INHEP DIGITAL SECURITY

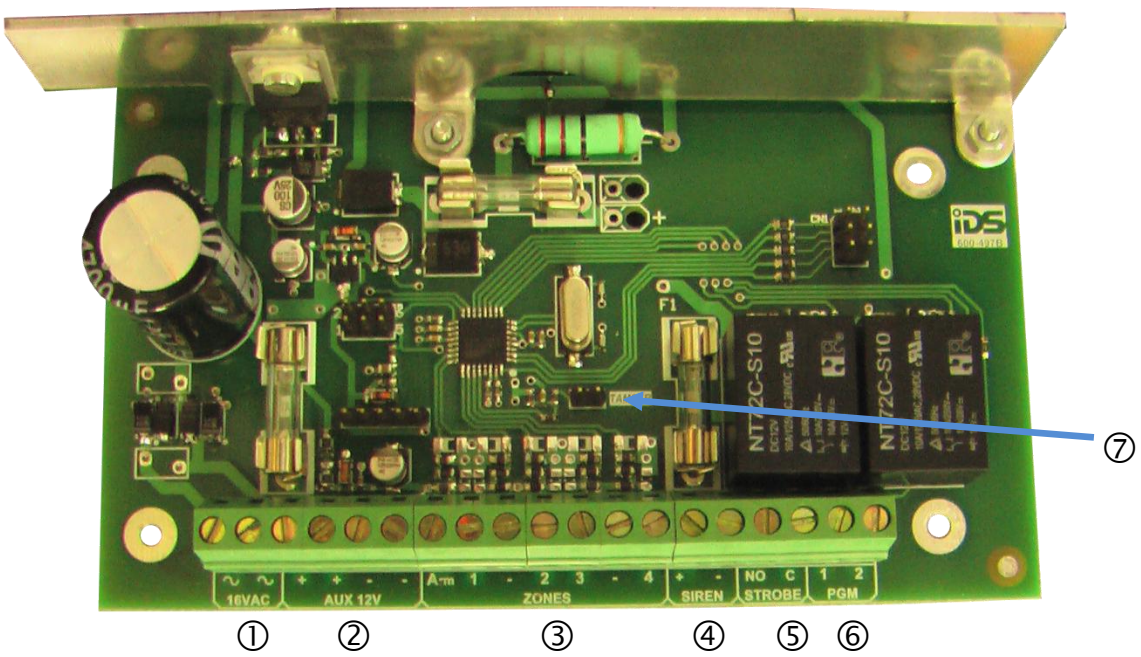
Ezi 4

Contents

Features

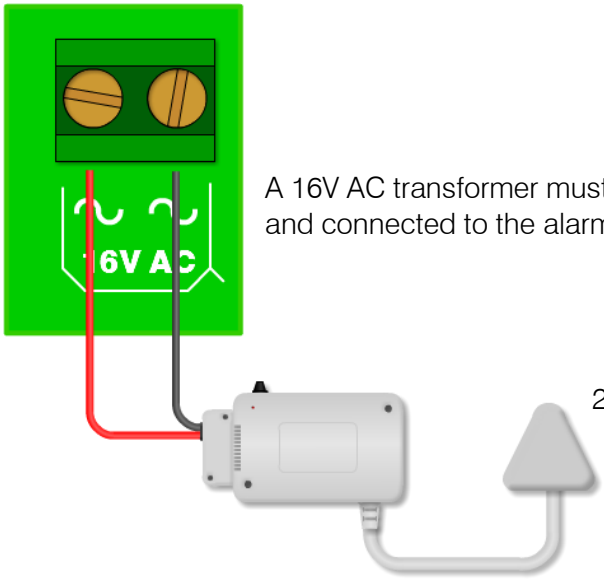
1. Arm / Disarm Zone
2. Four instant zones
3. Box Tamper
4. Outputs
    a. Siren output
    b. Strobe output
    c. PGM1 which follows the strobe output
    d. PGM2 pulses for 1 second when alarm is triggered
5. LED Indicators
    a. Power indicator
    b. Zone indicators
6. 12V Auxiliary Power supply
7. Charging circuit for backup battery of 7AH

Fig. 1.



① AC Input

Fig. 2.

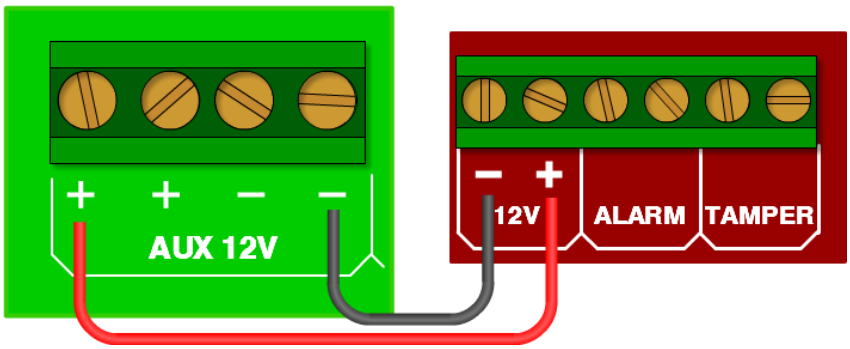


A 16V AC transformer must be used with a minimum capacity of 16VA and connected to the alarm panel with a minimum 0.5mm rip cord.

② 12V DC Auxiliary

The AUX 12V can supply 250mA of current to devices, such as PIRs, remote receivers, etc.

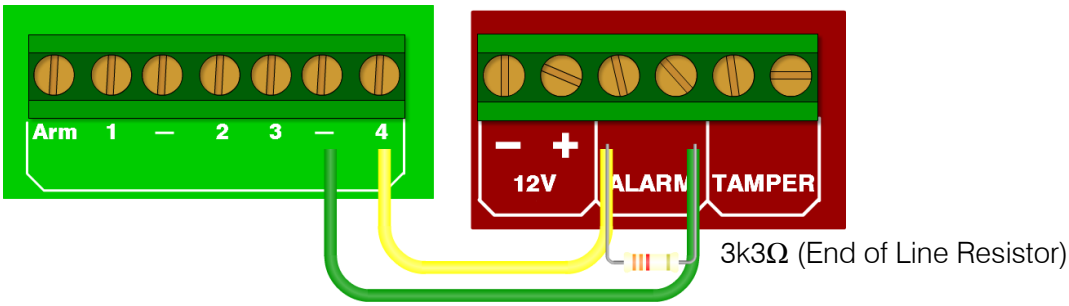
Fig. 3.



③ Zone inputs

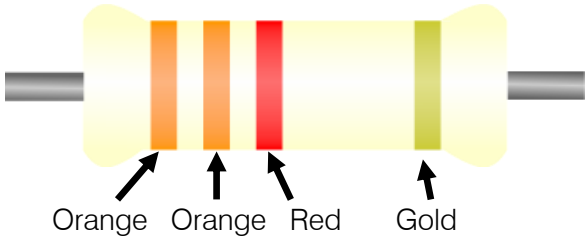
All zones must be terminated with a 3k3 ohm resistor. The alarm must detect a 3k3 ohm resistor or the zone will never set. When the alarm is armed and this resistor cannot be detected then an alarm condition is triggered.

Fig.4.



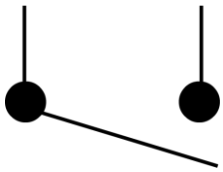
Resistors are normally marked with colour bands to indicate their values. Below shows the correct colour bands for a 3k3 resistor.

End of Line Resistor (EOL)



Depending on the device being used will depend on how the resistor is connected. There are two types of devices, normally open or normally closed. This describes the state of the devices output in normal operating mode.

Normally Open: Is when a devices output will not allow any current to flow through it, I.e. Like a light switch when it is off and the globe is off and the room is in darkness.



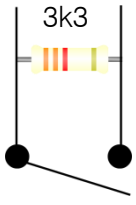
Normally Open Device

Normally Closed device

Normally Closed: Is when a devices output will allow current to flow through it, I.e. Like when a light switch is on and the globe is on and lighting up the room.

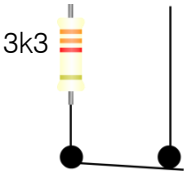
Because the alarm panel must have electrical current flowing at all times to detect the 3k3 resistor the resistor must be connected in a way that allows current to always flow through it.

Normally Open



Normally Open devices do not allow current to flow through them until they are triggered, therefore the 3k3 resistors must be placed in parallel to the device as show.

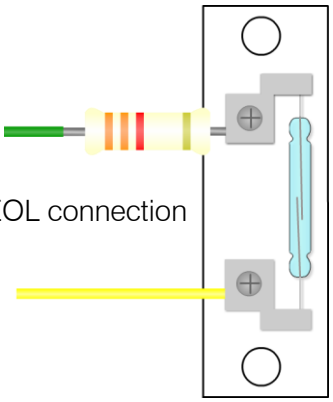
Normally closed

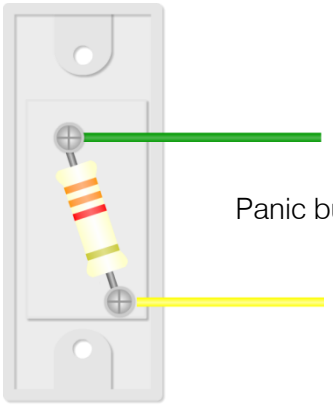


Normally closed device allows current to flow trough it until it is triggered, therefore the resistor must be placed in series with the device as shown.

Zones 1 to 4 are connected to devices that are protecting a certain area, for example: Passive infrared detectors, door magnets and panic buttons, etc.

Door magnet EOL connection



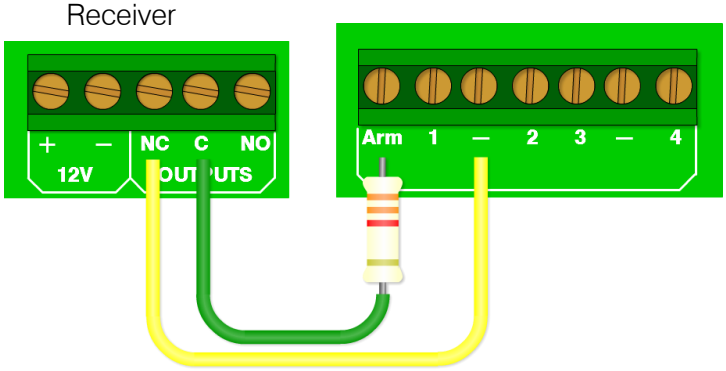


Panic button EOL Connection

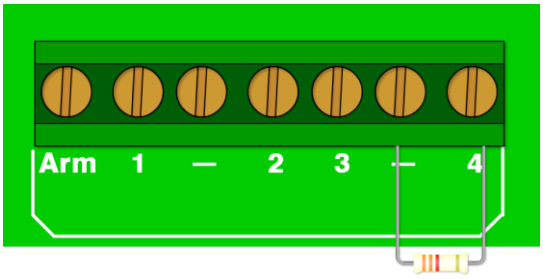
The Arm Zone is used to connect a device that will close momentarily to remove the 3k3 resistor from the zone for a second and return it back into the circuit. When the alarm panel sees this it will toggle the state of the alarm panel.
For example: If the alarm is disarmed and ready to be armed and the arm zone is triggered the alarm will arm and if in the armed state it will disarm.

Arm zone is connected to the Normally Closed output of the relay

Receiver



Note: If the zone is unused please connect the 3k3 end of line resistor to the unused zone

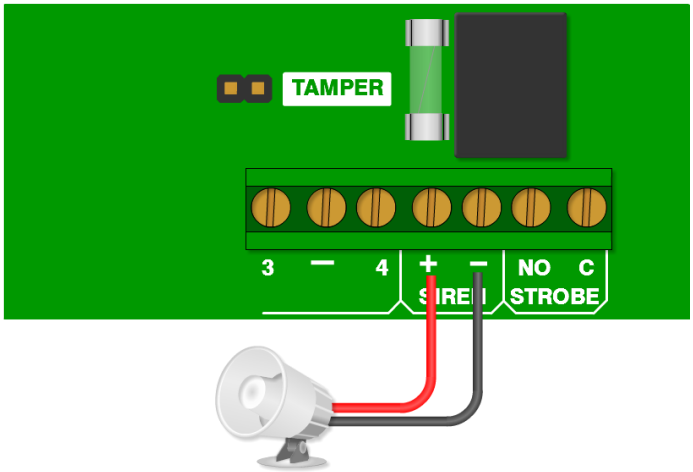


3k3

④ Siren Output

The siren connector supplies power directly from the battery through a relay and protected by a 4A fuse.

Fig. 5.



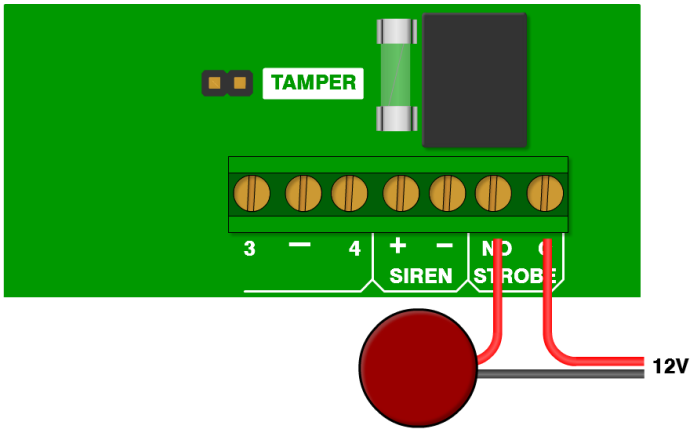
The siren can sound on the following options:

Arm – 1 one second toot
Disarm – 2 one second toots
Alarm - 1 minute toot.

⑤ Strobe Output

The strobe output is a dry contact output. This means that it does not supply any current from its output. Once the strobe output is triggered it will remain triggered until the alarm panel is disarmed

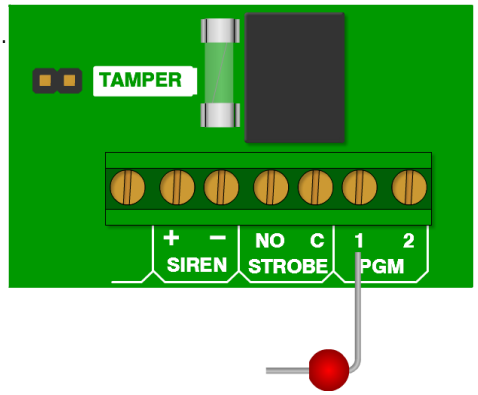
Fig. 6.



⑥ PGM Outputs

Note: PGM outputs are designed to connect to LEDs without any resistors

Fig. 7.



PGM1 displays the armed status. When armed the LED will go on

PGM 2 will pulse for 1 second when the alarm is triggered
This is designed to trigger a communicator, I.e. Radio, GPRS module

Connect LED negative leg to aux 12V negative

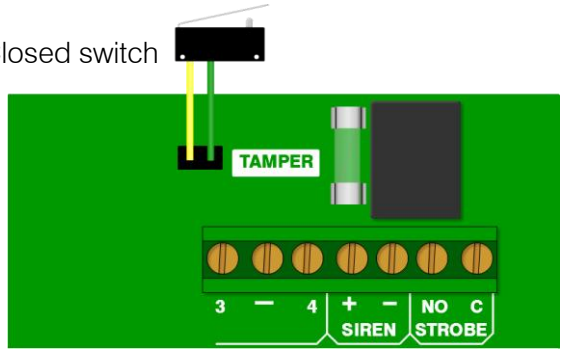
LED positive leg connects directly into PGM 1

⑦ Tamper Connection

The tamper connection is designed to work with a normally closed switch and is not end of line supervised. This is to protect the alarm panel if the door of housing that it is in is opened.

Normally Closed switch

Fig. 8.

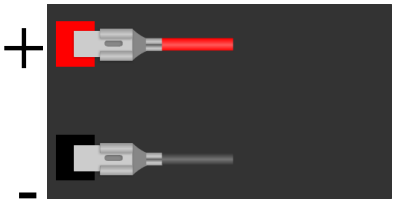


Battery Leads

A sealed lead acid 12V battery with a maximum capacity of 7AH can be connected and charged by the panel for backup power during AC power failures.

Note: The battery standby time will vary depending on the peripheral devices that are being powered from the auxiliary 12V output.

Fig. 9.

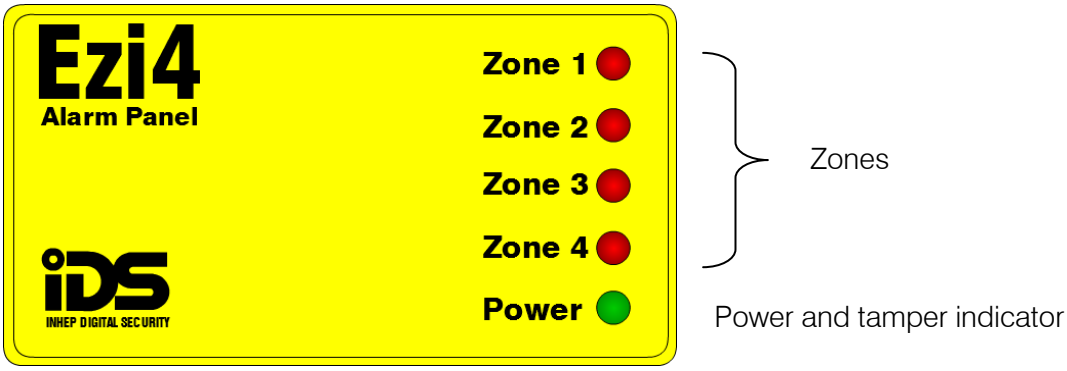


Please make sure the battery leads are connected correctly.
Red lead to the positive of the battery
Black lead to the negative of the battery

Display

On the enclosure of the Ezi4 alarm panel are five light emitting diodes (LEDs) which give a visual indication of power and zones.

Fig. 10.



Zone indicator LED operation:

On = Zone violated/open
Off = Zone closed

When the system is armed and a zone is violated. The zone LED will come on and remain on, until the alarm is disarmed.

Zones have to be violated for 300mS by either being shorted to negative or the circuit must be open for the system to register a violation.

Power LED indicator:

Flashing once a second = Normal operation
Flashing four times a second = Tamper has been activated