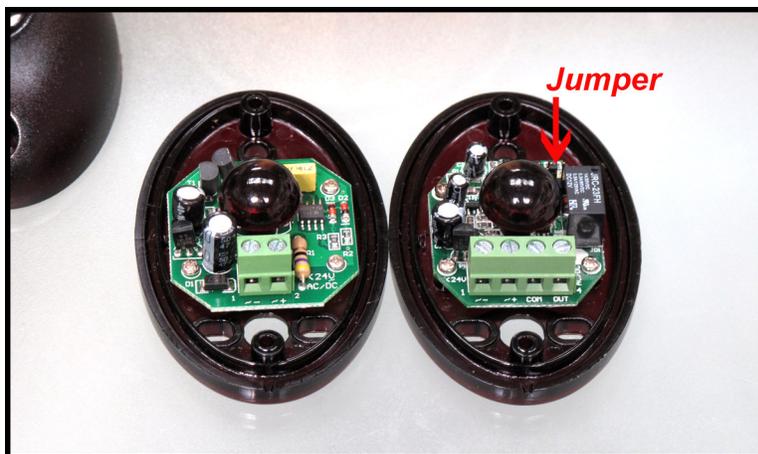


## “SAFETY EGG” PHOTO EYES: BS-IR30



The “safety egg” photo eye is an inferred photo sensor that projects a beam across a path way and will flip a relay when the beam is broken.

Use minimum of 22 gauge stranded low voltage wire for connections.

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**4 TERMINAL SIDE:** this is your primary side; put this half on the side of the pathway that is closest to the device (i.e. gate opener) you are trying to control.

– **Terminal:** This terminal will have two wires.

One wire to a 12 - 24V AC or DC power source (if AC source there is no polarity, if DC source this is your negative polarity)

Other wire will be run under ground to the secondary side –.

+ **Terminal:** This terminal will have two wires.

One wire to a 12 - 24V AC or DC power source (if AC source there is no polarity, if DC source this is your positive polarity)

Other wire will be run under ground to the secondary side +.

**COM Terminal:** This will lead to the common of the dry contact input on the device you are controlling using the photo eye.

**OUT Terminal:** This will lead to the Safety or Open terminal of the dry contact input on the device you are controlling using the photo eye.

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**2 TERMINAL SIDE:** this is your secondary side; put this half on the side of the pathway that is opposite the primary.

– **Terminal:** This terminal will connect to the primary side –.

+ **Terminal:** This terminal will connect to the primary side +.

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**JUMPER:** The position of the jumper will be determined by the design of the device you are controlling. If you are using the photo eye to open a device in most cases the jumper will be on NO (normally open). However if the photo eye is being used as a safety device the it may be either NO (normally open) or NC (normally closed)

**Example:** Estate Swings use NC safety circuits. GTO / Mighty Mules use NO safety circuits Review the manual for your device to determine which should be used.

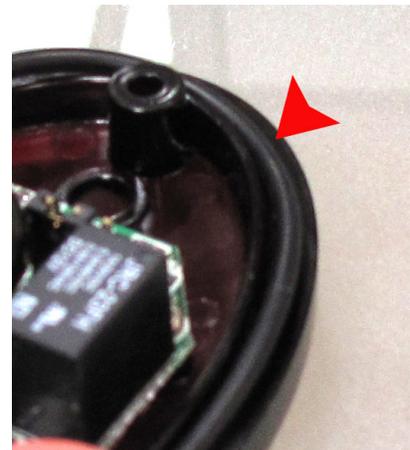
**Mounting the photo eye:** the photo eye should be mounted at a height where something passing it is most likely to disturb the beam. For driveways - bumper height is recommended.

The photo eyes can be mounted to any type of post. There are three holes for screws. The two bottom holes are elongated for adjustment of the sensor. The hole on the bottom center is for running wire.



After the units are mounted and the wire is run, fill in all four holes with silicone for a water tight installation.

The units come with rubber gaskets, when closing the cover the rubber gasket should be used around the edge as seen below.



**Lining up photo eyes:** The primary and secondary photo eye must be pointing at each other and be on a level plain in order to work properly. Lining them up is easiest when using a laser pointer for angling guidance.

When they are aligned you will hear the relay click in the primary side (if wiring is complete and power is supplied). Once you think you have them aligned you can test alignment by cupping your hand with your fingers closed in front of the primary side. You should hear the relay click when you cover the beam and uncover the beam.

**Special Note:** The primary and secondary side must be at least 4 feet away from each other for them to align, if you try any closer the two side may never line up.