

LOGIC 4

Security control unit

Technical Information

3 zones.. 1 timed.. 1 time inhibited.. 1 immediate. All positive loop.

Programmable. Either zone 2 or zone 1 off in part set.

Tamper loop negative, off in test. **P.A. loop** always active.

Exit/entry timers. . . both adjustable from \approx 10 secs. to 2 mins.

Sounder output 12v. Timed reset & rearm \approx 20 mins as supplied.

Strobe output 12v latching after alarm, reset with keyswitch.

Low voltage o/p. 12v. D.C. **Fuses** 2 off 1.6 amp. 20mm

Size 12x9x3. Polycarbonate 3 mm high impact to B.S.

Mains Voltage 220v-245v A.C. Should be fused at 2 amp.

Backup 12v D.C. rechargeable or dry battery.

Introduction

The timed zone, zone 1 and zone 2 circuits all have a similar connection format, and can each be used with normally closed circuit devices (magnetic contacts, space protectors e.g. passive infra-red, foil etc) and normally open circuit devices (pressure pads). Each circuit is served by a four way terminal connector, with a convenient set of terminals for the tamper circuit.

Each circuit is provided with its own fault indicator and when any circuit has caused an alarm condition, all other circuit indicators will be locked out creating a 'First to latch indicator'.

As supplied the unit is complete with service links in the connector terminals. These links simulate a closed circuit across the zone inputs for testing, so when any zone is to be used for closed circuit devices the link for that zone should be removed.

Fixing

Place the unit against the wall in the position required for the installation and mark the top of the unit. Measure 1.3/4" below and central to the mark drill through this mark with a masonry drill to suit the wall plugs you are using, plug the hole and enter a number 10 round head screw leaving about 1/2" protruding. (Note 1" gap must be allowed between the left of the unit and the

wall if fitted in a corner). Mount the unit on this screw using the slotted standoff in the top centre. Mark the other mounting holes on the bottom of the unit and after removing the unit drill and plug the wall as before. In the back edges of the box, remove any breakouts required for entering cables with the aid of a junior hacksaw and a pair of pliers. Mount the unit back onto the top screw and secure the unit with the two bottom screws. Now remove the P.C.B. (The P.C.B. is easily removed pushing the two holding clips downwards and lifting the board out of the retaining studs), and after tightening the top screw replace the board. After reading the rest of these instructions, the unit may be wired into the security system.

Timed Circuit 7 & 8

This circuit should initially be regarded as the circuit which protects the designated route between the control panel and the final exit/entry door. The circuit has separately adjustable exit and entry timers.

Exit

When the key switch is set to the PART or FULL guard position the buzzer starts and the exit timer begins. The circuit now monitors all sensors on the exit route and their status is shown on the indicator. While any circuit is not correct or any door is opened the timer is halted. This feature makes it impossible for the operator to false alarm the system whilst leaving the building.

When the circuit is clear, and the time has elapsed, the buzzer will stop and the system will set.

Entry

Entering the building by the correct route will start the entry time, buzzer and illuminate the indicator. The operator must then turn the key switch to the off position or a full alarm condition will result.

Zone 1 11 & 12

As supplied (with PROGRAM pin in B position), this circuit is active in PART guard and FULL guard positions. When activated a full alarm condition will result, the indicator will illuminate and all other indicators will be locked out.

Zone 2 3 & 4

As supplied (with PROGRAM pin in B position), this circuit is only active with the keyswitch in the FULL guard position. When activated this zone will produce a full alarm condition, except during the exit/entry time when this circuit is TIME INHIBITED. This unique facility allows a Passive Infra-red detector on ZONE 2 to be used in a position which is part of the exit route. During the exit or entry times the Passive is disabled and cannot cause an alarm. However

the Passive becomes active after the exit time has elapsed. Walking into the Passives detection area will cause an immediate alarm condition. Therefore in order to enter the Passives protected area the ENTRY circuit must be activated first. This will lock out all other circuits and allow time to disarm the system.

Program Pin

We have learned from the previous information that ZONE 1 and ZONE 2 circuits have different features. When the Key switch is set to part guard position, only one of these zones is switched ON, and the other is switched OFF (hence the term PART guard).

The program pin (located towards the top left of the PCB), allows the installer to select which zone is IN USE in part guard.

With PROGRAM pin in position B, zone 1 is on and zone 2 is off.

With PROGRAM pin in position A, zone 2 is on and zone 1 is off.

So the installer now has the choice of a timed inhibited zone or a non inhibited zone in use in PART guard.

Whichever zone is chosen to be OFF in part guard can be assumed to be the secondary zone for protecting for example the upstairs area of a house. When the house is empty the operator would set the system to FULL guard, but at night when the upstairs is occupied the system would be set to PART.

Tamper Circuits.

1 & 2, 5 & 6, 9 & 10, T & A

This closed circuit is designed to protect the wiring and devices in use on the system from being tampered with, so is active in both the OFF and ON positions. In TEST it only indicates if open. The P.C.B. offers convenient terminals adjacent to each zone input for connection into the tamper circuit. The terminals T & A adjacent to the bell circuit are also part of the tamper circuit and are for protecting the outside sounder and housing and may be used for connection to a microswitch or self contained bell module (SCB). The control unit TAMPER switch is also part of the tamper network. Opening the tamper closed circuit at any part of system will cause a full alarm condition indicating on the front panel. The tamper circuit is always active and is sometimes referred to as a 24 hour circuit.

Tamper Disable

When installing the system with the panel or bell box open it is necessary to over-ride the tamper protection to check the system. This can be achieved by connecting a link of wire between terminals 'A' & '10'. It is essential that this link is removed at the completion of the installation to ensure correct operation.

P.A. Circuit 15 & 16

The P.A. or Personal attack circuit is a closed circuit loop between terminals 15 & 16. It is intended for connection to Personal attack buttons. The P.A. is not indicated on the control panel front, but as required by some authorities it is active in all key positions including TEST. If it is required for an activated P.A. button to be silenced at the control panel, then the P.A. button may be connected into the tamper circuit and the bells can then be silenced in the TEST position.

Buzzer 13 & 14

A 12v low current consumption buzzer should be connected across the BUZZER terminals, connections 13 & 14. The buzzer will sound for the exit and entry periods.

Bell Output B & D

This output marked B and D are for connection to the sounders. Protected by a fuse any type of sounder (12v) may be used but the total current should not exceed 1 Ampere. Care should also be taken when using motorised sirens, as their initial start current can exceed the fuse rating. B & D correspond to the same letters on the S.C.B. if used.

Bell Reset & Rearm

As supplied, and in the event of an alarm condition the sounders will operate until reset by the keyswitch. If BELL RESET and rearm is required then the link marked CUT FOR AUTO RESET towards the top, left of the P.C.B. must be cut open. The panel will now operate as follows:—

After the sounders have been operating for approximately 20 minutes, the circuit which caused the original alarm condition will be scrutinized, and if clear, the system will reset the indicator, stop the sounders and rearm the system, giving full protection again. If the circuit is still in fault condition, the control unit will then stop the sounders, but leaving the strobe output continuing and wait until the circuit clears. The moment that the circuit is clear the system will reset and rearm the sounders.

Strobe Output 19 & 20

The strobe output is protected against shorts by a fuse, and is designed to power a strobe with a current consumption of up to 400 mA.

The Strobe will continue to operate until the system is reset with the key switch, even if the bell reset has operated, rearm or not.

13v Low Voltage 17 & 18

This output supplies the voltage required to power detectors of 12/13 volts D.C. Protected from short circuits by the same fuse as the outside bell. Detectors connected to this output should be wired in parallel, observing the correct polarity.

Back-Up Battery

It is very important that either a re-chargeable battery or dry battery is used in conjunction with this control unit. If a re-chargeable battery is used it is kept fully charged by the control unit. If a dry battery is used then a large resistor towards the bottom right of the P.C.B. should have one leg cut; the position is marked 'CUT FOR DRY BATTERY'.

The battery will continue to power the control unit and detectors, even in the event of mains failure. Adding the total current used by the detectors with the control unit current (25mA) and dividing this into the capacity of the battery will give the total hours the system will operate in stand-by.

