

# EC-EX10

## Eclipse Zone & Output Expander

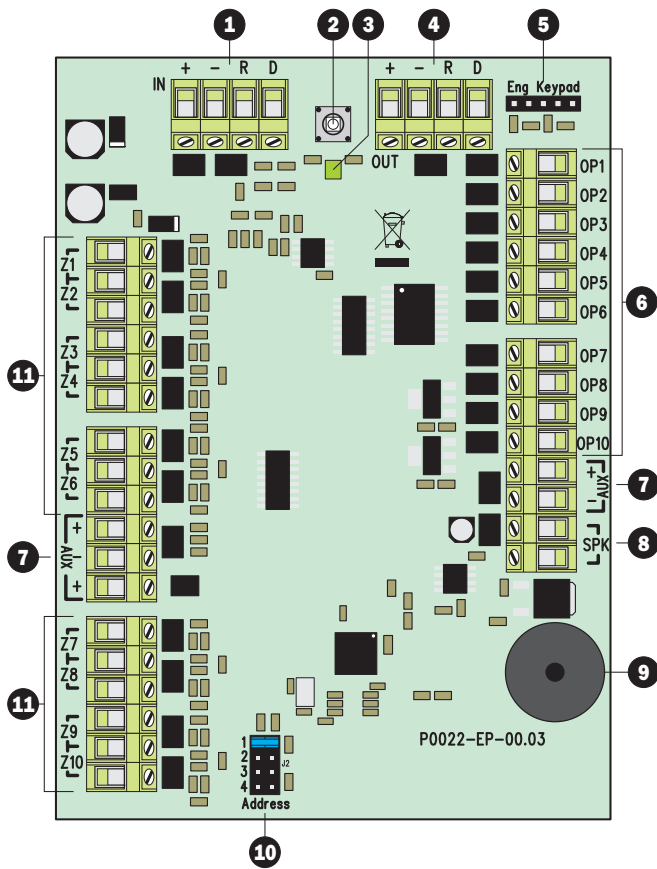
### Installation Instructions

#### 1. Introduction

The EC-EX10 is supplied in a stylish plastic enclosure and is connected to the 4-wire control panel network to provide an additional 10 zones and 10 outputs. A set of connections for a loudspeaker is also provided.

#### 2. PCB Layout & Connections

The figure below shows the PCB layout for the EC-EX10:



##### 1. Network In

These four connections must be connected to the control panel network, or the "Network Out" of another EC-EX10.

##### 2. Lid Tamper

The lid tamper detection switch. The tamper protection can be disabled at the control panel, please refer to the control panel installation manual.

##### 3. Status Indicator

This LED indicates the status of the system. When lit red it indicates an alarm, green indicates it is healthy. The indicator will also flash the expander address when the system is in engineer's mode.

##### 4. Network Out

These four connections should be used to connect other devices that are down stream from the expander.

##### 5. Engineer's Keypad

An engineer's keypad can be plugged onto this connector to allow programming and testing of the system.

##### 6. Programmable Outputs

These terminals provide programmable switched -ve driven outputs. OP1 to OP8 are low current 100mA and suitable for driving light load like relays and LED's. OP9 and OP10 are high current 1Amp and can be used for driving heavier loads.



An additional power supply maybe required in order to supply adequate power to drive the devices connected to the Programmable Outputs.

##### 7. Auxiliary 12V

These terminals provide auxiliary power for powering detection device and device connected to the programmable outputs.

##### 8. Loudspeaker Output

These terminals provide a set of connections for a 16Ω loudspeaker for generation of exit, entry and alarm tones.

##### 9. Onboard Piezo Sounder

The piezo sounder generates low level alarm, fault and system tones. The engineer can also make the sounder "Beep" the address from "View Zone Status" menu.

##### 10. Address Selector

Each expander must be assigned a different address using the address selector. Move the jumper to the required position 1, 2, 3 or 4.

##### 11. Zone Inputs

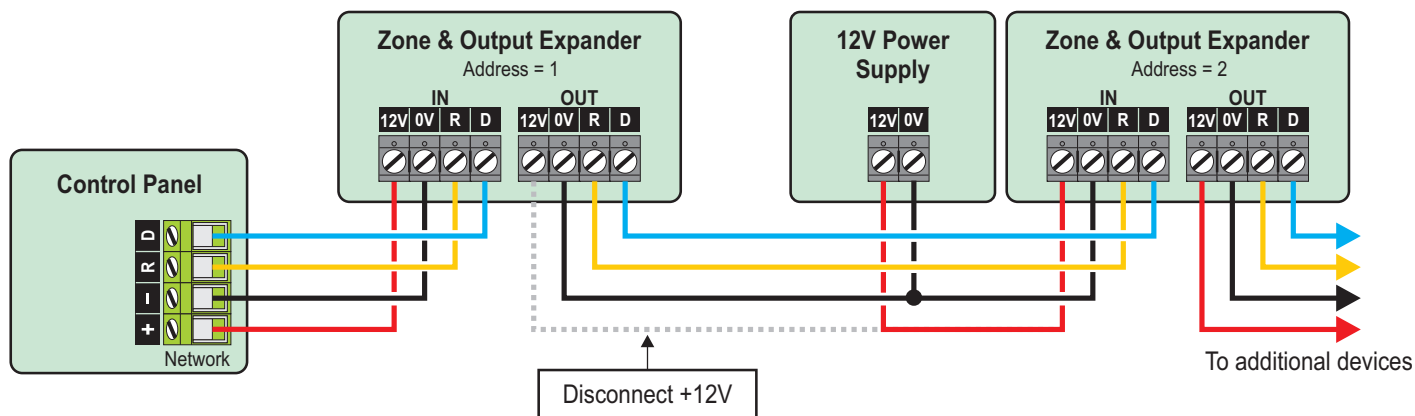
These terminals provide the zone inputs for detection devices. Both the zone type and the wiring configuration are programmable by the control panel. Please refer to the control panel installation manual. The power for detection devices should be taken from the auxiliary 12V terminals.

#### 3. Installation

Please follow the installation sequence below:

1. Remove the screw cap by using a large flat blade screw driver, then undo the cover screw using a suitable pozi-drive screwdriver and remove the cover.
2. Position the expander in the require position and mark the four securing holes in each corner.
3. Drill and plug the holes then secure the expander with suitable fixings.
4. Route the network, zone and output cables into the housing through the cable entries provided.
5. Connect the detection devices to the Zone Inputs and Auxiliary 12V.
6. Connect the network cable to the Network In terminals and Network Out (if you connecting other devices from the expander).
7. If required, connect the switched output loads between the Programmable Outputs and Auxiliary 12V (+).
8. If required, connect a 16Ω loudspeaker to the Loudspeaker Output terminals.
9. Set the Address Selector to the required position.
10. Apply power to system and confirm the new expander is being recognised by the control panel. See "Confirm Devices" in the control panel installation manual.
11. Test the operation of the zones, outputs and loudspeaker, and then finally replace cover.

## 4. Network Wiring



Remote keypads and expanders are all connected to the same network terminals located at the bottom left hand corner of the control panel and may be connected serially (daisy chain), in parallel (star) or any combination of the two.

### Network Voltage Drop

When devices are on long cable runs or the current being drawn from the network is high, the voltage at the expander or keypad will drop due to the impedance of the cable. There are several ways to reduce the level of voltage drop in a network:

- ▶ Use thicker lower resistance cable. Standard 7/0.2 alarm cable has a resistance of 8Ω per 100m
- ▶ Double up on the power connections – this will require using a 6 or 8-core cable rather than a 4-core cable
- ▶ Install a power supply to power the device locally

### Installing a Power Supply

When a power supply is installed, the 0V connections on the power supply must be connected through to 0V on the control panel and the +12V connection between the control panel or previous device must be disconnected, see figure above.

## 5. Specifications

### Electrical

Voltage:	10 - 16Vdc.
Current:	40mA
Zone Inputs:	10 fully programmable
Outputs:	OP1-8: 100mA; OP9-10: 1Amp
Loudspeaker:	Minimum load of 16Ω
Auxiliary 12V:	Protected by 1Amp electronic fuse (PTC)

### Environmental

Operating Temp.:	-25 °C to +55 °C (-13 °F to +131 °F).
Storage Temp.:	-25 °C to +60 °C (-13 °F to +140 °F).
Max. Humidity:	95% non-condensing.
EMC:	Residential, commercial and light industrial.



Do not throw away the product with the normal household waste at the end of its life, but hand it in at an official collection point for recycling.

### Physical

Dimensions:	136.0mm x 174.0mm x 35.0mm.
Packed Weight:	350g.

## 6. Standards

### Safety

Conforms to European Union (EU) Low Voltage Directive (LVD) 2006/95/EC.

### EMC

Conforms to European Union (EU) Electro-Magnetic Compatibility (EMC) Directive 2004/108/EC.

### Security

Conforms to EN 50131-1 and EN 50131-3 Grade 2, Environmental Class IV.



The CE mark indicates that the *EC-EX10* complies with the European requirements for safety, health, environment and customer protection.

## 7. Warranty

Zeta Alarm Systems by GLT Exports Ltd products are carefully designed to provide reliable problem-free operation. Product quality is carefully controlled during all manufacturing processes. The *EC-EX10* is covered against defects in material or faulty workmanship for a period of 2 years from the date of purchase. Due to our policy of continuous product improvement, Zeta Alarm Systems by GLT Exports Ltd reserves the right to change specification without prior notice.

As the *EC-EX10* is not a complete intruder alarm systems, but only part of it, Zeta Alarm Systems by GLT Exports Ltd does not accept responsibility or liability for any damages whatsoever based on any claim that the unit failed to function correctly.



### Technical Support

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