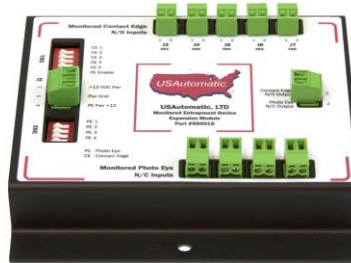


# Installation Manual

## Monitored Entrapment Device Expansion Module

USAutomatic Part # 500015



### Specifications:

Supply Voltage: +12 or +24 Vdc

Standby Current avg: 2 ma

Monitoring Types identified:

1. Contact Edge with 8.25K resistor
2. Contact Edge with 10k resistor
3. Photo Eye N/C contact

Total number of Monitored Devices that can be connected: 9

Contact Edge: can monitor up to 5

Photo Eye: can monitor up to 4

### Operational Information:

The expansion module is designed to monitor for the connection and proper operation of multiple monitored external entrapment devices. The two types of devices which can be identified and monitored are:

1. Contact Edges which have 8.2K or 10K resistor installed.
2. Photo Eye with Normally Closed N/C contact.

The Monitored Expansion Module design has incorporated a single common ground for power ground and input commons. The J2 pin 2 (Pwr Gnd) connector is the power ground from the gate operator and also serves as the accessory common ground. This reduces the number of wires that are needed between the gate operator control board and the Monitored Expansion Module.

### Dipswitch Info

There are 2 banks of dipswitches (DS1 and DS2) located on the expansion module. These switches can be set to the open or closed position. The dipswitch package is labeled OPEN on one side and when a switch is pressed down to the open side that switch is in the open position.

### Warranty

This product has a 1 year warranty covering defects from material or workmanship.

## **Installing Monitored Contact Edges**

### **Wiring Contact Edges to Expansion Module**

1. Connect the 2 wires for each monitored contact edge installed to one of the CE1 – CE5 removable plugs.

### **Dipswitch Settings for Monitored Contact Edges**

1. Identify the monitored contact edge inputs (CE1 – CE5) being used and set the corresponding DS1 dipswitches to the open position.
2. Dipswitches for unused contact edge inputs must be in the closed position.

### **Wiring Expansion Module to Gate Operator**

1. Connect J2 pin 1 (+12 Vdc Module Pwr) to the 12 Vdc or 24 Vdc supply from the control board.
2. Connect J2 pin 2 (Pwr Gnd) to the ground connection on the control board.
3. Connect J1 pin 1 (Contact Edge N/O Output) to the monitored contact edge N/O input on the control board.

### **\*Important Power Saving Note:**

When photo eyes are not being used DS1 switch 6 should be in the open position.

## **Installing Monitored Photo Eyes**

**IMPORTANT: This module can only be used with UL325\_2016 photo eyes utilizing N/C contact monitoring.**

**This requires switched power to the photo eye. Gate operator must turn the photo eye power ON/OFF so that N/C contact can be monitored.**

### **Wiring Photo Eyes to Expansion Module**

1. Connect the photo eye N/C contact to Pin 1 on the PE1 – PE4 removable plugs.
2. Connect the photo eye Common contact to Pin 2 on the PE1 – PE4 removable plugs.
3. Connect the gate operator control board photo eye switched power 12/24 Vdc output to the expansion module switched PE Pwr +12/24 Vdc input J2 pin 3.
4. Connect the photo eye power ground from the gate operator control board to the expansion module Pwr Gnd J2 pin 2.

### **Dipswitch Settings for Monitored Photo Eyes**

1. Identify the monitored photo eye inputs (PE1 – PE4) being used and set the corresponding DS2 dipswitches to the open position.
2. Dipswitches for unused contact edge inputs must be in the closed position.
3. DS1 dipswitch 6 (PE Enable) must be in the Closed position.

### **Wiring Expansion Module to Gate Operator**

1. Connect J2 pin 1 (+12/24 Vdc Module Pwr) to the 12 Vdc or 24 Vdc supply from the control board.
2. Connect J2 pin 2 (Pwr Gnd) to the ground connection on the control board.
3. Connect J1 pin 2 (Photo Eye N/C Output) to the monitored photo eye N/C input on the control board.
4. Connect J2 pin 3 (Switched PE Pwr +12/24 Vdc) to control board Photo Eye switched power output (+12 or +24 Vdc).
  - A. Patriot Control board J2 pin 12 – Photo Eye Switched Power +12 Vdc
  - B. Ranger Control board J2 pin 5 – Photo Eye Switched Power +12 Vd