

# *C1324 6 Way Zonal Alarm Board*

## *Application, Installation and Commissioning Manual*

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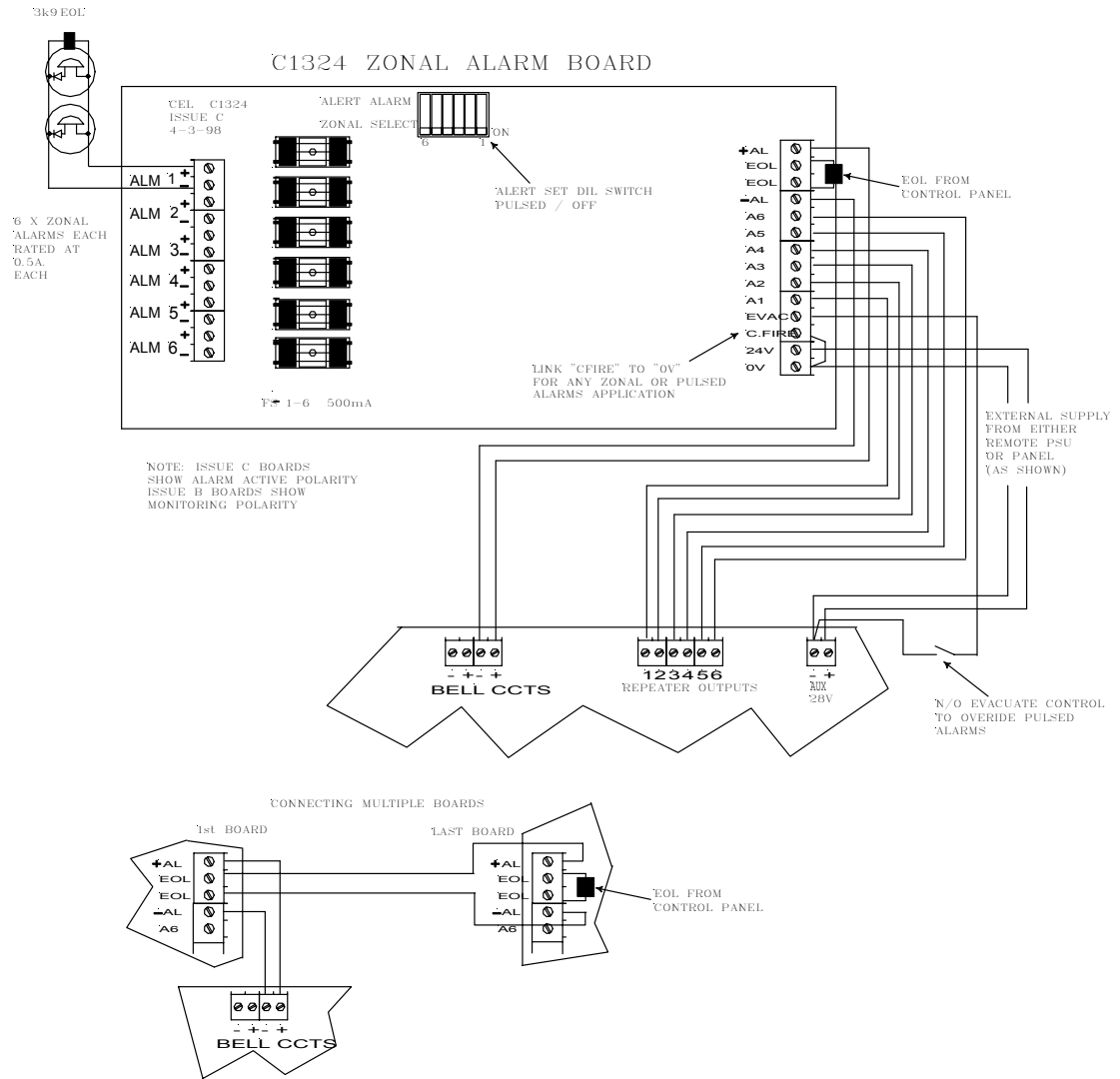
### **1.0 Introduction**

The C1324 alarm module provides the following functions:

- (i) The facility to split and control one alarm input into six alarm output circuits
- (ii) The capability to operate as a zonal alarm unit providing an independent alarm circuit for a maximum of six zones
- (iii) A zonal two stage (pulsing/continuous) alarm facility
- (iv) Open and short circuit fault monitoring on all alarm outputs (complete with LED indication). Fault monitoring on the alarm input is achieved via an end of line resistor which should be matched to the type of control panel with which the C1324 module is being used.

# 1.1 A Guided Tour

## 1.1.1 C1324 6 Way Zonal Alarm Board



## 2.0 Board Configuration

### 2.1 Functions Of The 6 Way DIL Switch

This switch is used for the configuration of the alarm circuits. Up is OFF, down is ON, numbered 1 - 6 from right to left.

### 2.2 Alarm Output Setting Chart

Alarm Input	Repeater Inputs						DIL Switches						Alarm Outputs					
	A1	A2	A3	A4	A5	A6	1	2	3	4	5	6	ALM 1	ALM 2	ALM 3	ALM 4	ALM 5	ALM 6
C							X	X	X	X	X	X	C	C	C	C	C	C
P							0	0	0	0	0	0	P	P	P	P	P	P
C	*						0	0	0	0	0	0	C					
C		*					0	0	0	0	0	0		C				
C			*				0	0	0	0	0	0			C			
C				*			0	0	0	0	0	0				C		
C					*		0	0	0	0	0	0					C	
C						*	0	0	0	0	0	0						C
P	*						0	0	0	0	0	0	P					
P		*					0	0	0	0	0	0		P				
P			*				0	0	0	0	0	0			P			
P				*			0	0	0	0	0	0				P		
P					*		0	0	0	0	0	0					P	
P						*	0	0	0	0	0	0						P
C	*						0	1	0	0	0	0	C	P				
C	*						0	0	1	0	0	0	C		P			
C	*						0	0	0	1	0	0	C			P		
C	*						0	0	0	0	1	0	C				P	
C	*						0	0	0	0	0	1	C					P

Or any combination, e.g.

C		*			*		1	0	1	1	0	0	P	C	P	P	C	
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- (i) If the alarm input is continuous, any repeater input will cause the corresponding alarm output to operate continuously and any other alarm circuit with the DIL switch set to ON to operate pulsing.
- (ii) Do not use a pulsing alarm input if any DIL switches are set to ON.

#### Key To Table Symbols:

0 = OFF	* = I/P ACTIVATED
1 = ON	C = CONTINUOUS
X = OFF OR ON	P = PULSED

## 3.0 Installation Instructions

### 3.1 Common Alarms

- 3.1.1 All switches to be in the OFF position.
- 3.1.2 Connect the control panel alarm output to the alarm input terminals (AL+, AL-) on the C1324 module.
- 3.1.3 Connect the power supply to the +24V and 0V terminals on the C1324 module.

## **3.2 All Alarm Circuits Pulsing When In An Alarm Condition**

- 3.2.1 As for Common Alarms, but with all switches in the ON position
- 3.2.2 Connect Common Fire input to 0V terminal.

## **3.3 Zonal Alarms To Operate Continuously When in an Alarm Condition**

- 3.3.1 All switches to be in the OFF position.
- 3.3.2 Connect the control panel alarm output to the alarm input terminals (AL+, AL-) on the C1324 module.
- 3.3.3 Connect the control panel repeater outputs to the A1-6 terminals on the C1324 module (0 volt switching).
- 3.3.4 Connect the power supply to the +24V and 0V terminals on the C1324 module.

## **3.4 Zonal Alarms To Pulse When In An Alarm Condition**

To provide a zonal pulsing alarm output, an M1093A oscillator board is required and should be connected as follows:

- 3.4.1 Connect the positive alarm output from the control panel to the positive terminal on the M1093A board and also to the +AL input terminal on the C1324 board.
- 3.4.2 Connect the negative alarm output from the control panel to the negative and pole terminals on the M1093A board.
- 3.4.3 Connect the normally closed terminal on the M1093A board to the -AL input terminal on the C1324 module.
- 3.4.4 Connect the control panel repeater outputs to the A1-6 terminals on the C1324 module.
- 3.4.5 Connect the power supply to the +24V and 0V terminals on the C1324 module.

## **3.5 Two Stage Alarms (Continuous/Pulsing)**

- 3.5.1 All switches to be in the ON position for circuits that are required to operate in the two stage mode.
- 3.5.2 Connect the control panel alarm output to the alarm input terminals (AL+, AL-) on the C1324 module.
- 3.5.3 Connect the control panel repeater outputs to the A1-6 terminals on the C1324 module (0 volt switching).
- 3.5.4 Connect the power supply to the +24V and 0V terminals on the C1324 module.

## **4.0 Commissioning**

- 4.1 Restore power to the control panel and to the C1324 board (if not powered from the control panel).
- 4.2 Observe that the panel and the C1324 board are in a quiescent condition.
- 4.3 Operate the EVAC input on the C1324 board and observe that the sounders operate.
- 4.4 Remove input and check that the alarms silence.

- 4.5 Simulate the following faults on the alarm circuit wiring of each circuit in turn.

- (i) Open circuit fault
- (ii) Short circuit fault

Observe the following:

- (i) The relevant ALARM FAULT LED on the C1324 board illuminates
- (ii) The control panel indicates an alarm fault

- 4.6 Remove all faults and observe that both the control panel and the C1324 board return to the quiescent condition.
- 4.7 Remove the wire connected to the +24V terminals on the C1324 board and observe the following:
  - (i) The control panel indicates an alarm fault.
- 4.8 Reinstate the wire to the +24V terminal.
- 4.9 If the C1324 board is configured for zonal alarm operation, functionally test the control panel zones to ensure correct zonal alarm signalling.

### Appendices

#### **i     Technical Specifications**

Current output per alarm circuit	500mA
Maximum current	3 Amps
Open/short circuit monitoring (Alarm input)	4k7 Ohm EOL (19" Rack system) 3k9 Ohm EOL (Precept range)
Open/short circuit monitoring (Alarm output)	4k7 Ohm EOL

#### **ii    Other Relevant Documentation**

- Application Guide for Precept conventional control panel
- Application Guide for Duplex 1-2 loop analogue addressable control panel
- Installation & Commissioning Manual for Precept conventional control panel
- Installation & Commissioning Manual for Duplex 1-2 loop analogue addressable control panel
- Wiring Recommendations
- After-Sales Technical Support Booklet