

Photo Eye: (Send and receive) Part number 550010

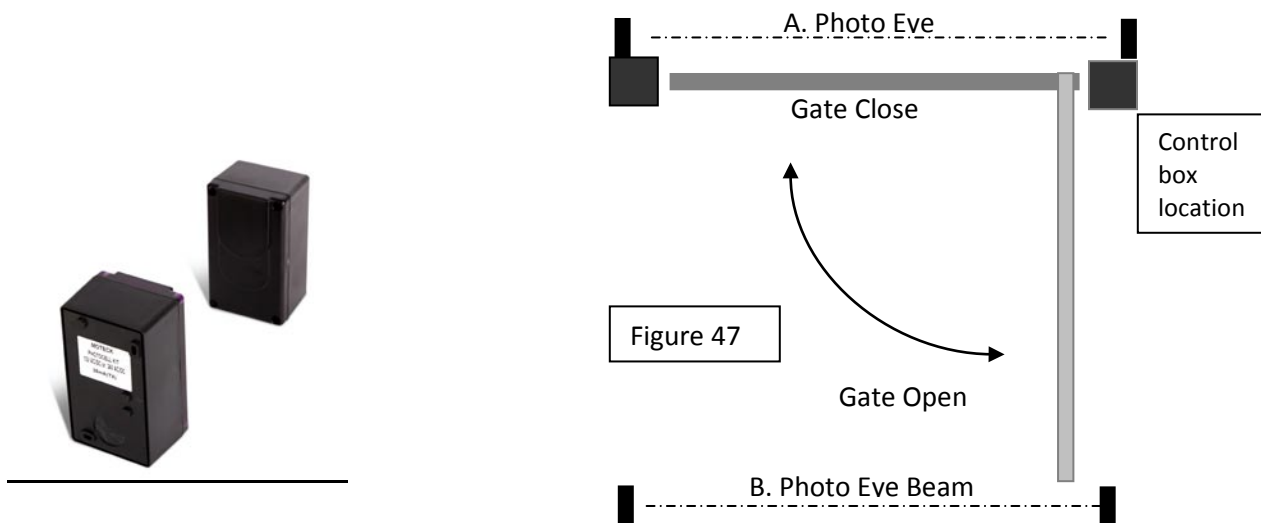
The photo eye is a secondary safety device. It produces a beam between the 2 units. When the beam is broken it will keep the gate from closing. It requires wires to be connected to both units (20 gauge) for operation. Typically a swing gate needs two sets of photo eyes for the best area protection (see figure 47).

One set of photo eyes pointing across the drive on the outside of the hinge post (A). The second set mounted across the drive at the point where the gate is fully opened (B). The photo eye must be installed where the gate does not break the beam.

The RX (receiver) should be installed close to the control box. Requires 4 wires to be installed from the unit.

The TX (transmitter) should be installed on the opposite side of the drive. Requires 2 wires to be installed from the unit.

The two units must face each other to establish the beam (maximum distance 40 feet).



Installation / Wiring

Select a proper installation site, where the RX and the TX can be along the same line and at the same height. Remove the cover from both units. Attach back plate to the installation site using mounting holes in back plate.

If conduit is being used (recommended) knockouts are provided in the unit for 1/2" conduit fitting. Install wires into unit and strip 1/4" of insulation to prepare for wiring connections.

Connect both conduits to a weather tight junction box. Then connect an additional conduit between the junction box and control box. The control box has knockouts for the conduit. Verify which knockout is available for the photo eye conduit. Pull wire into control box wire compartment.

Transmitter wiring (TX) – 2 wires will be connected to the transmitter. Route 2 wires into the junction box

Receiver wiring (RX) – 4 wires will be connected to the receiver. Route 4 wires into the junction box

Junction box to control box – Route 4 wires from the control box into the junction box

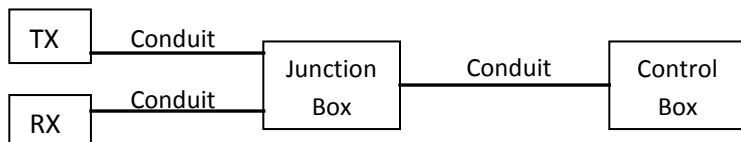
Connect the power wires (12 vdc) together (3 wires – The RX, TX and 1 from the control box)

Connect the power ground wires together (3 wires – The RX, TX and 1 from the control box)

Connect the RX relay common to a wire in the junction box for – (2 wires – RX common and 1 from the control box)

Connect the RX relay N/O to a wire in the junction box - (2 wires – RX N/O and 1 from the control box)

At this point you have 4 wires that need to be connected to the control board



Wiring Photo Eye to Patriot Control board (serial number above 600001)

Photo eyes are recommended for all gate installations to provide safety and protect objects that might be in the gate path. The Photo Eye Power Management software installed in the control board makes this possible without pre-maturely draining the battery.

When utilizing the PEPM software the photo eye will only be powered up when the gate is traveling in the closed direction. Allows gate to be held open and does not require any additional solar panels for this accessory.

The photo eye must be wired as shown and the correct dipswitches must be turned on for the PEPM software to work correctly. Detailed instructions are below with illustration.

1. Connect jumper wire from J2 pin 1 to the left "Photo Eye / Security Shunt" terminal
 2. Connect photo eye power +12 vdc to the right "Photo Eye / Security Shunt" terminal
 3. Turn on dipswitch DS2 switch 3 in bottom right corner of control board (temporary while adjusting beam)
 4. Place gate in the open or mid travel position (allows power to the photo eye).
 5. Wire the RX relay N/O contact from the photo eye to J2 pin 11.
 6. Wire the RX relay common from the photo eye to J2 pin 2 or 7.
 7. Wire the photo eye ground (power ground) to J2 pin 2 or 7.
 8. Install Photo eye and adjust beam – verify proper operation.
 9. Once installed turn OFF dipswitch, DS2 switch 3.
 10. Turn ON dipswitch, DS1 switch 10 in the upper left corner of control board.
 11. Test photo eye for proper operation, when gate is closing and beam is broken gate should stop and reverse.
- NOTE: Power is only applied to photo eye when gate is going closed.

