2

Z1

+12V

EARTH This terminal should be connected to a solid earth point such as a cold water pipe or earth stake in order for it to provide protection against possible lightning interference. It is important that this connection be made using thick suitable earthing wire so as to provide the best protection for your system. Extensive lightning protection has been built into the **Solution-8** control panel and this terminal will have to be connected correctly if you are to take the best advantage of the protection provided.



Optional Equipment

EDMSAT(CC914)

The EDM Satellite Siren is a totally self contained unit incorporating a high powered siren, weatherproof strobe and a sealed lead acid battery. 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 test fails.

Solution Printer Interface (CC812)

The *Solution* Printer Interface has been designed to allow you, the installer, to get a hard copy (print-out) of the data that has been programmed into the *Solution-8* control panel. This hard copy can now be produced and kept as a permanent record for your own customer files. The programmed data is transferred from the panel to the printer interface via a *Solution* Programming Key. It is therefore necessary to have a *Solution* Programming Key with you when you wish to obtain a print-out.

If your Printer Interface is to be located at your office, that is not portable, then by using a *Solution* Programming Key you will be able to transfer the data from the panel to the office where it can then be printed.

We have designed the interface to be flexible. Both standard Centronics and the Serial TP10 printers can be used. This means that many of you will not need to purchase new printers.

Connection

First connect the supplied 9V D.C. 200mA plug pack into the back of the unit via the D.C. plug. Then connect the relevant printer cable, standard DB25 connector for parallel or the standard cable supplied with the TP10 for the serial printer.

NOTE:

Only one printer should be connected. If both a serial and a parallel printer are connected the print out will always be directed to the parallel printer.

Operation

When powered up, two beeps will be heard and the red L.E.D. on the unit will start to flash once a second. If the connected printer is switched off or not on line then the on board buzzer will sound once every ten seconds.

When a print-out is required, take the relevant *Solution* Programming Key and with the arrows and the name plate facing upwards plug it onto the eight pins at the front of the Printer Interface. The connected printer will then begin to print, the red L.E.D. on the unit will remain constant and the green L.E.D. on the key will flash once a second.

The Programming Key must remain plugged in until two beeps are heard and the red L.E.D. begins to flash once a second. You may then remove the Programming Key.

Problems

This unit fails to print if;

- The *Solution* Programming Key is inserted incorrectly.
- The *Solution* Programming Key is damaged or faulty.
- The red L.E.D. is not flashing once a second.
- The printer is off line or disconnected.

Serial Printer Cable (CC809)

The serial interface cable has been designed to connect the *Solution-8* control panel to a serial 600 baud printer. The connecting plug is suitable for connection to a TP-10 serial printer as used for the Digitalarm-908 series.

When connecting, one end of the cable connects to the *Solution-8* printed circuit board at the Modem socket and the other end to your respective printer.

Once connected you can order a hard copy print out of all your programmed information by entering your installer code followed by '1' + Away.

Use this feature to keep hard copy records of your control panels programmed data.

Solution Programmer (CC814)

This programmer can be used to program the locations in a *Solution-8* control panel. It comes complete with a one metre connecting cable and a socket for an external program key. The unit also has an built in Programming Key which will reduce your programming time by storing your standard system configuration.

EDMSTU (CS800)

The EDMSTU (Securitel Interface) has been designed to operate in conjunction with the *Solution* range of control panels using a serial connection. This means that all alarm information can be transmitted from the panel to the STU using only 3 wires.

V3

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.

Solution System Programming Key (CC810)

This is another first for the security industry designed by Electronics Design and Manufacturing. The Programming Key is a unique device that holds all your control panel default configuration data. The Programming Key can hold all your common configuration data such as monitoring station telephone numbers and zone reporting channels for example. 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 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.

Solution Modem Module (CC811)

This inexpensive module when fitted and selected via the appropriate programming option will allow you to control, monitor and program your control panel remotely via the telephone network. This module will prove to be a valuable asset when servicing systems located in remote, inaccessible sites. You can change the entry time, user codes etc for your customer without even leaving your office. This feature will pay for itself in no time and will assist you in taking your quality of service one step higher than your opposition. To make use of this feature you will need to be familiar with the Alarm Link computer software.

Connection

Ensure that all power is disconnected from the *Solution-8* control panel. Locate the MODEM marking on the printed circuit board. This can be found in the top right hand corner. There are eight pins which connect the main printed circuit board to your modem module. Ensure that the orientation of the triangular markings on the printed circuit board correspond to those on the modem. It is very important that this module is connected correctly for proper operation.

EDM Voice Recorder Module (CC888)

V3

The EDM VOICE MODULE has been designed so that a clear concise voice message can be sent by your alarm control panel, to the phone numbers of your choice when an alarm condition occurs. This allows the person receiving your call to easily understand that the alarm at your home or office has been activated and that action is required. This voice message is pre recorded by you or your installer and can be changed as many times as necessary. The message can be from 1 to 16 seconds in length.

***Solution* Remote Key switch & Radio Key Interface (CC813)**

This module 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 may be a need to interface your security control panel to a card reader or a fully blown access control system that requires automatic arming of the system at 9pm and automatic disarming at 6am. The arm and disarm terminals can be used for this purpose.

There is also a Stay mode terminal which will force the system into the 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 hand held radio remote. There will be an automatic beep (if programmed in location 218) via the horn speakers only (not the Bell output) when the R/K terminal is used, two beeps indicating system has armed and one beep to indicate the system has disarmed. The Stay mode terminal generates three beeps to indicate that the system is armed in the Stay mode. A panic alarm can also be generated via this module. As you can see the Key switch Interface module allows you the flexibility to perform quite a number of functions cheaply and easily.



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