

Part Number(s)	500-200KS (24V with Keyswitch red/boxed) 500-200 (24V without keyswitch red/boxed)	CE
Description	Isolatable Timer Relay	
Reference	Installation Guidelines – T2/ITR/Install/03-02-06	

Introduction

This product is designed to meet the varied and demanding requirements of system integration and Isolation of auxiliary equipment for managing false alarms and system test purposes.

The main applications are:

Fire system alarm delays and temporary isolating of remote signaling (dialers etc) and Isolating unwanted plant shutdown during periodic system testing.

Fire system interlinking in shopping complexes, where satellite systems may be connected together or connect to a larger main control system.



Overview

The unit accepts an alarm activation signal from a control panel and then triggers its onboard relay. The front RED LED indicates that the relay contacts have operated. The front YELLOW LED Indicates isolation/timing and an internal engineer LED indicates the timer setting in minutes (only viewable when cover is removed).

*Turning the keyswitch to the ISO position will STOP the output relay from operating under **any** circumstances, however a warning YELLOW LED (slow pulse) and buzzer informs the user of this (also the keyswitch cannot be removed in the ISO position). The buzzer can be totally silenced by the DIL Switch settings but the disabled YELLOW LED cannot be inhibited.*

To manage false alarms, an adjustable TIMER is provided (0 to 5mins) which delays the signal received from the fire panel. This will give some time for a responsible person to investigate an alarm before a telephone based digital communicator alerts the call centre. The unit produces a tick/tock noise and fast flashes the YELLOW LED when counting down to alarm. The **internal** engineer LED pulses indicate the time in minutes.

At the end of the timer period the output will activate (the timer indicators will stop and the RED LED will also come on).

The ANTI-LATCH (DIL Switch selectable feature) works by switching the output relay off after 5 seconds, so the relay will activate as it would normally, but will 'drop out' after 5 seconds. This is primarily used to trigger latching fire zones/inputs and avoid system latch-up problems when resetting the system.

Trigger signals

The unit can be triggered by two methods;

- 1) Provide a 17 to 30V supply voltage and a switched to negative signal (via clean contacts or open collector o/ps)
- 2) A normal fire system bell signal (2 core bell +/- circuit)

Method 2 allows ease of use in systems where access to the existing bell circuit is all that is possible. Because no power is available, the isolate warning buzzer only works when the bell circuit is active. *When using method 2, short out the GND/SW Neg connection terminals with a link wire.*

General Installation

The unit is supplied in a complete enclosure. The enclosure is of a single gang format with preformed holes for mounting on a surface or 20mm conduit box.

The unit can be accessed by rectangular surface trunking from the top or bottom.

If using 20mm tubing to access to the top of the box then ensure that it is offset from the middle by 27mm to the right. If a centre hole is required then a standard single gang deep box may be needed.

If mains voltages are being switched ensure the latest IEEE electrical wiring practices are adhered to.

PCB Connections

Connect the relay using the application schematics according to your particular requirements.

Relay Output Connections

Two change over contacts are available
 NO= Normally Open contact
 COM= Common contact
 NC= Normally Closed contact

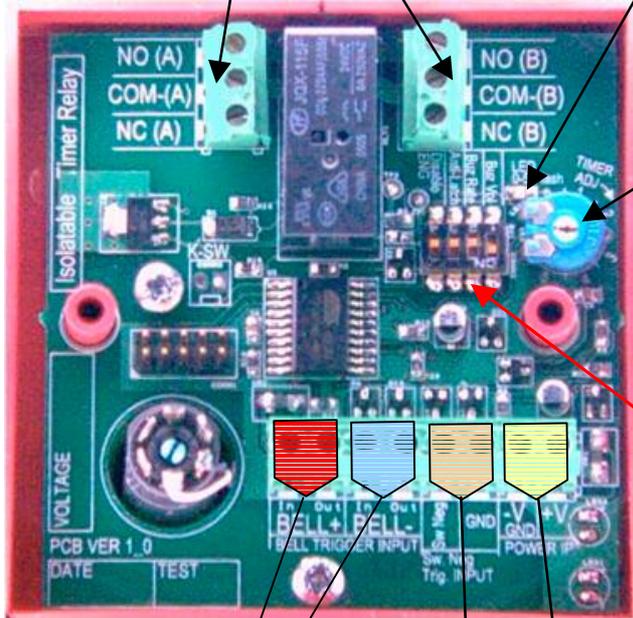
Timer LED

To make timer adjustments make sure that the unit is not isolated and no trigger signal is present, if using the bell input then temporarily remove any link made across the Sw neg input.

No Flash = Timer is off
 1 flash= 1 minute delay
 2 flashes= 2 min delay
 3/4.....
 5 flashes= 5 minute delay

Timer Adjustment Trimmer

The range is 0 to 5 mins
 Fully **anticlockwise** no delay
 Turn clockwise to increase delay
 LED will pulse to show you the delay in minutes.



DIL SW Settings

No.	NAME	FUNCTION
1.	Buz Vol	ON =Buzz on, Off =Silent operation
2.	Buz Rate	ON =30S between buzzes, Off =3S
3.	Anti-Latch	ON =5sec drop out, Off =Normal
4.	Disable ENG	ON =Permanently disable o/p

Factory default:

- 1=ON (buzzer on)
- 2=OFF (fast buzzer)
- 3=OFF (Normal relay output function)
- 4=OFF (Engineer disable off)

Bell Trigger INPUT

Bell + (in out) and Bell- (in out)
 If you are going to use this input to power the unit then ensure that you also *link out* the Sw neg trigger input.

POWER INPUT

-V (GND or 0V) and +V
 17 to 32Volts DC.

Sw. Negative Trigger INPUT

Sw Neg and spare **GND**
 Shorting these terminals together Triggers the relay

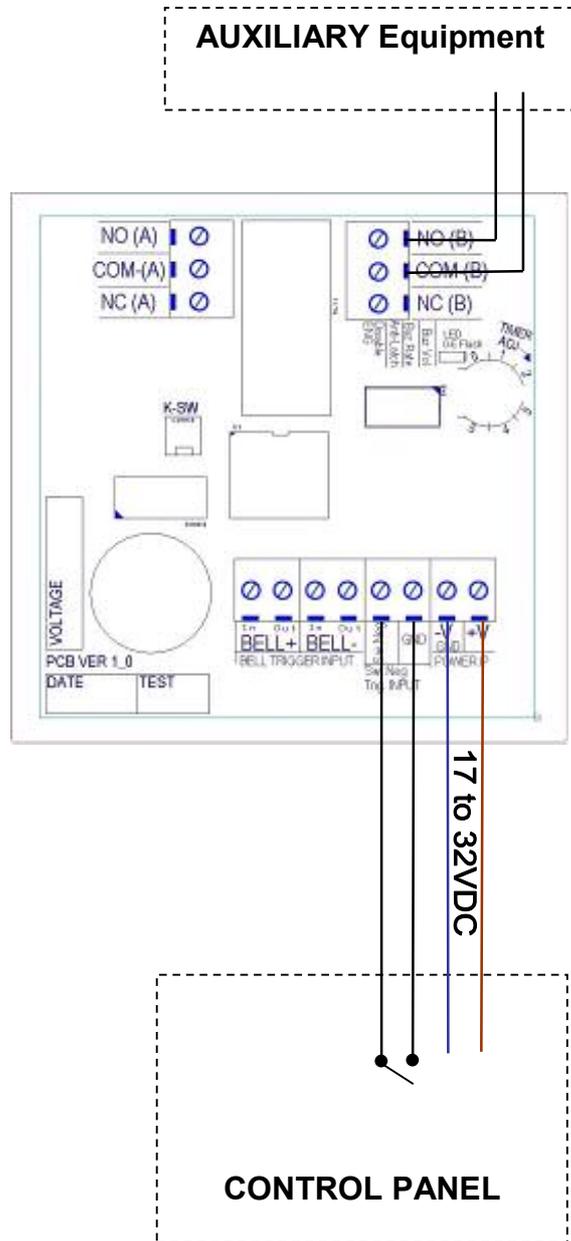
APPLICATION DIAGRAMS

PSU and SW Neg input connections

Any stable DC voltage from 17 to 32V may be used to power the unit.

TIMER SETUP

- The SW NEG trigger input must not be active
- The keyswitch must be in the ON position.
- Adjust the trimmer to the desired delay
- The timer LED flashes the time in minutes



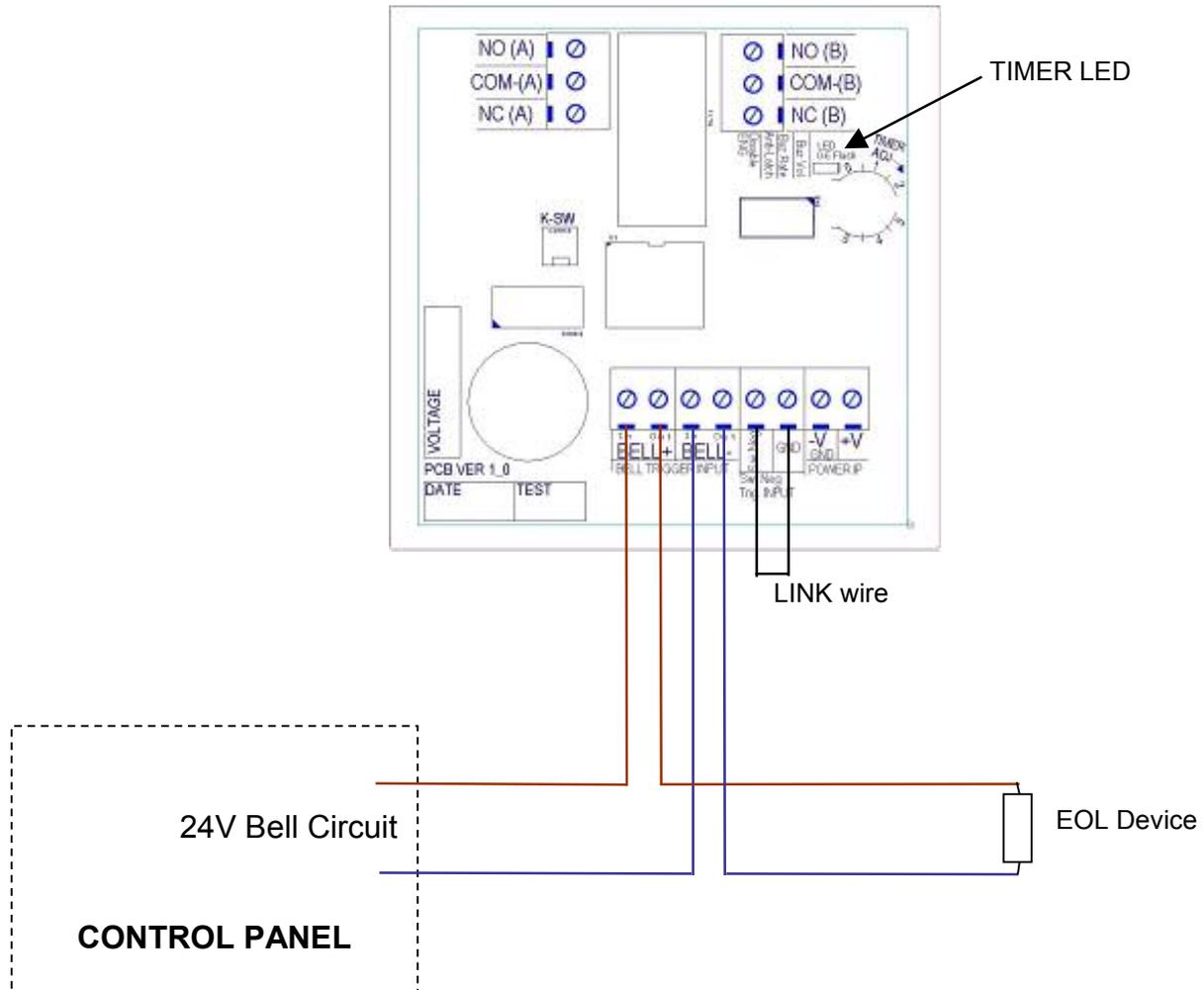
Bell trigger input connections

Any standard fire panel bell circuit will drive the unit. Note the link wire fitted in the trigger terminals.

TIMER SETUP

If you are using the timer then we recommend initial setting up and testing in the following manner:

- Turn Keyswitch (if fitted) to the ON position
- Power the unit up via the 'POWER IP' terminals
- Remove the shorting LINK
- Adjust the timer to the desired delay (the TIMER LED flashes the amount of minutes)
- Re-connect the circuit as shown below when you have finished



Technical Data				
Input Voltage Range:	17 - 32V DC		Output Contact Rating:	Double Pole – Change Over Contacts 230V AC 8A max
Quiescent Current:	<2mA @ 20V	<2mA @ 30V	Buzzer Speed Fast:	every 3 seconds
Alarm Current:	<22mA @ 20V	<27mA @ 25V	Buzzer Speed Slow:	every 30 seconds
	<33mA @ 30V		Timer tick buzzer:	2 per second (approx.)
Timer:	0 to 5 mins (in 1 min steps) +/- 5 seconds		Anti-latch time before dropout:	5 seconds
Buzzer Volume:	~70dB(A)@1M (750Hz)		Housing Size:	Single gang: W.86 x L.86 x H.56.5 mm