PhotoeyeVault-2™

Protection Bollard



Instruction Manual

The PhotoeyeVault-2 is a security-style bollard that protects photoeyes and provides a stylish alternative to visible hardware. Keep photoeyes safe from vandalism, inclement weather, and accidental contact damage with this solid steel fixture. The PhotoeyeVault-2 hides electronics while blending in with the surroundings. It is compatible with EMX IRB-RET-2, EMX IRB-MON-2, EMX IRB-4X-2, and EMX IRB-325 photoeyes.

Contents

A. PhotoeyeVault-2 Kit Parts	Page 2
B. Tools and Materials for Field Installation	Page 3
C. Prerequisites to Installing the PhotoeyeVault	Page 3
D. Installation Steps	Page 5
Step 1: Unbox PhotoeyeVault-2 Kit	Page 5
Step 2: Installing Photoeye Mounting Hardware	Page 5
Step 3: Installing the *Photoeye	Page 6

**EMX photoeye sold separately*

Cautions and Warnings



This product is an accessory or part of a system. Install the EMX PHOTOEYE (IRB-RET-2, IRB-MON-2, IRB-4X-2 or IRB-325) according to instructions from the gate or door operator manufacturer. Comply with all applicable codes and safety regulations.

Specifications

Housing Material	.120” 11-gauge steel post and baseplate
Dimensions	5.5” (140mm) x 5.25” (133.4mm) x 24” (610mm) post 8.25 (210mm) x 6.5” (165mm) x .120” (3.05mm) base
Finish	Black powder coat
Weight	21 lbs

Ordering Information

- PhotoeyeVault — Protection bollard *photoeyes sold separately

Sold Separately

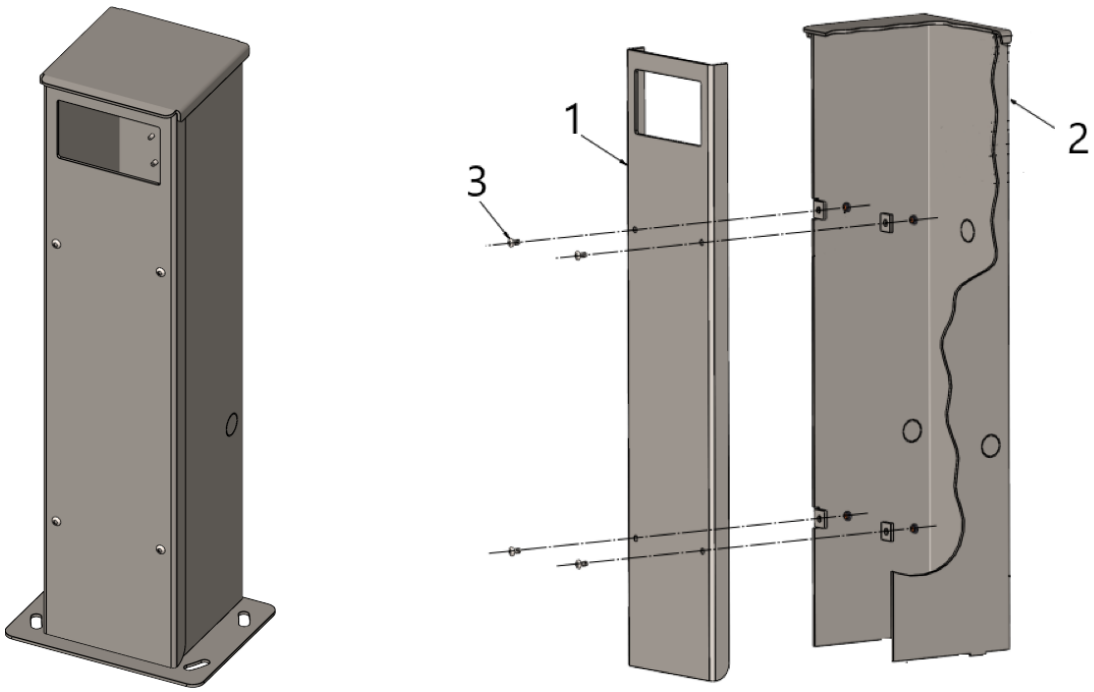
- IRB-RET-2 KIT — UL325 Retroreflective photoeye kit, includes photoeye with hood, reflector with hood, and mounting bracket with hardware
- IRB-MON-2 KIT — UL325 Thru beam photoeye kit, includes transmitter, receiver, protective hoods, and sunshield
- IRB-4X-2 KIT — Thru beam photoeye kit, includes transmitter, receiver, protective hoods, and sunshield
- IRB-325 KIT — Thru beam photoeye kit, includes transmitter, receiver and hoods

A. PhotoeyeVault Kit Parts

Part	Description	Qty
1	PhotoeyeVault-2 Front Cover	1
2	PhotoeyeVault-2 Tower Body	1
3	Front Cover Screws, 1/8in Hex	4
4	*IRB-RET-2 Mounting Hardware Set	1
5	*IRB-MON-2 and IRB-4X-2 Mounting Hardware Set	1
6	*IRB-325 Mounting Hardware Set	1

* Only mounting hardware is included, EMX photoeyes sold separately (NOT INCLUDED IN KIT)

Fig A: PhotoeyeVault-2



B. Tools and Materials for Field Installation

- 1/8” Hex bit (For front cover screws)
- Open end and socket wrench set with 3/8in socket (for stand-offs)
- Standard hand tools (screwdriver set, longnose pliers, etc...)
- Ball-peen hammer
- Power drill and bit sets (for wood, concrete, steel)
- Wire nuts or caps
- Wire ties

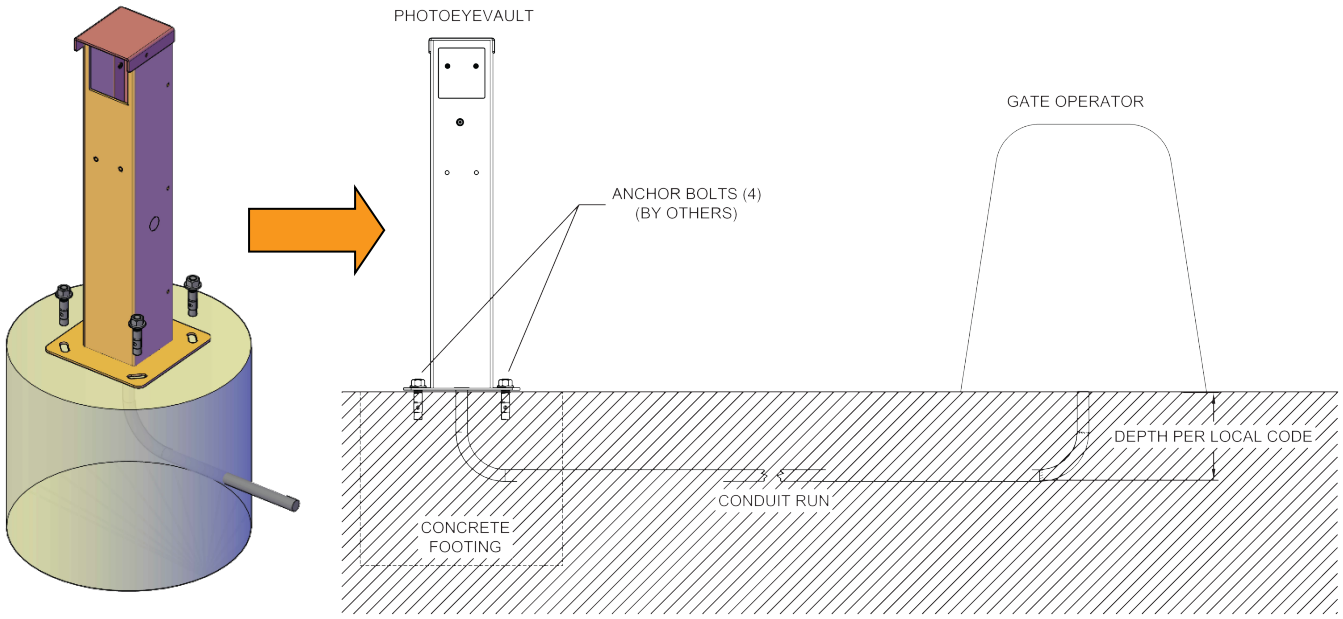
C. Prerequisites to Installing the PhotoeyeVault

C.1.1 Concrete mounting pad with minimum specifications of 14" diameter x 12" deep

C.1.2 Rigid conduit 3/4” diameter running up through the center of the concrete pad extending to about 12" off the pad surface; conduit runs buried under the pavement between the gate operator and the pad; Fig C.1 (consult local electrical code for buried conduits)

C.1.3 Pull enough length of wires through the conduit to connect the photoeyes to the gate operator in final installation steps

Fig C.1: Installation Schematics



C.2 The PhotoeyeVault, with the photoeye in it, is installed and typically positioned a few inches before the vehicle gate line such that the photoeye transmitter projects a beam across the opening of the vehicle gate to the receiver or reflector.

Note: The photoeye is aimed directly to the receiver or reflector across the other end of the gate with the projected beam parallel to the gate opening cutting through the vehicle drive path.

Fig C.2: PhotoeyeVault / Photoeyes as Obstruction Sensors

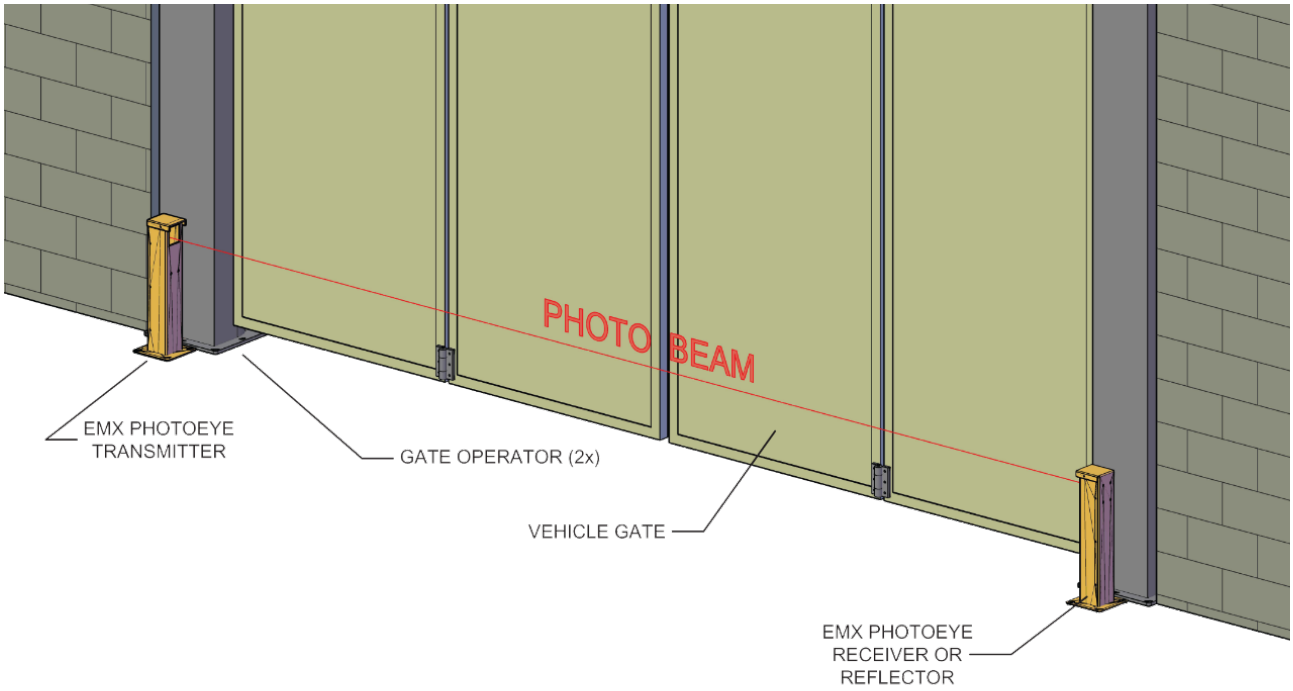
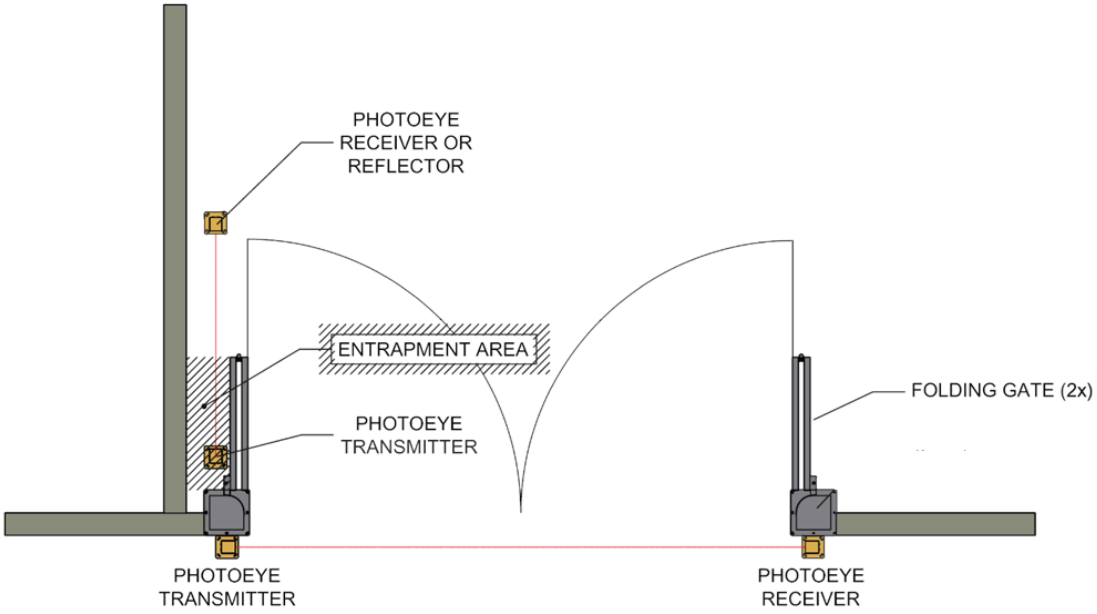


Fig C.3: PhotoeyeVault / Photoeyes as Obstruction Sensors



D. Installation Steps

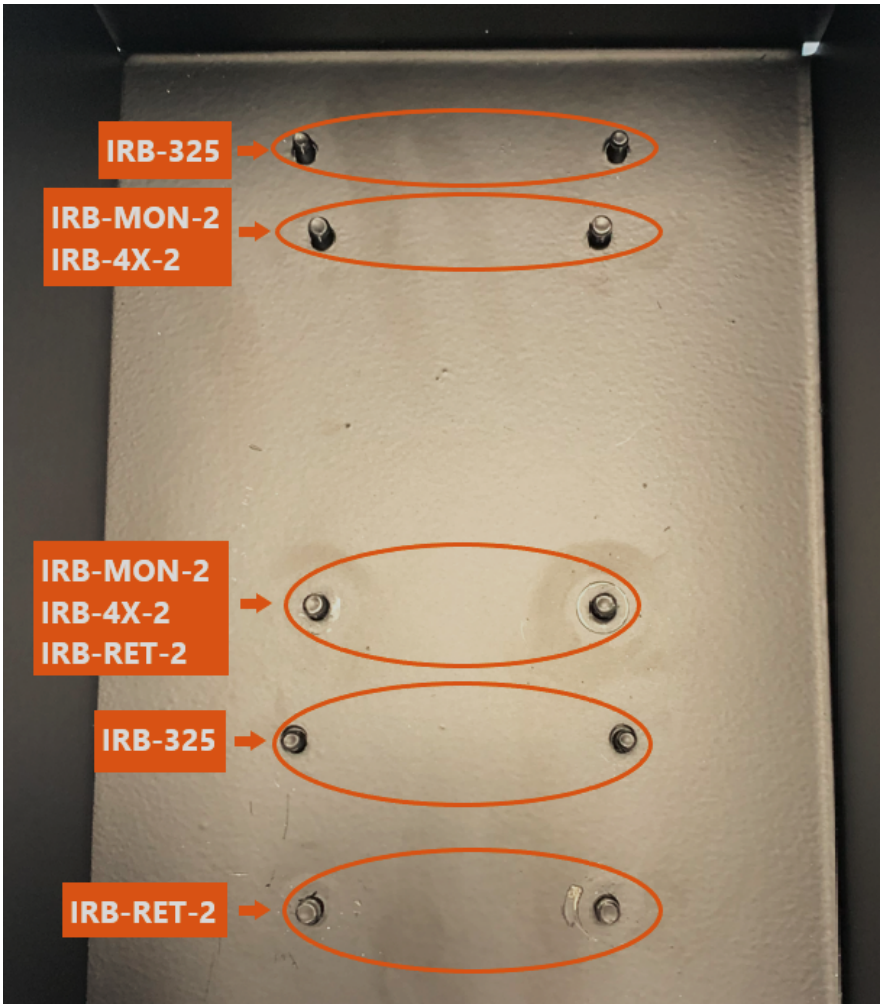
Step 1 – Unbox the PhotoeyeVault Kit

- Remove the PhotoeyeVault-2 from the product box
- Check each item referring to section A – the kit parts list

Note: *The EMX photoeyes are sold separately; they are not part of the kit.*

Step 2 – Install the mounting hardware for your photoeye.

- Find the hardware mounting parts (item 4 to 6) that match the photoeye you plan to install. Refer to section A table for selecting the correct hardware
- In the hardware kit, the following items will be present.
  - Four Screw-in Stand-offs
  - Four Photoeye mounting screws
- Using the 1/8" Hex bit, unscrew the four front cover screws (item 3) and pull the front cover away to access the inside.
- Screw in the four stand-offs into the correct location for your photo eye using the diagram to the right. Use a socket driver sized 3/8 in. to ensure the stand-offs are tight and fully seated.

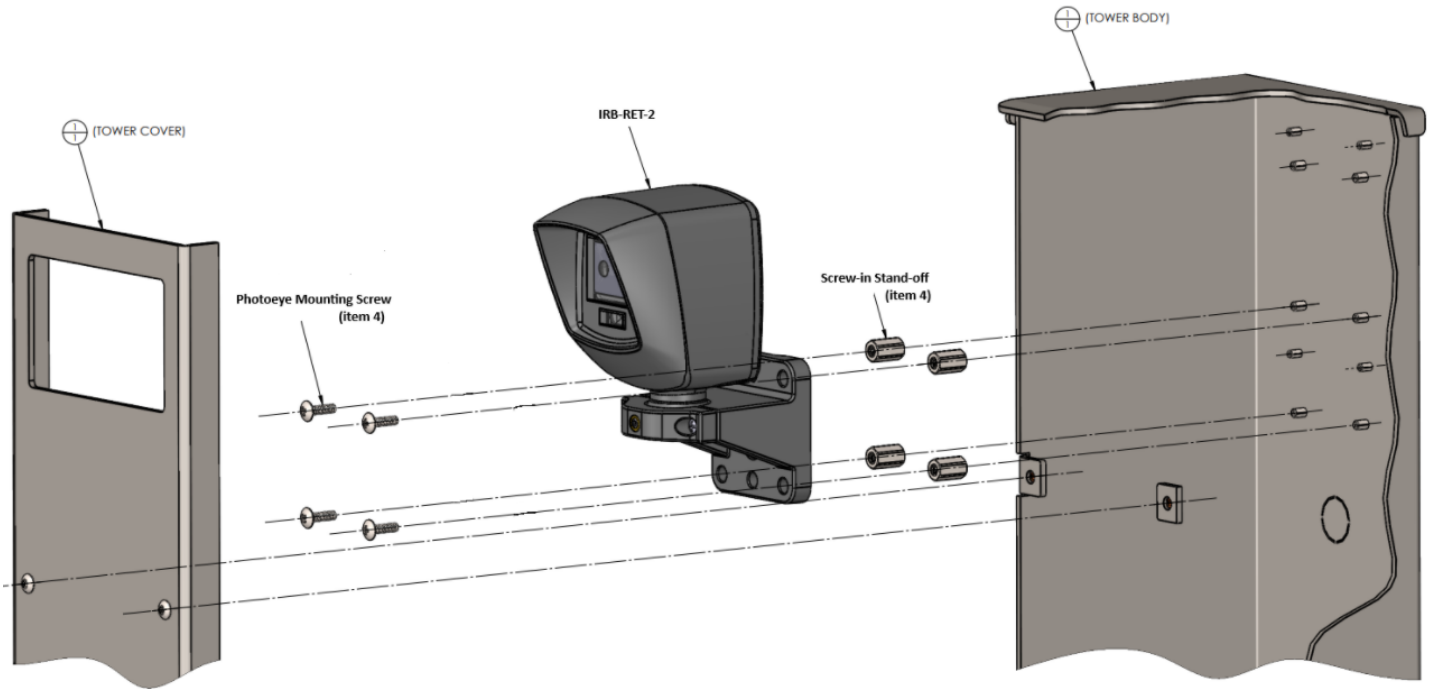


D. Installation Steps (continued)

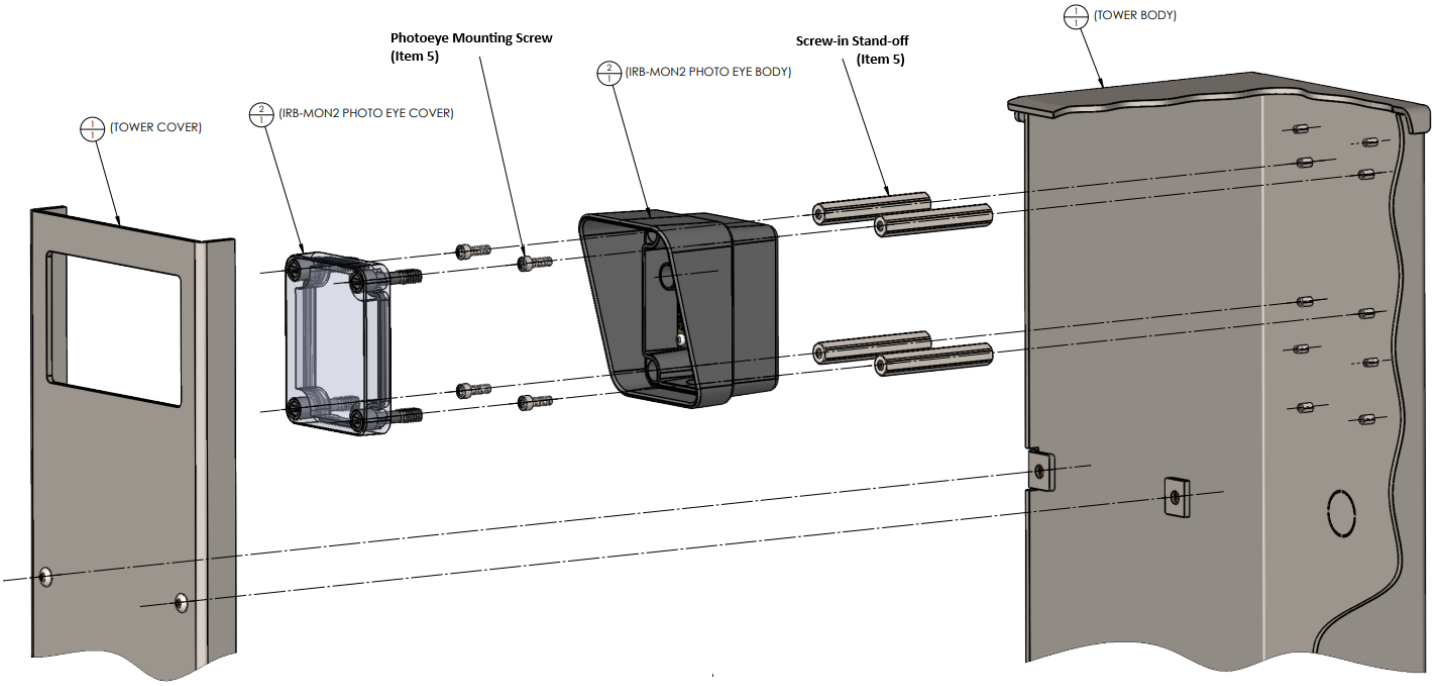
Step 3 –Install the photo eye according to the diagrams below.

Note: Complete all photoeye wiring before mounting in the bollard.
Ensure the photoeye has good alignment before replacing the front cover.
For wiring instructions, refer to the manual of the photo eye you are using.

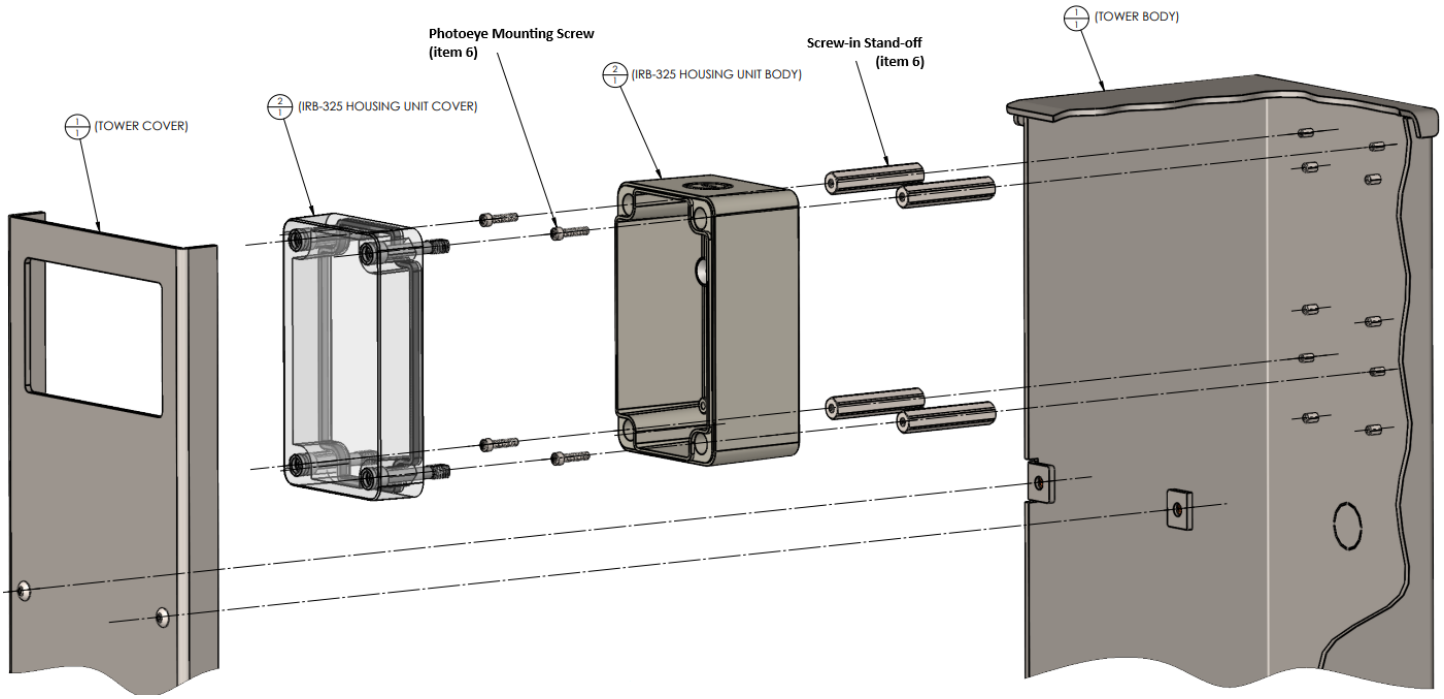
IRB-RET-2 Mounting



IRB-MON-2 and IRB-4X-2 Mounting



IRB-325 Mounting



Warranty

EMX Industries, Inc. products have a warranty against defects in materials and workmanship for a period of two years from date of sale to our customer.