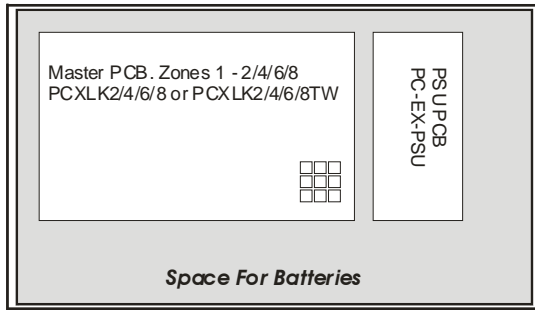# Surveyor Excel

Fire Alarm
Control Equipment
Network version

Programming Manual

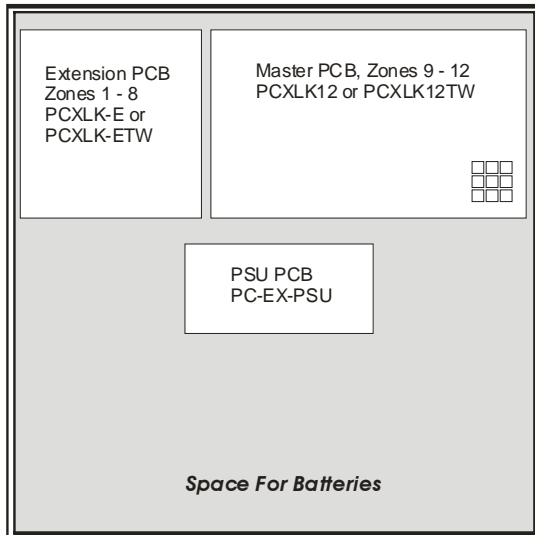**VERSION 14.0 and Above**

MASTER MANUAL

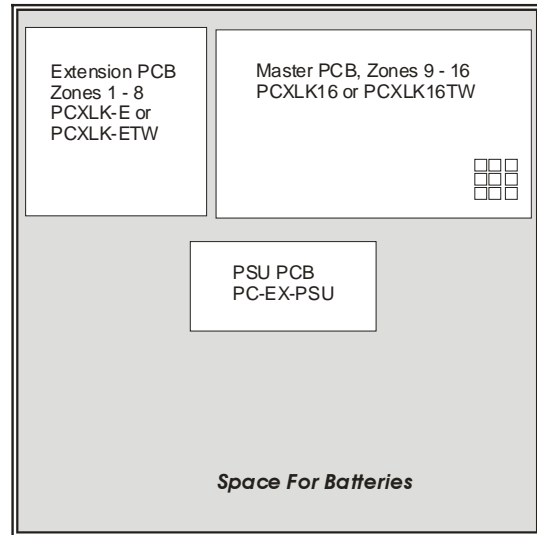### Drawing S1606. PCB Layout guide for XLK range of control panels
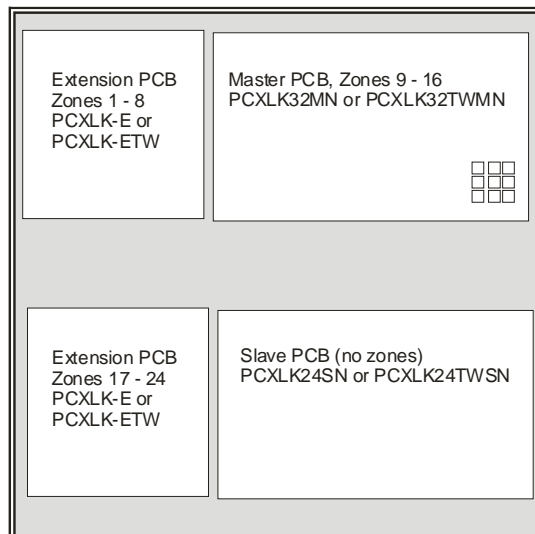
FCPXLK-2/4/6/8 & FCPXLK2/4/6/8TW

Master PCB. Zones 1 - 2/4/6/8
PCXLK2/4/6/8 or PCXLK2/4/6/8TW

PSU PCB
PC-EX-PSU

Space For Batteries

FCPXLK2-12 & FCPXLK2-12TW

Extension PCB
Zones 1 - 8
PCXLK-E or
PCXLK-ETW

Master PCB, Zones 9 - 12
PCXLK12 or PCXLK12TW

PSU PCB
PC-EX-PSU

Space For Batteries

FCPXLK2-16 & FCPXLK2-16TW

Extension PCB
Zones 1 - 8
PCXLK-E or
PCXLK-ETW

Master PCB, Zones 9 - 16
PCXLK16 or PCXLK16TW

PSU PCB
PC-EX-PSU

Space For Batteries

FCPXLK2-24N & FCPXLK2-24TWN

Extension PCB
Zones 1 - 8
PCXLK-E or
PCXLK-ETW

Master PCB, Zones 9 - 16
PCXLK32MN or PCXLK32TWMN

Extension PCB
Zones 17 - 24
PCXLK-E or
PCXLK-ETW

Slave PCB (no zones)
PCXLK24SN or PCXLK24TWSN

FCPXLK2-32N & FCPXLK2-32TWN

Extension PCB
Zones 1 - 8
PCXLK-E or
PCXLK-ETW

Master PCB, Zones 9 - 16
PCXLK32MN or PCXLK32TWMN

Extension PCB
Zones 17 - 24
PCXLK-E or
PCXLK-ETW

Slave PCB zones 25 - 32
PCXLK32SN or PCXLK32TWSN

Supplementary Information
SET UP AND PROGRAMING OF XLK NETWORK VERSION CONTROL PANELS

The following section is a guide to the various setting up requirements of networkable versions of the Surveyor Excel control panels

Network panels were developed to enable expansion of the XLK range beyond 16 zones. The basic building block of the system is the excelm pcb which may either be 8 zones, or with the addition of an extender card, be up to 16 zones. The pcb comes in three distinct types . Master , slave or repeater.

MASTER
The 'Master' may be conventional or twin wire type. There can only be one Master in any network system. The Master controls the function of the entire network and must be present for the system to function correctly. All panels will operate in a stand alone mode if this is not correctly functioning. If any problem exists with communications it will emit a warbling tone. The Master keeps track of the number of slave and repeater pcb,s that exist in the system.

SLAVE
Up to 7 'Slave' pcb,s may be present in any system. Each one must be set with a unique address. Slaves may be conventional or twin wire, These may be mixed on the same network. A slave pcb may be supplied with or without a keypad. Usually slaves will be in the same enclosure as the master and thus require no keypad. In special networks a slave may have an enclosure and thus require a keypad to be fitted.

REPEATER
Up to 15 'Repeater' pcb,s may exist on any network. Repeater pcb,s are supplied with or without additional zonal bell circuits. Repeater pcb,s may also be supplied with or without a keypad fitted, depending on the panel size. E.g. a 32 zone repeater will have 2 Repeater pcb,s one with a keypad and one without.
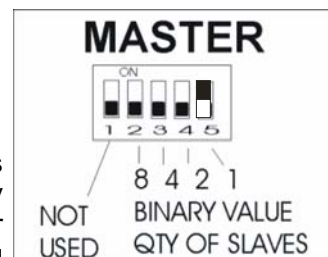
ADDRESSING
All the network pcb,s have addresses set onto dil switches on . The function of these switches is clearly labelled. Each pcb in the system must be addressed.
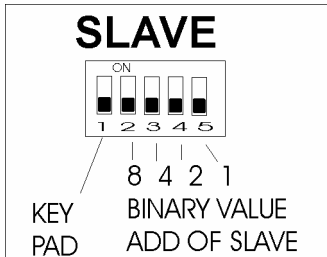Fig 1

The master has no address. The number of Slaves is set into the dil switch on the master. This will normally be factory set. Fig 1 shows the master configured for monitoring 1 slave. Up to 7 may be monitored, allowing maximum system size of 128 zones.

```
ATTENTION
XLK NETWORK PCB VERSION
SLAVE
```

```
SLAVE
    ON
  1 2 3 4 5
   8 4 2 1
KEY   BINARY VALUE
PAD   ADD OF SLAVE
```

The slaves must be addressed from 1 to 7. Address 0 is invalid. In normal systems the slaves will occupy zones above zone 16.
The keypad switch should normally be set to 'off' unless it is fitted into a stand alone panel and has a keypad fitted in which case the switch must be turned to 'on' to enable the keypad and panel buzzer to function.

```
ATTENTION
XLK NETWORK PCB VERSION
REPEATER
```

```
REPEATER
    ON
  1 2 3 4 5
   8 4 2 1
KEY   BINARY VALUE
PAD   ADD OF REPEATER
```
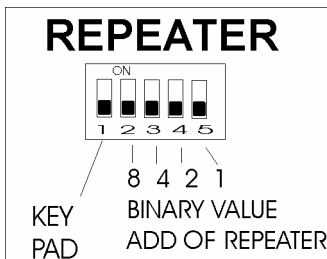
The Repeater (bell driver) Pcb,s may be addressed from 1 to 15 . The Keypad switch must be selected 'on' on the Pcb which has the keypad fitted and 'off' when no keypad is fitted. Each repeater Pcb will repeat a block of 16 zones. The block of zones repeated is set in the pcb programming mode. The block of zones will coincide with a complete master or slave pcb.

Setup of Network

Firstly the Master must be set with the quantity of slaves and the slaves must have addresses set from 1 upwards. The master will always occupy zones 1-16. Slave 1 zones 17 upwards and so on. To save removing pcb,s the address can be viewed in the programming mode. The address setting is normally done in the factory and should not be necessary to adjust unless replacing a pcb or setting up a special network.

Repeaters (bell drivers)
To add Repeaters to the system the following steps must be carried out.
1)   Ensure Repeater pcb,s have addresses set. Each pcb in the system must have a separate address and addresses must be in sequence, e.g. on a 32 zone with 2 repeater panels (4 pcb,s) The first repeater panel will have address 1 and 2 pcb,s The second repeater panel will have address 3 and 4 pcb,s.
2)   The master panel must be programmed with the total quantity of repeater (bell driver) pcb,s. Always make connections with units switched off.
3)   The pcb,s RS485 network cabling must be connected. This may be done at any time, Repeater controls may not function correctly until the master has been programmed to accept them. Programming of repeaters can only occur when a network is powered and communicating.
4)   Ensure all tx/rx leds flicker on all pcb,s and no comms error warbling is occurring
5)   Check the repeater pcb programming to ensure the correct block of zones is being repeated

NETWORK SETUP . CABLIING AND POWER SUPPLY ISSUES.

CABLE
When installing a network system some consideration should be given to the cabling. A screened cable must be used. For short distances up to 500m a screened fire proof cable such as MICC firetuff or FP 200 may be utilised. For greater distances or higher signal integrity Belden type cable is recommended (9271 or 9860).

EARTHING
The Earth screen of the system cable should be bonded at one point of the system, especially if the panels are located in separate buildings, to avoid earth loop problems. This may depend on the layout of individual systems. Usually it is acceptable to bond all earth screens if the units are in the same building and share a common earth reference.

TERMINATION
In some instances where high levels of interference are present, or on long cable runs ,it is necessary to terminate the RS485 connections using a 120 ohm resistor. One at either end of the longest cable run and placed across the comm's terminals.

COMMON REFERENCE
 Where communications problems exist and where earth continuity between systems may be doubtful, it can be helpful to connect together the zero (-28v) supply rails of the different panels in the network, using either a spare core or the earth screen of comms cable.

EARTH FAULT MONITORING
The EXCEL power supply pcb has an earth monitoring facility. Only one Earth fault monitoring connection should be connected to any system which shares a common earth. It is recommended to monitor earth faults at the panel where the zones are connected only. The monitoring may be disabled by removing the short earth lead from the xlk psu pcb or cutting the link device from the larger power supply units if fitted.

POWER SUPPLY
Panels larger than 16 zones are designed to be supplied by a remote power supply unit. The compatible power supply has a PSD and PSC power supply fault communication outputs. These must be connected to the master pcb. The activation of power supply monitoring is enabled by the keypad link. When selected 'on' the pcb will be monitoring the power supply data (PSD) and clock (PSC) signals. The monitoring status of the power supply may be overridden in the panel programming. If using the same power supply to power a repeater and a main panel, it will be necessary to disable the psu monitoring on the repeater panel.

OPERATION OF CONTROLS

To access zones on the slave boards when in test or disablement modes, press button '4' to toggle between the banks of 16 zones, all other controls function as per the standard version of panel
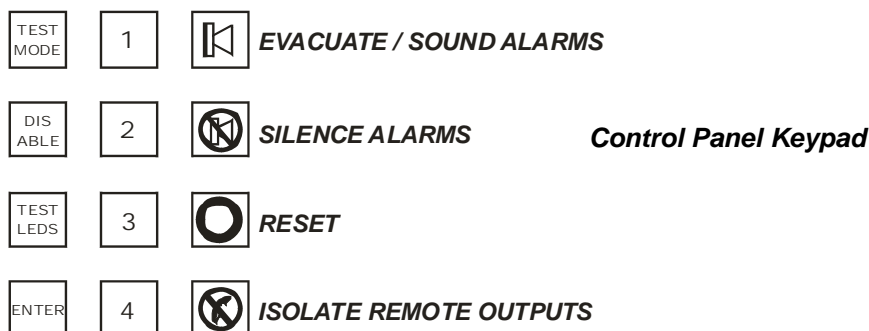
PROGRAMMING.
Only one Pcb may be programmed at a time. Switch on the pmod dil switch on the chosen pcb. Use the nearest keypad to access the programming function. All programming relates to the local responses of outputs to zones on the same pcb. System wide responses are programmed using the GLOBAL response functions. i.e. the response of that output to a fire any where else on the system. Global responses may override local ones and may need to be programmed off in certain circumstances. A continuous response will always override a pulsing one and pulsing will override a silent response. The repeater (bell driver) responds to the bank of zones it has been set to mimic.

PROGRAMING OF XLK NETWORK

Introduction

The following section is a guide to the various programming options available on the Excel-K range of network conventional and 'Twin-Wire' control panels.

All programming is by entry of a four digit code, using buttons labelled one to four on front keypad. It should be noted that a small delay of about half a second is built in to these buttons, this is to prevent misuse. Therefore each push of a button should be slow and deliberate. The panel will bleep to acknowledge each press.

TEST MODE	1	▷⫶ *EVACUATE / SOUND ALARMS*
DIS ABLE	2	⊗ *SILENCE ALARMS*
TEST LEDS	3	◯ *RESET*
ENTER	4	⊗ *ISOLATE REMOTE OUTPUTS*

Control Panel Keypad

Before any programming takes place, The panel should be put into 'engineering mode'. The following steps explain how to do this.

1. Set the PMODE switch, on the pcb required, to the ON position. This is located on the Master & Slave pcb,s, near the centre, see diagram below. A set of two DIL switches marked 'program switch'. PMODE is switch 2 (left hand switch as you look at it). The ON position is down.
2. Turn the 'Activate Controls' key-switch on. (Located on the front of the panel).
3. Enter the 'engineers code', using buttons on front keypad. This is 1 - 2 - 3 - 4 by default but can be changed in the programming options
4. Press 'ENTER' button on front keypad. The program mode LED will go steady.

The panel is now in engineers mode and ready for entry of a programming option code.
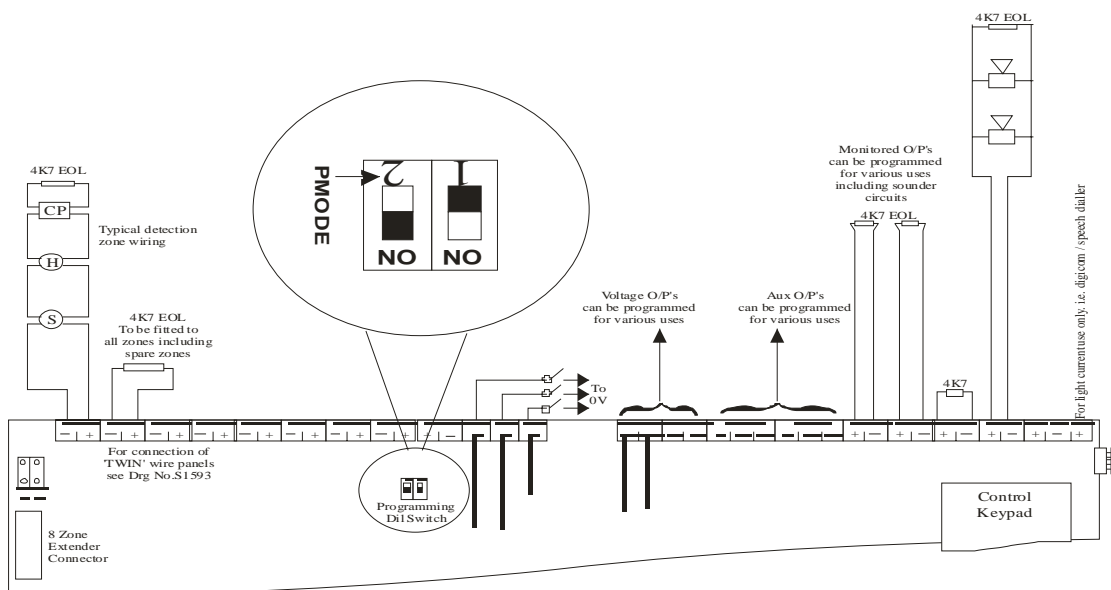
IMPORTANT NOTICE

Please read the following page carefully, it contains important information regarding programming the 24 and 32 zone version.

The 24 and 32 zone (or larger) versions of the Surveyor Excel-K, use a higher specification software version, to enable networking of Master & Slave PCBs. This enhanced software has various new features, which are explained in the programming section of this manual. It does however mean that standard versions of repeater panels or in particular, bell driver units, are not compatible and care should be taken when ordering. If in doubt, please contact our technical sales department.

Both the 24 & 32 zone panels contain one Master PCB which also drives an extension PCB with zones 1 - 8, and a Slave PCB which also drives an extension PCB with zones 17 - 24. In the case of the 24 zone, the Slave PCB does not actually have any zones fitted but still contains an identical set of sounder circuits, inputs and outputs, as does the Master PCB. See drawing **S1606** on page 10 for details of the PCB layout inside the control panel.

Each Master & Slave PCB has its own PMODE (programming mode) switch. When programming zones, bell circuits or other outputs, the PMODE switch on the relevant Master or Slave PCB must be used for the the zone, bell circuit or output to be programmed.

This means that if zones 1 - 16, or any of the sounder circuits, or outputs on the Master PCB are to be included in the programming option, then the PMODE switch on the Master PCB should be on.

If zones 17 - 32 or any of the sounder circuits or outputs on the Slave PCB, are to be included in the programming option then the PMODE switch on the Slave PCB should be 'on'.

This also includes all the general panel options such as 'set panel delay time' and 'set fault latch'
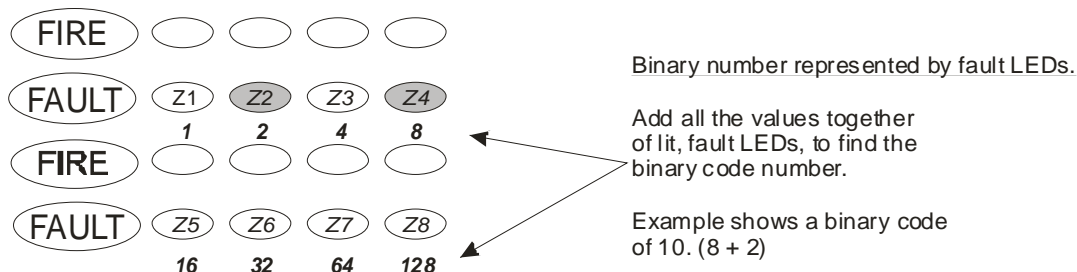
ONLY ONE PMODE SWITCH MAY BE ON AT ANY ONE TIME.

Programming of all zones and outputs is still affected using the same keypad on the Master PCB. The relevant zone LED will be indicated depending on which PMODE switch is on.

PANEL OPTIONS

The following options require an understanding that the fault LEDs represent a binary value to establish quantity. The following diagram shows the binary value represented by each fault (amber) LED. To find the number, add together the binary value of each lit LED.

Fig 2

Binary number represented by fault LEDs.

Add all the values together of lit, fault LEDs, to find the binary code number.

Example shows a binary code of 10. (8 + 2)

Display Network Pcb Address
THIS OPTION IS ONLY VALID FOR THE 24 OR 32 ZONE 'N' VERSIONS

1.   Set PMODE switch to the ON position
2.   Turn the 'Activate Controls' key-switch to ON
3.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4.   Press **ENTER** button (program mode LED goes steady)

Now enter option code **2 - 1 - 2 - 3** and then press **ENTER**

Fire (red) LED on zone 1 is now pulsing. The address is shown by the fault (amber) LEDs using a binary code. See diagram above. Address can only be changed using DIL switch under pcb. Should be factory set.

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

Display Quantity of Slave Pcb,s (Master Pcb Only)
or Set repeated Pcb (repeater Only)

THIS OPTION IS ONLY VALID FOR THE 24 OR 32 ZONE 'N' VERSIONS

1.   Set PMODE switch to the ON position
2.   Turn the 'Activate Controls' key-switch to ON
3.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4.   Press **ENTER** button (program mode LED goes steady)

Now enter option code **2 - 1 - 2 - 3** and then press **ENTER**

Press button **2** until (red) fire LED on zone 2 is pulsing. The (amber) fault LEDs will now be lit, representing the number of slave nodes, in a binary code. See Fig 2. The quantity can be adjusted via external dil switch under PCB. On repeater nodes, this option is used to select which particular master or slave node is to be repeated. Use buttons **1** & **3** to edit the binary address shown. Button **1** increases the binary value by 1 and button **3** decreases the binary value by 1. No indications show that the master node is repeated.

Note: The maximum quantity of slaves on a systems is **15**

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

PANEL OPTIONS - CONTINUED

Set Quantity of Repeater Pcb,s (Master Panel Only)

THIS OPTION IS ONLY RELEVANT TO THE 24 & 32 ZONE 'N' VERSIONS

1. Set PMODE switch to the ON position
2. Turn the 'Activate Controls' key-switch to ON
3. Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4. Press **ENTER** button (program mode LED goes steady)

Now enter option code **2 - 1 - 2 - 3** and then press **ENTER**

Press button **2** until (red) fire LED on zone 3 is pulsing. Now use button **1** & **3** to edit the number of repeater Pcb,s. The number is represented by the (amber) fault LEDs using a binary code. See diagram on previous page. Button **1** will increase the number by 1 and button **3** will decrease the number by 1.

Up to **15** Repeater Pcb,s can be connected.

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

Set Zone Delay Time

1. Set PMODE switch to the ON position
2. Turn the 'Activate Controls' key-switch to ON
3. Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4. Press **ENTER** button (program mode LED goes steady)

Now enter option code **2 - 1 - 2 - 3** and then press **ENTER**

Press button **2** until (red) fire LED on zone 4 is pulsing. Now use button **1** and **3** to illuminate the yellow fault LEDs until the desired number is reached. The delay time is set using a binary code, see diagram on previous page for a detailed description.

When setting the delay time the binary values = seconds. Button **1** will increase the value by one second at a time and button **3** will decrease the value by one second at a time.

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

MISCELLANEOUS OPTIONS

To set any of the following options, first set panel to engineers mode:

1. Set PMODE switch to the ON position
2. Turn the 'Activate Controls' key-switch to ON
3. Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4. Press **ENTER** button (program mode LED goes steady)

Now enter option code **2 - 1 - 2 - 4** and then press **ENTER**

Press button **2** to select the option to be changed. The options are indicated by a steady (red) fire LED as per table below.

Once the desired fire LED is lit, use button **1** to edit the option. The settings are indicated by the (amber) fault LED (ON = YES, OFF = NO). See the options description in the table below.

FIRE LED INDICATION	OPTION	DESCRIPTION
1	Fault Latch	To help locate intermittent faults (YELLOW FAULT LED ON = Fault Latch On)
2	Make O/P 1 & 2 Programmable	Here O/P 1 & 2 are changed from normal to programmable. The active programming is configured in options 4242 & 4244 (YELLOW FAULT LED ON = O/P's programmable)
3	Convert REM-FR & REM-FLT outputs to conventional sounder circuits.	Change the outputs to make a total of four programmable conventional sounder circuits. (YELLOW FAULT LED ON = Sounder circuits)
4	Invert Fault O/P 1	Output 1 can be inverted to have a constant output disappearing upon fault (fail safe). (YELLOW FAULT LED ON = Inverted)
5	Invert REM FLT	Remote fault output (monitored) can be inverted to have constant output disappearing upon fault (failsafe). (YELLOW FAULT LED ON = inverted)
6	PSU Fault I/P Off	These can be switched to traditional switched –ve inputs to enable older style remote power supplies to be used. (YELLOW FAULT LED ON = Old Style)
7	Network Reset (only applicable to network versions of Excel-K panels	Reset networked system from originating panel only. (YELLOW FAULT LED ON = SELECTED).

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

ZONE OPTIONS

To set any of the following options, first set panel to engineers mode:

1. Set PMODE switch to the ON position
2. Turn the 'Activate Controls' key-switch to ON
3. Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4. Press **ENTER** button (program mode LED goes steady)

Now enter option code **3 - 1 - 2 - 1** and then press **ENTER**

Press button 2 to select the option to be changed. The options are indicated by a steady (red) fire LED, as per table below. Then proceed to the **Zone Edit** section.

FIRE LED INDICATION	OPTION	DESCRIPTION
1	Fire Latch	Set zone to be latching or non latching. In **zone edit**, YELLOW FAULT LED ON = Latching, OFF = Non Latching
2	Short Circuit = fire	Set zone to monitor as old B.S. i.e. a short circuit = a fire condition. In **zone edit** YELLOW FAULT LED ON = Old B.S
3	Detector Removal Monitoring Method	Select method of detector removal monitoring for zone, i.e. shottky diode base, zener diode base (Hochiki Liveline) or no monitoring. In **zone edit** YELLOW FAULT LED ON = Shottky Diode, PULSING = Zener Diode, OFF = No Monitoring. NOT AVAILABLE ON TWIN WIRE PANELS
4	Delayed Zone	Select zone to be delayed. To set the delay time see Panel Options 2123. In **zone edit** YELLOW FAULT LED ON = Zone Delayed

Zone Edit

Once the relevant fire LED is lit for the desired option , press **ENTER** button, zone one fire LED will pulse, indicating that zone one can be edited.

 Press button **2** to select which zone is to be to be edited for the chosen option.(each press will move to the next zone in turn and then back to zone 1).

When the desired zone fire LED is pulsing use button **1** to change the status of the zone. The setting is indicated by the fault LED as per the above table.(each press will turn the fault LED on and then off).

Repeat the above process using buttons **2** and then **1** to edit each zone in turn for the chosen option.
To select another of the options in the above table press **ENTER** once to return to "option selection"(steady fire LED) Then use button **2** to select the next option.
Then repeat the Zone Edit procedure from the beginning (press **ENTER** etc…………..).

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

GLOBAL OPTIONS

THIS OPTION IS ONLY VALID FOR THE 24 OR 32 ZONE 'N' VERSIONS

Global options allow for programming the response of outputs, to alarm signals, from other pcb,s in the system. These options work in conjunction with local programming on a priority basis. The highest priority is 'continuous activation', then 'pulsing' and the lowest priority is 'no activation'. This must be considered carefully when applying programming to ensure correct system activation.

The default global setting is 'continuous' to provide common fire operation as standard.

Global option codes are:-

3 - 2 - 2 - 4   Twin Wire sounder circuits, global options
4 - 2 - 2 - 4   Outputs and Aux, global options
4 - 3 - 2 - 4   Conventional sounder circuits, global options

To Edit Global Options

1.   Turn 'Activate Controls' key-switch to ON
2.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
3.   Press **ENTER** button (program mode LED goes steady)

Now enter option code **? - ? - ? - ?** and then press **ENTER**

Pulsing LED will be 'on' at first output available. Press button **2** to select circuit to change. Then press button **1** to edit the circuit. The status of the circuit is indicated by the (amber) fault LED, as follows:

FAULT LED ON = OUTPUT OPERATES CONTINUOUSLY WHEN ALARM IS ACTIVE.
FAULT LED PULSING = OUPUT PULSED WHEN ALARM IS ACTIVE
FAULT LED OFF = OUTPUT DOES NOT OPERATE WHEN ALARM IS ACTIVE.

When editing is complete, press **ENTER** to store the settings

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

Note: The local programming options for the output should be taken into consideration, especially when programming outputs on the repeater panel, as these will respond to selected zone programming also.

TWIN WIRE SOUNDER CIRCUIT OPTIONS
(A "TWIN WIRE SOUNDER CIRCUIT" RELATES ONLY TO THE SOUNDERS THAT ARE CONNECTED TO ZONES 1 – 32 ON THE TWIN WIRE VERSION OF THE EXCEL CONTROL PANEL)

IN THE CASE OF THE 24 OR 32 ZONE VERSION, REMEMBER TO USE THE PMODE SWITCH AND THE KEYPAD ON THE RELEVANT MASTER OR SLAVE PCB CONTAINING THE CIRCUITS.

To the following option, first set panel to engineers mode:

1.   Set PMODE switch to the ON position
2.   Turn the 'Activate Controls' key-switch to ON
3.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4.   Press **ENTER** button ('program mode' LED goes steady)

Program sounder responses on Twin Wire detection zones or sounder circuits

Enter option code **3 - 1 - 2 - 1** and then press **ENTER**

This option allows you to program each TWIN WIRE sounder circuit (zone 1– 32, NOT SNDR1 & SNDR2) to respond in different ways to selected zones. For example, program the sounders on TWIN WIRE sounder / detection zone 1 to pulse if detection zones 1 & 3 go into alarm, to not respond if zone 5 goes into alarm and sound constant for all others, etc….

First select the TWIN WIRE sounder circuit to be edited, then proceed to **Zone Edit** to program how this circuit should respond to each zone in turn i.e.(sound constant, pulse or not respond).

Press button **2** to select the sounder circuit to be edited. The sounder circuits are indicated by a steady fire LED. i.e. zone 1 fire LED relates to the sounders on TWIN WIRE zone 1.Then proceed to zone edit section (below).

Zone Edit
Once the relevant fire LED is lit for the desired sounder circuit , press **ENTER,** zone one fire LED will pulse, indicating that it is possible to edit how the selected sounder circuit should respond for zone one.

 Press button **2** to select the zone to be edited for this sounder circuit (each press will move to the next zone in turn and then back to zone 1).

When the desired zone, fire LED is pulsing, use button **1** to change the sounder circuit response for this zone. The setting is indicated by the fault LED as per below.

FAULT LED ON = SOUNDERS OPERATIONAL STEADY
FAULT LED OFF = SOUNDERS NON OPERATIONAL
FAULT LED PULSING = SOUNDERS OPERATIONAL PULSING.

Each press of button will turn the fault LED on, off and then pulsing.

Repeat the above process using buttons **2** and then **1** to change the desired response on all zones for the selected sounder circuit.

To select another sounder circuit press **ENTER** once to return to 'sounder circuit selection' (steady fire LED) and use button **2** to select the next sounder circuit to be edited. Then repeat **Zone Edit** procedure from the beginning.

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

TWIN WIRE SOUNDER CIRCUIT OPTIONS

(A "TWIN WIRE SOUNDER CIRCUIT" RELATES ONLY TO THE SOUNDERS THAT ARE CONNECTED TO ZONES 1 – 32 ON THE TWIN WIRE VERSION OF THE EXCEL CONTROL PANEL)

IN THE CASE OF THE 24 OR 32 ZONE VERSION, REMEMBER TO USE THE PMODE SWITCH AND THE KEYPAD ON THE RELEVANT MASTER OR SLAVE PCB CONTAINING THE CIRCUITS.

To set either of the following options, first set panel to engineers mode:

1. Set PMODE switch to the ON position
2. Turn the 'Activate Controls' key-switch to ON
3. Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4. Press **ENTER** button (program mode LED goes steady)

Program Twin Wire sounder circuits to monitor in EN54 or BS5839 mode.

Enter option code **3 - 1 - 2 - 4** and then press **ENTER**

This option selects whether the TWIN WIRE sounder circuit monitors in EN54 or BS5839 mode. In EN54 mode (default factory setting) the panel monitors all circuits for fire and fault whilst sounders are operating; BS5839 does not. A slight interruption to sounder operation may be noticed in EN54 mode.

Press button **2** to select the sounder circuit to be edited. The sounder circuits are indicated by a pulsing fire LED. I.E. zone 1 fire LED relates to the sounders on TWIN WIRE zone 1. Each press will move to the next bell circuit in turn and then back to 1.

Once the relevant fire LED is pulsing for the desired circuit, press button **1** to change the monitoring mode. The setting is indicated by the fault LED as per below.

FAULT LED ON = EN54 operation
FAULT LED OFF = BS5839 operation

Each press will turn the fault LED ON and then OFF.

_____

Set 'Zone of Origin' sounders – short cut code.

This is a short cut code to program sounders to be continuous in zone of detection, all others pulse.

Follow steps 1 – 4 as above to put the panel into engineers mode:

Now enter option code **3 - 3 - 1 - 1** and then press **ENTER**

This operation can be verified by checking sounder outputs programing in option **3 - 1 - 2 - 2**

_____

Set 'Zonal Sounders' - short cut code.

This is a short cut code to program sounders to be continuous in zone of detection, all others silent.

Follow steps 1 – 4 as above to put the panel into engineers mode:

Now enter option code **3 - 3 - 1 - 2** and then press **ENTER**

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

TWIN WIRE SOUNDER CIRCUIT OPTIONS
(A "TWIN WIRE SOUNDER CIRCUIT" RELATES ONLY TO THE SOUNDERS THAT ARE CONNECTED TO ZONES 1 – 32 ON THE TWIN WIRE VERSION OF THE EXCEL CONTROL PANEL)

IN THE CASE OF THE 24 OR 32 ZONE VERSION, REMEMBER TO USE THE PMODE SWITCH AND THE KEYPAD ON THE RELEVANT MASTER OR SLAVE PCB CONTAINING THE CIRCUITS.

To set the following option, first set panel to engineers mode:

1.   Set PMODE switch to the ON position
2.   Turn the 'Activate Controls' key-switch to ON
3.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4.   Press **ENTER** button (program mode LED goes steady)

Program Twin Wire sounder circuits to operate during zone delay

Enter option code **3 - 1 - 2 - 3** and then press **ENTER**

If a delayed zone is programed it is possible to operate TWIN WIRE sounder circuits whilst the delay timer is running to provide a two stage effect for delayed zones.

Press button **2** to select the sounder circuit to be edited. The sounder circuits are indicated by a pulsing fire LED. I.E. zone 1 fire LED relates to the sounders on TWIN WIRE zone 1. Each press will move to the next bell circuit in turn and then back to 1.

Once the relevant fire LED is pulsing for the desired sounder circuit, press button **1** to select how the sounders on this zone should respond during the zone delay.

The type of response is indicated by the fault LED, as per below.

FAULT LED ON = SOUNDERS OPERATIONAL STEADY
FAULT LED OFF = SOUNDERS NON OPERATIONAL
FAULT LED PULSING = SOUNDERS OPERATIONAL PULSING

Each press will turn the fault LED on, off and then pulsing.

Repeat the above steps using buttons **2** and then **1** to select all required sounders to respond during zone delay.

When finished, press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

CONVENTIONAL SOUNDER CIRCUIT OPTIONS

IN THE CASE OF THE 24 OR 32 ZONE VERSION, REMEMBER TO USE THE PMODE SWITCH AND THE KEYPAD ON THE RELEVANT MASTER OR SLAVE PCB CONTAINING THE CIRCUITS.

To set the following option, first set panel to engineers mode:

1. Set PMODE switch to the ON position
2. Turn the 'Activate Controls' key-switch to ON
3. Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4. Press **ENTER** button (program mode LED goes steady)

Program conventional sounder circuit responses to selected zones

Enter option code **4 - 3 - 4 - 2** and then press. **ENTER**

In factory set operation, sounder circuits SNDR1 & SNDR2 are common and will operate with any detection zone in alarm. These can be changed together with monitored outputs REM FR & REM FLT to operate, pulse or not operate for selected zones. To convert REM FR & REM FLT to conventional sounder circuits, first see option 3 in code 2124.

First select the conventional sounder circuit to be edited, then proceed to **Zone Edit** to program how this sounder circuit should respond to each zone in turn.

Press button **2** to select the sounder circuit to be edited. The sounder circuits are indicated by a steady fire LED, as per below. Then proceed to **Zone Edit** section.

ZONE 1 FIRE LED = REM FR   (cct1)
ZONE 2 FIRE LED = REM FLT (cct2)
ZONE 3 FIRE LED = SNDR1   (cct3)
ZONE 4 FIRE LED = SNDR2   (cct4)

Zone Edit
Once the relevant fire LED is lit for the desired sounder circuit , press **ENTER**. You will now see zone one fire LED pulsing, indicating that the selected sounder circuit can be edited for zone one.

Now use button **2** to select the zone to be edited.(each press will move to the next zone in turn and then back to zone 1).

When the fire LED for the desired zone is pulsing, use button **1** to change the sounder circuit response for this zone. The response type is indicated by the fault LED as per below.

FAULT LED ON = STEADY FAULT LED OFF = NO RESPONSE FAULT LED PULSING = PULSING.

Each press will turn the fault LED on, off and then pulsing.

Repeat the above process using buttons **2** and then **1** to change the desired response on all zones for this sounder circuit.

To select another sounder circuit press **ENTER** once to return to sounder circuit selection (steady fire LED) and use button **2** to select the next sounder circuit to be edited. Then repeat Zone Edit procedure from the beginning.

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

CONVENTIONAL SOUNDER CIRCUIT OPTIONS

IN THE CASE OF THE 24 OR 32 ZONE VERSION, REMEMBER TO USE THE PMODE SWITCH AND THE KEYPAD ON THE RELEVANT MASTER OR SLAVE PCB CONTAINING THE CIRCUITS.

To set the following option, first set panel to engineers mode:

1.   Set PMODE switch to the ON position
2.   Turn the 'Activate Controls' key-switch to ON
3.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4.   Press **ENTER** button (program mode LED goes steady)

Program cancel method for monitored o/p's, SNDR1 & 2, REM FR & REM FLT

Enter option code **4 - 3 - 4 - 4** and then press. **ENTER**

In factory set operation, sounder circuits SNDR1 & SNDR2 will change back to their quiesscent state when 'silence alarms' is activated. Likewise REM FR & REM FLT will only cancel upon 'reset'. These four outputs can be programed to cancel for either button operation.

N.B
REM FR & REM FLT outputs can only be programed if they have first been converted to conventional sounder circuits using option 3 in code 2124. If they are not to be used as sounder circuits then they cannot be programed in this way.

If REM FR & REM FLT outputs have not been converted to sounder circuits you will see zone 3 fire LED pulsing (SNDR1). If they have been converted you will see zone 1 fire LED pulsing (REM FR).

Press button **2** to select the monitored output to be edited. The outputs are indicated by a pulsing fire LED as per below. Each press will move the LED to the next programable output in turn and then back to the beginning.

ZONE 1 FIRE LED = REM FR   (cct1)
ZONE 2 FIRE LED = REM FLT (cct2)
ZONE 3 FIRE LED = SNDR1   (cct3)
ZONE 4 FIRE LED = SNDR2   (cct4)

When the desired zone, fire LED is pulsing, use button **1** to change the cancel method for this monitored output. The settings are indicated by the fault LED as per below.

FAULT LED ON = Cancel on 'silence alarms' (factory default)
FAULT LED OFF = Cancel on reset only.

Each press will turn the fault LED on, and then off.

Repeat this process using buttons **2** and then **1** to program all required monitored outputs.

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

CONVENTIONAL SOUNDER CIRCUIT OPTIONS

IN THE CASE OF THE 24 OR 32 ZONE VERSION, REMEMBER TO USE THE PMODE SWITCH AND THE KEYPAD ON THE RELEVANT MASTER OR SLAVE PCB CONTAINING THE CIRCUITS.

To set the following option, first set panel to engineers mode:

1. Set PMODE switch to the ON position
2. Turn the 'Activate Controls' key-switch to ON
3. Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4. Press **ENTER** button (program mode LED goes steady)

Program monitored o/p's, SNDR1 & 2, REM FR & REM FLT to be non isolatable

Enter option code **4 - 3 - 4 - 1** and then press. **ENTER**

In factory set operation, sounder circuits SNDR1 & SNDR2 can be isolated using "disable sounders" mode on front of panel. Likewise REM FR & REM FLT will not be isolated if this mode is activated. These four outputs can be programed to be isolatable or non isolatable with "disable sounders" mode.

N.B
REM FR & REM FLT outputs can only be programed if they have first been converted to conventional sounder circuits using option 3 in code 2124. If they are not to be used as sounder circuits then they cannot be programed in this way.

If REM FR & REM FLT outputs have not been converted to sounder circuits then zone 3 fire LED will pulse (SNDR1). If they have been converted , zone 1 fire LED will pulse (REM FR).

Press button **2** to select the monitored output to be edited. The outputs are indicated by a pulsing fire LED as per below. Each press will move the LED to the next programable output in turn and then back to the beginning.

ZONE 1 FIRE LED = REM FR   (cct1)
ZONE 2 FIRE LED = REM FLT (cct2)
ZONE 3 FIRE LED = SNDR1   (cct3)
ZONE 4 FIRE LED = SNDR2   (cct4)

When the desired zone, fire LED is pulsing, use button **1** to change whether the monitored output can be isolated. The settings are indicated by the fault LED as per below.

FAULT LED ON = Output will be isolated during "disable sounders"
FAULT LED OFF = Output will not be isolated during "disable sounders".

Each press will turn the fault LED on, and then off.

Repeat this process using buttons **2** and then **1** to program all required monitored outputs.

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

CONVENTIONAL SOUNDER CIRCUIT OPTIONS

IN THE CASE OF THE 24 OR 32 ZONE VERSION, REMEMBER TO USE THE PMODE SWITCH AND THE KEYPAD ON THE RELEVANT MASTER OR SLAVE PCB CONTAINING THE CIRCUITS.

To set the following option, first set panel to engineers mode:

1. Set PMODE switch to the ON position
2. Turn the 'Activate Controls' key-switch to ON
3. Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4. Press **ENTER** button (program mode LED goes steady)

Program monitored o/p's, SNDR1 & 2, REM FR & REM FLT to operate during zone delay

Enter option code **4 - 3 - 4 - 3** and then press. **ENTER**

If a delayed zone is programed it is possible to operate the four monitored outputs whilst the delay timer is running to provide a 2 stage effect for delayed zones.

N.B
REM FR & REM FLT outputs can only be programed if they have first been converted to conventional sounder circuits using option 3 in code 2124. If they are not to be used as sounder circuits then they cannot be programed in this way.

If REM FR & REM FLT outputs have not been converted to sounder circuits zone 3 fire LED will pulse (SNDR1). If they have been converted zone 1 fire LED will pulse (REM FR).

Press button **2** to select the monitored output to be edited. The outputs are indicated by a pulsing fire LED as per below. Each press will move the LED to the next programable output in turn and then back to the beginning.

ZONE 1 FIRE LED = REM FR   (cct1)
ZONE 2 FIRE LED = REM FLT (cct2)
ZONE 3 FIRE LED = SNDR1   (cct3)
ZONE 4 FIRE LED = SNDR2   (cct4)

When the desired zone, fire LED is pulsing, use button **1** to change the monitored output's response during the zone delay. The settings are indicated by the fault LED as per below.

FAULT LED ON = SOUNDERS OPERATIONAL STEADY
FAULT LED OFF = SOUNDERS NON OPERATIONAL
FAULT LED PULSING = SOUNDERS OPERATIONAL PULSING

Each press will turn the fault LED on, and then off.

Repeat this process using buttons **2** and then **1** to program all required monitored outputs.

When finished press **RESET** button once to exit current programming option. Enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

OUTPUTS 1 - 4 & AUX OPTIONS

To set the following option, first set panel to engineers mode:

1. Set PMODE switch to the ON position
2. Turn the 'Activate Controls' key-switch to ON
3. Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4. Press **ENTER** button (program mode LED goes steady)

Program outputs 1 - 4 & AUX responses to selected zones

Enter option code **4 - 2 - 4 - 2** and then press. **ENTER**

Outputs labelled OP1 – OP4 & Relays AUX1 and AUX2 can be programed to respond to any combination of fire zones going into alarm. OP1 & OP2 are normally used as common fault and fire outputs. In order to program their responses to selected zones you must first make these outputs programable using option 2 in code 2124. OP3 & OP4 normally have no response until programed.

First select the output or Aux to be edited, then proceed to Zone Edit to program how this output should respond to each zone in turn.

Press button **2** to select the output to be edited. The outputs are indicated by a steady fire LED, as per below. Then proceed to **Zone Edit** section.

ZONE 1 FIRE LED = OP1
ZONE 2 FIRE LED = OP2
ZONE 3 FIRE LED = OP3
ZONE 4 FIRE LED = OP4
ZONE 5 FIRE LED = AUX1 & AUX2

Aux 1 & 2 will only activate common as the relay is double pole.

N.B
If OP1 & OP2 have not been made programable using option 2 in code 2124, button **2** will only toggle the fire LED's between zones 3, 4 & 5.

Zone Edit
Once the relevant fire LED is lit for the desired output or AUX , press **ENTER**. Zone one fire LED will pulse, indicating that the selected output can be edited for zone one.

Now press button **2** to select the zone to be edited.(each press will move to the next zone in turn and then back to zone 1).

When the fire LED for the desired zone is pulsing, use button **1** to change the output response for this zone.

The response type is indicated by the fault LED as per over page………….

OUTPUTS 1 – 4 & AUX OPTIONS CONT'D

Program ouputs 1 – 4 & AUX responses to selected zones cont'd

……….Fault LED indications

FAULT LED ON = OUTPUT CONSTANT
FAULT LED OFF = OUTPUT NO RESPONSE
FAULT LED PULSING = OUPUT INTERMITTENT

Repeat the above process using buttons **2** and then **1** to change the desired response on all zones for this output.

To select another ouput press **ENTER** once to return to output selection (steady fire LED) and use button **2** to select the next output to be edited.

Then repeat **Zone Edit** procedure from the beginning.

When finished press **RESET** button once to exit current programming option. Enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

OUTPUTS 1 - 4 & AUX OPTIONS

To set the following option, first set panel to engineers mode:

1.   Set PMODE switch to the ON position
2.   Turn the 'Activate Controls' key-switch to ON
3.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4.   Press **ENTER** button (program mode LED goes steady)

Program cancel method for outputs 1 - 4 & AUX

Enter option code **4 - 2 - 4 - 4** and then press. **ENTER**

In factory set operation, outputs 1 – 4 & Aux will change back to their quiesscent state when 'reset' is activated.These outputs can be programed to cancel on activation of 'silence alarms' button.

N.B
OP1 & OP2 can only be programed if they have first been made programable using option 2 in code 2124.

Aux 1 & 2 will only activate common as the relay is double pole.

Press button **2** to select the output to be edited. The outputs are indicated by a pulsing fire LED as per below. Each press will move the LED to the next programable output in turn and then back to the beginning.

If OP1 & OP2 have not been made programable using option 2 in code 2124, button **2** will only toggle the fire LED's between zones 3, 4 & 5.

ZONE 1 FIRE LED = OP1
ZONE 2 FIRE LED = OP2
ZONE 3 FIRE LED = OP3
ZONE 4 FIRE LED = OP4
ZONE 5 FIRE LED = AUX1 & AUX2

When the desired zone, fire LED is pulsing, use button **1** to change the cancel method for this output. The settings are indicated by the fault LED as per below.

FAULT LED OFF = Ouput cancels on 'reset' (factory default)
FAULT LED ON = Output cancels on 'silence alarms'.

Each press will turn the fault LED on, and then off.

Repeat this process using buttons **2** and then **1** to program all required outputs.

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

OUTPUTS 1 - 4 & AUX OPTIONS

To set the following option, first set panel to engineers mode:

1.   Set PMODE switch to the ON position
2.   Turn the 'Activate Controls' key-switch to ON
3.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4.   Press **ENTER** button (program mode LED goes steady)

Program outputs 1 - 4 & AUX to be isolatable or non isolatable

Enter option code **4 - 2 - 4 - 1** and then press. **ENTER**

This option selects whether outputs 1 – 4 & Aux can be isolated using the 'isolate remote' button on the front of the panel. In factory set operation, outputs 1 – 4 will not be isolated but Aux 1 & 2 will be isolated when the 'isolate remote' button is operated.

N.B
OP1 & OP2 can only be programed if they have first been made programable using option 2 in code 2124.

Aux 1 & 2 will only activate common as the relay is double pole.

Press button **2** to select the output to be edited. The outputs are indicated by a pulsing fire LED as per below. Each press will move the LED to the next programable output in turn and then back to the beginning.

If OP1 & OP2 have not been made programable using option 2 in code 2124, button **2** will only toggle the fire LED's between zones 3, 4 & 5.

ZONE 1 FIRE LED = OP1
ZONE 2 FIRE LED = OP2
ZONE 3 FIRE LED = OP3
ZONE 4 FIRE LED = OP4
ZONE 5 FIRE LED = AUX1 & AUX2

When the desired zone, fire LED is pulsing, use button **1** to select whether this ouput is isolatable. The settings are indicated by the fault LED as per below.

FAULT LED ON = Output will be islolated with operation of 'isolate remote' button
FAULT LED OFF = Output will not be isolated with operation of 'isolate remote' button.

Each press will turn the fault LED on, and then off.

Repeat this process using buttons **2** and then **1** to program all required outputs.

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

OUTPUTS 1 - 4 & AUX OPTIONS

To set the following option, first set panel to engineers mode:

1.   Set PMODE switch to the ON position
2.   Turn the 'Activate Controls' key-switch to ON
3.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4.   Press **ENTER** button (program mode LED goes steady)

Program outputs 1 - 4 & AUX to respond during a zone delay

Enter option code **4 - 2 - 4 - 3** and then press. **ENTER**

If a delayed zone is programed it is possible to operate outputs 1 – 4 & Aux whilst the delay timer is running to provide a 2 stage effect for delayed zones.

N.B
OP1 & OP2 can only be programed if they have first been made programable using option 2 in code 2124.

Aux 1 & 2 will only activate common as the relay is double pole.

Press button **2** to select the output to be edited. The outputs are indicated by a pulsing fire LED as per below. Each press will move the LED to the next programable output in turn and then back to the beginning.

If OP1 & OP2 have not been made programable using option 2 in code 2124, button **2** will only toggle the fire LED's between zones 3, 4 & 5.

ZONE 1 FIRE LED = OP1
ZONE 2 FIRE LED = OP2
ZONE 3 FIRE LED = OP3
ZONE 4 FIRE LED = OP4
ZONE 5 FIRE LED = AUX1 & AUX2

When the desired zone, fire LED is pulsing, use button **1** to select the response of this output during the zone delay. The settings are indicated by the fault LED as per below.

FAULT LED ON = OUTPUT CONSTANT
FAULT LED OFF = OUTPUT NO RESPONSE
FAULT LED PULSING = OUPUT INTERMITTENT

Each press will turn the fault LED on, and then off.

Repeat this process using buttons **2** and then **1** to program all required outputs.

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

OTHER OPTIONS

To set any of the following options, first set panel to engineers mode:

1.   Set PMODE switch to the ON position
2.   Turn the 'Activate Controls' key-switch to ON
3.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4.   Press **ENTER** button (program mode LED goes steady)

Display event log.

Enter option code **1 - 1 - 1 - 1** and then press **ENTER**

This option allows the last 32 events to be viewed by way of the panel LED's.

Press **ENTER** to scroll through the events, (last event is first view)

Display Guide
All LEDs illuminated, indicates operation of the Reset Button

Steady Common Fire LEDs, indicates operation of the Silence Alarms Button

All other LEDs indicate as their labelled function

While in this option enter **1 - 1 - 2 - 1** and press **ENTER** to clear log.

Set panel back to default factory settings.

This is a short cut code to set all programing back to the factory default settings. (Except engineers code)

Follow steps 1 – 4 as above to put the panel into engineers mode:

Now enter option code **1 - 1 - 1 - 3** and then press **ENTER**

Clear all disablements (ONLY APPLIES TO 24 OR 32 ZONE VERSION)

This options clears any zones or sounder circuits which have been disabled.

Follow steps 1 - 4 as above to put PCB into engineers mode

Now enter option code **1 - 1 - 2 - 1** and then press **ENTER**

Change engineers code.

This option enables the engineers access code to be changed for step 3 of engineers mode above.
WARNING: If the new code is forgotten there is no way of entering into engineers mode to access any programing options. Be careful when using this option the only alternative is a new PCB

Follow steps 1 – 4 as above to put the panel into engineers mode:

Now enter option code **1 - 1 - 1 - 4** and then press **ENTER**

All Fire LEDs will Pulse: Enter Existing Code (1, 2, 3, 4 by default) and press **ENTER**

PROGRAMING BELL DRIVER UNITS

The following sections deal with programming the BD-EXCEL range of bell driver units. The PMODE switch in the instructions refers to the switch on the PCB inside the bell driver unit. The program codes should be entered using the keypad on the same PCB.

The PCB inside the Bell Driver Unit looks identical to the boards in the main control panel and the circuits are actually labelled as zones. However software in the PCB changes the zones to respond as sounder circuits.

For the purposes of programming, each circuit has a (red) fire & (amber) fault LED.

When in programming mode, a steady (red) fire LED indicates which sounder circuit in the Bell Driver Unit is to be programmed. A pulsing (red) fire LED indicates which zone in the control panel should effect the required response. (sound constant, pulse or not sound). The response type is indicated by the (amber) fault LED.

N.B.
If the control panel has more zones than the Bell Driver has sounder circuits, it is not possible to program zonal responses for the sounder circuits on the zones above the number of sounder circuits..

i.e. If a 16 zone panel is installed with only an 8 way bell driver, the sounder circuits can not be programmed to respond to zones 9 - 16.

From the factory settings all sounder circuits will respond common to all zones.

It is only possible to program the panel and bell driver in this way by using the PC programming software and download kit (SW-XLK-WIN)

BELL DRIVER UNIT SOUNDER CIRCUIT OPTIONS
(A "BELL DRIVER UNIT SOUNDER CIRCUIT" RELATES ONLY TO THE SOUNDERS THAT ARE CONNECTED TO A SEPERATE BELL DRIVER UNIT (BD-EXCEL-# or FCRP-BDXLK-#)

To set the following option, first set bell driver to engineers mode:

1.   Set PMODE switch to the ON position
2.   Turn the 'Activate Controls' key-switch to ON
3.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4.   Press **ENTER** button (program mode LED goes steady)

Program sounder responses on BELL DRIVER UNIT

Enter option code **3 - 1 - 2 - 2** and then press **ENTER**

This option allows the programming of each BELL DRIVER UNIT sounder circuit to respond in different ways to selected zones. For example, program the sounders on BELL DRIVER UNIT sounder circuit 1 to pulse if detection zones 1 & 3 go into alarm, to not respond if zone 5 goes into alarm and sound constant for all others, etc….

First select the BELL DRIVER UNIT sounder circuit to be edited then proceed to **Zone Edit** to program how this circuit should respond to each zone in turn (sound constant, pulse or not respond).

Press button **2** to select the sounder circuit to be edited. The sounder circuits are indicated by a steady fire LED. I.E zone 1 fire LED relates to the sounders on BELL DIVER UNIT sounder circuit 1.Then proceed to zone edit section (below).

Zone Edit
Once the relevant fire LED is lit for the desired sounder circuit , press **ENTER**. Zone one fire LED will pulse, indicating that it is possible to edit how the selected sounder circuit should respond for zone one.

Now press button **2** to select the zone to be edited for this sounder circuit (each press will move to the next zone in turn and then back to zone 1, on the Bell Driver PCB)

When the desired zone, fire LED is pulsing, use button **1** to change the sounder circuit response for this zone. The setting is indicated by the fault LED as per below.

FAULT LED ON = SOUNDERS OPERATIONAL STEADY
FAULT LED OFF = SOUNDERS NON OPERATIONAL
FAULT LED PULSING = SOUNDERS OPERATIONAL PULSING

Each press will turn the fault LED on, off and then pulsing.

Repeat the above process using buttons **2** and then **1** to change the desired response on all zones for this sounder circuit.

To select another sounder circuit press **ENTER** once to return to sounder circuit selection (steady fire LED) and use button **2** to select the next sounder circuit to be edited. Then repeat **Zone Edit** procedure from the beginning.

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

BELL DRIVER UNIT SOUNDER CIRCUIT OPTIONS
(A "BELL DRIVER UNIT SOUNDER CIRCUIT" RELATES ONLY TO THE SOUNDERS THAT ARE CONNECTED TO A SEPERATE BELL DRIVER UNIT (BD-EXCEL-# or FCRP-BDXLK-#)

To set the following option, first set bell driver to engineers mode:

1.   Set PMODE switch to the ON position
2.   Turn the 'Activate Controls' key-switch to ON
3.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4.   Press **ENTER** button (program mode LED goes steady)

Set 'Zone of Origin' sounders - short cut code

This is a short cut code to program sounders to be continuous in zone of detection, all others pulse.

Follow steps 1 – 4 as above to put the bell driver into engineers mode:

Now enter option code **3 - 3 - 1 - 1** and then press **ENTER**

This operation can be verified by checking sounder outputs programing in option 3122

Set 'Zonal Sounders' - short cut code.

This is a short cut code to program sounders to be continuous in zone of detection, all others silent.

Follow steps 1 – 4 as above to put the bell driver into engineers mode:

Now enter option code **3 - 3 - 1 - 2** and then press **ENTER**

This option can be verified by checking sounder outputs programing in option 3122

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.

BELL DRIVER UNIT SOUNDER CIRCUIT OPTIONS
(A "BELL DRIVER UNIT SOUNDER CIRCUIT" RELATES ONLY TO THE SOUNDERS THAT ARE CONNECTED TO A SEPERATE BELL DRIVER UNIT (BD-EXCEL-# or FCRP-BDXLK-#)

To set the following option, first set bell driver to engineers mode:

1.   Set PMODE switch to the ON position
2.   Turn the 'Activate Controls' key-switch to ON
3.   Enter engineers code **? - ? - ? - ?** (1 2 3 4 by default)
4.   Press **ENTER** button (program mode LED goes steady)

Program BELL DRIVER sounder circuits to operate during a zone delay

Enter option code **3 - 1 - 2 - 3** and then press **ENTER**

If a delayed zone is programed it is possible to operate BELL DRIVER UNIT sounder circuits whilst the delay timer is running to provide a two stage effect for delayed zones.

Press button **2** to select the sounder circuit to be edited. The sounder circuits are indicated by a pulsing fire LED. I.E. zone 1 fire LED relates to the sounders on BELL DRIVER UNIT sounder circuit 1. Each press will move to the next bell circuit in turn and then back to 1.

Once the relevant fire LED is pulsing for the desired sounder circuit, press button **1** to select how the sounders on this zone should respond during the zone delay.
The type of response is indicated by the fault LED, as per below.

FAULT LED ON = SOUNDERS OPERATIONAL STEADY
FAULT LED OFF = SOUNDERS NON OPERATIONAL
FAULT LED PULSING = SOUNDERS OPERATIONAL PULSING

Each press will turn the fault LED on, off and then pulsing.

Repeat the above steps using buttons **2** and then **1** to select all required sounders to respond during zone delay.

When finished press **RESET** button once to exit current programming option. Now enter next programming option code or return PMODE switch to OFF to exit from engineer's mode.