

# Transition RFID Portal



**ZEBRA**

## **Installation Guide**

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# Introduction

This document describes installing the Zebra Transition RFID Portal.

This installation should only be performed by a professional technician trained to install this hardware.

Read these instructions thoroughly before performing the installation.

## Typical Tool Requirements

This topic lists the typical tools needed for installation.

- Pencil or another marking tool
- Box Cutter
- Snips
- Tape Measure
- Speed Square
- Hammer Drill
  - 1/2-in. Concrete Drill Bit (Bollards)
  - 3/8-in. Concrete Drill Bit (Stand/Angle Iron)
  - 1/4-in. Concrete Drill Bit (Wall Stays)
- Impact Driver
  - 3/8-in. Socket (Stack Light/Photo Eye)
  - PH3 Impact Drill Bit (Feet Screws)
  - 3/4-in. Socket (Bollards)
  - 9/16-in. Socket (Stands/Angle Iron)
- Drill
  - 1-in. Hole Saw (Door Tracks)
  - Drill Bit Assortment Box
  - Reamer Bit (Door Tracks)
- Needle Nose Pliers
- Hex Wrench Set

- Philips / Flat Screwdrivers
- Mini Flat Head Screwdriver
- 5/32-in. T-Handle
- Ladder
- Extension Cord(s)
- Vacuum or Broom

### Included Hardware

This topic lists the hardware required for installation.

- 3/8-in. x 3-in. Screw Anchor (Stands/Angle Iron)
- 1/2-in. x 3-in. Screw Anchor (Bollards)
- #14 X 1-in. Metal Screws (Stack Light/Photo Eye)
- 1/2-in. U-Shaped Wall Stays
- 1/4-in. Concrete/Drywall Anchors (Wall Stays)
- Small/Large Zip-Ties

# Installation

This section describes how to perform a typical installation of the Zebra Transition RFID Portal System inside a shipping/receiving dock door.

This installation should only be performed by a professional technician trained to install this hardware.

Read these instructions thoroughly before performing the installation.

## Installing Angle Iron with Existing Bollard

This topic describes how to install the angle iron with existing bollards.

1. Measure 6 in. from the side of the bollard.
2. Align the angle iron to the side of the existing bollard.



## Installing Angle Iron Without Existing Bollards

This topic describes how to install the angle iron without existing bollards.

1. Measure 1 ft. 4 in. from the door track to the side of the angle iron.
2. Align the angle iron to the door track.
3. Mark the hole locations onto the floor.

4. Using a 3/8-in. concrete drill bit, drill the two holes to a depth of 3 in.
5. Using an impact driver, secure the angle iron to the floor using two 3/8-in. HD screw anchors.



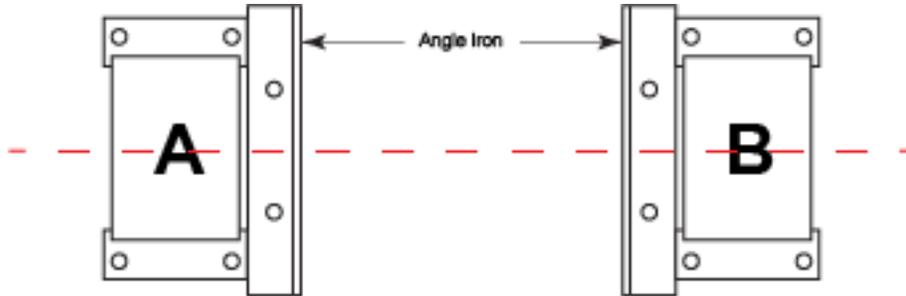
### Installing the Panels with Angle Iron

This topic describes how to install the antenna panels with angle iron.

The A-Panel must be installed on the side of the power-over-Ethernet (PoE) drop. It is advised that the PoE drop be no less than 8 ft. from the floor to avoid accidental disconnect.

The A-panel and the B-panel are installed in the same way.

1. Position the panel base up to and centered on the angle iron.
2. Mark the hole locations onto the floor.
3. Using a 3/8-in. concrete drill bit, drill one hole to a depth of 3 in.
4. Using an impact driver, secure the panel base to the floor using one 3/8-in. HD screw anchor.
  - a) Check the alignment of the base before proceeding with drilling the remaining holes.
  - b) Once the alignment is verified, remark the remaining hole locations if necessary.
  - c) Remove the HD screw anchor and the panel.
5. Drill the remaining three holes and reposition the panel.
6. Secure the panel to the floor with four 3/8-in. HD screw anchors.



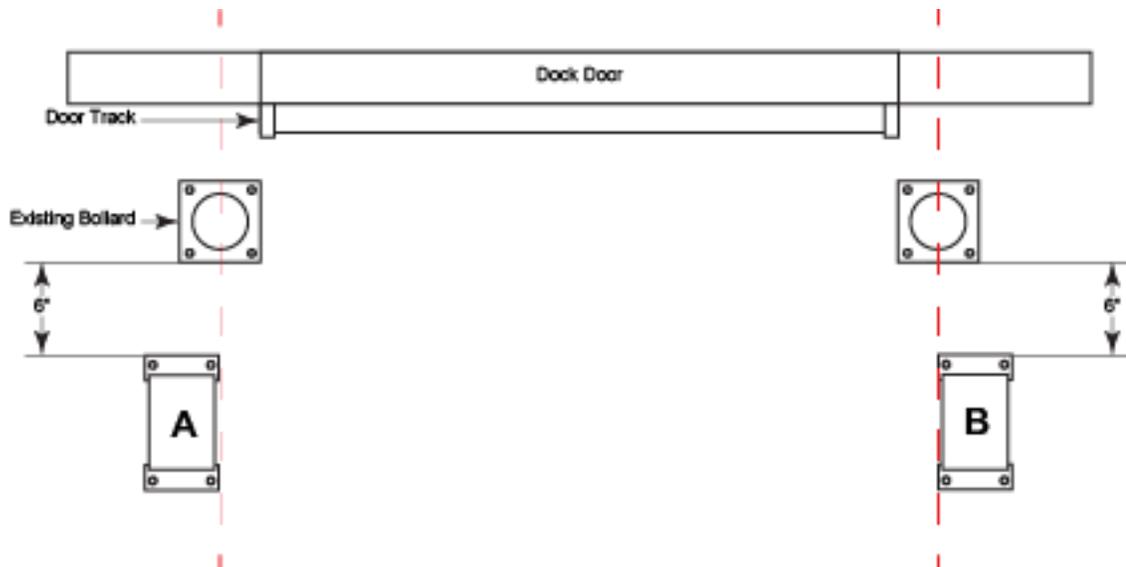
## Installing the Panels Without Angle Iron and with Existing Bollard

This topic describes installing the panels with no angle iron and with an existing bollard.

The A-Panel must be installed on the side of the power-over-Ethernet (PoE) drop. It is advised that the PoE drop be no less than 8 ft. from the floor to avoid accidental disconnect.

The A-panel and the B-panel are installed in the same way.

1. Measure 6 in. from the side of the bollard and align the panel to the centerline of the bollard.
2. Position the panel and mark the hole locations on the floor.
3. Using a 3/8-in. concrete drill bit, drill one hole to a depth of 3 in.
4. Using an impact driver, secure the panel base to the floor using one 3/8-in. HD screw anchor.
  - a) Check the alignment of the base before proceeding with drilling the remaining holes.
  - b) When the alignment is verified, remark the remaining hole locations if necessary.
  - c) Remove the HD screw anchor and the panel.
5. Drill the remaining three holes and reposition the panel.
6. Secure the panel to the floor with four 3/8-in. HD screw anchors.



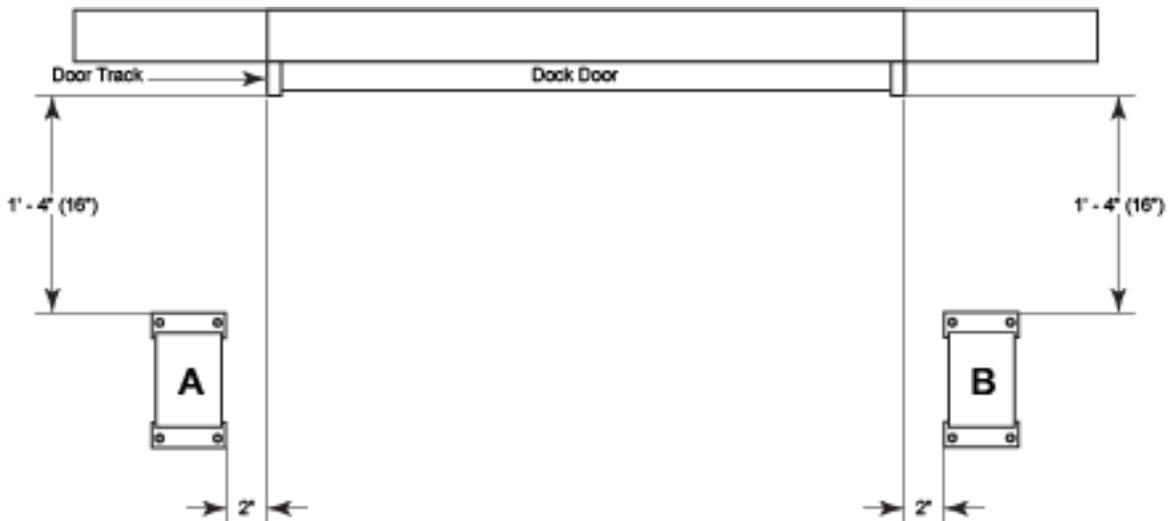
## Installing the Panels Without Angle Iron and Without Existing Bollard

This topic describes installing the panel without angle iron and without existing bollards.

The A-Panel must be installed on the side of the power-over-Ethernet (PoE) drop. It is advised that the PoE drop be no less than 8 ft. from the floor to avoid accidental disconnect.

The A-panel and the B-panel are installed in the same way.

1. Measure 1 ft. 4 in. from the door track (measuring away from the door) and 2 in. from the side of the door track (measuring from the outside edge of the door track).
2. Position the panel and mark the hole locations on the floor.
3. Using a 3/8-in. concrete drill bit, drill one hole to a depth of 3 in.
4. Using an impact driver, secure the panel base to the floor using one 3/8-in. HD screw anchor.
  - a) Check the alignment of the base before proceeding with drilling the remaining holes.
  - b) When the alignment is verified, remark the remaining hole locations if necessary.
  - c) Remove the HD screw anchor and the panel.
5. Drill the remaining three holes and reposition the panel.
6. Secure the panel to the floor with four 3/8-in. HD screw anchors.

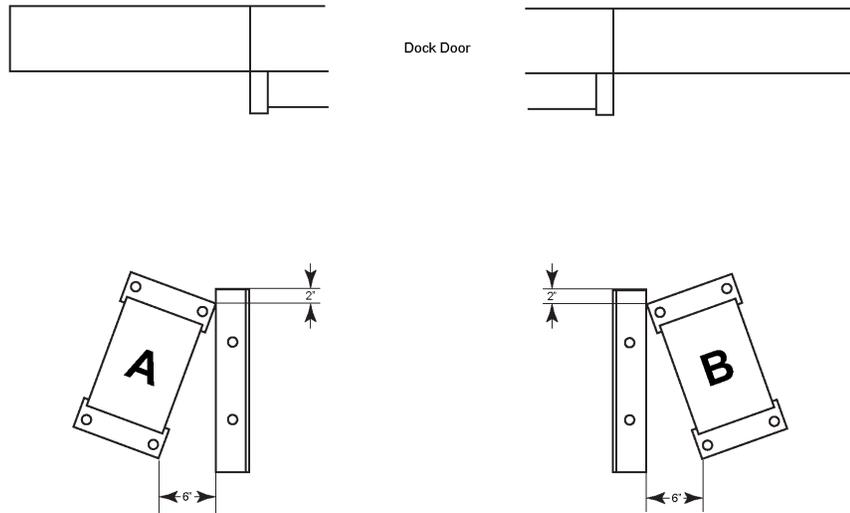


## Installing the Panels with Canting

This topic describes how to install the panels in a canted orientation.

1. Using the top corner of the panel (facing the opposite panel) as the pivot point, rotate the bottom of the panel out 6 in.
2. Mark the hole locations onto the floor.
3. Using a 3/8-in. concrete drill bit, drill one hole to a depth of 3 in.

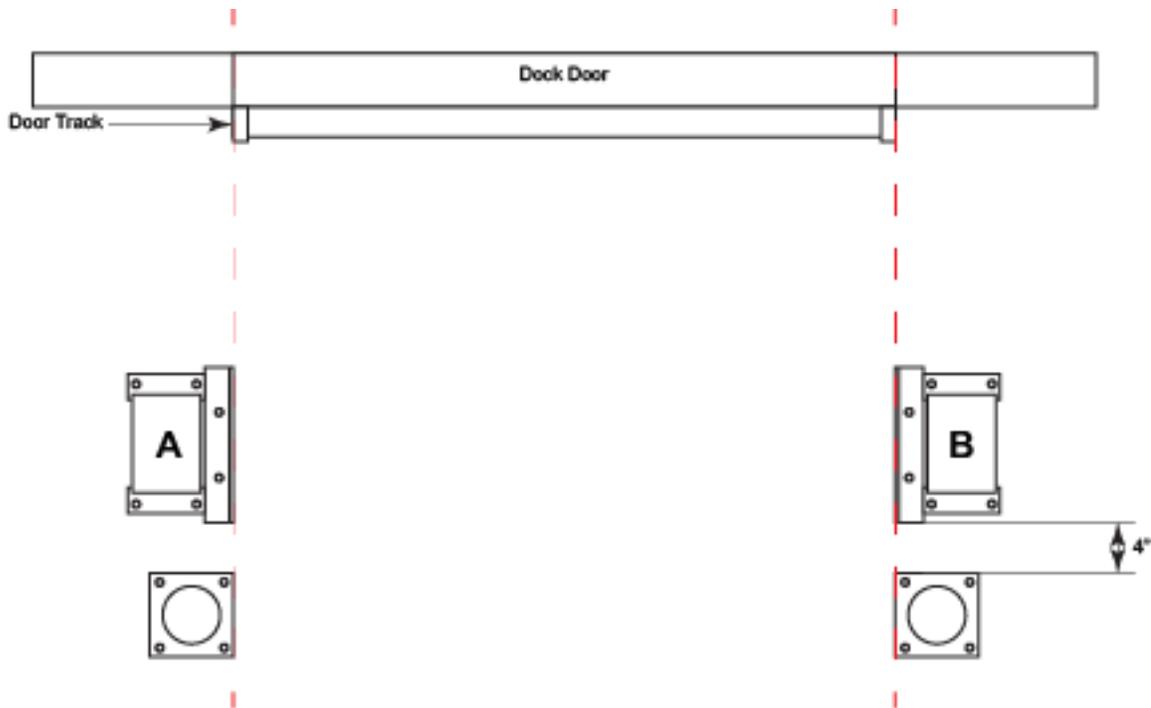
4. Using an impact driver, secure the panel base to the floor using one 3/8-in. HD screw anchor.
  - a) Check the alignment of the base before proceeding with drilling the remaining holes.
  - b) When the alignment is verified, remark the remaining hole locations if necessary.
  - c) Remove the anchor and the panel.
5. Drill the remaining holes and reposition the panel.
6. Secure the panel to the floor with the one previously removed and three additional 3/8-in. HD screw anchors.



## Installing Bollards with Existing Angle Iron

This topic describes how to install the bollards with angle iron in place.

1. Measure 4 in. from the front edge of the angle iron furthest from the dock door.
2. Align the bollard base to the side of the angle iron (facing the opposite panel).
3. Mark the hole locations onto the floor.
4. Using a 1/2-in. concrete drill bit, drill the holes to a depth of 3 in.
5. Using an impact driver, secure the panel base to the floor using four 1/2-in. HD screw anchors.

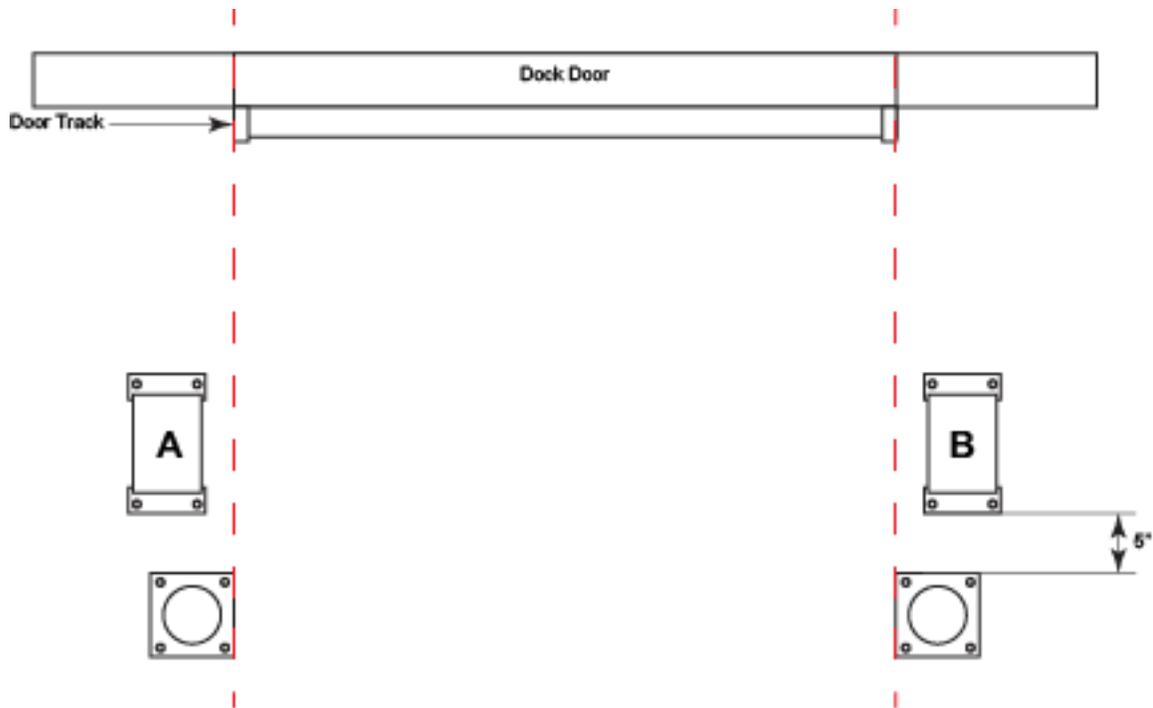


## Installing Bollards Without Angle Iron

This topic describes installing the bollards with no angle iron in place.

The coaxial cable is stored in and pre-connected to B-panel.

1. Measure 5 in. from the side of the panel base to the bollard base.
2. Align the bollard base to the side of the panel base.
3. Mark the hole locations onto the floor.
4. Using a 1/2-in. concrete drill bit, drill the holes to a depth of 3 in.
5. Using an impact driver, secure the panel base to the floor using four 1/2-in. HD screw anchors.



## Installing the Coaxial Cables

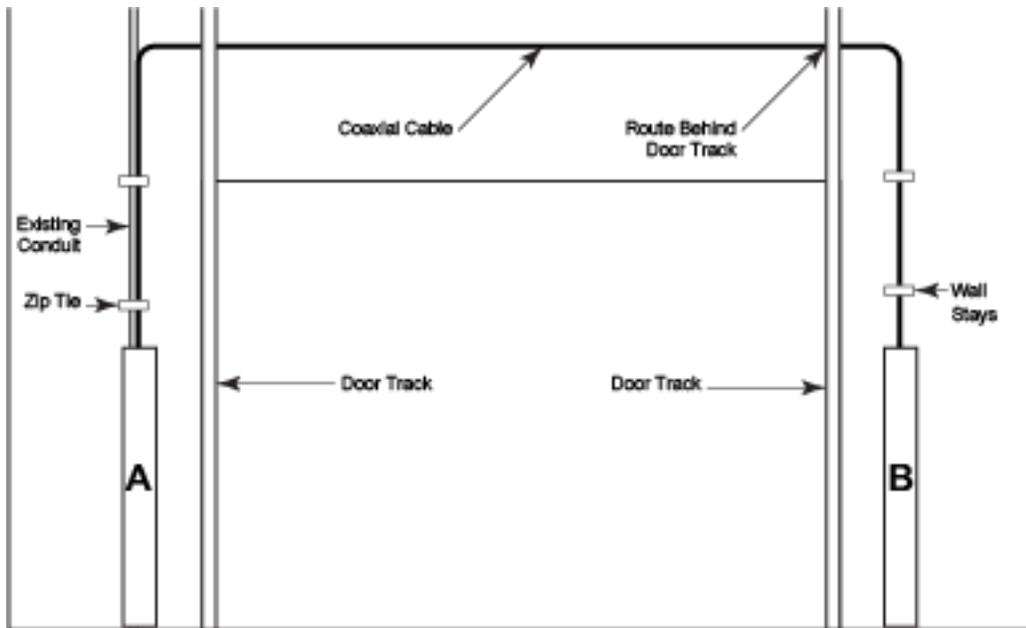
This topic describes how to route and connect the two coaxial cables.

The two coaxial cables are stored in and pre-connected to the B-panel.

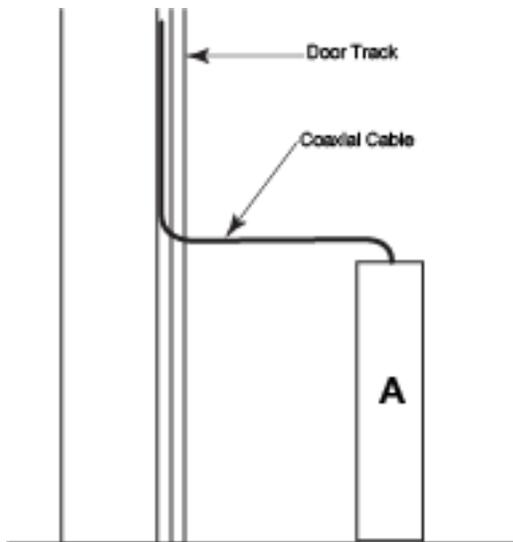
1. Remove the B-panel front cover.
2. Remove the ties that secure the cable bundle and unwrap them.
3. Straighten the cables.

**4.** Plan the cable routing.

- a) Use existing conduit and space behind the dock door track (if available) to route the coaxial cables.
- b) If there is no existing conduit to route, use the wall stays to mount the cable to the dock door wall.



- c) If access through the dock door track is required, ensure the passthrough holes do not interfere with the operation of the dock door.



- d) Use a 1-in. hole saw to drill through the door track on both sides. Remove any burrs from the hole using a reamer bit or metal file.
  - e) Fasten the cables together along the route using zip ties.
- 5.** Pass the coaxial cables through the top opening of the A-panel.
- 6.** Connect the coaxial cables to their respective locations on the reader.

## Power Over Ethernet (PoE) Connection

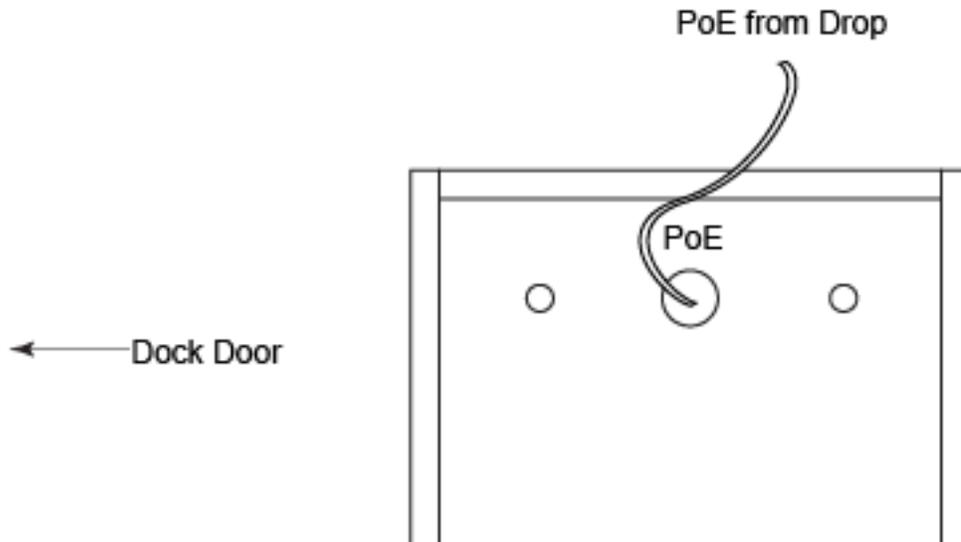
This topic describes how to connect the power-over-Ethernet (PoE) cable to the panel.

1. Plug in the PoE cable from the drop and into the ETHERNET quick connect port on the back of A-panel.



**WARNING:** Do not plug the ethernet cable into the console port as this may damage the reader. Only use the ethernet cable provided with the package, or any shielded Cat 6A Ethernet Cable.

2. The reader will power up.

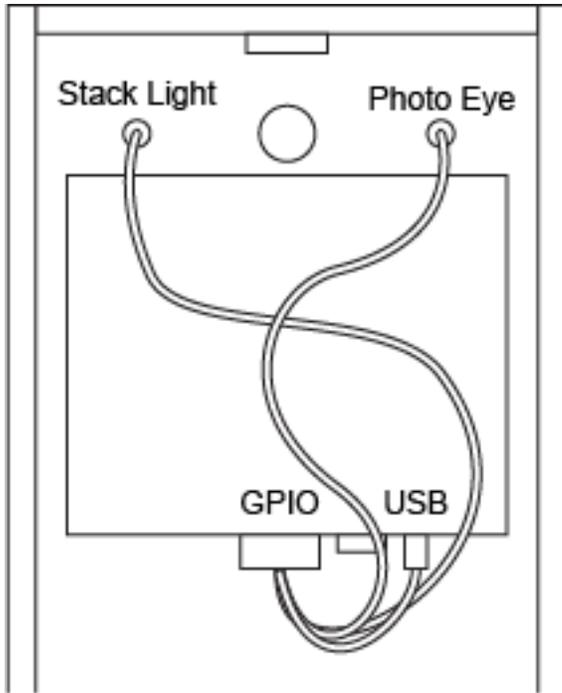


## Installing the GPIO Connector

This topic describes how to install the GPIO connector.

The GPIO connector is used to enable photo eye and stack light functionality.

1. Connect the GPIO to the reader.
2. Connect the USB to the reader.
3. Connect the stack light (labeled Sensor) to its respective quick connect.
4. Connect the photo eye (labeled Tower Light) to its respective quick connect.

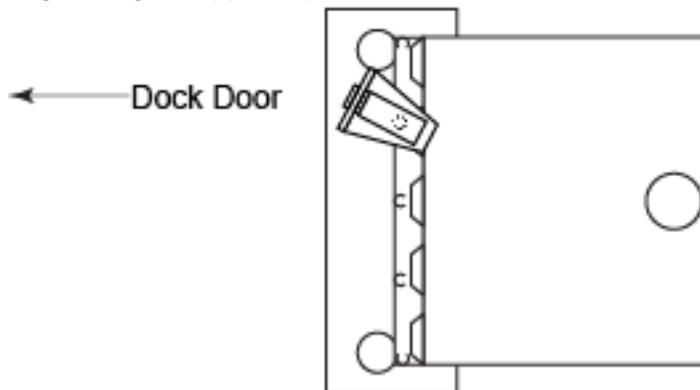


## Installing the Photo Eye

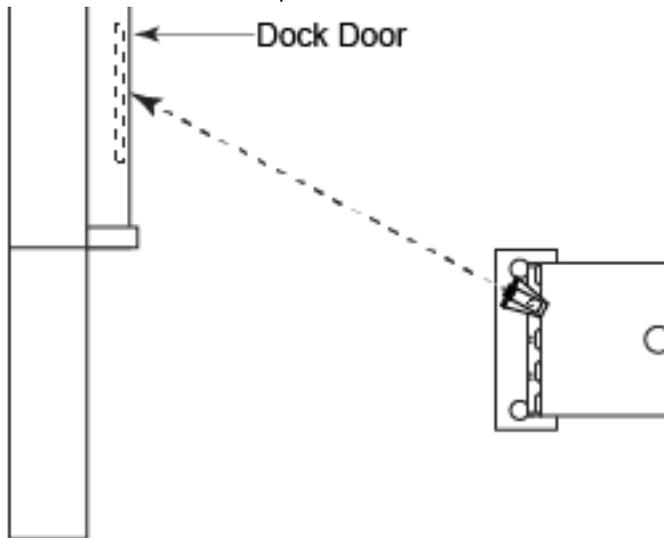
This topic describes how to install the photo eye onto the panel.

The photo eye mounts to the A-panel closest to the dock door. This ensures that the photo eye will be within 10 ft. of the reflective tape on the dock door—the maximum recommended distance.

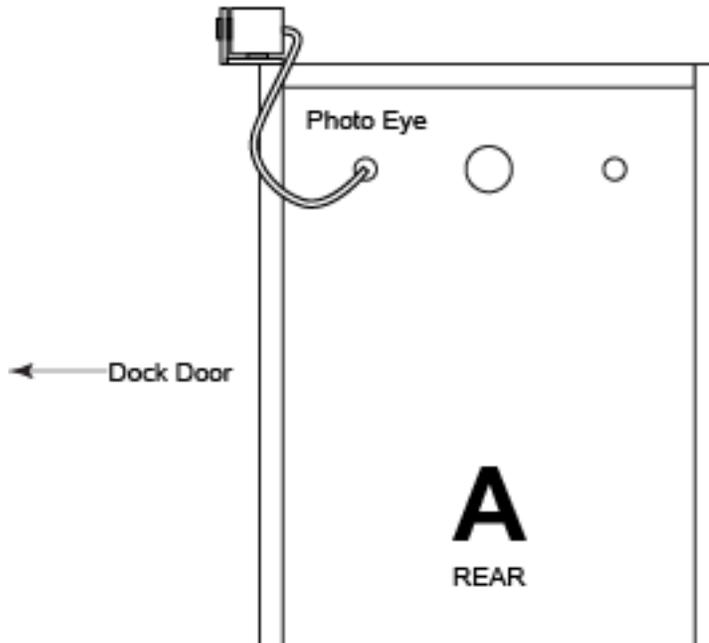
1. Using the #14 screw, secure the photo eye bracket to the portal extrusion hole second from the panel edge facing the opposite panel.



2. Adhere the reflective tape to the inside of the dock door at the same level as the photo eye lens.



3. Connect the photo eye cable to the quick connect on the rear of the A-panel closest to the dock door.

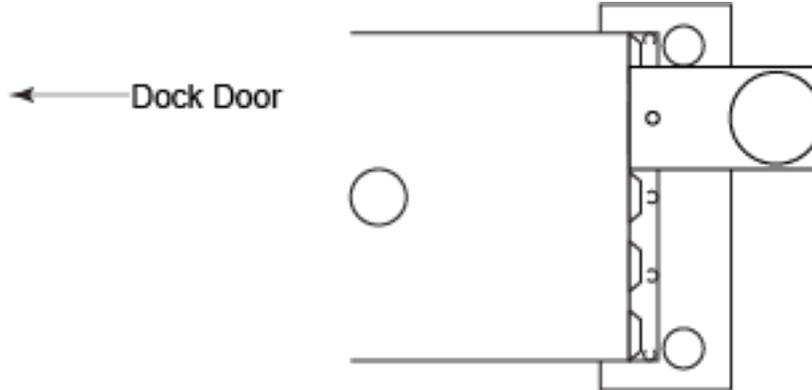


4. The red light in the back of photo eye will blink when it is in line with the reflective tape—the faster the light blinks, the better the signal.
5. Adjust the position of the photo eye as necessary.

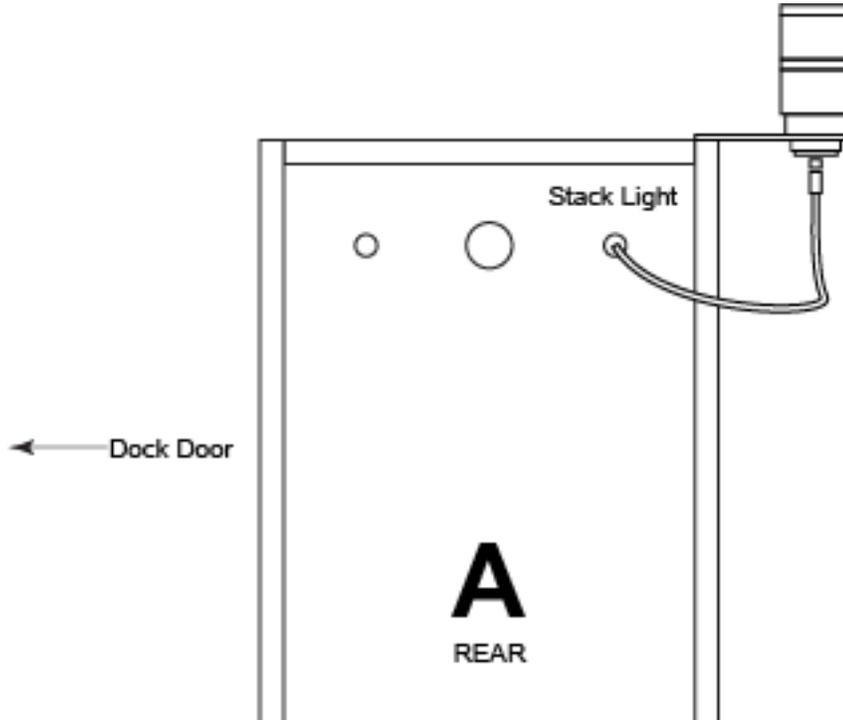
## Installing the Stack Light

This topic describes how to install the stack light onto the panel.

1. Using the #14 screw, secure the stack light bracket to the portal extrusion hole second from the panel edge facing the opposite panel.



2. Connect the stack light cable to the quick connect on the rear of A-panel farthest from the dock door.



**Table 1** Stack Light Conditions

Color	Condition
Red	Inventory Inactive / Standby
Green	Inventory Active
Red + Green + Audible	System Alert, Contact Support
Red + Green Pulse	License Key Error / Network Failure

**Table 1** Stack Light Conditions (Continued)

Color	Condition
No Light or Audible	No Power, Check Connection

# Maintenance

This topic describes cleaning up after the installation.

## Site Cleanup

This topic describes general clean-up requirements.

- Remove any packing material, packing ties, tools, and equipment used for the installation.
- Make sure to clean up any dust or debris created by the installation.

