
EC-P10

10-20 Zone Intruder Alarm System



Installation Manual



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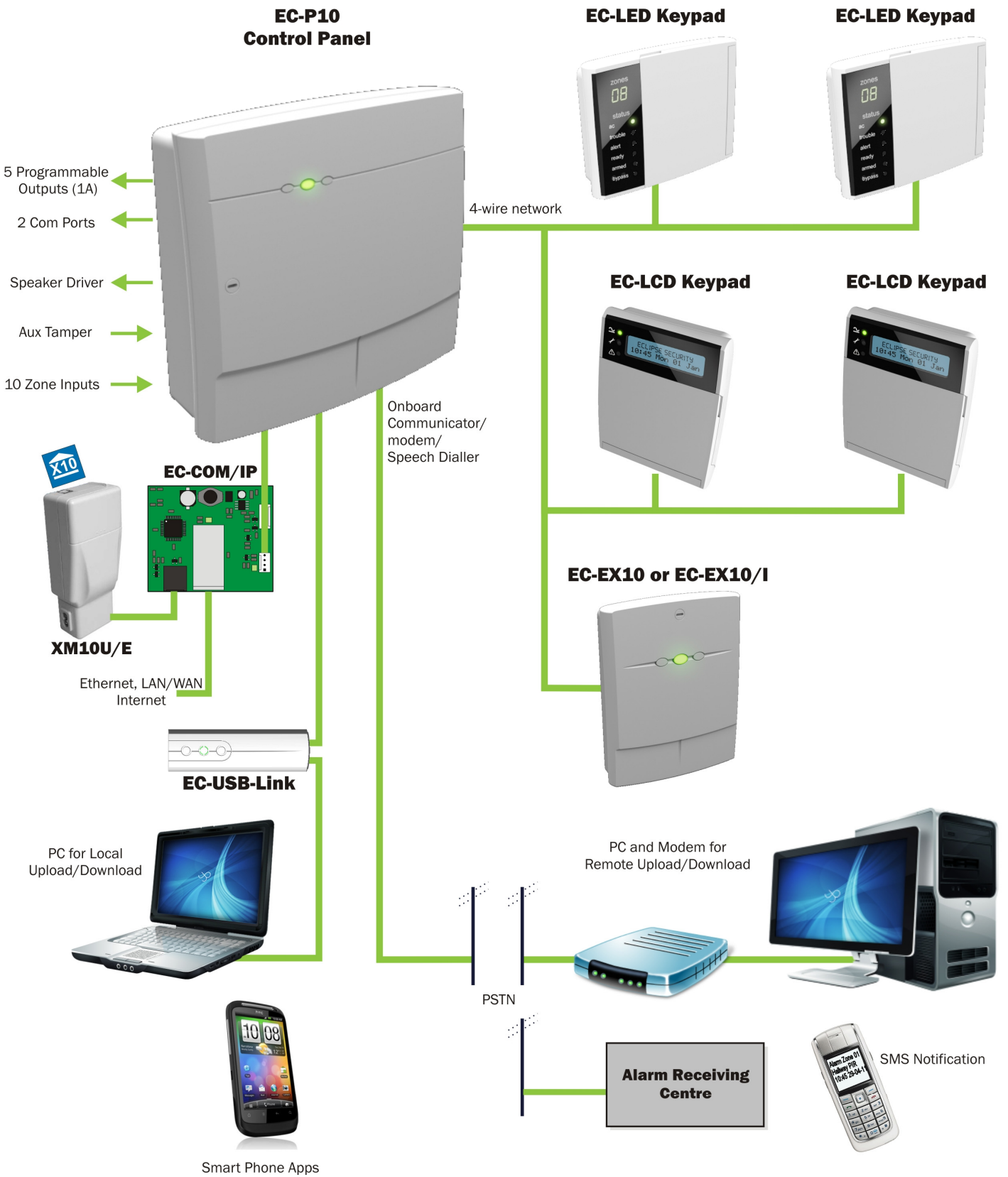
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1. System Overview

System Configuration



Control Panel

The EC-P10 control panel is an advanced intruder alarm system with 10 on-board zones and on-board multi format communicator. The system can be expanded to 20 zones using the 10 zone expansion modules (EC-EX10 or EC-EX10/I). The system is ideally suited to domestic and small commercial installations.

The control panel provides a multi-channel integrated speech dialler and voice annunciation feature. Voice messages are recorded via a touch tone telephone or by using the Eclipse UDL software package.

Remote arming and disarming and system control can also be carried out by calling the protected premises with a touch-tone telephone. On answering the incoming call you are greeted with a voice prompted menu.

The system can be further enhanced by using the EC-COM/IP module which provides both IP and X-10 connectivity. X-10 is a simple home automation protocol that uses the existing mains wiring to communicate with X-10 compatible devices via a XM10U controller. Once the EC-COM/IP is installed, both the system and X-10 devices can be controlled remotely using smart phone apps.

A choice of either LCD or LED remote keypads is available. Other features include:

- ▶ 10 programmable on-board zones
- ▶ 5 programmable outputs (1Amp rated)
- ▶ On-board communicator/modem/speech dialler
- ▶ Local or remote upload/download
- ▶ 250 event log
- ▶ 1.5 Amp switched mode power supply
- ▶ Two communication ports for accessories etc
- ▶ Loudspeaker output
- ▶ Selectable battery charging rate
- ▶ Real time clock
- ▶ Two-wire smoke detector support
- ▶ Flash upgradable

Remote Keypads

The EC-P10 will accept up to a maximum of 4 remote keypads. All remote keypads require a 4-wire connection to the control panel using standard alarm cable. The following remote keypad models are available:

EC-LED Remote Keypad

The LED keypad features a dual 7 segment display for displaying zone status and system fault messages. A set of dedicated system status LEDs for AC, Ready, Armed, Trouble, Bypass, Alert and Alarm are also provided. Other features include:

- ▶ 4-wire connection using standard alarm cable
- ▶ Internal sounder
- ▶ Backlit keyboard

EC-LCD Remote Keypad

The LCD keypad features a 2 x 20 character blue display for showing all zone status and system fault messages. A set of dedicated system status LEDs for AC, Trouble and Alarm are also provided. Other features include:

- ▶ 4-wire connection using standard alarm cable
- ▶ Internal sounder
- ▶ Backlit keyboard

Expansion Modules

The following expansion modules are available:

EC-EX10 Zone & Output Expander

The EC-EX10 is a housed zone and output expansion module that is connected to the 4-wire control panel network. Features include:

- ▶ 10 fully programmable zone inputs
- ▶ 10 programmable outputs (8 x 100mA; 2 x 1Amp)
- ▶ Internal piezo sounder
- ▶ 16Ω loudspeaker connection, with programmable volume
- ▶ Tamper protection
- ▶ Engineer keypad port
- ▶ Stylish housing

EC-EX10/I Zone Expander

The EC-EX10/I is a housed zone expansion module that is connected to the 4-wire control panel network. Features include:

- ▶ 10 fully programmable zone inputs
- ▶ Tamper protection
- ▶ Stylish housing

EC-COM/IP Communication Module

The EC-COM/IP is an IP based communicator and X-10 home automation interface PCB module. Features include:

- ▶ Ethernet connection to LAN/WAN
- ▶ Remote access via Eclipse UDL or smart phone app
- ▶ Alarm reporting via LAN/WAN to PC based alarm receiver
- ▶ X-10 port for automating X-10 devices via XM10U/E controller
- ▶ X-10 devices controlled via the system or smart phone app
- ▶ PCB module clips into EC-P10 control panel housing

EC-USB-Link

The EC-USB-Link provides USB connectivity between the EC-P10 and the host computer. It is required when a direct connection is required between the Eclipse UDL software package and the control panel.

Upload/Download Software

Eclipse UDL is a Windows® based software package that can be used to remotely or locally program and diagnose the Eclipse range of security systems. Features include:

- ▶ Simple intuitive user interface
- ▶ Local or remote via modem and IP
- ▶ System remote control
- ▶ Advanced system diagnostics
- ▶ Multi language support
- ▶ System audit trail

2. Installation

Installation Sequence

Before attempting to install the alarm system, read this section. Once you have an overall understanding of the installation sequence, carefully work through each step.

1. Design the Layout

Make a rough sketch of the premises to get an idea of where all alarm detection devices, keypads and other modules are to be located.

2. Mounting the Control Panel

The control panel must be mounted within the protected area close to an unswitched AC power source and the incoming telephone line.

You must complete all wiring before connecting the battery, or applying AC to the panel.

3. Install the Remote Keypads

Mount the remote keypads at locations that are easily accessible during entry and exit from the protected area. Connect the remote keypads to the control panel.

4. Zone Wiring

Install detection devices and connect to control panel or expander.

5. Other Wiring

Complete all other wiring including external/internal sounders and telephone line connections.

6. Apply Power to the Control Panel

Once steps 1 to 5 are completed, apply power to the control panel. First, connect the red battery lead to the positive terminal and the black lead to negative. Then, connect the AC.

7. Program the System

If available use the Eclipse UDL software package to program the system, if this is not available program this system in accordance with the procedures in Section 3.

8. Testing the System

Test the system thoroughly to ensure that all features and functions are operating as required.

Control Panel

Mounting

Mount the control panel on a flat, plumb wall using at least three appropriate screws. The rear casing has been designed with a central key-hole slot so that mounting is possible without removing the Printed Circuit Board (PCB).

The angled slot in the lower corner has been provided to allow the panel to be levelled easily. If the PCB has to be removed, carefully pull back the two front PCB securing clips, lift the front of the PCB and slide it downward. To replace the PCB simply reverse the above procedure.

It is essential to ensure that none of the fixing slots or cable entries are accessible after fixing.

Mains cabling must be secured (e.g. with a cable tie) to one of the anchor points provided.

Wiring the Control Panel

WARNING: ELECTRICITY CAN KILL

BEFORE connecting the control panel **ALWAYS** disconnect the supply at the consumer unit.

If in **ANY** doubt consult a qualified electrician.



ONLY connect the mains supply to the mains terminal block, NEVER connect the mains supply directly to the PCB.

The system installation MUST be carried out in accordance with the national safety standards, for example EN 60950: 1992.

ALWAYS refer to National Wiring Regulations when conducting installation.

An appropriate and readily accessible disconnection device (e.g. an unswitched fused spur) MUST be provided as part of the installation.

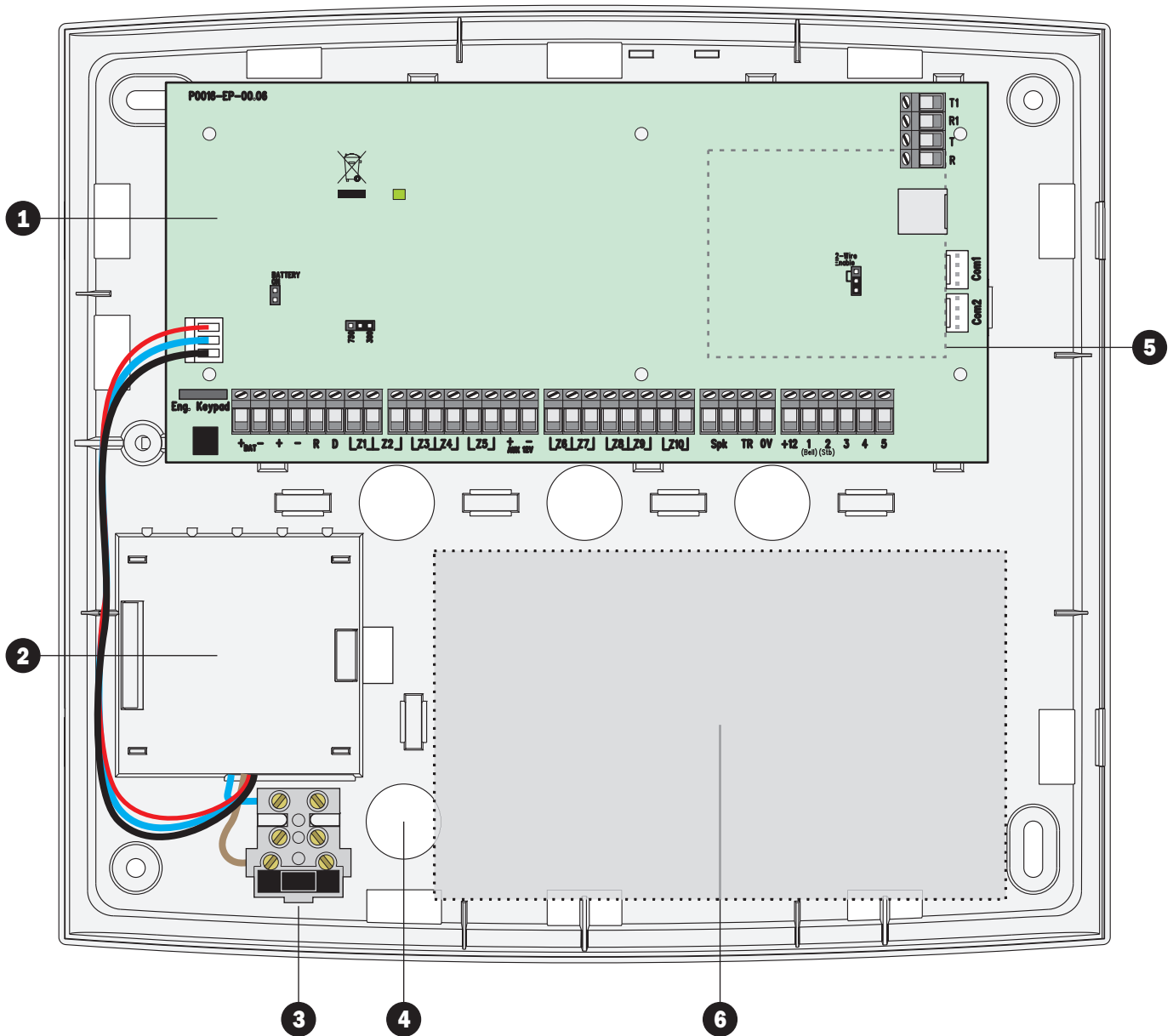
The disconnection device must NOT be fitted in a flexible cord.

Where identification of the neutral in the mains supply is NOT possible, a two-pole disconnection device MUST be used.

The building mains supply MUST incorporate appropriate short-circuit backup protection (e.g. a fuse or circuit breaker) of High Breaking Capacity (HBC, at least 1500A).

Use mains cable of adequate carrying capacity for the rated current (i.e. at least 0.75mm²).

Control Panel Layout



1. Main Printed Circuit Board (PCB)

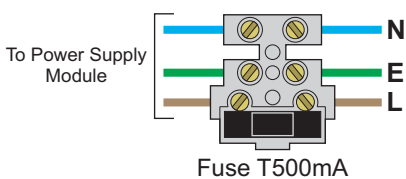
The main PCB that provides the terminals connection to remote keypads and detection devices, see PCB Layout on next page for full details.

2. Switched Mode Power Supply

The switch mode power supply module is housed under this protected area and provides power to the main PCB via the three-way harness.

3. Mains Connection

The AC Mains supply is connected to a 3 way Euro Type fused terminal block, which is fitted with a 500mA fuse.



4. Mains Supply Cable Entry

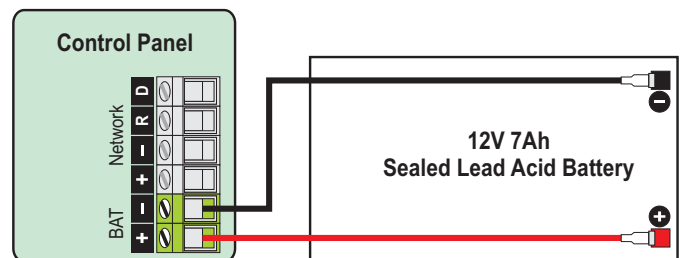
The mains supply cable must be routed into the control panel housing via this cable entry.

5. Communication Module

An optional Eclipse communication Module can be clipped into the housing under the main PCB.

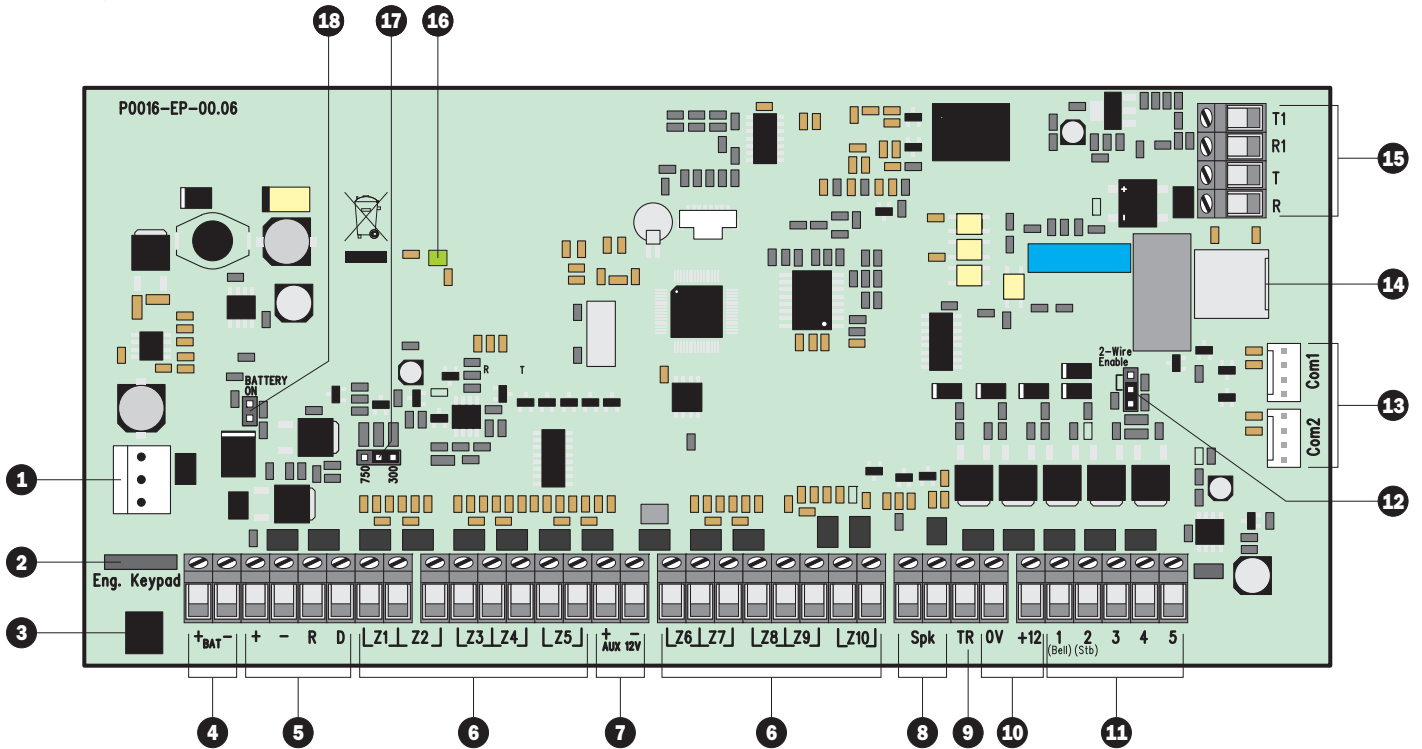
5. Standby Battery

The system housing will accept a 12V 7Ah battery to provide continued operation in the event of an AC mains failure. Connect the red battery lead to the positive terminal of the battery and then connect the black battery lead to the negative terminal.



The system will only become “live” when the AC supply is connected or the “Battery On” pins are shorted.

PCB Layout



1. PSU Connector

The harness from the switched mode power supply module plug onto this connector and provides the power (13.7V) to power the system.

2. Engineer's Remote Keypad Connector

An engineer's remote keypad may be plugged onto this connector so that system programming and testing can be carried out at the location of the control panel.

3. Lid Tamper Switch

This switch detects when the cover is in position and the screw is fully secured. The tamper is designed to activate when the screw is undone.

4. Battery Connections

A 12V rechargeable battery must be connected to these two terminals in order to provide continuous system operation in the event of mains failure. The battery output is protected by an auto resetting fuse (PTC) rated at 1.6 Amp.

5. Network Connections

The network terminals provide connections to the remote keypads and zone expanders. The + and - terminals provide power whilst the R and R terminals are the data signals.

6. Zone Inputs 1 to 10

Detection devices such as movement sensors, vibration and door contacts are connected to the zone input terminals. There are several ways in which to wire a detection device (see page 11). Each zone is fully programmable, see page 19 for information on programming zones.

7. Auxiliary 12V

These terminals provide auxiliary power for detection devices that require 12V power, e.g., moment sensors. The auxiliary output is protected by an auto resetting fuse (PTC) rated at 1.1 Amp.

8. Speaker

These terminals are used for driving 16Ω extension loudspeakers (see page 12).

9. Bell Tamper Return

This terminal is connected to the tamper return connection from an external sounder unit. If it is not required link it to OV.

10. External Sounder 12V

These terminals provide power for external sounder units. The output is protected by an auto resetting fuse (PTC) rated at 1.1A.

11. Panel Outputs 1 to 5

These are fully programmable high current (1 Amp), switched negative supervised outputs. Panel outputs 1 and 2 default to bell and strobe operation, but can be programmed for other functions if required, see page 30 for programming details. Each output can also be programmed for supervision monitoring, see page 25.

12. Two-Wire Smoke Detector Enable

Set this link as shown when connecting 2-wire smoke detectors to Panel Output 5.



2-wire Smoke Detectors Enabled: Panel Output 5 must be programmed as "2-wire Smoke" (0047) and smoke detectors must be connected as shown page 13.



2-wire Smoke Detectors Disabled: Panel Output 5 will function as a normal output.

13. Communication Ports 1 and 2

Two serial communication ports 1 and 2 are provided for local downloading and for third party devices.

14. RJ11 Telephone Line Connector

An RJ11 connector is provided so that the panel can be connected to the telephone line via a standard RJ11 patch lead.

15. Telephone Line Connections

Telephone line connections (see page 14).

16. Power/Status LED

On steady when either AC or standby battery is present. Flashes when the on-board communicator is dialling or sending data.

17. Battery Charging Rate

The standby battery can be recharged at different rates:



300mA: This is the recommended charge rate for a 7Ah standby battery. The system will fully recharge a flat battery within 24hours.



750mA: This is the recommended charge rate for a 17Ah standby battery. The system will fully recharge a flat battery within 24hours.

18. Battery On (Kick Start)

When powering the system from battery only, the “Battery On” pins must be momentarily shorted together with a plain blade screwdriver or similar to kick start the power supply into operation.

Connecting Devices to the Network

Before connecting devices to the control panel network, isolate ALL power from the control panel (AC Mains & Battery). Do not continue if there is still power present on the control panel.



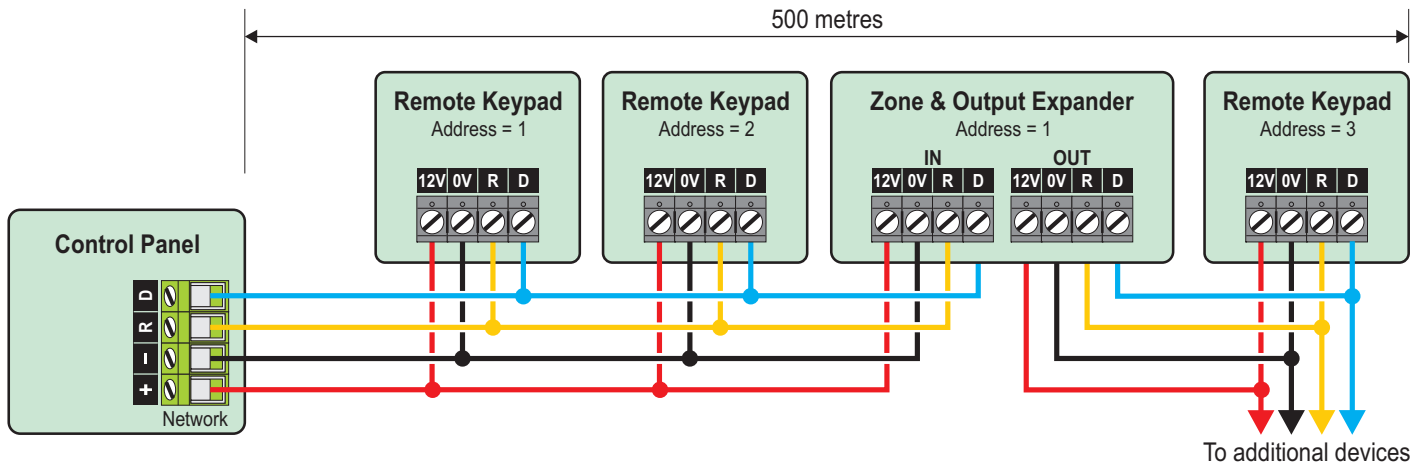
Connecting devices with power still present on the control panel may damage the device or control panel and invalidate any warranty.

Remote keypads and zone expanders are all connected to the same network terminals located at the bottom left hand corner of the control panel and may be connected serially (daisy chain), in parallel (star) or any combination of the two.

Network Connections

The network is made up of four terminals incorporating power and data. To ensure correct operation, all four terminals on the device must be connected to the corresponding terminals on the control panel, or previous device. The table below shows each terminal and its description:

+	+12V Supply
-	0V Supply
R	Data Return
D	Data I/O



Cable Type and Distances

For improved immunity to electrical noise, the use of screened 4 core cable is recommended. The screen should be twisted together and wired into the (-) terminal at the control panel only.

The maximum recommended distance for devices when using standard 7/0.2 alarm cable is:

- ▶ 250m for each branch when using the star (parallel) configuration
- ▶ When using a daisy chain (series) configuration the maximum distance will depend on the number of devices connected on the chain. The more devices that are connected, the shorter the distance to the last device (this is due to voltage drop in the cable)

Whichever method of wiring configuration is used, ensure that the voltage between the '+' and '-' terminals at each device is no lower than 10.0V when the system is running on the standby battery.

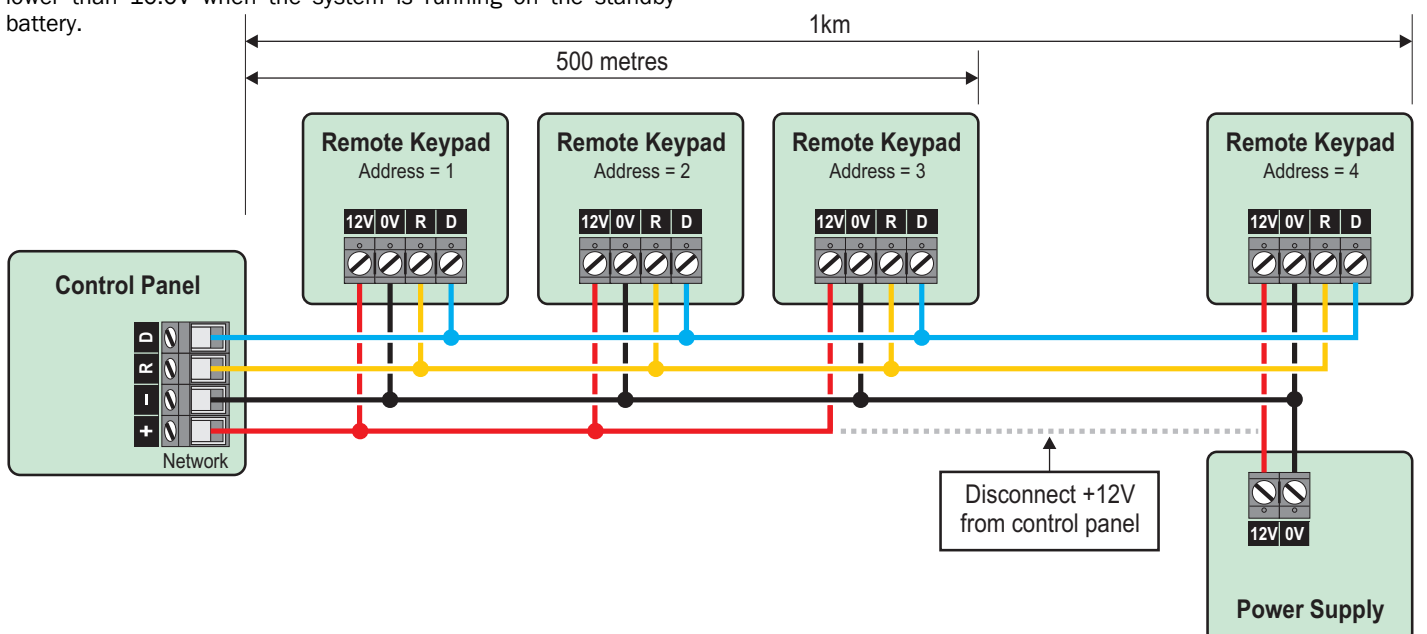
Overcoming Voltage Drop

There are several ways to overcome voltage drop:

- ▶ Use thicker lower resistance cable. Standard 7/0.2 alarm cable has a resistance of 8Ω per 100m
- ▶ Double up on the power connections – this will require using a 6 or 8-core cable rather than a 4-core cable
- ▶ Install a power supply to power the device locally, remember to common the two negative connections

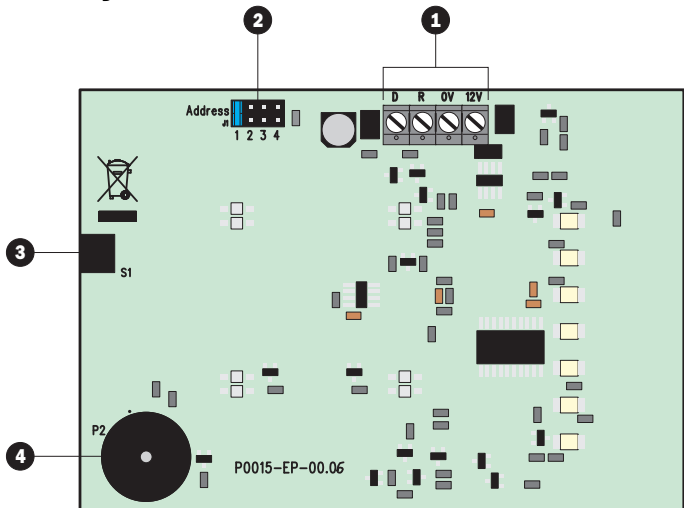
Installing a Power Supply

When a power supply is installed, the 0V connections on the power supply must be connected through to 0V on the control panel and the +12V connection between the control panel and the device must be disconnected (see figure below).

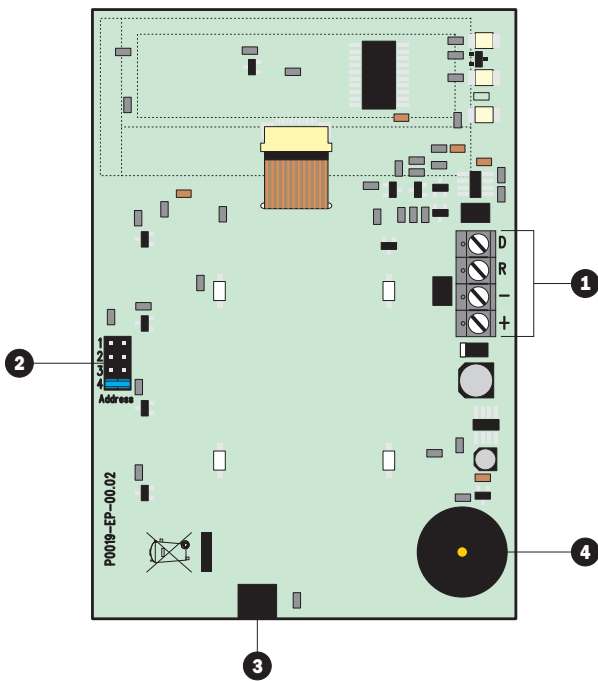


Remote Keypads

PCB Layouts



LED Remote Keypad



LCD Remote Keypad

1. Network Connections

The remote keypad is connected to the network terminals located at the bottom left hand side of the PCB.

2. Address Selection

Each remote keypad must be assigned a different address using the Address selector. Move the jumper to the required position 1, 2, 3 or 4.

3. Tamper Switch

The lid tamper for each remote keypad can be enabled or disabled if required. Please refer to page 28 for further details.

4. Piezo Sounder

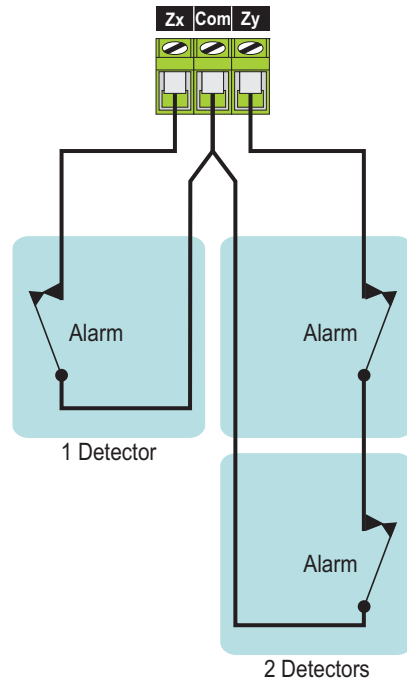
The piezo sounder generates low level alarm, key press, and warning tones. Each type of tone can be enabled or disabled for each remote keypad, please refer to page 28 for further details.

Wiring Detection Devices

The EC-P10 provides 10 zones for connecting detection devices such as movement sensors and magnetic door contacts. Each zone is fully programmable to allow for maximum flexibility (see page 19 for Zone Programming details). The program options for a zone will also determine how the zone may be wired. The following wiring options are available:

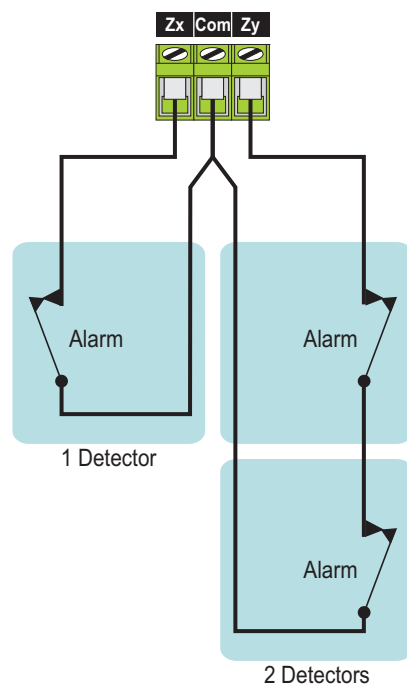
Normally Closed

This wiring configuration should be used when connecting detection devices that only have a normally closed alarm output. Connect the detector as shown below and ensure that the zone is programmed for "Normally Closed" operation, see page 20.



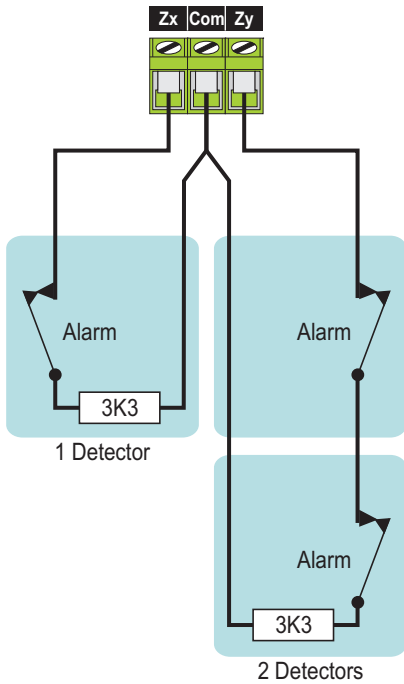
Normally Open

This wiring configuration should be used when connecting detection devices that only have a normally open alarm output. Connect the detector as shown below and ensure that the zone is programmed for "Normally Open" operation, see page 20.



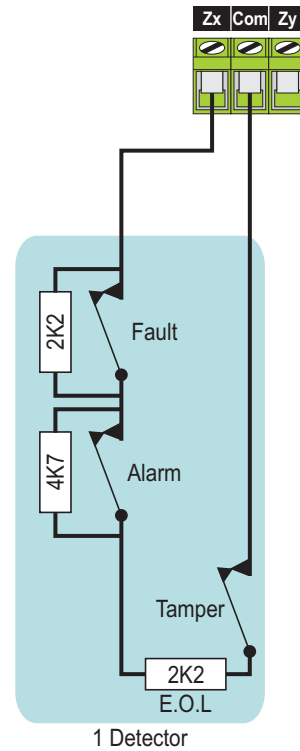
Single EOL - N/C

This wiring configuration should be used when connecting detection devices that only have a normally closed alarm output. Connect the detector as shown below and ensure that the zone is programmed for “Single EOL - N/C” operation, see page 20.



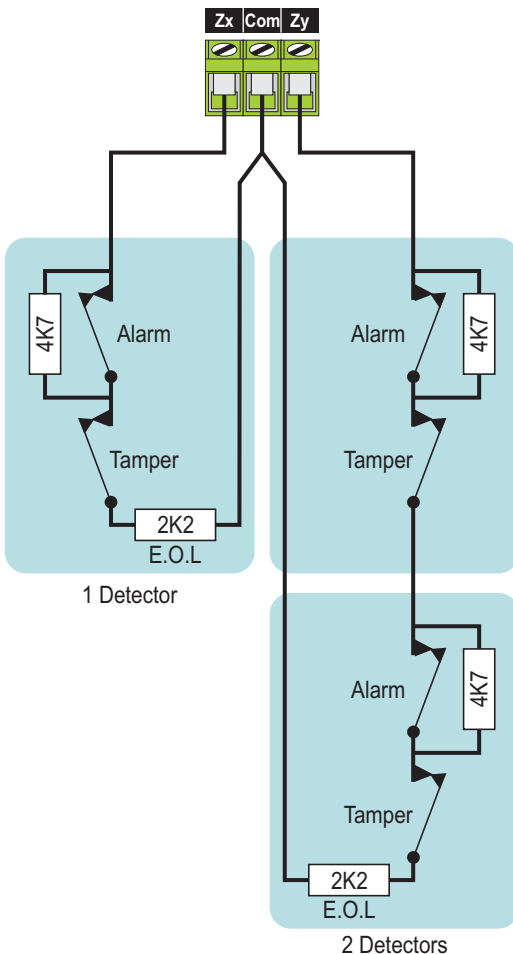
Triple EOL

This wiring configuration should be used when connecting detection devices that support triple EOL configuration, this will allow the system to monitor alarm, tamper fault and mask. Connect the detector as shown below and ensure that the zone is programmed for “Triple EOL” operation, see page 20.



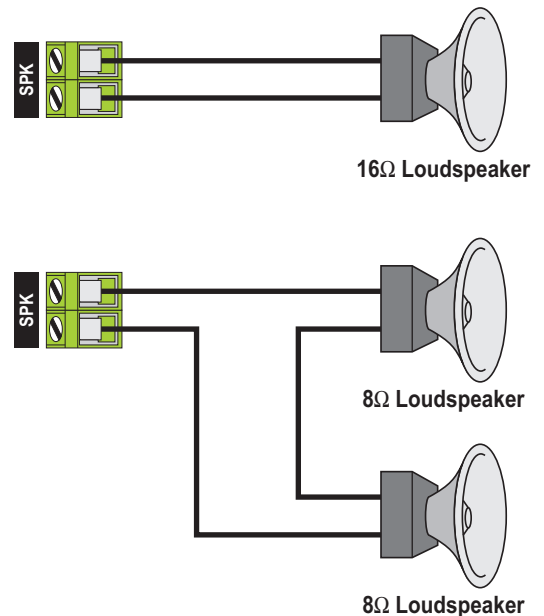
Double EOL

This wiring configuration should be used when connecting detection devices that have a normally closed alarm and tamper output. Connect the detector as shown below and ensure that the zone is programmed for “Double EOL” operation, see page 20.



Loudspeaker Connections

The EC-P10 has a loudspeaker output capable of driving one 16Ω or two 8Ω wired in series as shown below:



The volume level can be programmed, please refer to page 25 for details. The loudspeaker can also be tested, please refer to page 25 for further details.

External Sounder/Strobe Connections

The following connections are available for connection to an external sounder/strobe unit:

TR

Tamper Return input. Connect to the tamper output on the external sounder/strobe unit. If this input is not used it must be linked to 0V.

0V

0V supply. Connect to the 0V (-) supply on the external sounder/strobe unit.

+12

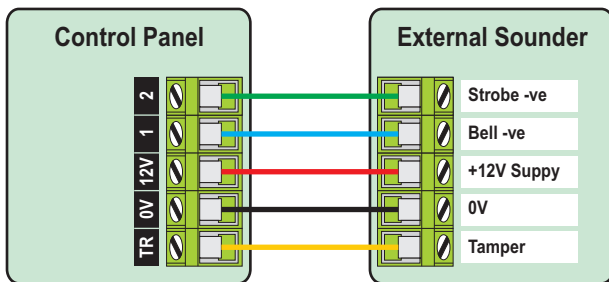
Positive 12V supply, which is protected by an auto resetting fuse (PTC) rated at 1.1A. Connect to the +12V (+) supply on the external sounder/strobe unit.

Bell (1)

Panel output 1 is pre-configured for Bell operation, i.e. it switches to 0V when active. Connect this terminal to the bell trigger input on the external sounder/strobe unit. The output can be inverted for SCB operation, see page 30 for details.

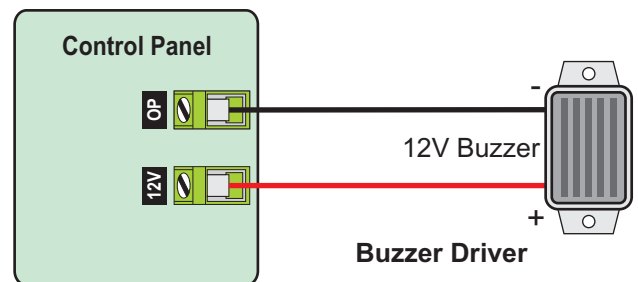
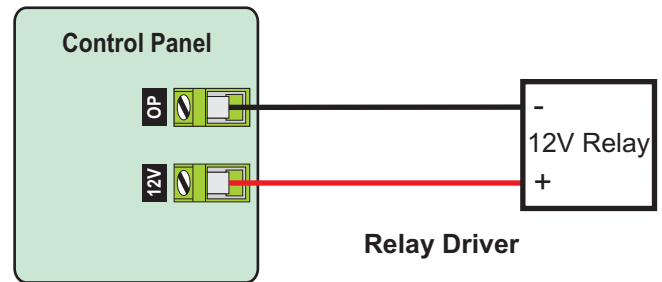
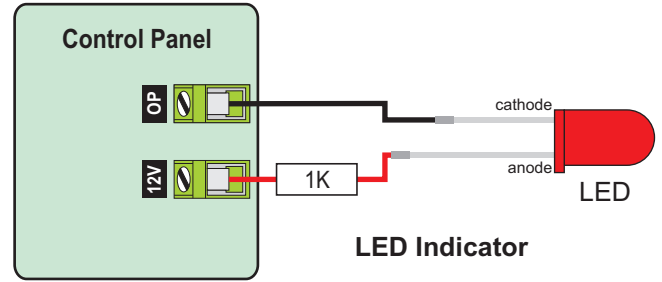
Strobe (2)

Panel output 2 is pre-configured for Strobe operation, i.e., it switches to 0V when active. Connect this terminal to the strobe input on the external sounder/strobe unit.



Panel Outputs 1 - 5

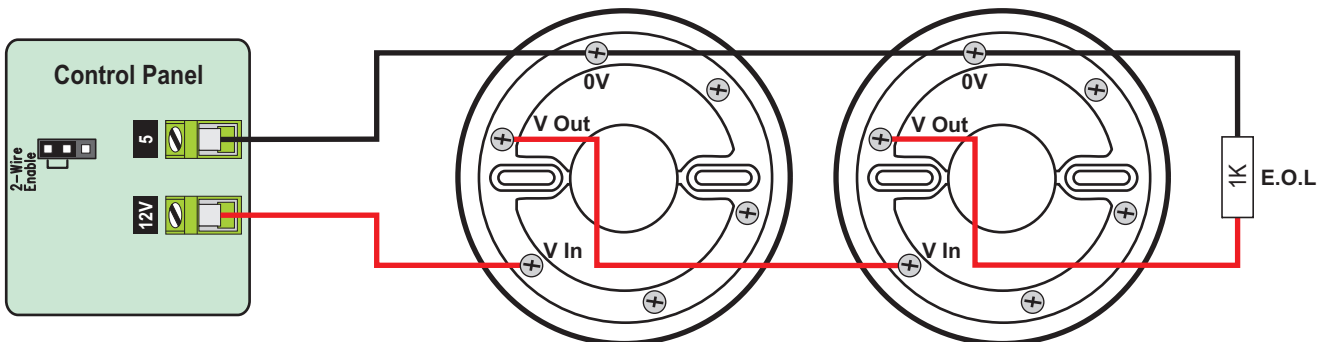
The control panel has five programmable outputs, which can be used to drive auxiliary devices such as LEDs, sounders or relays etc. (see page 30 for details on programming outputs). Each panel output is rated at 1 Amp and switches to 0V when active. The figure below shows some wiring examples:



2-Wire Smoke Detectors

A maximum of 10, 12V 2-wire smoke detectors can be connected to the control panel using panel output 5. The detectors must be connected as shown below. The Enable 2-wire jumper link must be set as shown and the output must be programmed for "2-wire Smoke" (0047) operation, see page 30 for details.

A Maximum of 10 2-Wire Smoke Detectors can be connected to panel output 5

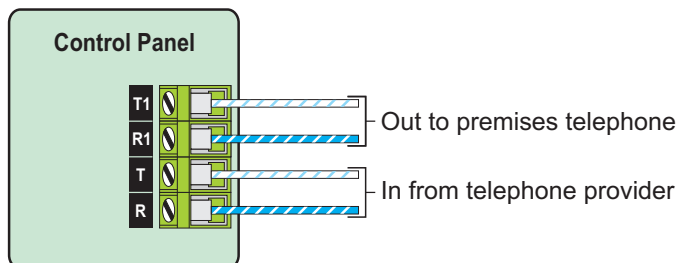


Telephone Line Connections

The control panel has an advanced on-board communicator and modem, which can be used for the following:

- ▶ Sending digital alarm status information to an alarm receiving centre using industry standard protocols
- ▶ Sending voice messages to a mobile or landline telephone
- ▶ Remote uploading/downloading via Eclipse UDL software package

If any of these features are used, a permanent telephone connection should be made to the control panel as shown:



Commissioning

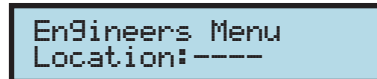
Once ALL connections have been made to the control panel and power is ready to be applied, you should read this section before continuing.

The control panel leaves the factory programmed with default settings and when the system is powered up for the first time the default settings are in use. If the factory defaults need to be reloaded in the future, please see "Power-up Options Menu".

- ▶ Connect the black battery lead to the negative (-) terminal of the standby battery and the red battery lead to the positive (+) terminal of the standby battery. The green power LED on the main PCB will light.
- ▶ If the system enters into an alarm condition, enter the default master user code **5678**. The alarm tone will then stop.
- ▶ To access the Engineer Programming Menu, enter the default engineer code **1234**. The remote keypads will show:



LED



LCD

- ▶ Program the system as described in the next section (Programming the Control Panel).
- ▶ Carry out a walk test as described on page 41. Remember that some powered detectors (e.g. PIRs and combined technology detectors) take several minutes to warm up before they become operational.
- ▶ Test the internal sounder, external sounder and strobe as described on page 41.
- ▶ Replace the lid and secure with the lid screw supplied - do not over-tighten.
- ▶ Enter ***99** to leave the programming menus.
- ▶ The Service light will be flashing to indicate that action is required. Switch on the mains supply to the control panel. The Service light will stop flashing and stay on continuously.

Installation is now complete and the system is ready for use. Please ensure the system users are provided with adequate training on operating the alarm system.

Power-Up Options Menu

When power is applied to the system, the control panel enables the "Power-Up Options Menu" for 10 seconds. During this period the control panel status LED flashes between red and green and the system will accept the following commands:

Command	Description
*0#	Default Engineer Code Entering this command will set engineer access code back to 1234.
*3#	Save as Factory Defaults Entering this command will save the current control panel program configuration as the NEW factory default profile.
*6#	Set UDL Password Entering this command will set the UDL password to 123456.
*9#	Load Factory Defaults Entering this command will set all control panel program configuration options to the factory default settings.

3. Programming the Control Panel

Introduction

This section covers the system programming and it is important that all engineers read this section carefully so as to familiarise themselves with the many features and functions of the control panel. To access the programming menu, enter the factory default engineer code **1234**. If a mistake is made whilst entering the code, simply re-enter the code correctly.



When the system is in Engineers Mode, ALL zones and tampers are disabled.

Each programming option is accessed by a four digit location number followed by *****. The location numbers have been grouped together into logical sections. The programming sections are as follows:

Section	Page
1 Zone Programming <ul style="list-style-type: none"> 1 Zone Types 2 Wiring 3 Zone Attributes 4 Reserved 5 Bypass Options 6 Chime Options 7 Soak Test 8 Zone Text 9 Zone Links 	19
2 Arming Options <ul style="list-style-type: none"> 0 Full Arm Options 1 Stay Arm 1 Options 2 Stay Arm 2 Options 3 Stay Arm 3 Options 	22
3 System Configuration <ul style="list-style-type: none"> 1 System Timers 2 System Counters 3 Hardware Options 4 Configuration 5 Control Timers 6 Banner Text 7 Voice Message Links 8 Voice Message Options 9 System Output Links 	24
4 Keypad Options <ul style="list-style-type: none"> 1 1 Keypad Options 1 1 2 Keypad Options 2 1 3 Keypad Sounds 	28
5 Expander Options <ul style="list-style-type: none"> 1 1 Expander Options 1 2 Expander Sounds 2 Expander Output Type 3 Expander Output Attributes 	29
6 System Devices <ul style="list-style-type: none"> 1 Panel Outputs 2 Com Ports 3 GSM & SMS Centre 4 IP Configuration 	30

Section	Page
7 On-board Communicator <ul style="list-style-type: none"> 0 ARC 1 - 4 Configuration 1 Options 2 Fast Format 3 Speech Dialler 4 UDL Options 	35
8 Users <ul style="list-style-type: none"> 1 User Code 2 User Type 3 User Time Locks 4 User Name 5 User Link 	40
9 Utilities <ul style="list-style-type: none"> 0 Set Time and Date 	41

Exiting Engineer's Program Mode

To exit the engineers programming menus and return to the normal disarmed mode, ensure the display is prompting you to enter a location number then enter **99***.

Menu Navigation and Data Entry

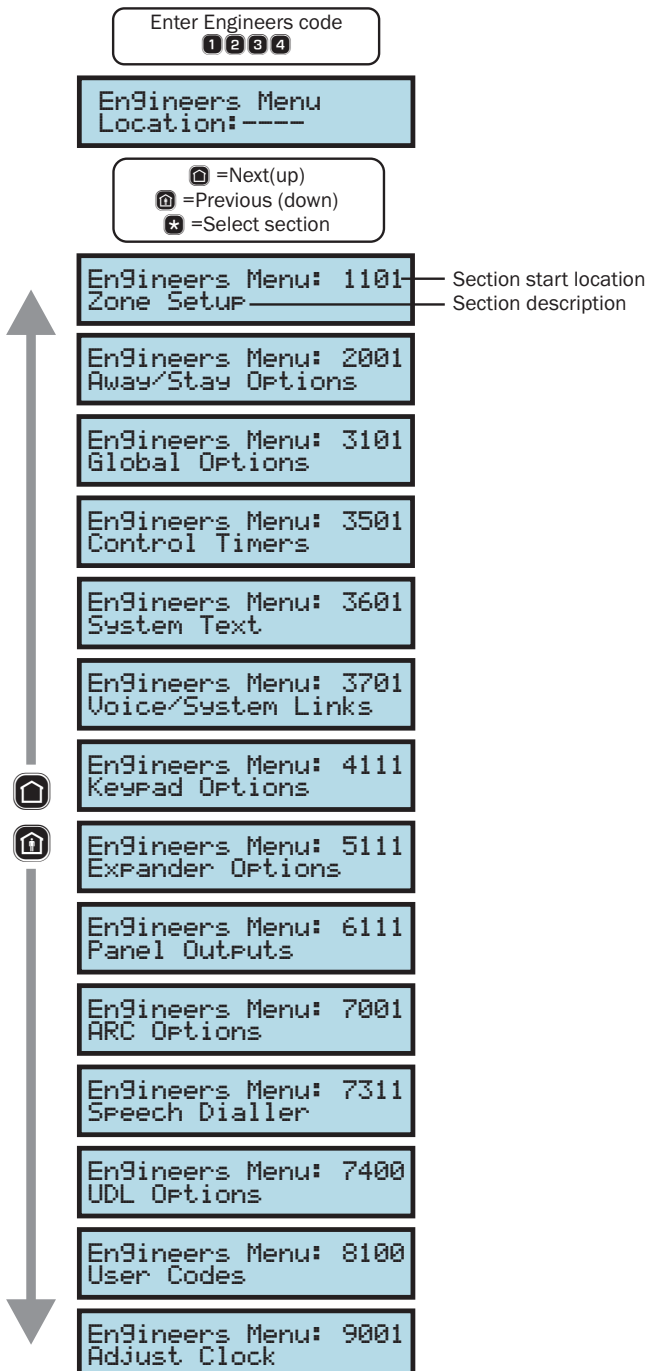
Each programming location is accessed by entering its four digit location number followed by *****. If you don't know the exact location you can enter less than four digits and the panel will take you to the first location that starts with numbers you have entered. For example if you enter **12** the panel will take you to location 1201 – Zone 01 Wiring Type.

LCD Navigation

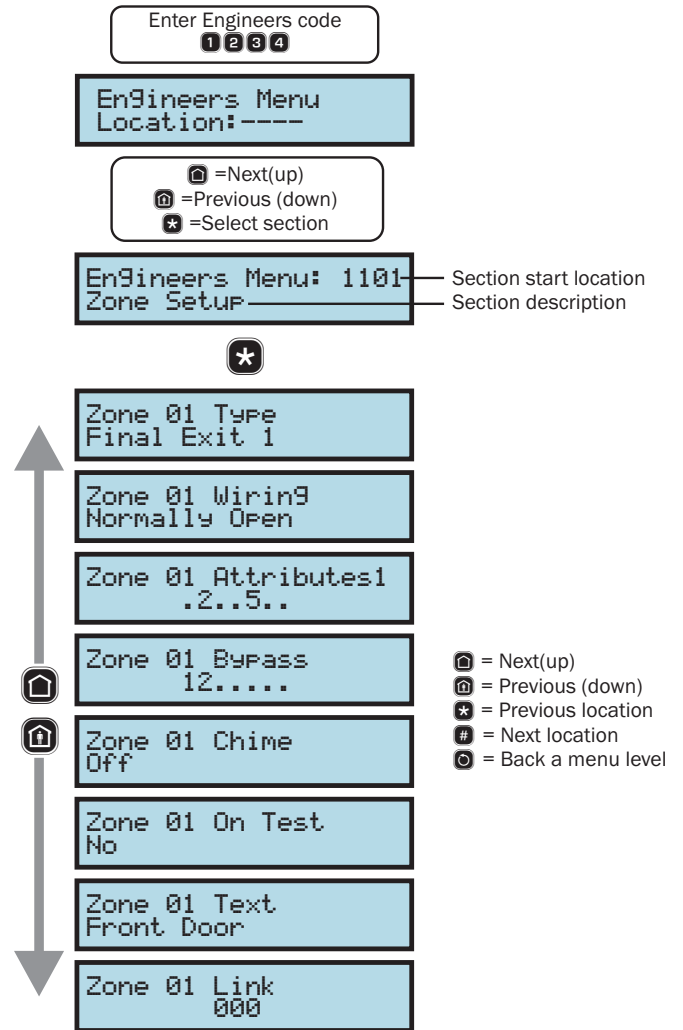
If the system is fitted with an LCD keypad, you can navigate through the main menu using the following keys:

- = Next program section
- = Previous program section
- = Select location of displayed section
- = Back a menu level

LCD main menu navigation



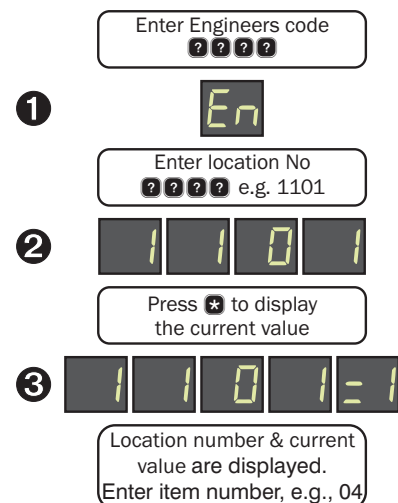
LCD sub menu navigation



Selection List

This type of data entry is used when selecting an option from a predefined list. Each item in the list has a number and associated description. When using the LCD keypad for programming the description is displayed. The LED keypad can only display the number. The figures below show the programming procedure for both LED and LCD remote keypads:

Selection List: LED Keypad



④ 1 1 0 1 = 4

Press * to accept and return to step ③

Press C to cancel and return to step ①

Press # to accept and move to next location

Selection List: LCD Keypad

Enter Engineers code
? ? ? ?

① EnGineers Menu
Location: ----

Enter location No
? ? ? ? e.g. 1101

② EnGineers Menu
Location: 1101

Press * to display the current value

③ Zone 01 Type
Final Exit 1

Press ⏪ to scroll through list options or enter item number, e.g., 04

④ Zone 01 Type
Intruder

To display the item number press and hold any number key.

⑤ Zone 01 Type
04

Press * to accept and return to step ③

Press C to cancel and return to step ①

Press # to accept and move to next location.

Bit Toggle Selection

This type of data entry is used for enabling and disabling up to 8 options. Each option is represented by a number 1 to 8 and has an associated description. When using the LCD keypad for programming the description can be displayed by holding down the bit option number, the LED keypad can only display the number. The figures below show the programming procedure for both LED and LCD remote keypads:

Bit Toggle Selection: LED Keypad

Enter Engineers code
? ? ? ?

①

En

Enter location No
? ? ? ? e.g. 1301

②

1 3 0 1

Press * to display the current value

③ 1 3 0 1 = 2 = 5

Location number & current options are displayed. Options 2 & 5 are enabled.

Use keys 1 to 8 to toggle options on or off, e.g. press 2 to turn option2 off.
0 = All options off.
9 = All options on.

④

1 3 0 1 = 5

Press * to accept and return to step ③

Press C to cancel and return to step ①

Press # to accept and move to next location

Bit Toggle Selection: LCD Keypad

Enter Engineers code
? ? ? ?

① EnGineers Menu
Location: ----

Enter location No
? ? ? ? e.g. 1301

② EnGineers Menu
Location: 1301

Press * to display the current value

③ Zone 01 Attributes 1
.2..5..

Location number & current options are displayed. Options 2 & 5 are enabled.

Use keys 1 to 8 to toggle options on or off, e.g. press 2 to turn option2 off.
0 = All options off.
9 = All options on.

④

Zone 01 Attributes 1
....5..

To display the option description press and hold the option number key.

⑤

Auto rearm
....5..

Press * to accept and return to step ③

Press C to cancel and return to step ①

Press # to accept and move to next location.

Number Entry

This type of data entry is used for entering numeric values, such as timers. The figures below show the programming procedure for both LED and LCD remote keypads:

Number Entry: LED Keypad

Enter Engineers code
? ? ? ?

1

Enter location No
? ? ? ? e.g. 3101

2

Press * to display the current value

3

Location number & current value are displayed (0).
Enter required value, e.g. 35.

4

Press * to accept and return to step 3

Press 0 to cancel and return to step 1

Press # to accept and move to next location

Number Entry: LCD Keypad

Enter Engineers code
? ? ? ?

1

Enter location No
? ? ? ? e.g. 3101

2

Press * to display the current value

3

Location number & current value are displayed (0).
Enter required value, e.g. 35.

4

Press * to accept and return to step 3

Press 0 to cancel and return to step 1

Press # to accept and move to next location.

String Edit - Number Mode: LED Keypad

Enter Engineers code
? ? ? ?

1

Enter location No
? ? ? ? e.g. 7011

2

Press * to display the current value

3

Location number & current value are displayed (blank).

Enter required value, e.g. 1234.
To clear value press * & 0

4

Press * to accept and return to step 3

Press 0 to cancel and return to step 1

Press # to accept and move to next location

String Edit - Number Mode: LCD Keypad

Enter Engineers code
? ? ? ?

1

Enter location No
? ? ? ? e.g. 7011

2

Press * to display the current value

3

Location number & current value are displayed (blank).

Enter required value, e.g. 1234.
To clear value press * & 0

4

Press * to accept and return to step 3

Press 0 to cancel and return to step 1

Press # to accept and move to next location.

String Edit - Number Mode

This type of data entry is used for entering a long string of numbers, such as telephone and account numbers. The figures below show the programming procedure for both LED and LCD remote keypads:

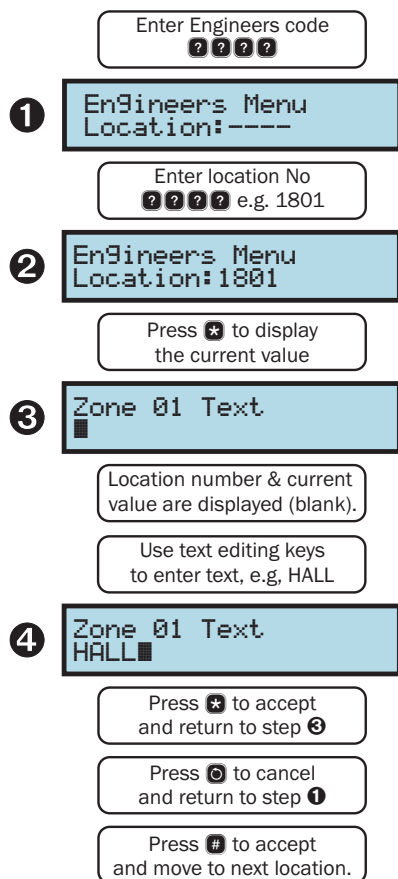
String Edit - Text Mode

This type of data entry is used for entering text such as user names and zone text. This mode is designed only for the LCD keypad. The text is entered in the same way as entering text on a mobile telephone. Each key is mapped to one or more letters. Pressing a key will select the first letter, pressing it again will select the next etc. The table below shows the keys to use and the characters that are assigned to them:

Key	Characters									
1	1									
2	A	B	C	2	a	b	c			
3	D	E	F	3	d	e	F			
4	G	H	I	4	g	h	i			
5	J	K	L	5	j	k	l			
6	M	N	O	6	m	n	o			
7	P	Q	R	S	7	p	q	r	s	
8	T	U	V	8	t	u	v			
9	W	X	Y	Z	9	w	x	y	z	
0	-	0	.	-	()	#			
☒	Clear all characters									

The figures below show the programming procedure for LCD remote keypads:

String Edit - Text Mode: LCD Keypad



1. Zone Programming

This section covers programming of the detection zones, each zone must be programmed a zone type, wiring type and attributes.

Zone Type

Each zone must be programmed to the correct type in order for the correct response.

Locations: 1101 to 1120

Zone 01 to 20: Zone Type.

Entry Mode: Mode: Selection List (see page 16).

00 Not Used

Use this zone type for unused zones, as zone programmed as "Not Used" are not be monitored by the system.

01 Final Exit 1

Use this zone type for the main entry/exit detector, normally a magnetic contact on the front door. The zone can be activated during the exit mode without causing a fault. If the system is armed, activation of the zone will start the Entry 1 Delay timer for the relevant arm mode.

02 Final Exit 2

Use this zone type for an alternative entry/exit detector. The zone can be activated during the exit mode without causing a fault. If the system is armed, activation of the zone will start the Entry 2 Delay timer for the relevant arm mode.

03 Walk Through

Use this zone type for detection devices along the entry/exit route. This zone type will allow the user to walk past the detector without causing a fault during the exit mode or an Intruder alarm during the entry mode. However, if activated at any other time the zone will cause an immediate intruder alarm. This zone type will also start the entry mode when the system is stay armed.

04 Intruder

Use this zone type for detection devices such as PIR's, vibration detectors, magnetic door contacts etc. This zone type generates an intruder alarm if activated when the system is armed.

05 Perimeter

Use this zone type for detection devices such as external PIR's, IR beams. This zone type generates an intruder alarm if activated when the system is armed.

06 Fire

Use this zone type for smoke and heat detectors. This zone type generates a distinctive fire alarm if activated at any time.

07 PA Silent

Use this zone type for panic buttons. This zone type generates a silent panic alarm if it is activated at any time.

08 PA Audible

Use this zone type for panic buttons. This zone type generates an audible panic alarm if it is activated at any time.

09 Medical

Use this zone type for medical alarms. This zone type generates a medical alarm if it is activated at any time.

10 24 Hour

Use this zone type for detectors that require 24 hour monitoring. This zone type generates an intruder alarm if it is activated when the system is armed. If activated during the disarmed state an internal alarm is generated.

11 Tamper

Use this zone type for tamper protection. This zone type generates a tamper alarm if it is activated when the system is armed. If

activated during the disarmed state an internal alarm is generated.

12 Exit Terminator

Use this zone type for external push to set buttons. This zone type terminates the exit delay when activated during exit mode. The arming mode must be configured for "Exit Terminator" for this zone type to function.

13 Away Arm Key

Use this zone type for a key switch or lock that has switch contacts. This zone type will away arm the system when active and disarm the system when healthy. If a "momentary" operation is required then the "Momentary Keyswitch" attribute can be assigned, see page 21.

14 Stay 1 Arm Key

Use this zone type for a key switch or door lock that has switch contacts. This zone type will stay arm (1) the system when active and disarm the system when healthy. If a "momentary" operation is required then the "Momentary Keyswitch" attribute can be assigned, see page 21.

15 Stay 2 Arm Key

Use this zone type for a key switch or door lock that has switch contacts. This zone type will stay arm (2) the system when active and disarm the system when healthy. If a "momentary" operation is required then the "Momentary Keyswitch" attribute can be assigned, see page 21.

16 Stay 3 Arm Key

Use this zone type for a key switch or door lock that has switch contacts. This zone type will stay arm (3) the system when active and disarm the system when healthy. If a "momentary" operation is required then the "Momentary Keyswitch" attribute can be assigned, see page 21.

17 Bypass Key

Use this zone type for a key switch or door lock that has switch contacts. This zone type will bypass all zones with the bypass attribute when active and reinstate them when healthy. If a "momentary" operation is required then the "Momentary Keyswitch" attribute can be assigned, see page 21.

18 Security Key

Use this zone type for a key switch. This zone type will disable all remote keypads when active and reinstate them when healthy. If a "momentary" operation is required then the "Momentary Keyswitch" attribute can be assigned, see page 21.

19 Auxiliary

Use this zone type for auxiliary devices, which do not require an audible alarm response. This zone type generates a silent alarm if activated at any time.

20 Warning

Use this zone type for monitoring devices that require a warning indication. This zone type generates a warning (low level beeps from the keypad every 30 seconds and zone indication) if the zone remains active for longer than the warning delay time, see page 24 for details.

21 Log/Monitor

Use this zone type for monitoring devices that require an event log entry. This zone type generates a log entry if activated at any time.

22 Trouble/Fault

Use this zone type for monitoring fault outputs on devices such as remote power supplies. This zone type generates a fault condition if it is activated at any time.

Zone Wiring

Each zone must be programmed to the correct wiring type in order for the correct response.

Locations: 1201 to 1220

Zone 01 to 20: Zone Wiring.

Entry Mode: Mode: Selection List (see page 16).

0 Normally Closed

Use this wiring type for normally closed detection devices.

1 Normally Open

Use this wiring type for normally open detection devices.

2 Single EOL - N/C

Use this wiring type for normally closed detection devices.

3 Double EOL

Use this wiring type for detection devices that require both alarm and tamper monitoring.

4 Triple EOL

Use this wiring type for detection devices that require alarm, tamper, fault and anti-mask monitoring.

Zone Attributes

Each zone can have one or more optional attributes programmed to further alter its functionality.

Locations: 1301 to 1320

Zone 01 to 20: Zone Attributes.

Entry Mode: Bit Toggle Selection (see page 17).

1 Double Knock

On: When a zone is enabled for Double Knock it will only cause an alarm when:

(a) The zone remains active for the duration of the "Double Knock Delay".

(b) The zone is violated twice within the "Double Knock Delay".

(c) If any two zones with the "Double Knock" attribute are activated during the "Double Knock Time Window".

Off: The zone functions as normal.

2 Enable Comms

On: The on-board communicator will report the alarm status to the monitoring station when the zone causes an alarm.

Off: The alarm status is not transmitted.

3 Reset

On: Zones with this attribute will not be monitored during the detector reset period. The detector reset occurs when the exit mode is started or when the user resets the system after an alarm. Detection devices such as smoke detectors that are powered from an output programmed as "Detector Reset" should have this attribute switched on.

Off: The zone functions as normal.

4 Zone Response

On: Zones with this attribute respond at the response rate determined by the "Zone Response Timer".

Off: The zone functions as normal.

5 Auto Rearm

On: Zones with this attribute will only re-arm at the end of the bell duration providing that the "Auto Re-Arm Counter" limit has not been reached. Once this limit has been reached, the zone will lock out and not cause any further Intruder alarms.

Off: The zone will always re-arm.

6 Remote Detector Test

On: Zones with this attribute are monitored for specific activity during the remote detector test. The detector must be connected to the control panel using triple EOL wiring and the detector remote test input must be connected to a panel output programmed as "Remote Detector Test".

Off: The zone functions as normal.

7 Momentary Keyswitch

On: If the zone type is a keyswitch type, the operation mode is changed to momentary.

Off: If the zone type is a keyswitch type, the operation remains as latching mode.

Zone Bypass Options

Each zone can have one or more optional bypass attributes programmed to control when the zone is bypassed.

Locations: 1501 to 1520

Zone 01 to 20: Zone Bypass Options.

Entry Mode: Bit Toggle Selection (see page 17).

1 In Stay 1

On: The zone is bypassed when Stay 1 arming mode is selected.

Off: The zone is not bypassed when Stay 1 arming mode is selected.

2 In Stay 2

On: The zone is bypassed when Stay 2 arming mode is selected.

Off: The zone is not bypassed when Stay 2 arming mode is selected.

3 In Stay 3

On: The zone is bypassed when Stay 3 arming mode is selected.

Off: The zone is not bypassed when Stay 3 arming mode is selected.

4 By User

On: The zone can be bypassed by the user when arming the system.

Off: The zone cannot be bypassed by the user.

5 Auto Bypass

On: The zone is automatically bypassed at the end of exit mode if the zone is still active.

Off: The zone is not bypassed at the end of exit mode, and the system will fail to arm if the zone remains active.

6 Keyswitch Bypass

On: The zone is bypassed when a "Bypass Key" zone type is active and reinstated when the "Bypass Key" is secure.

Off: The zone is not bypassed when a Bypass Key is operated.

7 Cleaner

On: The zone is bypassed when a cleaner code is entered.

Off: The zone is not bypassed when the cleaner code is entered.

Zone Chime

Each zone can have an optional chime mode programmed that allows the panel and remote keypads to generate an audible tone when the zone is activated in the disarmed mode.

Locations: 1601 to 1620

Zone 01 to 20: Zone Chime.

Entry Mode: Mode: Selection List (see page 16).

0 Off

The zone will not generate a chime tone.

1 Tone 1

The zone generates chime tone 1 when activated in the disarmed mode.

2 Tone 2

The zone generates chime tone 2 when activated in the disarmed mode.

3 Tone 3

The zone generates chime tone 3 when activated in the disarmed mode.

4 Voice

The zone generates a prefixed voice response (e.g. "Zone 3") from the control panel loudspeaker output when activated in the disarmed mode.

Zone Soak Test

Each zone can be put on test for a programmed soak test period. When a zone is on test it will not cause an alarm if activated, but the system will record the failure in the event log and indicate the fault to the user.

Locations: 1701 to 1720

Zone 01 to 20: Zone Soak Test.

Entry Mode: Mode: Selection List (see page 16).

0 No

The zone is not on soak test.

1 Yes

The zone is on soak test.

Zone Text

Each zone can be assigned a 20 character label that is displayed on LCD remote keypads when viewing the zone status and event log.

Locations: 1801 to 1820

Zone 01 to 20: Zone Text.

Entry Mode: String Edit - Text Mode (see page 19).

Zone Link

Each zone can be assigned a "Link" number, which in turn is used to control "Link Control" output types, for details on link control, see page 32.

Locations: 1901 to 1920

Zone 01 to 20: Zone Link.

Entry Mode: Number Entry (see page 18).

2. Arming Control

This section covers programming of the arming modes, timers and options that control the way the system is armed.

Arming Timers

Each arming mode has its own set of timers that are used to control various delays during arming, disarming and in alarm.

Locations: 20001 to 20007

Away Arm: Timers 01 to 07.

21001 to 21007

Stay Arm 1: Timers 01 to 07.

22001 to 22007

Stay Arm 2: Timers 01 to 07.

23001 to 23007

Stay Arm 3: Timers 01 to 07.

Entry Mode: Number Entry (see page 18).

01 Exit Delay

When the Arming Mode is configured as Timed or deferred, this timer sets the delay between the user initiating the exit procedure and the system actually arming.

02 Entry 1 Delay

When the system is armed, activation of a "Final Exit 1" zone will start the entry 1 delay timer, this allows the user time to access the remote keypad and disarm the system.

03 Entry 2 Delay

When the system is armed, activation of a "Final Exit 2" zone will start the entry 2 delay timer, this allows the user time to access the remote keypad and disarm the system.

04 Second Entry

If at the end of normal entry (Entry 1 or 2) delay, the system has not been disarmed, the system will start the second entry delay, during this time the internal alarm tone will sound. If at the end of the second entry delay the system has still not been disarmed, a full alarm is generated.

05 Bell Delay

When an alarm is generated, this timer is used to delay the activation of the external sounder and strobe.

06 Bell Duration

When an alarm is generated, this timer is used to control the active duration of the external sounder and strobe.

07 Comms Delay

When an alarm is generated, this timer is used to delay the activation of the on-board communicator.

Arming Modes

This set of options control how the system is armed for each arming mode.

Locations: 20301 - Away Arm: Arming Mode.

21301 - Stay Arm 1: Arming Mode.

22301 - Stay Arm 2: Arming Mode.

23301 - Stay Arm 3: Arming Mode.

Entry Mode: Bit Toggle Selection (see page 17).

0 Final Exit

When the exit mode is started, the system will only arm after the activation of a Final Exit 1 or Final Exit 2 zone type, e.g., after the front door is opened the closed.

1 Timed Exit

When the exit mode is started, the system will arm after the Exit Delay timer has expired.

2 Exit Terminator

When the exit mode is started, the system will only arm after activation of a Final Exit 1 or Final Exit 2 zone type, followed by the activation of an Exit terminator zone, e.g., after the front door is opened the closed and the push to set button has been pressed.

3 Deferred

When the exit mode is started, the system will arm after the Exit Delay timer has expired. However, if a zone off the exit route is activated during this period, the Exit Delay timer is suspended whilst the zone is active.

Arm Options 1

The set of options controls how the system responds for each arming mode.

Locations: 20401 - Away Arm: Options 1.

21401 - Stay Arm 1: Options 1.

22401 - Stay Arm 2: Options 1.

23401 - Stay Arm 3: Options 1.

Entry Mode: Bit Toggle Selection (see page 17).

1 Arming with AC off

On: The system can be armed when the mains supply is switched off.

Off: The system cannot be armed when the mains supply is switched off.

2 Arming with ATS Fault

On: The system can be armed with an Alarm Transmission Fault (telephone line fault).

Off: The system cannot be armed when the mains supply is switched off.

3 Auto Stay Arm 1

On: The system automatically performs a Stay Arm 1, if the user does not activate a Final Exit zone.

Off: The system will always perform an Away Arm.

4 Silent Exit

On: The exit tone remains silent during exit mode.

Off: The exit tone is generated during exit mode.

5 Local Exit Tone

On: If the exit tone is enabled, the exit tone is only generated from the remote keypad that was used arm the system.

Off: If the exit tone is enabled, the exit tone is generated from all devices.

6 Anti-Masking when Armed

On: Anti-Masking faults are only monitored when the system is armed.

Off: Anti-Masking faults are monitored at all times.

7 Bell on Arm Fail

On: If the system fails to arm, the external sounder and strobe is activated.

Off: The external sounder and strobe are not activated.

8 Pulse Strobe on Arm

On: When the system is armed successfully, the external strobe is activated for 5 seconds.

Off: The external strobe is not activated.

Arm Options 2

The set of options controls how the system responds for each arming mode.

- Locations:** **2 0 4 2** - Away Arm: Options 2.
 2 1 4 2 - Stay Arm 1: Options 2.
 2 2 4 2 - Stay Arm 2: Options 2.
 2 3 4 2 - Stay Arm 3: Options 2.

Entry Mode: Bit Toggle Selection (see page 17).

1 Only Exit when Ready

On: The exit mode can only be started if all zones are healthy (System Ready).

Off: The exit mode can be started even if one or more zones are active. The active zones will be indicated on the remote keypads and a fault tone is generated.

2 Instant Bell on ATS Fault

On: The bell delay is overridden and set to zero, when the Alarm Transmission System (ATS/on-board communicator) fault occurs.

Off: The bell delay remains unchanged, when an ATS fault occurs.

3 Alarms are Engineer Reset

On: Intruder alarms require an engineer to reset the system back to normal.

Off: Intruder alarms can be reset by users.

4 Enable Bell Squawk

On: The bell output is pulsed once for a very short period when the system is armed and twice when disarmed.

Off: The bell output operates as normal.

5 Enable Walk Squawk

On: The bell output is pulsed once for a very short period when a zone is activated during a walk test. This option has no effect when enabled for Stay 1, 2 or 3, i.e., only enable this option for away arm (location 2042).

Off: The bell output operates as normal.

6 Enable Walk Voice

On: The zone and number (e.g., "Zone 10") is announced through the control panel loudspeaker when a zone is activated during a walk test. This option has no effect when enabled for Stay 1, 2 or 3, i.e., only enable this option for away arm (location 2042).

Off: The bell output operates as normal.

7 Chime = Link 99

On: The chime feature is automatically turned on and off by Link Control 99.

Off: The chime feature must be manually turned on or off by the user.

Arm Keyswitch Control

The set of options controls how the system responds when a keyswitch zone is used for arming.

- Locations:** **2 0 4 3** - Away Arm: Keyswitch Options.
 2 1 4 3 - Stay Arm 1: Keyswitch Options.
 2 2 4 3 - Stay Arm 2: Keyswitch Options.
 2 3 4 3 - Stay Arm 3: Keyswitch Options.

Entry Mode: Bit Toggle Selection (see page 17).

1 Silent Arm

On: The exit tone remains silent during exit mode, when a keyswitch is used to arm the system.

Off: The exit tone is generated during exit mode, when a keyswitch is used to arm the system.

2 Disabled when Armed

On: The keyswitch is disabled when armed (arm only keyswitch).

Off: The keyswitch remains enabled when the system is armed.

3 Instant Arm

On: The system is armed instantly when a keyswitch is used.

Off: The normal exit mode is used to arm the system.

Auto Arm/Disarm

This set of options controls how the system Control Timers can be used to automatically arm/disarm the system at specific times and on specific days of the week. Please refer to page 26 for details on Control Timer configuration.

- Locations:** **2 0 5 1** - Away Arm: Auto Arm/Disarm
 2 1 5 1 - Stay Arm 1: Auto Arm/Disarm.
 2 1 5 1 - Stay Arm 2: Auto Arm/Disarm.
 2 1 5 1 - Stay Arm 3: Auto Arm/Disarm.

Entry Mode: Bit Toggle Selection (see page 17).

1 Arm with Control Timer 1

On: The selected mode is automatically armed by Control Timer 1.

Off: The selected mode is not armed automatically.

2 Arm with Control Timer 2

On: The selected mode is automatically armed by Control Timer 2.

Off: The selected mode is not armed automatically.

3 Arm with Control Timer 3

On: The selected mode is automatically armed by Control Timer 3.

Off: The selected mode is not armed automatically.

4 Arm with Control Timer 4

On: The selected mode is automatically armed by Control Timer 4.

Off: The selected mode is not armed automatically.

5 Disarm with Control Timer 1

On: The selected mode is automatically disarmed by Control Timer 1.

Off: The selected mode is not disarmed automatically.

6 Disarm with Control Timer 2

On: The selected mode is automatically disarmed by Control Timer 2.

Off: The selected mode is not disarmed automatically.

7 Disarm with Control Timer 3

On: The selected mode is automatically disarmed by Control Timer 3.

Off: The selected mode is not disarmed automatically.

8 Disarm with Control Timer 4

On: The selected mode is automatically disarmed by Control Timer 4.

Off: The selected mode is not disarmed automatically.

3. System Configuration

This section covers programming of the system timers, counters, hardware, control timers, banner text, voice options and links.

System Timers

The system timers control global system timing and delay operation.

- Locations:**
- 31001** - AC Fail Delay.
 - 31002** - ATS Fault Delay.
 - 31003** - Zone Response Time.
 - 31004** - Abort Delay.
 - 31005** - Battery Test Period.
 - 31006** - Battery Test Duration.
 - 31007** - Zone Soak Test Time.
 - 31008** - Double Knock Delay.
 - 31009** - Service Interval.
 - 31100** - Confirmation Period.
 - 31101** - Pulse 1 Time.
 - 31102** - Pulse 2 Time.
 - 31103** - Pulse 3 Time.
 - 31104** - Delay 1 Time.
 - 31105** - Delay 2 Time.
 - 31106** - Delay 3 Time.
 - 31107** - Warning Delay.

Entry Mode: Number Entry (see page 18).

01 AC Fail Delay

This timer is used to delay (0-255 minutes) the audible annunciation from the keypads and internal sounders following an AC mains failure. Default = 30 minutes.

02 ATS Fault Delay

This timer is used to delay (0-255 minutes) the audible annunciation from the keypads and internal sounders following a ATS fault (telephone line fault). Default = 30 minutes

03 Zone Response Time

This timer is used to control the response (0-255 x 10ms) of zones programmed with the "Fast Response" attribute. Default = 750 milliseconds.

04 Abort Delay

This timer is used to control abort delay period (0-255 x seconds). When an intruder alarm is generated, this timer is started and if the system is disarmed before the timer expires an "Alarm Abort" event is generated. This event can be signalled to the alarm receiving centre. Default = 180 seconds.

05 Battery Test Period

This timer is used to control frequency (0-255 hours) at which the standby battery is load tested. Default = 24 hours.

06 Battery Test Duration

This timer is used to control the duration (0-255 seconds) of the standby battery load test. Default = 10 seconds.

07 Zone Soak Test Time

This timer is used to control the duration (0-255 days) of the zone soak test. The timer is automatically started after a zone is put on test. Default = 14 days.

08 Double Knock Delay

This timer controls the duration (0-255 seconds) of the double knock delay. The double knock delay is used to control the operation of zones programmed with "Double Knock" attribute, see page 20. Default = 30 seconds.

09 Service Interval

This timer controls the frequency (0-255 weeks) in which a "Service Required" event is generated. Default = 0 weeks.

10 Confirmation Period

This timer controls the duration (0-255 minutes) in which a confirmed alarm event can be generated. When the system is armed and an intruder alarm is generated (first alarm), this timer is started. If a second, but different zone activates an intruder alarm before the timer expires, a confirmed alarm event is generated. Default = 45 minutes.

11 Pulse 1 Time

This timer controls the active duration (0-255 seconds) of outputs programmed with the "Pulse 1" attribute. Default = 10 seconds.

12 Pulse 2 Time

This timer controls the active duration (0-255 seconds) of outputs programmed with the "Pulse 2" attribute. Default = 30 seconds.

13 Pulse 3 Time

This timer controls the active duration (0-255 minutes) of outputs programmed with both the "Pulse 1" and "Pulse 2" attributes. Default = 10 minutes.

14 Delay 1 Time

This timer controls the switch on delay (0-255 seconds) of outputs programmed with the "Delay 1" attribute. Default = 10 seconds.

15 Delay 2 Time

This timer controls the switch on delay (0-255 seconds) of outputs programmed with the "Delay 2" attribute. Default = 30 seconds.

16 Delay 3 Time

This timer controls the switch on delay (0-255 minutes) of outputs programmed with both the "Delay 1" and "Delay 2" attributes. Default = 10 minutes.

17 Warning Delay

This timer controls the delay (0-255 seconds) in which zones programmed as "Warning" must remain active before a warning tone is generated. Default = 60 seconds.

System Counters

The system counters are used to limit the number of times a function or feature can be carried out.

- Locations:**
- 32001** - Auto Rearm Counter.
 - 32002** - Number of Remote Resets.
 - 32003** - Count Warning.
 - 32004** - Count Logging.

Entry Mode: Number Entry (see page 18).

01 Auto Rearm Counter

This counter controls the number of times (0-255) a zone can rearm during an armed period. Once a zone has reached its rearm limit, it is locked out so that it cannot cause further alarm activations during the same armed period. Default = 3.

02 No of Remote Resets

This counter controls the number of times (0-255) the UDL software can be used to reset the system remotely before an engineer must attend site. Default = 0.

03 Count Warning

This counter controls the number of times (0-255) that a zone must activate, before triggering the corresponding "Zone ## Count" output. Default = 0.

02 Count Logging

This counter controls the number of times (0-255) that a zone must activate, before logging a "Zone Count ##" event in the system log. Default = 0.

Hardware - Volume Levels

This set of options controls the volume levels for each group of system tones and voice messages.

- Locations:** **3301** - Panel Speaker Volume.
 3302 - Chime Volume.
 3303 - Advisory Tone Volume.
 3304 - Alarm Tone Volume.

Entry Mode: Number Entry (see page 18).

01 Panel Speaker Volume

This option controls the level (0-10) of the exit, entry, fault and warning tones from the control panel speaker. Default = 5.

02 Chime Volume

This option controls the level (0-10) of the chime tone from the control panel speaker. Default = 5.

03 Advisory Tone Volume

This option controls the level (0-10) of the advisory tones from the control panel speaker. Default = 5.

04 Alarm Tone Volume

This option controls the level (0-10) of the alarm tones from the control panel speaker. Default = 10.

Hardware - Output Monitoring

This option enables/disables fault monitoring of the control panel outputs.

- Locations:** **3310**

Entry Mode: Bit Toggle Selection (see page 17).

1 Panel Output 1 (Bell)

On: The output is monitored for faults.

Off: The output is not monitored.

2 Panel Output 2 (Strobe)

On: The output is monitored for faults.

Off: The output is not monitored.

3 Panel Output 3

On: The output is monitored for faults.

Off: The output is not monitored.

4 Panel Output 4

On: The output is monitored for faults.

Off: The output is not monitored.

5 Panel Output 5

On: The output is monitored for faults.

Off: The output is not monitored.

Hardware - Monitoring

This set of options allows the monitoring of the control panel hardware to be enabled or disabled.

- Locations:** **3311**

Entry Mode: Bit Toggle Selection (see page 17).

1 Panel Box Tamper

On: The box tamper is monitored for activity.

Off: The box tamper is not monitored.

2 Auxiliary Fuse

On: The auxiliary 12V fuse is monitored for faults.

Off: The auxiliary 12V fuse is not monitored.

3 System Voltage

On: The system voltage is monitored for faults.

Off: The system voltage is not monitored.

4 Battery Presence

On: The standby battery is monitored for its presence.

Off: The standby battery is not monitored.

5 Mains AC

On: The mains supply is monitored for its presence.

Off: The mains supply is not monitored.

6 Telephone Line

On: The telephone line connection is monitored for faults.

Off: The telephone line connection is not monitored.

7 Bell Tamper

On: The bell tamper input is monitored for activity.

Off: The bell tamper input is not monitored.

Configuration

This set of options allows the system operation and features to be altered.

- Location:** **3401**

Entry Mode: Bit Toggle Selection (see page 17).

1 Auto BST/GMT

On: The system clock is automatically put forward by one hour on the last Sunday in March at 2.00AM and put back by one hour on last Sunday in October at 2:00AM.

Off: The system clock remains unchanged.

2 Battery Test by Control Timer 5 and Disarm

On: The battery test feature is invoked when Control Timer 5 switches on and every time the system is disarmed.

Off: The battery test feature is performed by the "Battery Test Period" timer.

3 Reinstate Bypassed Zones on Disarm

On: Any zones that have been manually bypassed are automatically reinstated when the system is disarmed.

Off: Bypassed zones remain bypassed after the system is disarmed.

4 Enable EN50131-1 Requirements

On: The system operates so as to comply with requirements of EN50131-1.

Off: The system operates as normal.

5 Disable Bell when Disarmed

On: The bell output is disabled when the system is disarmed.

Off: The bell output is enabled when the system is disarmed and if a 24hr alarm zone is activated it will trigger the bell output.

6 Disable Communications when Disarmed

On: The control panel on-board communicator is disabled when the system is disarmed.

Off: The on-board communicator is enabled when the system is disarmed.

7 Tamper Alarms are Engineer Reset

On: Tamper alarms require an engineer to reset the system.

Off: The user can reset tamper alarms.

8 View Active Zones

On: Zone activity is displayed when the system is disarmed.

Off: Zone activity is not displayed.

Control Timers

The EC-P10 has five programmable Control Timers, each timer has a switch on time (On Time), switch off time (Off Time) and days of operation for both the On and Off times. Control Timer can be used to automatically arm the system or lock users from accessing the system. The control timer can also be assigned a "Link" number, which in turn is used to control "Link Control" output types, for details on link control, see page 32.

Locations: 3501 to 3505

Control Timers 1 to 5: On Time.

3511 to 3515

Control Timers 1 to 5: Off Time.

Entry Mode: Number Entry (see page 18).

Enter time in 24hour format, e.g., 1715 = 05.15 PM.

Locations: 3521 to 3525

Control Timers 1 to 5: On Time Days.

3531 to 3535

Control Timers 1 to 5: Off Time Days.

Entry Mode: Bit Toggle Selection (see page 17).

Options 1 to 7 = Sunday to Saturday.

Locations: 3541 to 3545

Control Timers 1 to 5: Link.

Entry Mode: Number Entry (see page 18).

Banner Text

This set of options allows you to customise the text that is displayed on LCD keypads. The "Stay Arm Banners" are shown when the system has been armed in the relevant stay mode. The "Keypad Banner" is displayed on the top line when the system is disarmed. The "Engineer Reset Banner" is displayed on the bottom line when the system requires an engineer to reset the system. The top line will always show "Call Engineer".

Locations: 3601 - Stay Arm 1 Banner.

3602 - Stay Arm 2 Banner.

3603 - Stay Arm 3 Banner.

3604 - Keypad Banner.

3605 - Engineer Reset Banner.

Entry Mode: String Edit - Text Mode (see page 19).

Remote Control Labels

This set of options allows you to customise the text label that is displayed on LCD keypads for each remote control output. When the user accesses the remote control output menu, the labels are displayed, e.g. "Garden Lights".

Locations: 3621 to 3625

Remote Control 1 to 5: Labels.

Entry Mode: String Edit - Text Mode (see page 19).

Voice Options

This system has 10 programmable voice messages; each message can be up to 16 seconds long. The messages can be recorded using the Eclipse UDL software and uploaded into the control panel. Alternatively voice messages can be recorded from a telephone handset.

Activate by Link Control

The Link Control is the logical output trigger that causes the voice message to be played. The system has 99 "Link Control" outputs, which can be programmed to trigger for a combination of system events, see "Link Control" on page 32.

Locations: 3701 to 3710

Voice Message 01 to 10: Activated by Link.

Entry Mode: Number Entry (see page 18).

Voice Message Options

The voice message options allow you to control how the message is played.

Locations: 3801 to 3810

Voice Message 01 to 10: Options.

Entry Mode: Bit Toggle Selection (see page 17).

Locations: 3801 to 3810 - Voice Messages 01 to 10 "Options".

Data Entry Mode: Bit Toggle Selection (see page 17).

1 Keep Repeating

On: The voice message repeats continuously until the associated "Link Control" is no longer active.

Off: The voice message plays once.

2 Repeat every 10 Seconds

On: The voice message repeats every 10 seconds until the associated "Link Control" is no longer active.

Off: The voice message plays once.

3 Repeat every 30 Seconds

On: The voice message repeats every 30 seconds until the associated "Link Control" is no longer active.

Off: The voice message plays once.

4 Repeat every Minute

On: The voice message repeats every minute until the associated "Link Control" is no longer active.

Off: The voice message plays once.

5 Repeat every 5 Minutes

On: The voice message repeats every 5 minutes until the associated "Link Control" is no longer active.

Off: The voice message plays once.

6 Repeat every 15 Minutes

On: The voice message repeats every 15 minutes until the associated "Link Control" is no longer active.

Off: The voice message plays once.

7 Repeat every 30 Minutes

On: The voice message repeats every 30 minutes until the associated "Link Control" is no longer active.

Off: The voice message plays once.

8 Repeat every 60 Minutes

On: The voice message repeats every 60 minutes until the associated "Link Control" is no longer active.

Off: The voice message plays once.



Options 2 to 8 can be added together to create combined timings, e.g., if option 3 and 4 are on the voice message will repeat every 1 minute and 30 seconds.

System Links

Each system output can be assigned a “Link” number, which in turn is used to control the “Link Control” output types, for details on link control, see page 32.

Locations: 3901 to 3950

System Outputs 01 to 50: Link.

Entry Mode: Number Entry (see page 18).

The table below shows the system output types and their corresponding number 01 to 50. For details of each system output function, please see page 30.

System Link Types	
01 = AC Fault	27 = PSTN Ringing
02 = ATS Fault	28 = Battery Fault
03 = System Open	29 = Control Panel Box Tamper
04 = System Armed	30 = Bell Tamper
05 = System Part Armed	31 = Engineer on Site
06 = System Armed/Alarm	32 = Detector Reset
07 = Bell	33 = Switched 12V
08 = Strobe	34 = System Low Volts
09 = Intruder Alarm	35 = Exit Mode
10 = Confirmed Alarm	36 = Entry Mode
11 = Alarm Abort	37 = Second Entry Mode
12 = Fire Alarm	38 = General Alarm
13 = PA Alarm	39 = Auxiliary
14 = Duress Alarm	40 = Warning
15 = 24hr Alarm	41 = Keypads Locked
16 = Medical Alarm	42 = Output Fault
17 = Tamper Alarm	43 = Engineer Reset Required
18 = Ready for Arming	44 = Device Fault
19 = Trouble	45 = Service Required
20 = Alert	46 = Cleaner Bypass
21 = Bypass	47 = 2-Wire Smoke
22 = In Walk Test	48 = 2-Wire Smoke Alarm
23 = Flash 1 Second	49 = 2-Wire Smoke Fault
24 = User Test Active	50 = Door Access
25 = PSTN Fault	51 = Alarm Test
26 = PSTN Off-Hook	52 = Panel AC On

4. Keypad Configuration

This section covers programming of the remote keypads.

Keypad Options 1

This first set of options controls how the selected keypad on-board keys and tamper function.

Locations: 4111 to 4114

Keypads 1 to 4: Options 2.

Entry Mode: Bit Toggle Selection (see page 17).

1 Fire Activation from keys 1 and 3

On: Pressing keys 1 and 3 on the selected keypad at the same time will generate a fire alarm event.

Off: The selected keypad cannot generate fire alarm events.

2 Medical Activation from keys 4 and 6

On: Pressing keys 4 and 6 on the selected keypad at the same time will generate a medical alarm event.

Off: The selected keypad cannot generate medical alarm events.

3 PA Activation from keys 7 and 9

On: Pressing keys 7 and 9 on the selected keypad at the same time will generate a panic alarm (PA) event.

Off: The selected keypad cannot generate panic alarm events.

4 Silent Keypad PA

On: If option 3 is enabled the selected keypad will generate a silent panic alarm event.

Off: If option 3 is enabled the selected keypad will generate an audible panic alarm event.

5 Quick Away Arm Enabled

On: The away arm mode can be carried out from the selected keypad by simply pressing key.

Off: The user passcode must be entered at the selected keypad before the away arm mode can be selected.

6 Quick Stay Arm Enabled

On: The stay arm mode can be carried out from the selected keypad by simply pressing key.

Off: The user passcode must be entered at the selected keypad before the stay arm mode can be selected.

7 Quick Bypass Enabled

On: The zone bypass feature can be invoked at the selected keypad by simply pressing key.

Off: The user passcode must be entered at the selected keypad before the bypass feature can be selected.

8 Keypad Tamper Enabled

On: The lid tamper on the selected keypad is monitored.

Off: The lid tamper on the selected keypad is not monitored.

Keypad Options 2

This second set of options controls how the selected keypad functions when invalid keys are pressed (code tamper).

Locations: 4121 to 4124

Keypads 1 to 4: Options 2.

Entry Mode: Bit Toggle Selection (see page 17).

1 Enable Code Tamper

On: Entering 15 or more invalid key presses on the selected keypad will generate a code tamper event.

Off: The selected keypad cannot generate code tamper events.

2 Lockout Keypad

On: If the "Enable Code Tamper" option is enabled for the selected keypad, the keypad operation will be locked out for 5 minutes if a code tamper event is generated.

Off: The selected keypad operation remains unchanged.

Keypad Sounds

This set of options controls how the selected keypad generates sounds from its on-board sounder.

Locations: 4131 to 4134

Keypads 1 to 4: Sounds.

Entry Mode: Bit Toggle Selection (see page 17).

1 Alarm Tones

On: The selected keypad generates alarm tones.

Off: The selected keypad will not generate alarm tones.

2 Trouble Tones

On: The selected keypad generates trouble tones.

Off: The selected keypad will not generate trouble tones.

3 Chime Tones

On: The selected keypad generates chime tones.

Off: The selected keypad will not generate chime tones.

4 Entry Tones

On: The selected keypad generates entry tones.

Off: The selected keypad will not generate entry tones.

5 Exit Tones

On: The selected keypad generates exit tones.

Off: The selected keypad will not generate exit tones.

6 Key Press Tones

On: The selected keypad generates key press tones.

Off: The selected keypad generates a short click tone when keys are pressed.

7 Advisory Tones

On: The selected keypad generates advisory tones.

Off: The selected keypad will not generate advisory tones.

8 Tamper Tones

On: The selected keypad generates tamper alarm tones.

Off: The selected keypad will not generate tamper alarm tones.

5. Expander Configuration

This section covers programming of the expander module. The EC-P10 will only accept one expander module (EC-EX10 or EC-EX10/I). The expander MUST be set to address 1.

Expander Options

This set of options controls how the expander tamper and internal piezo sounder function.

Location: 5000

Entry Mode: Bit Toggle Selection (see page 17).

1 Enable Tamper

On: The lid tamper on the expander is monitored.

Off: The lid tamper on the expander is not monitored.

2 Enable Piezo

On: The internal piezo sounder on the EC-EX10 expander is enabled.

Off: The internal piezo sounder on the EC-EX10 expander is disabled.

Expander Sounds

This set of options controls how the EC-EX10 expander generates sounds from its on-board piezo sounder and loudspeaker output.

Location: 5120

Entry Mode: Bit Toggle Selection (see page 17).

1 Alarm Tones

On: The expander generates alarm tones.

Off: The expander will not generate alarm tones.

2 Trouble Tones

On: The expander generates trouble tones.

Off: The expander will not generate trouble tones.

3 Chime Tones

On: The expander generates chime tones.

Off: The expander will not generate chime tones.

4 Entry Tones

On: The expander generates entry tones.

Off: The expander will not generate entry tones.

5 Exit Tones

On: The expander generates exit tones.

Off: The expander will not generate exit tones.

6 Key Press Tones

On: Not supported on the expander.

Off: Not supported on the expander.

7 Advisory Tones

On: The expander generates advisory tones.

Off: The expander will not generate advisory tones.

8 Tamper Tones

On: The expander generates tamper alarm tones.

Off: The expander will not generate tamper alarm tones.

Expander Outputs

The EC-EX10 has 10 programmable outputs. This set of options allows the output type (function) to be assigned to each of the expander outputs.

Locations: 5201 to 5210

Expander 1: Output 1 to 10 Type.

Entry Mode: Selection List (see page 16).

Enter the two digit group number followed by the two digit type number, e.g., 0301 = "Zone 01 Alarm". See page 30 for a complete list of output functions.

Expander Output Attributes

This set of options allows the output attributes to be assigned to each of the expander outputs.

Locations: 5301 to 5310

Expander 1: Output 1 to 10 attributes.

Entry Mode: Bit Toggle Selection (see page 17).

See page 30 for details on output attributes.

6. Panel Outputs and Devices

This section covers programming of the control panel outputs, communication ports and other devices that maybe connected to the control panel.

Panel Output Type

This set of options allows the output type (function) to be assigned to the control panel high current outputs.

Locations: **6000** to **6005**
Panel Outputs 1 to 5: Output Type.

Entry Mode: Selection List (see page 16).

Enter the two digit group number followed by the two digit type number, e.g., 3001 = "Zone 01 Alarm".

Panel Output Attributes

This set of options allows the output attributes to be assigned to the control panel high current outputs.

Locations: **6120** to **6125**
Panel Outputs 1 to 5: Output Attributes.

Entry Mode: Bit Toggle Selection (see page 17).

1 Latching

On: The selected output latches on when triggered and is only cleared when the user resets the system.

Off: The selected output responds normally.

2 Inverted

On: The selected output is inverted, off when active and on when inactive.

Off: The selected output responds normally.

3 User Test

On: The selected output is activated when the user output test is selected.

Off: The selected output remains unchanged during the user output test.

4 Pulse 1

On: The selected output activates for the duration of the "Pulse 1 Time" system timer, see page 24.

Off: The selected output responds normally.

5 Pulse 2

On: The selected output activates for the duration of the "Pulse 2 Time" system timer, see page 24.

Off: The selected output responds normally.

6 Delay 1

On: The selected output activates after the delay set by the "Delay 1 Time" system timer, see page 24.

Off: The selected output responds normally.

7 Delay 2

On: The selected output activates after the delay set by the "Delay 2 Time" system timer, see page 24.

Off: The selected output responds normally.

8 Armed Only

On: The selected output only activates if the system is armed.

Off: The selected output responds normally.



If "Pulse 1" and "Pulse 2" options are enabled then the selected output activates for the duration of the "Pulse 3 Time" system timer, see page 24.

If "Delay 1" and "Delay 2" options are enabled then the selected output activates after the delay set by the "Delay 3 Time" system timer, see page 24.

Output Types

The output types are grouped together in the following groups:

Group	Description
00	Global Global system output function.
01	Reserved Not available on the EC-P10.
02	Control Timer Control Timers 1 to 5.
03	Remote Control Remote control outputs 1 to 5.
04	Link Control Input linked logical conditioned outputs.
10	Zone Count Zones 1 to 20 count outputs.
20	Zone Mimic Zones 1 to 20 mimic outputs.
30	Zone Alarm Zones 1 to 20 alarm outputs.
40	Zone Tamper Zones 1 to 20 tamper alarm outputs.
50	Zone Masked Zones 1 to 20 masked outputs.
60	Zone Fault Zones 1 to 20 fault outputs.
70	Zone Bypassed Zones 1 to 20 bypassed outputs.
80	User Access Users 00 to 10 access outputs.

00: Global

The table below list the output function available in this group:

No	Type & Description
00	Not Used This output type does not activate.
01	AC Fault This output type activates when the mains supply has been removed for the duration of the AC Fail timer.
02	ATS Fault This output type activates when the on-board communicator detects a phone line fault (Alarm Transmission Fault).
03	Unset This output type activates when the system is in the disarmed state.
04	Armed This output type activates when the system is armed in any of the armed modes (Away or Stay)
05	Part Armed This output type activates when the system is armed in any of the Stay armed modes.
06	Armed/Alarm This output type activates when the system is armed and pulses when an alarm is generated.
07	Bell Active This output type activates when an alarm is generated (it may be delayed if the bell delay time is greater than zero). The duration of this output type is controlled by the "Bell Duration" timer.
08	Strobe Active This output type activates when an alarm is generated and deactivates when the system is reset
.09	Alarm This output type activates when an intruder alarm is generated.
10	Confirmed Alarm This output type activates when two different zones cause an intruder alarm.

No	Type & Description
11	Alarm Abort This output type activates when the user disarms the system after an alarm and within the "Abort Delay" period.
12	Fire Alarm This output type activates when a fire alarm is generated.
13	PA Alarm This output type activates when a panic alarm is generated.
14	Duress Alarm This output type activates when a duress alarm is generated.
15	24hr Alarm This output type activates when a 24hr alarm is generated.
16	Medical Alarm This output type activates when a medical alarm is generated.
17	Tamper Alarm This output type activates when a tamper alarm is generated.
18	Ready This output type activates when the system is ready for arming, i.e. all zones are healthy.
19	Trouble This output type activates when a trouble alarm is generated.
20	Alert This output type activates when an alert event is generated and deactivates when the user has acknowledged the alert.
21	Zone Bypass This output type activates when one or more zones are bypassed.
22	In Walk Test This output type activates when the user walk test mode is selected.
23	Flash 1 Second This output type continually pulses on and off at a rate of 1 second.
24	User Test Active This output type activates when the user test mode is selected in the "Bell Test" menu.
25	PSTN Fault This output type activates when a fault is detected on the PSTN connected to the control panel.
26	PSTN Off Hook This output type activates when an off-hook condition is detected on the PSTN connected to the control panel.
27	PSTN Ringing This output type activates when ringing is detected on the PSTN connected to the control panel.
28	Battery Fault This output type activates when a fault is detected with the control panel standby battery.
29	Box Tamper Fault This output type activates when the control panel box tamper is open.
30	Bell Tamper Fault This output type activates when the control panel bell tamper is open.
31	Engineer on Site This output type activates when the engineer is logged on.
32	Detector Reset This output type is normally active and is used for powering devices that require their power supply to be removed in order to reset them. The output deactivates for 5 seconds at the start of exit mode and when the system is reset.
33	Detector Latch This output type is used to latch the alarm condition on detection devices that have a latch input.
34	System Low Volts This output type activates when a low voltage fault is detected with the control panel standby battery.

No	Type & Description
35	In Exit This output type activates when the system is in exit mode.
36	In Entry This output type activates when the system is in entry mode.
37	In Second Entry This output type activates when the system is in second entry mode.
38	In Alarm This output type activates when any alarm is generated.
39	Auxiliary Alarm This output type activates when an auxiliary alarm is generated.
40	Warning Alarm This output type activates when a warning alarm is generated.
41	Keypads Locked This output type activates when a security key is active.
42	Output Fault This output type activates when a fault is detected on one of the monitored control panel outputs.
43	Call Engineer This output type activates when the system requires an engineer access code in order to reset the system.
44	Device Fault This output type activates when a device fault is detected.
45	Service Required This output type activates when the service timer expires.
46	Cleaner Bypassed This output type activates when a "Cleaner Bypass" is invoked.
47	2-Wire Smoke This output type is specifically designed for use with "Panel Output 5", when connecting 2-Wire Smoke Sensors.
48	2-Wire Smoke Alarm This output type activates when a 2-Wire smoke alarm is generated.
49	2-Wire Smoke Fault This output type activates when a 2-Wire smoke fault is generated.
50	Door Access This output type activates for 30 seconds when any valid user code is entered.
51	Alarm Test This output type activates when the user select the alarm sounder test.
52	Panel AC On This output type activates when the mains supply is present.

Group 02: Control Timer

The EC-P10 has 5 control timers each timer can be assigned to an output:

No	Type & Description
01	Control Timer 1 This output type activates when Control Timer 1 is on and deactivates when Control Timer 1 is off.
02-05	Control Timer 2 - 5 As Control Timer 1.

Group 03: Remote Control

There are 5 remote controlled outputs, which can be assigned to an output:

No	Type & Description
01	Remote Control 1 This output type is switched on and off via the UDL software, smart phone app and via a touch tone telephone.
02-05	Remote Control 2 - 5 As Remote Control 1.

Group 04: Link Control

There are 99 Link controlled outputs, which can be assigned to an output:

No	Type & Description
01	Link Control 01 This output type is controlled by a combination of linked inputs.
02-99	Link Control 02 - 99 As Link Control 01.

To create a link controlled output you must assign link inputs to the Link Control. The available inputs are:

- ▶ Zone Links
- ▶ Control Timer Links
- ▶ Voice Message Links
- ▶ System Links
- ▶ User Link

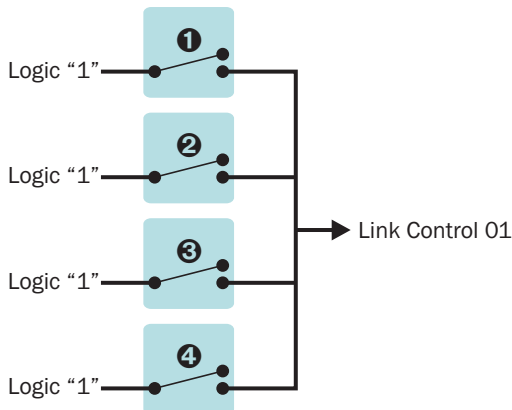
The inputs can be assigned to the Link Control to perform either a logical "OR" function or a logical "AND" function. The logic function is controlled by the link input number:

001 - 099: Logical "OR" Link inputs.

101 - 199: Logical "AND" Link inputs.

Link Control Example 1

In the first example we will setup "Link Control 01" so that it activates when zone 1 "OR" zone 2 "OR" zone 3 is active "OR" user 02 is entered. The figure below show the logic diagram for this:



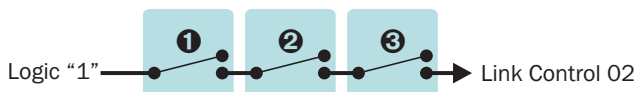
The four switches represent the link inputs and programmed as follows:

- ❶ Location 1901: Zone 01 Link = 001 (Link Control 01 "OR").
- ❷ Location 1902: Zone 02 Link = 001 (Link Control 01 "OR").
- ❸ Location 1903: Zone 03 Link = 001 (Link Control 01 "OR").
- ❹ Location 8502: User 02 Link = 001 (Link Control 01 "OR").

As the figure above shows the Link Control 01 will be active (logic 1) when any of the input links are closed (active). Now that Link Control 01 is configured it can be assigned to a panel output or voice message trigger.

Link Control Example 2

In this example we will setup "Link Control 02" so that it activates when zone 4 "AND" zone 5 are active "AND" when the system is armed. The figure below shows the logic diagram for this:



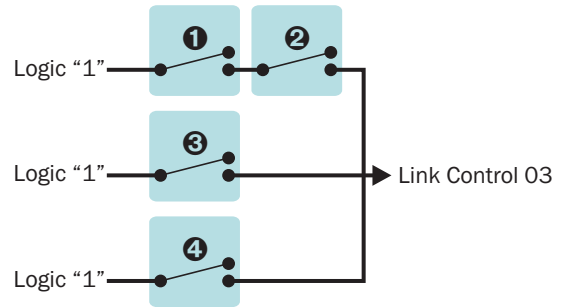
The three switches represent the link inputs and are programmed as follows:

- ❶ Location 1904: Zone 04 Link = 102 (Link Control 02 "AND").
- ❷ Location 1905: Zone 05 Link = 102 (Link Control 02 "AND").
- ❸ Location 3904: System Armed Link = 102 (Link Control 02 "AND").

As the figure above shows, the Link Control 02 will be active (logic 1) only when ALL of the input links are closed (active).

Link Control Example 3

In this example we will setup "Link Control 03" so that it activates when zone 10 "AND" Control Timer 1 is on "OR" when the system is in exit mode "OR" when an intruder alarm occurs. The figure below show the logic diagram for this:



The four switches represent the link inputs and programmed as follows:

- ❶ Location 1910: Zone 10 Link = 103 (Link Control 03 "AND").
- ❷ Location 3541: Control Timer 1 Link = 103 (Link Control 03 "AND").
- ❸ Location 3935: System Exit Link = 003 (Link Control 03 "OR").
- ❹ Location 3909: System Intruder Alarm Link = 003 (Link Control 03 "OR").

As the figure above shows the Link Control 03 will be active (logic 1) only when link input 1 and 2 are closed (active) or when either link inputs 3 and 4 are closed (active).

Group 10: Zone Count

The zone activity count threshold of each zone can be assigned to an output:

No	Type & Description
01	Zone 01 Count This output type activates when zone 01 activity count reaches the threshold set by the "Zone Warning" counter. See page 24.
02-20	Zone 02 - 20 Count As Zone 01 Count.

Group 20: Zone Mimic

The mimic condition of each zone can be assigned to an output:

No	Type & Description
01	Zone 01 Mimic This output type activates when zone 01 is active and deactivates when zone 01 is healthy.
02-20	Zone 02 - 20 Mimic As Zone 01 Mimic.

Group 30: Zone Alarm

The alarm condition of each zone can be assigned to an output:

No	Type & Description
01	Zone 01 Alarm This output type activates when zone 01 generates an alarm and deactivates when the alarm is reset.

No	Type & Description
02- 20	Zone 02 - 20 Alarm As Zone 01 Alarm.

Group 40: Zone Tamper

The tamper condition of each zone can be assigned to an output:

No	Type & Description
01	Zone 01 Tamper This output type activates when zone 01 generates a tamper alarm and deactivates when the alarm is reset.
02- 20	Zone 02 - 20 Tamper As Zone 01 Tamper.

Group 50: Zone Masked

The mask condition of each zone can be assigned to an output:

No	Type & Description
01	Zone 01 Masked This output type activates when zone 01 generates a mask fault and deactivates when the fault is cleared and reset.
02- 20	Zone 02 - 20 Masked As Zone 01 Masked.

Group 60: Zone Fault

The fault condition of each zone can be assigned to an output:

No	Type & Description
01	Zone 01 Fault This output type activates when zone 01 generates a fault and deactivates when the fault is cleared and reset.
02- 20	Zone 02 - 20 Fault As Zone 01 Fault.

Group 70: Zone Bypassed

The bypass condition of each zone can be assigned to an output:

No	Type & Description
01	Zone 01 Bypassed This output type activates when zone 01 is bypassed and deactivates when the zone is reinstated.
02- 20	Zone 02 - 20 Bypassed As Zone 01 Bypassed.

Group 80: User Access

The system access of each user can be assigned to an output:

No	Type & Description
00	User 00 Access This output type activates for 30 seconds after user 00 has entered their access code.
01- 10	User 01 - 10 Access As User 00 Access.

Communication Ports

These two options allow the operating mode for the two on-board communication ports to be configured.

Locations: **6201** - Com Port 1: Mode.

6202 - Com Port 2: Mode.

Entry Mode: Selection List (see page 16).

0 UDL USB-Link

This mode configures the selected communication port for UDL USB-Link operation. The USB-Link should be connected to the computer and the other end should be connected to the selected control panel communication port.

1 Printer

This mode configures the selected communication port for printer operation. Use this mode when using a terminal program via the USB-Link to capture the printer output from the control panel.

2 3rd Party Module

This mode configures the selected communication port for a 3rd Party Module operation. Use this mode when connecting a supported 3rd party communication module to the control panel.

3 Communication Module

This mode configures the selected communication port for Communication Module operation. Use this mode when connecting any Eclipse communication module to the control panel.

4 Contact ID

This mode configures the selected communication port for Contact ID operation. In this mode the Contact ID in ASCII format is sent to the port.

5 Debug USB-Link

This mode configures the selected communication port for data debug operation. Use this mode when using a terminal program via the USB-Link to capture the debug data from the control panel.

GSM & SMS Centre

These options allow the GSM and SMS Centre to be configured.

Locations: **6301** - GPRS APN Name
6302 - GPRS APN User
6303 - GPRS APN Password
6304 - SIM Pin
6302 - SIM Credit Code
6311 - SMS Service Centre

Entry Mode: String Edit - Number Mode (see page 18).

GPRS APN Name

The Access Point Name (APN) used by the GSM network operator for IP packet data communication.

GPRS APN User

The APN user name used to log into the APN.

GPRS APN Password

The APN password name used to log into the APN.

Listed below are the GPRS setting used by the major UK GSM network operators:

Operator	APN	User	Password
Vodafone	internet	web	web
Orange	Orangeinternet	*	*
O2	Mobile.o2.co.uk	web	web
T-Mobile	General.t-mobile.uk	*	*
Three	3internet	*	*

* = Leave blank.

SIM Pin

If the SIM is protected by a PIN, then the number must be entered in this location in order for correct operation.

SIM Credit Code

If the GSM network operator supports credit balance via USSD, then enter the USSD code, e.g., *123#.

SMS Centre Number

The system can send SMS messages to mobile telephones via the standard PSTN telephone network. To achieve this, it uses the ETSI ES 201 912 protocol 1. This protocol is not supported world wide so please check with your telephone provider. Listed below are the SMS Centre numbers for supported countries and operators:

Country	Operator	SMS Centre Number
UK	BT	17094009
Ireland	Eirecom	17409900
Germany	T-Com	0193010
Belgium	Belgacom	14974800
France	France Telecom	0809101000
Switzerland	Swisscom	0622100000
Netherlands	KPN Telecom	0673644444
South Africa	Telkom	1091969

Caller Line Identity must be enabled in order for the SMS Centre to accept the message.



IP Configuration

These options allow the IP details to be configured and are required when using the EC-COM/IP module.



- Locations:**
-  - IP Address
 -  - Subnet Mask
 -  - Gateway Address
 -  - Port Number

Entry Mode: String Edit - Number Mode (see page 18).



IP Address

A valid IP address must be assigned to the module. It must be entered in dot-decimal notation, e.g. "192.168.0.58". Enter   to insert a ".".

Subnet Mask

The subnet mask used on the network must be assigned to the module. It must be entered in dot-decimal notation, e.g. "255.255.255.0". Enter   to insert a ".".

Gateway Address

The gateway address (normally the ADSL router) used on the network must be assigned to the module. It must be entered in dot-decimal notation, e.g. "192.168.0.1". Enter   to insert a ".".

Port Number

A valid port number must be assigned to the module. It must be entered as a decimal number, e.g. "8888".

7. On-board Communicator

This section covers programming of the on-board communicator.

ARC 1-4: Telephone Number

This set of options allows the telephone number to be programmed for each ARC.

Locations: 70001 to 7004

ARC 1 to 4: Telephone Number.

Entry Mode: String Edit - Number Mode (see page 18).

Whilst programming telephone numbers, addition characters can be inserted to perform the following:

Ⓜ1: Insert a "P" for a 1 second pause.

Ⓜ2: Insert a "F" to force blind dialling (no dial-tone detection).

ARC 1-4: Account Number

This set of options allows the account number to be programmed for each ARC.

Locations: 7001 to 7014

ARC 1 to 4: Account Number.

Entry Mode: String Edit - Number Mode (see page 18).

ARC 1-4: Protocol

This set of options allows the protocol type to be programmed for each ARC.

Locations: 7021 to 7024

ARC 1 to 4: Protocol.

Entry Mode: Selection List (see page 16).

0 Disabled

The selected ARC is disabled.

1 Contact ID

The selected ARC is configured for Contact ID protocol. When triggered, the on-board communicator will dial the telephone number and attempt to communicate with the alarm receiver using Contact ID protocol.

2 Fast Format

The selected ARC is configured for Fast Format protocol. When triggered, the on-board communicator will dial the telephone number and attempt to communicate with the alarm receiver using standard Fast Format protocol. The control panel supports 16 Fast Format channels, see "Fast Format" on page 36.

3 Voice Format

The selected ARC is configured for Voice protocol. When triggered, the on-board communicator will dial the telephone number and play a fixed voice message relating to alarm event.

4 SMS Text

The selected ARC is configured for SMS protocol. When triggered, the on-board communicator will dial the SMS Centre and send a SMS text message to the telephone number programmed in the ARC. See page 33 for programming the SMS Centre number.

ARC 1-4: Protocol Options

This set of options allows the protocol options to be programmed for each ARC.

Locations: 7031 to 7034

ARC 1 to 4: Protocol Options.

Entry Mode: Bit Toggle Selection (see page 17).

1 Switch to Next ARC on failed Attempt

On: The on-board communicator switches to the next ARC in the sequence, if the current ARC attempt fails.

Off: The on-board communicator continues dialling the selected ARC until all its attempts have been used.

2 Use PSTN Pre-Dial

On: The on-board communicator dials the "PSTN Pre-Dial Number" before dialling the ARC telephone number. This is normally required when using an internal telephone system. See "PSTN Pre-Dial Number" on page 36.

Off: The on-board communicator only dials the ARC telephone number.

ARC 1-4: Call Sequence/Attempts

This set of options allows the call sequence to be programmed for each ARC.

Locations: 7041 to 7044

ARC 1 to 4: Call Sequence/Attempts.

Entry Mode: String Edit - Number Mode (see page 18).

The call sequence is entered as a string of digits; each number indicates the calling method:

1= PSTN (On-board Communicator)

2 = GSM Module

3 = IP Module

The call attempts are controlled by how many digits are entered. Here are some typical examples:

"111" = Attempt to call the selected ARC three times using the PSTN.

"1212" = Attempt to call the selected ARC four times alternating between PSTN and GSM.

"123" = Attempt to call the selected ARC three times using PSTN, then GSM and finally IP.

"31" = Attempt to call the selected ARC twice, first using IP then PSTN.

ARC 1-4: Reported Event Groups

This set of options allows you to control which group of events that are reported for each ARC.

Locations: 7051 to 7054

ARC 1 to 4: Reported Event Groups.

Entry Mode: Bit Toggle Selection (see page 17).

1 Alarms

On: The selected ARC reports events that are assigned in the alarm group.

Off: The selected ARC does not report alarm events.

2 Tamper

On: The selected ARC reports events that are assigned in the tamper group.

Off: The selected ARC does not report tamper events.

3 Faults

On: The selected ARC reports events that are assigned in the fault group.

Off: The selected ARC does not report fault events.

4 Open/Close

On: The selected ARC reports events that are assigned in the open/close group.

Off: The selected ARC does not report open/close events.

5 Test/Misc.

On: The selected ARC reports events that are assigned in the test/misc. group.

Off: The selected ARC does not report test/misc. events.

6 Restore

On: The selected ARC reports events that are assigned in the restore group.

Off: The selected ARC does not report restore events.

7 Custom

On: The selected ARC reports events that are assigned in the custom group.

Off: The selected ARC does not report custom events.

ARC 1-4: Cancel on Success

This set of options allows you to control communication sequence for each ARC. When the on-board communicator is triggered by an event it will call the ARC using the settings defined in ARC 1. If the communication attempt is successful, this option can be used to either cancel attempts for the remaining available ARC's or move on and call the next available ARC.

Locations: 7061 to 7064

ARC 1 to 4: Cancel on Success.

Entry Mode: Bit Toggle Selection (see page 17).

1 Stop ARC 1

On: The selected ARC will cancel further attempts to ARC 1 after a successful communication.

Off: The selected ARC will move on to next ARC after a successful communication.

2 Stop ARC 2

On: The selected ARC will cancel further attempts to ARC 2 after a successful communication.

Off: The selected ARC will move on to next ARC after a successful communication.

3 Stop ARC 3

On: The selected ARC will cancel further attempts to ARC 3 after a successful communication.

Off: The selected ARC will move on to next ARC after a successful communication.

4 Stop ARC 4

On: The selected ARC will cancel further attempts to ARC 4 after a successful communication.

Off: The selected ARC will move on to next ARC after a successful communication.

ARC 1-4: IP Address


This option allows an IP address to be programmed for each ARC.

Locations: 7081 to 7084

ARC 1 to 4: IP Address.

Entry Mode: String Edit - Number Mode (see page 18).

Whilst programming IP address, addition characters can be inserted:

 3: Insert a ".".

ARC 1-4: IP Port Number

This option allows an IP port number to be programmed for each ARC.

Locations: 7091 to 7094

ARC 1 to 4: IP Port Number.

Entry Mode: String Edit - Number Mode (see page 18).

Options: Auto Test Call Period

The on-board communicator can be programmed to send a test call event to the ARC. This option controls the period in hours in which a test call is sent. The test call timer is reset every time a system event is successfully communicated, therefore a test call will only be sent once the timer reaches zero.

Location: 7101

Entry Mode: Number Entry (see page 18).

Options: Auto Test Call Time

This option allows you to program a time at which the on-board communicator sends a test call.

Location: 7102

Entry Mode: Number Entry (see page 18).

The time must be entered in a 24hr format, e.g., 2100 = 9:00PM.

To disable this feature program the time as 0000.

Options: Auto Test Days

This option allows you to select which days of the week the on-board communicator sends a test call.

Location: 7103

Entry Mode: Bit Toggle Selection (see page 17).

Options 1 to 7 = Sunday to Saturday.

Options: PSTN Pre-Dial Number

This option allows a PSTN pre-dial number (up to 3 digits) to be programmed. Most internal telephone systems require a digit to be dialled before an outside line and dial tone is made available. If this feature is required, make sure that the "Use PSTN Pre-Dial" option is enabled for the required ARC, see "Protocol Options" on page 35.

Location: 7104

Entry Mode: String Edit - Number Mode (see page 18).

Fast Format: Reporting Channels

When the ARC protocol is programmed as Fast Format, the channels that are used for reporting must be enabled or disabled.

Locations: 7201 - Reporting Channels 1 - 8.

7241 - Reporting Channels 9 - 16.

Entry Mode: Bit Toggle Selection (see page 17).

1 Report Channel 1/9

On: For location 7201 channel 1 is enabled, for location 7241 channel 9 is enabled.

Off: For location 7201 channel 1 is disabled, for location 7241 channel 9 is disabled.

2 Report Channel 2/10

On: For location 7201 channel 2 is enabled, for location 7241 channel 10 is enabled.

Off: For location 7201 channel 2 is disabled, for location 7241 channel 10 is disabled.

3 Report Channel 3/11

On: For location 7201 channel 3 is enabled, for location 7241 channel 11 is enabled.

Off: For location 7201 channel 3 is disabled, for location 7241 channel 11 is disabled.

4 Report Channel 4/12

On: For location 7201 channel 4 is enabled, for location 7241 channel 12 is enabled.

Off: For location 7201 channel 4 is disabled, for location 7241 channel 12 is disabled.

5 Report Channel 5/13

On: For location 7201 channel 5 is enabled, for location 7241 channel 13 is enabled.

Off: For location 7201 channel 5 is disabled, for location 7241 channel 13 is disabled.

6 Report Channel 6/14

On: For location 7201 channel 6 is enabled, for location 7241 channel 14 is enabled.

Off: For location 7201 channel 6 is disabled, for location 7241 channel 14 is disabled.

7 Report Channel 7/15

On: For location 7201 channel 7 is enabled, for location 7241 channel 15 is enabled.

Off: For location 7201 channel 7 is disabled, for location 7241 channel 15 is disabled.

8 Report Channel 8/16

On: For location 7201 channel 8 is enabled, for location 7241 channel 16 is enabled.

Off: For location 7201 channel 8 is disabled, for location 7241 channel 16 is disabled.

Fast Format: Restore Channels

When the ARC protocol is programmed as Fast Format, the channels that report a restore event can be enabled or disabled.

Locations: **7202** - Restore Channels 1 – 8.

7242 - Restore Channels 9 – 16.

Entry Mode: Bit Toggle Selection (see page 17).

1 Restore Channel 1/9

On: For location 7202 channel 1 is enabled, for location 7242 channel 9 is enabled.

Off: For location 7202 channel 1 is disabled, for location 7242 channel 9 is disabled.

2 Restore Channel 2/10

On: For location 7202 channel 2 is enabled, for location 7242 channel 10 is enabled.

Off: For location 7202 channel 2 is disabled, for location 7242 channel 10 is disabled.

3 Restore Channel 3/11

On: For location 7202 channel 3 is enabled, for location 7242 channel 11 is enabled.

Off: For location 7202 channel 3 is disabled, for location 7242 channel 11 is disabled.

4 Restore Channel 4/12

On: For location 7202 channel 4 is enabled, for location 7242 channel 12 is enabled.

Off: For location 7202 channel 4 is disabled, for location 7242 channel 12 is disabled.

5 Restore Channel 5/13

On: For location 7202 channel 5 is enabled, for location 7242 channel 13 is enabled.

Off: For location 7202 channel 5 is disabled, for location 7242 channel 13 is disabled.

6 Restore Channel 6/14

On: For location 7202 channel 6 is enabled, for location 7242 channel 14 is enabled.

Off: For location 7202 channel 6 is disabled, for location 7242 channel 14 is disabled.

7 Restore Channel 7/15

On: For location 7202 channel 7 is enabled, for location 7242 channel 15 is enabled.

Off: For location 7202 channel 7 is disabled, for location 7242 channel 15 is disabled.

8 Restore Channel 8/16

On: For location 7202 channel 8 is enabled, for location 7242 channel 16 is enabled.

Off: For location 7202 channel 8 is disabled, for location 7242 channel 16 is disabled.

Fast Format: Open/Close Channels

When the ARC protocol is programmed as Fast Format, the channels that report an Open/Close event can be enabled or disabled.

Locations: **7203** - Open/Close Channels 1 – 8.

7243 - Open/Close Channels 9 – 16.

Entry Mode: Bit Toggle Selection (see page 17).

1 Open/Close Channel 1/9

On: For location 7203 channel 1 is enabled, for location 7243 channel 9 is enabled.

Off: For location 7203 channel 1 is disabled, for location 7243 channel 9 is disabled.

2 Open/Close Channel 2/10

On: For location 7203 channel 2 is enabled, for location 7243 channel 10 is enabled.

Off: For location 7203 channel 2 is disabled, for location 7243 channel 10 is disabled.

3 Open/Close Channel 3/11

On: For location 7203 channel 3 is enabled, for location 7243 channel 11 is enabled.

Off: For location 7203 channel 3 is disabled, for location 7243 channel 11 is disabled.

4 Open/Close Channel 4/12

On: For location 7203 channel 4 is enabled, for location 7243 channel 12 is enabled.

Off: For location 7203 channel 4 is disabled, for location 7243 channel 12 is disabled.

5 Open/Close Channel 5/13

On: For location 7203 channel 5 is enabled, for location 7243 channel 13 is enabled.

Off: For location 7203 channel 5 is disabled, for location 7243 channel 13 is disabled.

6 Open/Close Channel 6/14

On: For location 7203 channel 6 is enabled, for location 7243 channel 14 is enabled.

Off: For location 7203 channel 6 is disabled, for location 7243 channel 14 is disabled.

7 Open/Close Channel 7/15

On: For location 7203 channel 7 is enabled, for location 7243 channel 15 is enabled.

Off: For location 7203 channel 7 is disabled, for location 7243 channel 15 is disabled.

8 Open/Close Channel 8/16

On: For location 7203 channel 8 is enabled, for location 7243 channel 16 is enabled.

Off: For location 7203 channel 8 is disabled, for location 7243 channel 16 is disabled.

Channel Type

When the ARC protocol is programmed as Fast Format, the channel type must be allocated to a system output type.

Locations: 7211 to 7218

Channels 1 to 8: Channel Type.

7251 to 7258

Channels 9 to 16: Channel Type.

Entry Mode: Selection List (see page 16).

Please refer to page 30 for a complete list of output types.

Channel Attributes

This set of options allows the output attributes to be assigned to the Fast Format channels.

Locations: 7221 to 7228

Channels 1 to 8: Channel Attributes.

7261 to 7268

Channels 9 to 16: Channel Attributes.

Entry Mode: Bit Toggle Selection (see page 17).

Please refer to page 30 for a complete list of output attributes.

Speech Dialler: Telephone Numbers 1 and 2

The on-board communicator also features a 4 channel speech dialler which can be used to call landline or mobile telephones to play a recorded voice message. Each channel can have two telephone numbers assigned. When the channel is triggered the on-board communicator will dial the number specified by the dial sequence and play the voice message associated with the channel for up to 1 minute. Pressing the [#] key on the telephone handset acknowledges the call and stops the dial sequence, pressing any other key also acknowledges the call, but the dial sequence will continue with next number.

The speech messages are recorded using the Eclipse UDL software package or a touch-tone telephone. The touch-tone method is covered in the "EC-P10 User Manual".

Locations: 7311 to 7314


Channels 1 to 4: Telephone Number 1.


7321 to 7324

Channels 1 to 4: Telephone Number 2.

Entry Mode: String Edit - Number Mode (see page 18).

Whilst programming telephone numbers, addition characters can be inserted to perform the following:

 1: Insert a "P" for a 1 second pause.

 2: Insert a "F" to force blind dialling (no dial-tone detection).

Speech Dialler: Dial Sequence

This set of options allows the dial sequence to be programmed for each speech dialler channel.

Locations: 7331 to 7334

Channels 1 to 4: Dial Sequence.

Entry Mode: String Edit - Number Mode (see page 18).

The call sequence is entered as a string of digits; each number indicates the calling method:

1: Dial Using Telephone No 1.

2: Dial Using Telephone No 2.

The call attempts are controlled by how many digits are entered. Here are some typical examples:

"1122" = Dial four times, first to telephone no 1 then telephone number 2.

"1212" = Dial four times alternating between telephone number 1 and 2.

Speech Dialler: Trigger Type

Each speech dialler channel can be triggered from any of the system output types, for example channel 1 could be programmed to "Intruder Alarm" whilst channel 2 could be programmed to "Fire Alarm". Please refer to page 30 for a complete list of output types and their corresponding type number.

Locations: 7341 to 7344

Channels 1 to 4: Trigger Type.

Entry Mode: Selection List (see page 16).

UDL Options

The set of options controls how the upload/download computer interacts with the control panel.

Location: 7400

Entry Mode: Bit Toggle Selection (see page 17).

1 2 Call Answer Phone Defeat

On: Incoming calls re answered when:

- The remote UDL computer calls in and allows the panel to detect one or more rings.
- The remote UDL computer ends the call.
- The control panel answers the call immediately if the remote UDL computer calls again within 60 seconds.

Off: Incoming calls are answered after the "Ring Count" threshold is reached.

2 Auto Call-Back

On: After the remote UDL computer establishes a connection, the control panel ends the call and automatically calls the UDL computer.

Off: Call-Back only occurs if the remote UDL computer requests it.

3 User Call-Back

On: Remote UDL access can only be established if the user initiates from their end.

Off: Remote UDL access is enabled at all times.

4 Disable UDL when Armed

On: Remote UDL access is disabled when the system is armed.

Off: Remote UDL access is enabled at all times.

5 Disable Online Keypad

On: Remote UDL online keypad operation is disabled.

Off: Remote UDL online keypad operation is enabled.

UDL Password

The UDL password provides communication security with the remote UDL computer. The UDL password in the control panel must match the UDL password configured in the Eclipse UDL software package in order to establish a communication link.

Location: 7401

Entry Mode: Number Mode (see page 18).



The UDL password can be reset to a default setting of 123456 by entering *6# within 10 seconds of powering up the system.

UDL Ring Count

This counter controls how the on-board communicator takes to answer an incoming call.

Location: 7 4 0 2

Entry Mode: Number Mode (see page 18).

Call-Back Number

When using the call back feature of the Eclipse UDL software, the telephone number of remote UDL computer's modem must be configured using this option.

Location: 7 4 0 3

Entry Mode: String Edit - Number Mode (see page 18).

UDL Dial Sequence

This set of options allows the dial sequence to be programmed when using the call-back feature.

Location: 7 4 0 4

Entry Mode: String Edit - Number Mode (see page 18).

- 1: PSTN (On-board Communicator)
- 2: SM Module
- 3: IP Module

The call attempts are controlled by how many digits are entered. Here are some typical examples:

"111" = Attempt to call-back the remote UDL computer three times using only PSTN.

"1212" = Attempt to call-back the remote UDL computer four times alternating between PSTN and GSM.

"123" = Attempt to call-back the remote UDL computer three times using PSTN, then GSM and finally IP.

UDL Remote IP Address

This is the IP Address of the remote UDL computer.

Location: 7 4 0 5

Entry Mode: String Edit - Number Mode (see page 18).

UD Remote IP Port

This is the IP port number of the remote UDL computer.

Location: 7 4 0 6

Entry Mode: String Edit - Number Mode (see page 18).

UDL Account Number

This is the account number used by the Eclipse UDL database. The Eclipse UDL software will automatically assign this when you create a new account. However, the account number can be manually entered if required.

Location: 7 4 0 7

Entry Mode: String Edit - Number Mode (see page 18).

8. System Users

This section covers programming of the system users.

The EC-P10 has a total of 11 users:

User 00 is the “Engineer” which has a default code of 1234.

User 01 is the “Master” user which has a default code of 5678.

Users 02 to 10 can be programmed to any user type and default to “Not in Use”.

User Access Code

Each user must be assigned an access code in order to operate the system; access codes may be 4, 5 or 6 digits in length. This option allows each user to be assigned an access code.

Locations: 8100 to 8110

Users 00 to 10: Access Code.

Entry Mode: String Edit - Number Mode (see page 18).

User Type

The user type defines the level access the user has in order to operate the system. This option allows the selected user type to be assigned. User 00 and User 01 types cannot be changed.

Locations: 8200 to 8210

Users 00 to 10: User Type.

Entry Mode: Selection List (see page 16).

0 Not in Use

The selected user is not in use.

1 Engineer

The selected user is an engineer and can access all options within the engineer’s program menu.

2 Technician

The selected user is a Technician and can access all options except the on-board communication options within the engineer’s program menu.

3 Master

The selected user is a Master user and can access all options within the user menu and program new users.

4 Manager

The selected user is a Manager user and can access all options within the user menu.

5 Standard

The selected user is a Standard user and can access the following options from the user menu: “Away Arm”, “Stay Arm 1/2/3”, “Do walk Test” and “Change Code”.

6 Cleaner

The selected user is a Cleaner and can access the following options from the user menu: “Away Arm” and “Stay Arm 1/2/3”. The cleaner code can only disarm the system if the cleaner code was used to arm the system. If the system was armed by another user type and a cleaner code is entered whilst the system is armed or during the entry procedure, the zones that have the “Cleaner” attribute are bypassed and the entry procedure is cancelled. When the cleaner is ready to leave the premises, entering their code will start the exit procedure and at the end of the exit procedure the “Cleaner” zones are reinstated.

7 Arm Only

The selected user is an Arm Only user and can only access the arming options within the user menu.

8 Duress

The selected user is a Duress user and operates the same as a standard user, however, on entering the access code a silent duress alarm is generated and if programmed, the event is signalled to alarm receiving centre.

9 Access Control

The selected user is an Access Control user and on entering the access code the relevant “User Access” and “Door Access” output is activated.

User Locked By

The user access can be locked out by the use of a “Link Controlled” output (see page 32). The “Link Control” output can be configured to switch on by various link input conditions, e.g., “Link Control 01” could be programmed to operate when Control Timer 2 is active. This means that the user access code is disabled when the selected “Link Control” output is on and can be used for locking out selected users for particular conditions, e.g. you may want to prevent a user from accessing the system over the weekend.

Locations: 8300 to 8310

Users 00 to 10: User Locked By.

Entry Mode: Number Entry (see page 18).

User Name

Each user can be assigned a 8 character label that is displayed on LCD remote keypads when viewing the system event log.

Locations: 8400 to 8410

Users 00 to 10: User Name.

Entry Mode: String Edit - Text Mode (see page 18).

User Link

Each user can be assigned a “Link” number, which in turn is used to control “Link Control” output types, for details on link control, see page 32.

Locations: 8500 to 8510

Users 00 to 10: User Link.

Entry Mode: Number Entry (see page 18).

9. Utilities

This section covers the programming of the system utilities.

Time and Date

The system has a real time clock that must be programmed so that the time and date is recorded correctly in the system event log. The time and date is also displayed on the bottom line of the LCD keypad. If the system loses all power, the time and date is maintained for approximately 2 days.

- Locations:**
- 9 0 0 1 - Hours.
 - 9 0 0 2 - Minutes.
 - 9 0 0 3 - Seconds.
 - 9 0 0 4 - Day.
 - 9 0 0 5 - Month.
 - 9 0 0 6 - Year.

Entry Mode: Number Entry (see page 18).

User Menus

The engineer can access the user menus without exiting the engineer's program mode by entering 9 1 *. The table below shows the user menu options and the command number used to access them.

Group	Command	Function
Arming	☰	Away Arm
	☰/1	Stay Arm 1
	2	Stay Arm 2
	3	Stay Arm 3
Reset	☺	Reset alarm or fault
System Tests	1 1	Walk Test
	1 2	Test Bell & Outputs
	1 3	Do Test Call
Event Log & UDL	2 1	View Log
	2 2	Print Log
	2 3	Call UDL
	2 4	Chime on/off
Users	8 1	Change code
Menus	9 1	Program Mode
	9 2	View Zone Status
	9 9	Exit Menu



When using the LCD keypad the menu options and their command numbers are scrolled on the bottom line of the LCD. If the * key is pressed, the menu option that is currently being displayed is selected.

Away Arm



Selecting this option will cause the system to start the exit mode and attempt to away arm the system. To cancel or disarm simply enter a valid user code.

Stay Arm 1



Selecting this option will cause the system to start the exit mode and attempt to stay arm (1) the system. To cancel or disarm simply enter a valid user code.

Stay Arm 2



Selecting this option will cause the system to start the exit mode and attempt to stay arm (2) the system. To cancel or disarm simply enter a valid user code.

Stay Arm 3



Selecting this option will cause the system to start the exit mode and attempt to stay arm (3) the system. To cancel or disarm simply enter a valid user code.

Walk Test



Selecting this option allows the detection zones to be tested without causing an alarm. As each zone is activated, the keypad generates an acknowledgment tone and the zone number is added to the list of tested zones. The tested zones are scrolled on the keypad display. When you have finished testing the zones, press ☺ to exit this option.

Test Bell & Outputs



Selecting this option allows the bell, strobe and any outputs that have the "User Test" attribute to be switched on and off. After selecting this command keys 1 to 4 toggle on and off the following options. When finished, press ☺ to exit this option:

- 1 Bell Output
- 2 Strobe Output
- 3 User Test Outputs
- 4 Alarm Sounder

Do Test Call



Selecting this option will cause the on-board communicator to send a test call to the alarm receiving centre.

View Event Log



Selecting this option allows the event log to be viewed. The following keys are used when navigating through the log:

- * Go backward.
- # Go forward.

Press ☺ to exit this option.

Print Event Log



Selecting this option causes the contents of the event log to be sent to the printer. Press ☺ to exit this option.



Either Com1 or Com2 must be configured for "Printer" mode in order to use this feature.

Call UDL



Selecting this option will cause the on-board communicator to call the remote computer modem, so that a remote link can be established.



The remote computer must be setup so that it is ready to receive the call. Only select this option when instructed to do so by the remote computer operator.

Chime on/off



Selecting this option will globally turn chime on or off.

Change Code



Selecting this option allows you to change your own access code. After selecting this option enter the new access code (4 - 6 digits) followed by *.

Program Mode



Selecting this option takes you back to the normal engineer's program mode.

View Zone Status



Selecting this option either from engineer's mode or the user menu allows you view the status/count of each zone.

Exit Menu



Selecting this option returns the system to the normal disarmed state.

Log Events

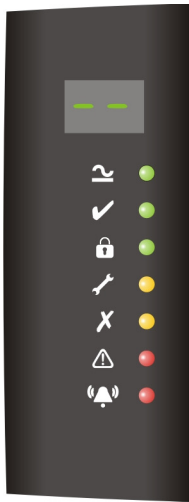
LCD	LED	Description
Intruder Alarm ??	IA ??	Intruder alarm activated by zone ??.
Intruder Restore ??	Ir ??	Intruder zone ?? restore.
Perimeter Alarm ??	PEA ??	Perimeter alarm activated by zone ??.
Perimeter Restore ??	PEr ??	Perimeter zone ?? restore.
24Hr Alarm ??	24HrA ??	24 hour alarm activated by zone ??.
24Hr Restore ??	24Hrr ??	24 hour zone ?? restore.
Entry Alarm ??	EA ??	Entry alarm activated by zone ??.
Entry Restore ??	Er ??	Entry zone ?? restore.
Warning Alarm ??	WA ??	Warning alarm activated by zone ??.
Warning Restore ??	Wr ??	Warning zone ?? restore.
Medical Alarm ??	dMA ??	Medical alarm activated by zone ??.
Medical Restore ??	dr ??	Medical zone ?? restore.
Fire Alarm ??	FA ??	Fire alarm activated by zone ??.
Fire Restore ??	Fr ??	Fire zone ?? restore.
PA Alarm ??	PA ??	Panic alarm activated by zone ??.
PA Restore ??	Pr ??	Panic alarm zone ?? restore.
PA Silent Alarm ??	PSA ??	Silent panic alarm activated by zone ??.
PA Silent Restore ??	PSr ??	Silent panic alarm ?? restore.
Aux Alarm ??	AUA ??	Auxiliary alarm activated by zone ??.
Aux Restore ??	AUr ??	Auxiliary zone ?? restore.
Monitor Alarm ??	MA ??	Monitor alarm activated by zone ??.
Monitor Restore ??	Mrr ??	Monitor zone ?? restore.
Zone ?? Bypassed	bY ??	Zone ?? bypassed.
Zone ?? Unbypassed	UbY ??	Zone ?? unbypassed.
Tamper ?? Alarm	tA ??	Tamper alarm activated by zone ??.
Tamper ?? Restore	tr ??	Tamper zone ?? restore.
Zone ?? Fault Alarm	FLtA ??	Fault alarm activated by zone ??.
Zone ?? Fault Restore	FLtr ??	Fault on zone ?? has restored.
Zone ?? Mask Alarm	MA ??	Mask alarm activated by zone ??.
Zone ?? Mask Restore	Mrr ??	Mask alarm on zone ?? has restored.
Low Bat.Alarm ??	Lb ??	Low battery alarm from wireless device on zone ??.
Low Bat.Restore ??	Lr ??	Low battery alarm on zone ?? has restored.
Bypass Active ??	bYA ??	Group bypass activated by zone ??.
Bypass Restore ??	bYr ??	Group bypass by zone ?? has restored.
Keyswitch Active ??	SA ??	Keyswitch connected to zone ?? is active.
Keyswitch Restore ??	Sr ??	Keyswitch connected to zone ?? has restored.
Alarm Active	AA	Intruder Alarm is active.
Bells Active	bA	Bell output is active.
Re-arm Lockout	rL	Re-arm lockout has occurred and no more alarm can be generated for the armed period.
Confirmed Alarm	CA	Confirmed alarm generated (two different zones activated).
Remote Access ??	rA ??	Remote access via PC number ??.
User ??	Ur ??	User access by user ??.
Duress ??	dr ??	Duress alarm by user ??.
User Tag ??	Ut ??	User ?? proximity tag access.
User ?? Lockout	UL ??	User ?? has been locked out from using the system.
User Tag ?? Lockout	tL ??	User ?? proximity tag has been locked out from using the system.
Code Tamper ?	Ct ?	Code tamper (invalid code) generated at keypad ?.
Exit Started ??	ESU ??	Exit mode started by user ??.
Exit Started Timer ?	Est ??	Exit mode started by control timer ?.

LCD	LED	Description
Exit Started Zone ??	ESC ??	Exit mode started by zone ??.
Exit Stopped	ES	Exit mode stopped.
Exit Failed #??	EF ??	Exit mode failed by zone ??.
Entry Started ??	En ??	Entry mode started by zone ??.
Entry Timeout	Et	Entry timeout alarm.
System Armed	SA	System armed.
System Disarmed	SD	System disarmed.
Stay Armed #?	S P	Stay armed #? (? = 1, 2 or 3).
Arm Failed #?	AF P	Arming failed.
Armed With ATS Fault	AU	The system was armed with an Alarm Transmission System (ATS) fault.
Auto Armed	AA	The system was automatically armed.
Auto Disarmed	Ad	The system was automatically disarmed.
Remote Armed	rA	The system was automatically armed remotely.
Remote Disarmed	rd	The system was automatically disarmed remotely.
System Power Up	SU	The system was powered up.
AC Failed	ACOFF	The mains ac supply has been switched off.
AC Restore	ACOn	The mains ac supply has been restored.
Battery Fault #?	bF	Battery fault #? (1: Presence Fail; 2: Load Test Fail).
Battery Restore	br	Battery fault restored.
Low Battery Alarm	Lb	The system standby battery voltage is low (The system is running on battery only).
Time/Date Changed	td	The system time and date has been changed.
Engineer on site	EnOn	The engineer access code has been entered.
Engineer off site	EnOff	The engineer has logged off.
Bell Fuse Alarm	bFAL	The bell fuse has gone open circuit (electronic fuse).
Bell Fuse Restore	bFAR	The bell fuse has restored.
Aux Fuse Alarm	AFAL	The auxiliary 12V fuse has gone open circuit (electronic fuse).
Aux Fuse Restore	AFAR	The auxiliary 12V fuse has restored.
Battery Fuse Alarm	bFAL P	The battery fuse has gone open circuit (electronic fuse).
Battery Fuse Restore	bFAR	The battery fuse has restored.
Box Tamper Alarm	bTAL	The control panel box tamper has been activated.
Box Tamper Restore	bTAR	The control panel box tamper has restored.
Keypad ? Tamper	rTAL P	Keypad ? box tamper has been activated.
Keypad ? Tamp Rest	rTAR P	Keypad ? box tamper has restored.
Device ?? Lost	rL P	Device ?? on network lost.
Device ?? Found	rF P	Device ?? on network found.
Walktest Started	tS	User walk test mode started.
Walktest Ended	tE	User walk test mode ended.
Bell Test Started	btS	User bell test started.
Bell Test Ended	btE	User bell test ended.
Auto Test Call	AtC	An automatic test call was sent to the Alarm Receiving Centre (ARC).
Manual Test Call	tC	A manual (user) test call was sent to the Alarm Receiving Centre (ARC).
Timer ? On	t P On	Control Timer ? is on.
Timer ? Off	t P Off	Control Timer ? is off.
Zone Test ?? Days	tS ??	Zone soak test has started and will run for ?? days.
Zone ?? Test Fail	tF ??	Zone ?? has failed whilst on test.
First Knock ??	Fn ??	First activation from zone ??.
Alarm Aborted	AA	The user has disarmed the system within the abort delay period.
Bell Tamper Alarm	bTAL	The bell tamper alarm has been activated.
Bell Tamper Restore	bTAR	The bell tamper has restored.
ATS Fault	AtSF	The Alarm Transmission System (ATS) has detected a fault with the telephone line.
ATS Restored	AtSR	The ATS Fault has restored.

LCD	LED	Description
Keypad PA ?	rP P A	A panic alarm was generated at keypad ? by pressing keys 7 and 9.
Keypad Fire ?	rF P A	A fire alarm was generated at keypad ? by pressing keys 1 and 3.
Keypad Medical ?	rd P A	A medical alarm was generated at keypad ? by pressing keys 4 and 6.
Output ? Fault	OPF P	The control panel has detected a fault on panel output ?.
Output ? Restore	OPr P	The fault on panel output ? has restored.
Cleaner On-Site ??	CLoS	Cleaner user number ?? is on-site (Cleaner zones are bypassed).
Cleaner Off-Site ??	CLoS	Cleaner user number ?? is off-site (Cleaner zones are un-bypassed).
Com Module Alarm	CPA	The communication module has been disconnected/lost from com port ?
Com Module Restore	CPr	The communication module has been connected/lost from com port ?
Zone ?? Count Alarm	PPCA	Zone ?? has reached the "Count Logging" threshold.

LED Indications

The figure below shows the LED indicators for both the LED and LCD remote keypads:



LED Keypad



LCD Keypad

Icon	Name	LED	Description
	Power	Green	Mains AC power is present.
	Ready	Green	The system is ready for arming.
	Armed	Green	The system is armed (Away or Stay).
	Fault	Yellow	The system has one or more faults.
	Bypass	Yellow	One or more zones are bypassed.
	Alert	Red	One or more faults/alerts require attention.
	Alarm	Red	One or more alarms have occurred.

Fault & Status Messages

Faults and status messages may be indicated during the disarmed mode or after the user disarms the system. The table below shows the message for both the LED and LCD remote keypads:

LCD	LED	Description
AC mains off	AC	Mains AC power is off.
Battery Fault	bF	The standby battery in the control panel has a fault.
Phone Line Fault	LF	The on-board communicator has detected a fault with the telephone line.
Panel Tamper	Pt	The box tamper on the control panel has activated.
Bell Tamper	bt	The bell tamper on the control panel has activated.
Call Engineer	CE	Call engineer to reset the system.
Service Required	Cr	The service timer has expired and the installation company should be contacted.
2-Wire Smoke Alarm	SA	One or more 2-wire smoke detectors have activated a fire alarm.
2-Wire Smoke Fault	SF	One or more 2-wire smoke detectors have a fault.
Keypad ? Lost	rP	Keypad ? is no longer reporting to the control panel.
Keypad ? Tamper	tP	The box tamper on keypad ? has activated.
Expander 1 Lost	E1	Expander 1 is no longer reporting to the control panel.
Expander 1 Tamper	t1	The box tamper on expander 1 has activated.
Output ? Fault	OP	Output ? on the control panel has a fault.
Zone ?? : Alarmed	PP	Alarm activated on zone ??.

Resetting Faults & alarms

If a fault or alarm has occurred it can be reset as follows:

1. Enter a valid access code, this will silence the alarm or cancel the alert.
2. Enter a valid access and press to reset the system.
3. Enter to exit the menu. If the fault is still present it will still be indicated.

4. Specifications

EC-P10 Control Panel

Electrical

Supply Voltage:	230Vac.
Rated PSU Output:	1.5A.
Ripple:	<5%.
Current:	<100mA quiescent. <150mA in alarm.
Standby Battery:	12.0V SLA, 7Ah.
Recharge Time:	24hr @300mA; 10hr @750mA.
Low Voltage Alarm:	10.5V.
Deep Discharge Cut-off:	9.5V.
Fuses:	Mains: 315mA, 250V, 20mm. Auxiliary 12V: 900mA PTC. Bell: 900mA PTC. Battery: 1.6A PTC.
On-board Zones:	10.
Panel Outputs 1 - 5:	1A switched to 0V (supervised).
Speaker Output:	Minimum load 16Ω.
2-Wire Smoke Detectors:	ESL429CT or System Sensor 2100TS.
On-board Communicator:	Protocols: Fast Format, Contact ID, Voice, SMS ETSI ES 201 912 protocol 1, Speech Dialler and V21 Modem. Dialling: Pulse or DTMF. REN Rating: 1.0.

Environmental

Operating Temperature:	-25 °C to +55 °C (-13 °F to +131 °F).
Storage Temperature:	-25 °C to +60 °C (-13 °F to +140 °F).
Max. Humidity:	95% non-condensing.
EMC:	Residential, commercial and light industrial.



Do not throw away the product with the normal household waste at the end of its life, but hand it in at an official collection point for recycling. The on-board battery also contains substances that may pollute the environment. Always remove the battery before you discard and dispose of the battery at an official collection point for batteries.

Physical

Dimensions:	280.0mm x 255.0mm x 95.0mm.
Housing:	3mm Polycarbonate.
Packed Weight:	975g.

EC-LED Remote Keypad

Electrical

Voltage:	9 – 16Vdc.
Current:	25mA quiescent. 40mA when active.

Environmental

Operating Temperature:	-25 °C to +55 °C (-13 °F to +131 °F).
Storage Temp.:	-25 °C to +60 °C (-13 °F to +140 °F).
Max. Humidity:	95% non-condensing.
EMC:	Residential, commercial and light industrial.

Physical

Dimensions:	130.0mm x 102.0mm x 27.0mm.
Housing:	3mm Polycarbonate.
Packed Weight:	225g.

EC-LCD Remote Keypad

Electrical

Voltage:	9 – 16Vdc.
Current:	20mA quiescent. 30mA when active.

Environmental

Operating Temperature:	-25 °C to +55 °C (-13 °F to +131 °F).
Storage Temperature:	-25 °C to +60 °C (-13 °F to +140 °F).
Max. Humidity:	95% non-condensing.
EMC:	Residential, commercial and light industrial.

Physical

Dimensions:	102.0mm x 130.0mm x 27.0mm.
Housing:	3mm Polycarbonate.
Packed Weight:	225g.

EC-EX10/I Zone Expander

Electrical

Voltage:	9 – 16Vdc.
Current:	30mA.
Zone Inputs:	10 fully programmable.
Auxiliary 12V:	Protected by 1A electronic fuse (PTC).

Environmental

Operating Temperature:	-25 °C to +55 °C (-13 °F to +131 °F).
Storage Temperature:	-25 °C to +60 °C (-13 °F to +140 °F).
Max. Humidity:	95% non-condensing.
EMC:	Residential, commercial and light industrial.

Physical

Dimensions:	136.0mm x 174.0mm x 35.0mm.
Housing:	3mm Polycarbonate.
Packed Weight:	250g.

EC-EX10 Zone & Output Expander

Electrical

Voltage:	9 – 16Vdc.
Current:	40mA.
Zone Inputs:	10 fully programmable.
Outputs:	OP1-8: 100mA; OP9-10: 1Amp.
Loudspeaker:	Minimum load of 16Ω.
Auxiliary 12V:	Protected by 1A electronic fuse (PTC).

Environmental

Operating Temperature:	-25 °C to +55 °C (-13 °F to +131 °F).
Storage Temperature:	-25 °C to +60 °C (-13 °F to +140 °F).
Max. Humidity:	95% non-condensing.
EMC:	Residential, commercial and light industrial.

Physical

Dimensions:	136.0mm x 174.0mm x 35.0mm.
Housing:	3mm Polycarbonate.
Packed Weight:	350g.

EC-COM/IP Communication Module

Electrical

Voltage:	9 – 16Vdc.
Current:	70mA.

Environmental

Operating Temperature:	-25 °C to +55 °C (-13 °F to +131 °F).
Storage Temperature:	-25 °C to +60 °C (-13 °F to +140 °F).
Max. Humidity:	95% non-condensing.
EMC:	Residential, commercial and light industrial.

Physical

Dimensions:	65.0mm x 55.0mm x 15.0mm.
Packed Weight:	100g.

Standards

Safety

Conforms to European Union (EU) Low Voltage Directive (LVD) 2006/95/EC.

EMC

Conforms to European Union (EU) Electro-Magnetic Compatibility (EMC) Directive 2004/108/EC.

Security

Conforms to EN 50131-1 and EN 50131-3 Grade 2, Environmental Class IV.



The CE mark indicates that the EC-P10 complies with the European requirements for safety, health, environment and customer protection.

Warranty

Zeta Alarm Systems by GLT Exports Ltd products are carefully designed to provide reliable problem-free operation. Product quality is carefully controlled during all manufacturing processes. The EC-P10 is covered against defects in material or faulty workmanship for a period of 2 years from the date of purchase. Due to our policy of continuous product improvement, Zeta Alarm Systems by GLT Exports Ltd reserves the right to change specification without prior notice.

As the EC-P10 is not a complete intruder alarm system, but only part of it, Zeta Alarm Systems by GLT Exports Ltd does not accept responsibility or liability for any damages whatsoever based on any claim that the unit failed to function correctly.



Technical Support

Email: support@zetaalarmsystems.com