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# FIRE ALARM DOOR RELEASE POWER SUPPLY INSTALLATION INSTRUCTIONS

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## IMPORTANT NOTES

These instructions should be read carefully before installation of the equipment.

1. This equipment must be installed and maintained by a suitably skilled or technically competent person.
  2. This is a piece of class 1 equipment and **MUST BE EARTHED**
  3. This door release supply is not designed to charge batteries of any kind.  
**Batteries must not be connected to this unit.**
  4. When testing and maintaining the supply always - where possible - isolate the mains supply.
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This unit is designed to provide continuous DC power via connections 1 and 2 for a 24v Door Release Magnet system that may be controlled from a Fire Control Panel. The unit is powered from the Mains supply and has no battery back up. Attempted connection will destroy batteries.

### Indication Lamps

The unit has two indication lamps. The Green "Mains On" to indicate that the Mains supply is healthy and the integral fuse is intact, and the Amber "Output" to indicate the output is energized.

### Releasing Door Magnets

*Automatic Release from a Fire Panel-* Via SW1 (connections 3 and 4) - Externally energized input to release. The Door Release Supply is connected via SW1 to a standard polarized sounder circuit of the main Fire Control Panel. When the sounder circuit is activated the Door Release Supply is switched off. When the sounder circuit is deactivated the Door Release immediately switches back on.

*Manual Release -* Via SW2 (connections 5 and 6) - Close contacts to release.

The Door Release Supply can be switched off when the SW2 connections are shorted out from either a remote switch or panel mounted key switch. The key switch is available as an accessory. The front panel label must be cut to the ready punched key hole profile to accept the key switch assembly which has a connector that plugs onto PL1 on the circuit board. **If fitted ensure that there is earth continuity from the keyswitch bezel to the main earthing point, remove paint inside the panel lid if necessary.**

Additionally a timer can be used in conjunction with the SW2 connections to shut all the fire doors at a premises automatically at a predetermined time (e.g. when the building is unoccupied). The timer chosen must be powered from the Mains supply and have isolated normally open contacts. Suitably sized timers can be mounted in the Door Release Supply.

### Installation -First and Second Fixes

Decide on the position of all door release magnets and position of the Door Release Supply and mark plans accordingly. The Panel must be mounted internally in a clean, dry area where it is readily accessible, taking into account any likelihood of tampering or vandalism. The ambient light levels should allow the status of the indicators to be clearly seen.

The Fire officer should check the plans to ensure compliance with any special requirements he may have.

**Installation - First and Second Fixes** - continued.....

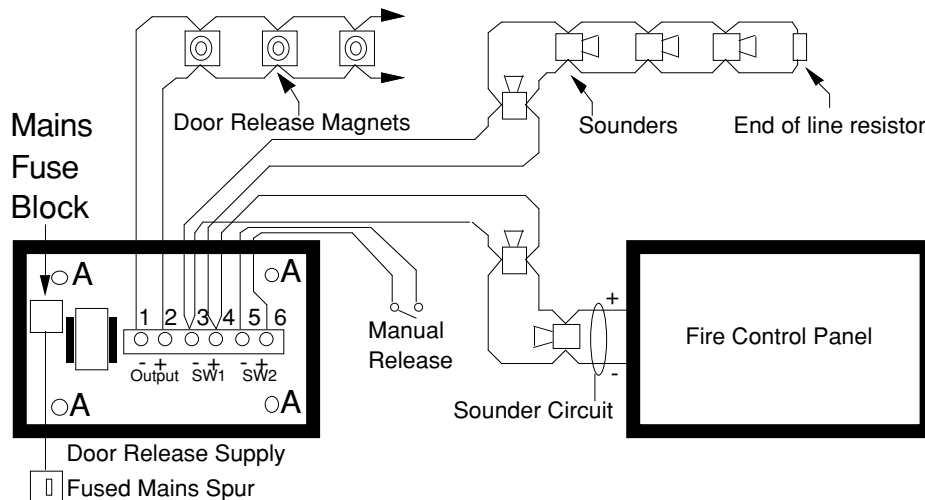
Take the Door Release Supply out of its box and undo the two front panel retaining screws. Hinge the front panel down through 180 degrees and locate the connector plug on the circuit board. Grasp the wires to this plug and pull the connector off the board. Remove the Earth tag wire from the front panel. Hinge the front panel back and lift off the base. **The front panel may be removed from site until work is completed to avoid damage.** Screw the panel to the wall using the four fixing holes (See 'A' in diagram below). The mounting holes are suitable for use with N°8 round head or countersunk woodscrews. Assess the condition and construction of the wall and use a suitable fixing. Any dust created during the fixing process must be kept out of the panel, and great care must be taken not to damage any wiring or components.

All mains wiring should be provided in accordance with the current IEE wiring regulations , 16th Ed. (BS7671, 1993) or in accordance with the relevant national wiring rules. The general requirement is fixed wiring, using three core cable, not less than 0.75mm<sup>2</sup> or a suitable three core conductor system, fed from an isolating switch fuse spur, fused at 3A.

The mains connection is made inside the panel to the fused mains terminal block only. Connection must not be made to the mains supply using a plug and socket. Wiring should be carefully planned before starting the job, with care taken that if a knockout is removed that the hole is filled with a suitable good quality cable gland. All external wiring brought into the panel should be adequately insulated with PVC, PTFE, Neoprene or other Fire resistant / retardant material. Plan and route all of the wiring as indicated in the diagram.

The wiring should be chosen and installed to comply with BS5839 Pt 1 and consideration should be given for the volt drop in long cable run / high current consumption installations.

Illustrated in the following diagram is a typical system employing a Door Release Supply.



Note the wiring to SW1 from the Fire Control Panel sounder circuit should be as shown to include full monitoring , if spurred off the wiring will not be monitored.

The activating input SW1 is polarized. If the Fire panel sounder circuit connection is reversed the Fire Control Panel will show a Sounder Fault.

**Do not use a high voltage insulation tester (megger) to test the continuity of the wiring system with the panel or other electronic devices connected, since this will destroy these parts.**

**Ensure the the Door Release Supply is isolated from the mains.**

Make off all wiring to the terminal block in the panel ensuring there are no trapped or bare wires. When all connections are made replace the lid, and re-attach the connector plug.

**Ensure that the earth wire to the lid is connected.**

Close lid and secure the lid screws.

Energize the mains supply and note that both the Amber "Output" and Green "Mains On" lamps are illuminated.

Check that the door magnets are operative.

Enable the sounder circuit of the Fire Control Panel, then check that the Amber "Output" lamp extinguishes and power is removed from the door holding magnet circuit.

If incorporated check that activating the Manual Release also removes power from the door holding magnet circuit.

Specification

Mains Supply Voltage	230Va.c. ±10% 50/60Hz
Current consumption:	300mA r.m.s. Maximum
Output Voltage	22-29Vd.c.
Maximum Output Current	2A

Maximum number of Holding Magnets

Quantity	20 at 100mA each or 25 at 75mA each
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Indication and Control

Indication Lamps

"Mains On"	Green light emitting diode
"Output"	Amber light emitting diode

SW1 control input	Supply 18-30V d.c. @ 30mA to release magnets
SW2 control input	Short via contacts to release magnets
	Open circuit 29V d.c. @ 30mA

Connections

Largest Conductor size	0.75mm <sup>2</sup>
Smallest Conductor size	2.5mm <sup>2</sup>

Fuses

Mains Input	400mA T 20mm - Compliant with IEC (EN60127 PT2)
Output Fuse	2.0A F 20mm - Compliant with IEC (EN60127 PT2)

<u>Physical Dimensions</u>	Size: 330 x 270 x 92mm, Weight: 4.0Kg
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No responsibility can be accepted by the manufacturers or distributors of this equipment for any misinterpretation of an instruction or guidance note or for the compliance in any complete Fire Alarm System. The manufacturers policy is one of continuous improvement and they reserve the right to make changes to the product at their discretion and without prior notice.

