Invisi-GUARD™

Thru-Beam Photo Eye

US Patent 7,869,718B1

ANSI/UL325 Recognized Component

Model # PH-T-1 Installation Instructions

Invisi-Guard photo optic system consists of one battery operated infrared emitter and one infrared receiver housed in separate units. The units are intended to be positioned in such a way that an obstruction in a hazardous area will interrupt the infrared light beam. An interruption of the beam will signal controls to stop and/or stop and reverse motion.

IMPORTANT:
READ AND UNDERSTAND ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.

1- Parts List

Check to make sure all parts are included.

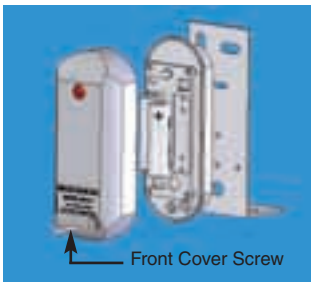
- Emitter (1) (Em)
- Receiver (1) (Rx)
- Mounting Brackets (2)
- Mounting Screws (4)
- Batteries (2) AA Lithium

Assembled Emitter & Mounting Bracket

Assembled Receiver with Hood & Mounting Bracket

2- Install Batteries in Emitter

- To open the unit, remove the front screw.
- Remove cover by tilting bottom portion out near front cover screw and lifting up.
- Install batteries aligning the PLUS sign (+) on the battery with the PLUS sign (+) shown on the PC board.
- Replace top cover and tighten screw.

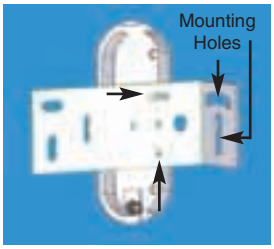


3- Mounting

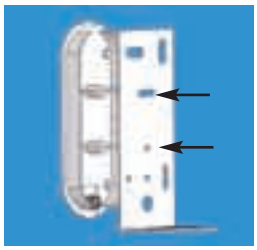
3a) Select a stable mounting location with a clear line of site to detect obstructions, where the light beam could not be obstructed by plants, leaves, etc.

3b) Determine horizontal OR vertical bracket mounting direction. For ease of alignment, both transmitter and receiver should be attached in the same direction.

3c) Attach Mounting brackets to EMITTER and RECEIVER using horizontal or vertical mounting holes, using screws provided.



Horizontal Mounting Bracket



Vertical Mounting Bracket

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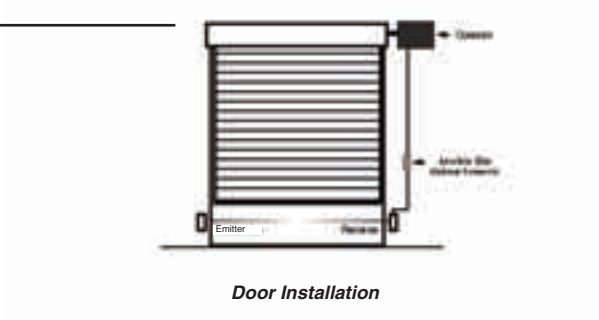
4- Typical Installations

Sliding Gate Installation



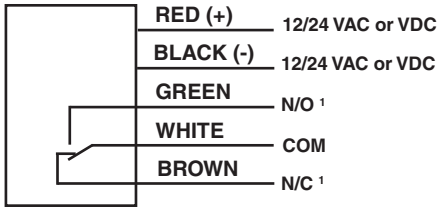
Door Installation

5- Wiring Connections

TO AVOID THE RISK OF ELECTROCUTION, TURN OFF AND DISCONNECT ELECTRICAL POWER TO THE MOTOR BEFORE WIRING.

Follow the simple wiring connections for the receiver to connect it to the operator. The transmitter is battery powered and does not require any connections.

1- Under normal operating conditions - Power is OK and eyes are aligned properly.



Receiver Diagram

6- Technical Specifications

Detection Technology	Infrared through-beam
Infrared Beam Range	30 feet
Operating Temperature	-22°F to 144°F (-30° C to 60° C)
Voltage Supply (Em)	2 X 1.5V, AA Lithium
Power Supply (Rx) & (Em)	8-30 VAC, 200mA 50/60Hz 10-24VDC, 100mA
Low Battery Indicator	Alarm output@85dB
Enclosure	NEMA 4

WARRANTY

We will replace or repair within 2 years of shipment from our factory. Warranty is void where evidence of misuse or abuse is present as deter mined solely by our authorized factory representative. Batteries are not covered under this warranty.

7- Trouble Shooting Tips

Under normal operating conditions, the Green and Yellow LED indicator lights will remain lit. This product includes self-monitoring circuitry. A loss of power (green light off) will cause the relay to close to the "safe" mode.

LED	Status	Diagnosis	Cause/Solution
GREEN	ON	Power supply is OK	
	OFF	No Power	Check for loose or broken wire connections.
RED	ON	Fault = Relay Closed	Obstruction of the light beam.
	OFF	Normal Operation	OK
YELLOW	ON	Eyes are aligned correctly	OK
	OFF	Eyes are not aligned	Reposition eyes until YELLOW light in ON.

Care and Maintenance:

-This unit is equipped with an audible low battery alarm. Use only AA size lithium batteries.

-Use only a clean lint free cloth to clean transmitting and receiving units.

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