

# Transition RFID Portal



## Installation Guide



**ZEBRA**

## Copyright

© 2022 ZIH Corp. and/or its affiliates. All rights reserved. ZEBRA and the stylized Zebra head are trademarks of ZIH Corp., registered in many jurisdictions worldwide. All other trademarks are the property of their respective owners.

**COPYRIGHTS & TRADEMARKS:** For complete copyright and trademark information, go to: [www.zebra.com/copyright](http://www.zebra.com/copyright)

**WARRANTY:** For complete warranty information, go to: [www.zebra.com/warranty](http://www.zebra.com/warranty)

**END USER LICENSE AGREEMENT:** For complete EULA information, go to: [www.zebra.com/eula](http://www.zebra.com/eula)

## Terms of Use

**Proprietary Statement** This manual contains proprietary information of Zebra Technologies Corporation and its subsidiaries (“Zebra Technologies”). It is intended solely for the information and use of parties operating and maintaining the equipment described herein. Such proprietary information may not be used, reproduced, or disclosed to any other parties for any other purpose without the express, written permission of Zebra Technologies.

**Product Improvements** Continuous improvement of products is a policy of Zebra Technologies. All specifications and designs are subject to change without notice.

**Liability Disclaimer** Zebra Technologies takes steps to ensure that its published Engineering specifications and manuals are correct; however, errors do occur. Zebra Technologies reserves the right to correct any such errors and disclaims liability resulting therefrom.

**Limitation of Liability** In no event shall Zebra Technologies or anyone else involved in the creation, production, or delivery of the accompanying product (including hardware and software) be liable for any damages whatsoever (including, without limitation, consequential damages including loss of business profits, business interruption, or loss of business information) arising out of the use of, the results of use of, or inability to use such product, even if Zebra Technologies has been advised of the possibility of such damages. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

# Contents

<b>Introduction</b> .....	<b>1</b>
Included Hardware .....	1
Typical Tool Requirements .....	1
<b>Installation</b> .....	<b>3</b>
Angle Iron Installation with Existing Bollard .....	3
Angle Iron Installation without Existing Bollards .....	4
Panel Installation with Angle Iron .....	5
Panel Installation without Angle Iron and with Existing Bollard .....	6
Panel Installation without Angle Iron and without Existing Bollard .....	7
Panel Installation with Canting .....	8
Bollard Installation without Angle Iron .....	9
Bollard Installation with Angle Iron .....	10
Coaxial Cable Installation .....	11
Power Over Ethernet (PoE) Connection .....	13
GPIO Connector .....	14
Photo Eye Installation .....	15
Stack Light Installation .....	17
<b>Cleanup</b> .....	<b>18</b>

# Introduction

Fast, reliable, highly automated updates. Used primarily at dock doors, these integrated portals can reduce the need for human intervention and manual scanning at common chokepoints. Specialized antennas tune out cross-talk, reducing erroneous reads and sustaining a highly accurate read rate through the portal.

This document describes how to perform a typical installation of the Zebra Transition RFID Portal.

## Included Hardware

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

## Typical Tool Requirements

- Box Cutter
- Snips
- Tape Measure
- Speed Square
- Hammer Drill
  - 1/2-inch Concrete Drill Bit (Bollards)
  - 3/8-inch Concrete Drill Bit (Stand/Angle Iron)
  - 1/4-inch Concrete Drill Bit (Wall Stays)
- Impact Driver
  - 3/8-inch Socket (Stack Light/Photo Eye)
  - PH3 Impact Drill Bit (Feet Screws)
  - 3/4-inch Socket (Bollards)
  - 9/16-inch Socket (Stands/Angle Iron)

- Drill
  - 1-inch 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 T-Handle
- Ladder
- Extension Cord(s)
- Vacuum or Broom

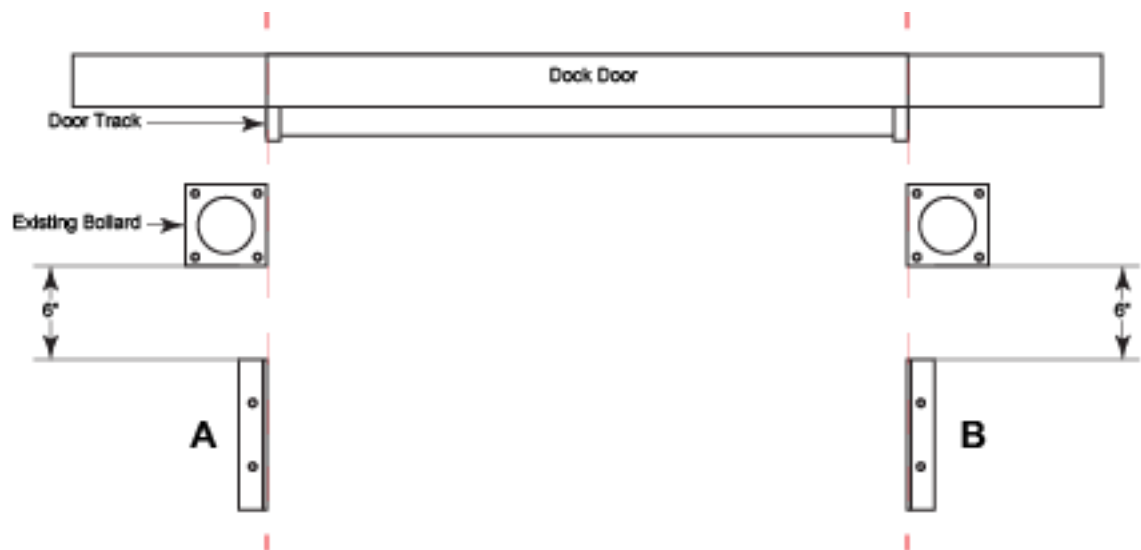
# Installation

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

Read these instructions thoroughly before performing the installation.

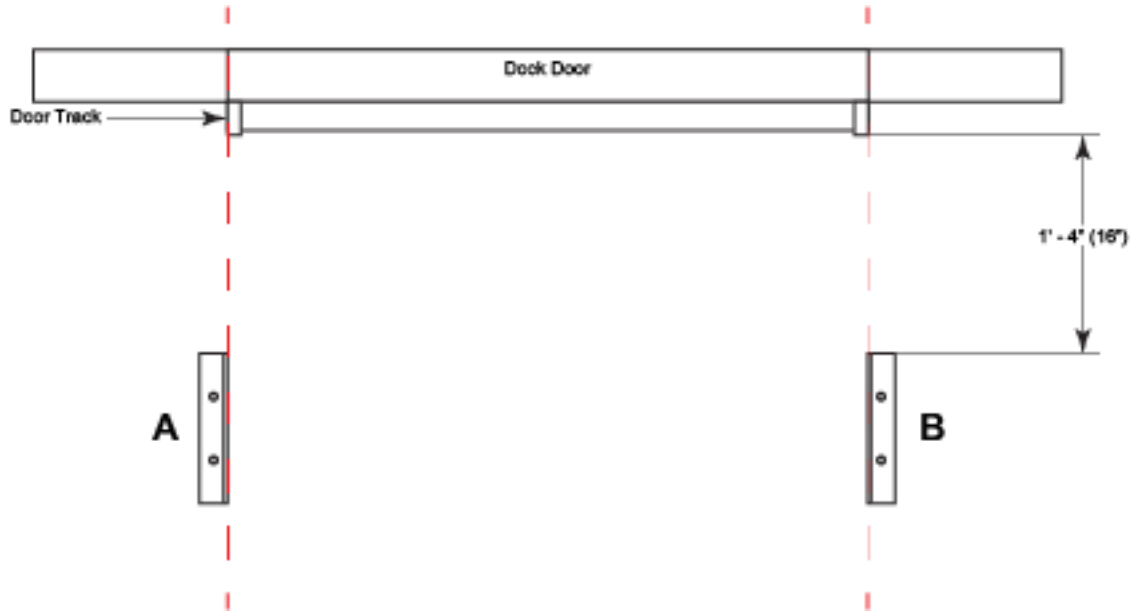
## Angle Iron Installation with Existing Bollard

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



## Angle Iron Installation without Existing Bollards

1. Measure 1-foot, 4 inches (16 inches) from door track to side of angle iron.
2. Align the angle iron to the door track.
3. Mark the hole locations onto the floor.
4. Using a 3/8-inch concrete drill bit, drill the two holes to a depth of 3 inches.
5. Using an impact driver, secure the angle iron to the floor using two 3/8-inch HD screw anchors.

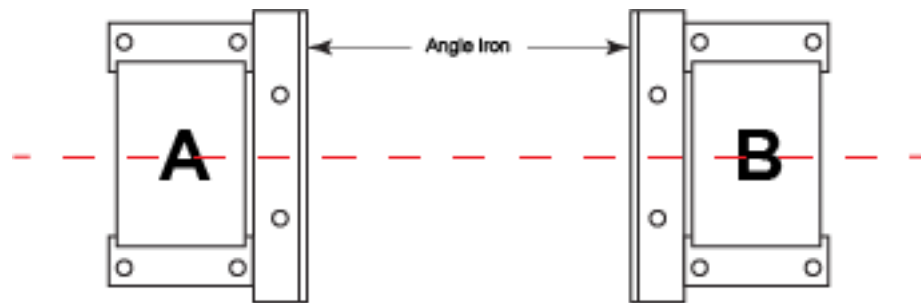


## Panel Installation with Angle Iron

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 feet 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-inch concrete drill bit, drill one hole to a depth of 3 inches.
4. Using an impact driver, secure the panel base to the floor using one 3/8-inch HD screw anchor.
5. Check the alignment of the base before proceeding with drilling the remaining holes.
6. Once the alignment is verified, remark the remaining hole locations if necessary.
7. Drill the remaining holes and reposition the panel.
8. Secure the panel to the floor with the remaining 3/8-inch HD screw anchors.





## Panel Installation without Angle Iron and with 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 feet from the floor to avoid accidental disconnect.

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

1. Measure 6 inches 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 onto the floor.
3. Using a 3/8-inch concrete drill bit, drill one hole to a depth of 3 inches.
4. Using an impact driver, secure the panel base to the floor using one 3/8-inch HD screw anchor.
5. Check the alignment of the base before proceeding with drilling the remaining holes.
6. Once the alignment is verified, remark the remaining hole locations if necessary.
7. Drill the remaining holes and reposition the panel.
8. Secure the panel to the floor with the remaining 3/8-inch HD screw anchors.

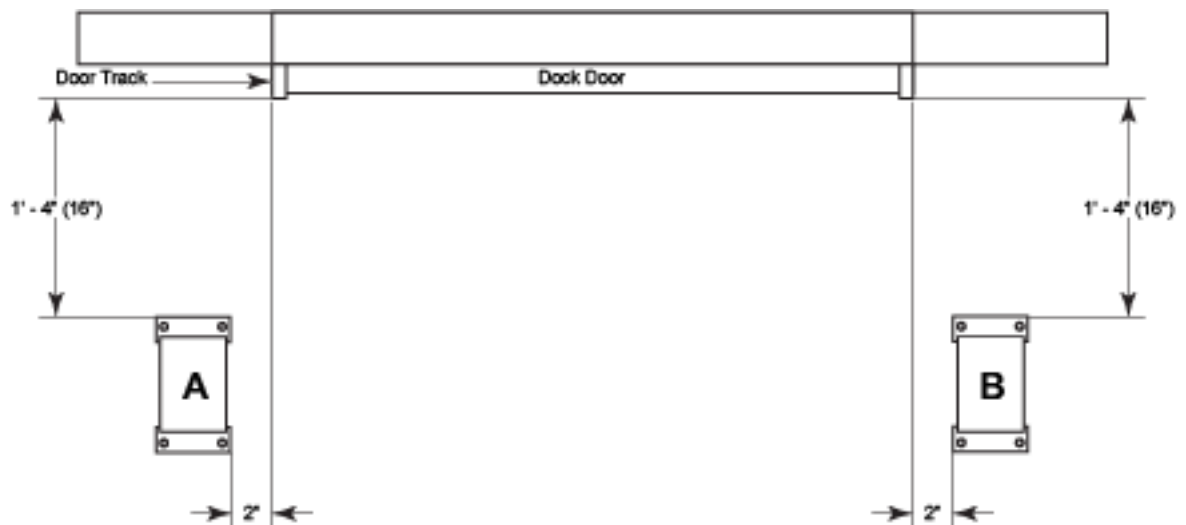


## Panel Installation without Angle Iron and without Existing Bollard

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 feet from the floor to avoid accidental disconnect.

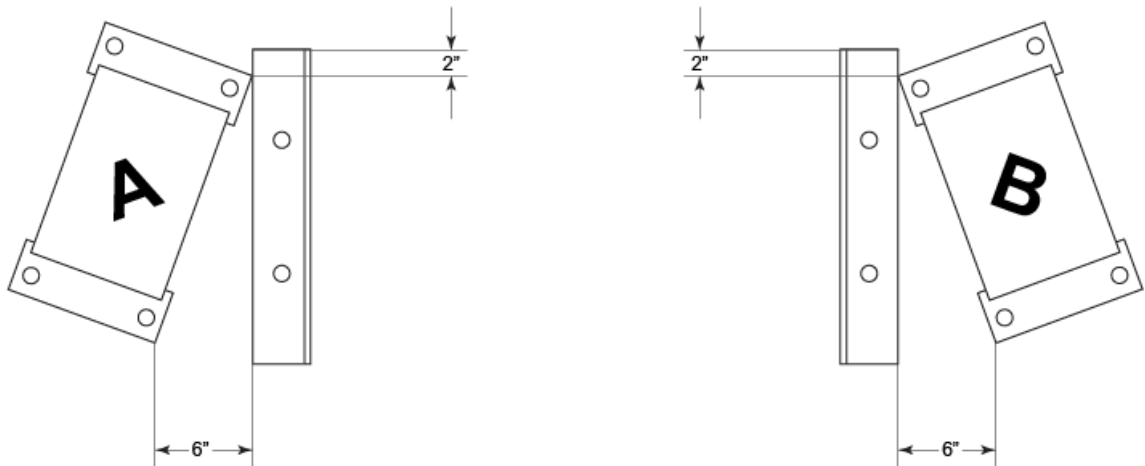
The A-panel and the B-panel are installed in the same way.

1. Measure 1-foot, 4 inches (16 inches) from the door track (measuring away from the door) and 2 inches 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 onto the floor.
3. Using a 3/8-inch concrete drill bit, drill one hole to a depth of 3 inches.
4. Using an impact driver, secure the panel base to the floor using one 3/8-inch HD screw anchor.
5. Check the alignment of the base before proceeding with drilling the remaining holes.
6. Once the alignment is verified, remark the remaining hole locations if necessary.
7. Drill the remaining holes and reposition the panel.
8. Secure the panel to the floor with the remaining 3/8-inch HD screw anchors.



## Panel Installation with Canting

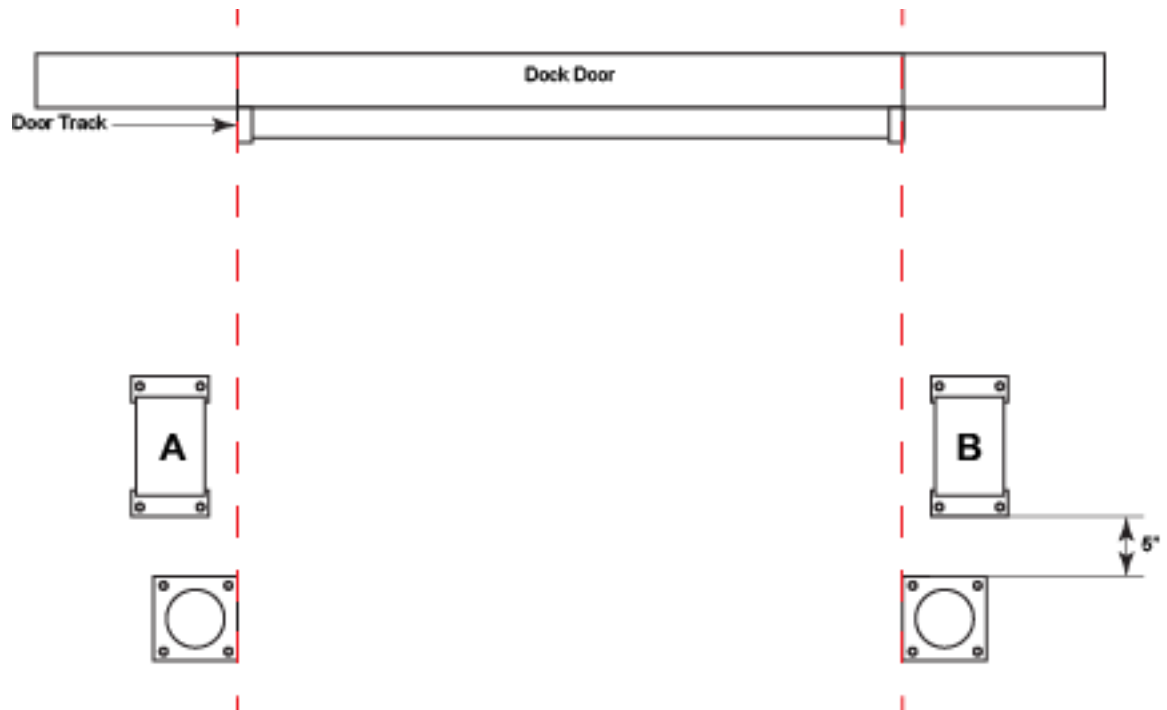
1. Using the top corner of the panel (facing the opposite panel) as the pivot point, rotate the bottom of the panel out 6 inches.
2. Mark the hole locations onto the floor.
3. Using a 3/8-inch concrete drill bit, drill one hole to a depth of 3 inches.
4. Using an impact driver, secure the panel base to the floor using one 3/8-inch HD screw anchor.
5. Check the alignment of the base before proceeding with drilling the remaining holes.
6. Once the alignment is verified, remark the remaining hole locations if necessary.
7. Drill the remaining holes and reposition the panel.
8. Secure the panel to the floor with the remaining 3/8-inch HD screw anchors.



## Bollard Installation without Angle Iron

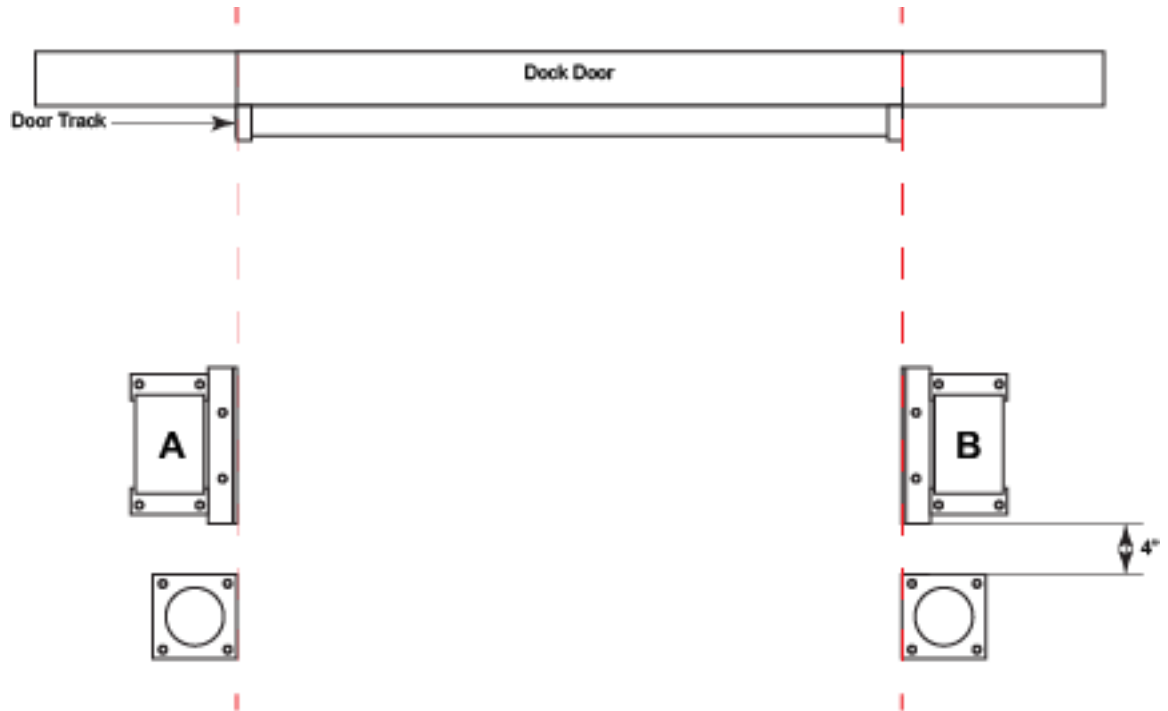
The coaxial cable is stored in and pre-connected to B-panel.

1. Measure 5 inches 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-inch concrete drill bit, drill the holes to a depth of 3 inches.
5. Using an impact driver, secure the panel base to the floor using four 1/2-inch HD screw anchors.



## Bollard Installation with Angle Iron

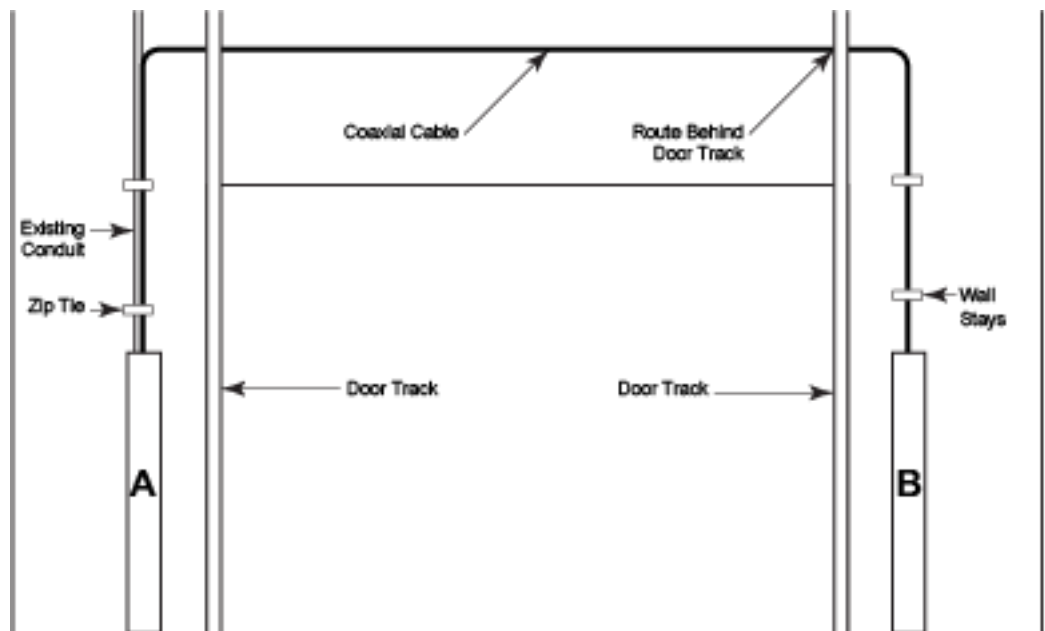
1. Measure 4 inches from the front edge of the angle iron furthest from dock door.
2. Align the bollard base to the side of angle iron (facing the opposite panel).
3. Mark the hole locations onto the floor.
4. Using a 1/2-inch concrete drill bit, drill the holes to a depth of 3 inches.
5. Using an impact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



## Coaxial Cable Installation

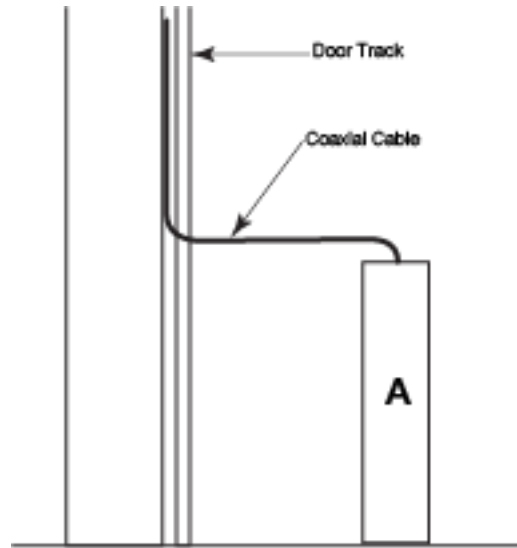
The coaxial cable is stored in and pre-connected to B-panel.

1. Remove the B-panel front cover.
2. Remove the ties that secure the cable bundle and unwrap the cables, straightening them.
3. Plan the cable routing.
  - a. Use existing conduit and space behind the dock door track (if available) to route the coaxial cable.
  - b. If there is no existing conduit to route, use the wall stays to mount the cable to the dock door wall.



## Installation

- c. If access through the dock door track is required, make sure the passthrough hole does not interfere with the operation of the dock door.



- d. Use 1-inch hole saw to drill a hole 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.
4. Pass the number of coaxial cables through the top opening of A-panel.
5. Connect the coaxial cables to their respective locations on the reader.

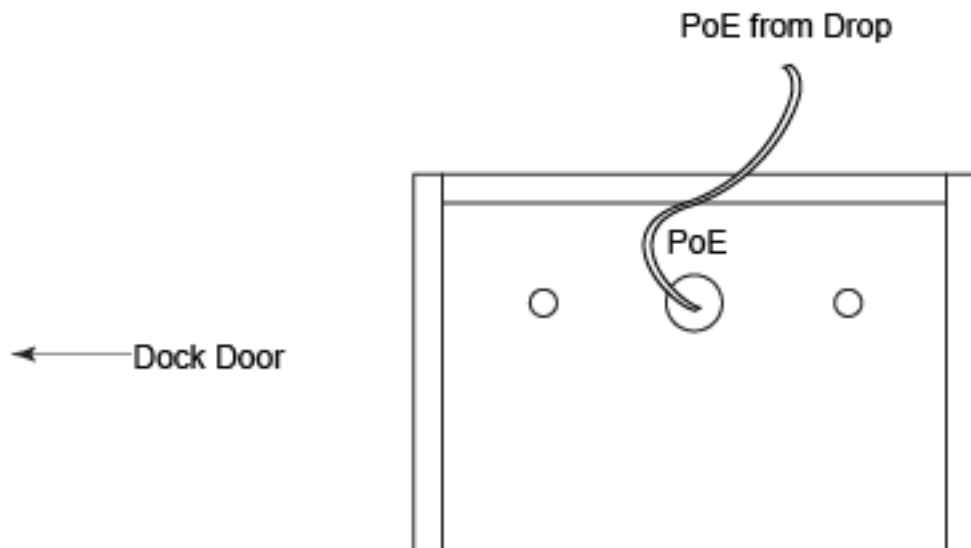
## Power Over Ethernet (PoE) Connection

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.

2. The reader will power up.

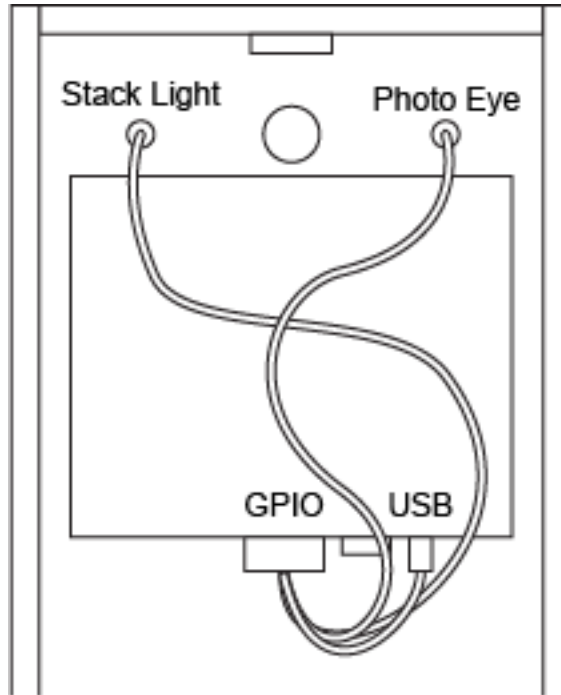




## GPIO Connector

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

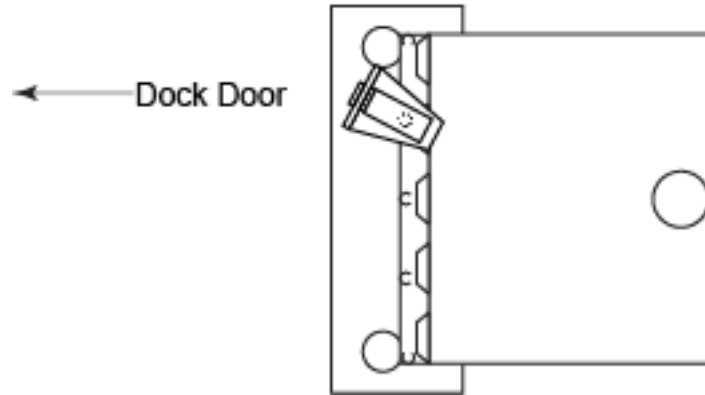
1. Connect the GPIO to the reader.
2. Connect the USB to the reader.
3. Connect the stack light (labeled Sensor) to its respective quick connect.
4. Connect the photo eye (labeled Tower Light) to its respective quick connect.



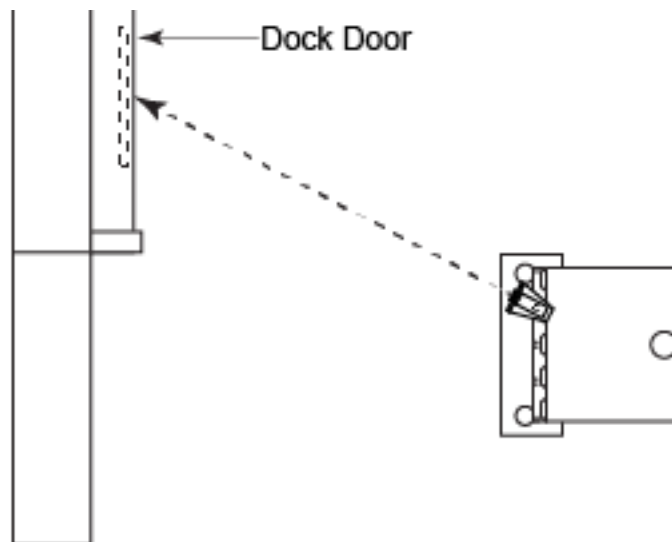
## Photo Eye Installation

The photo eye mounts to the A panel closest to the dock door. This ensures that the photo eye will be within 10 feet 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.

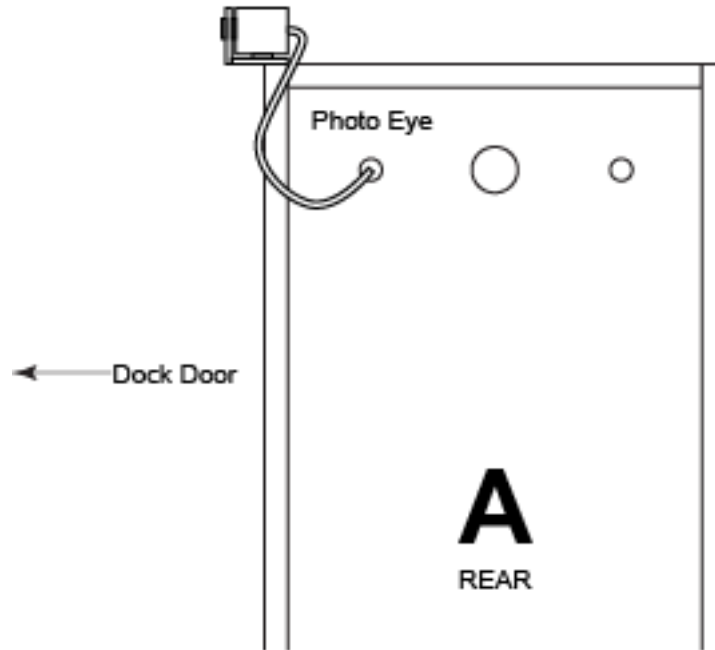


2. Adhere the reflective tape to the inside of the dock door at the same level as the photo eye lens.



## Installation

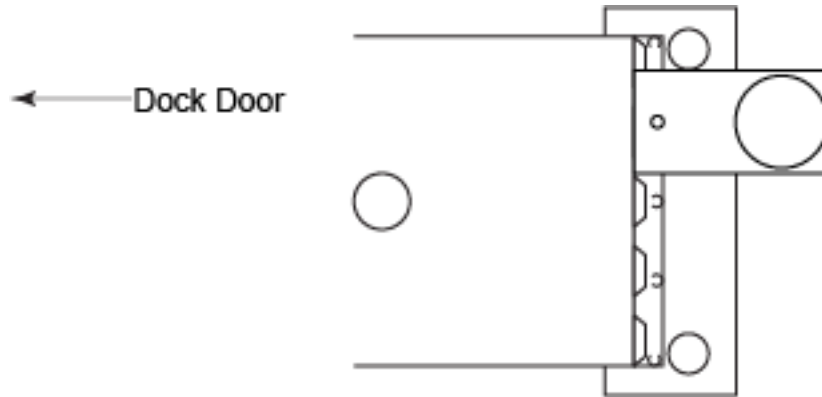
3. Connect the photo eye cable to the quick connect on the rear of A-panel closest to the dock door.



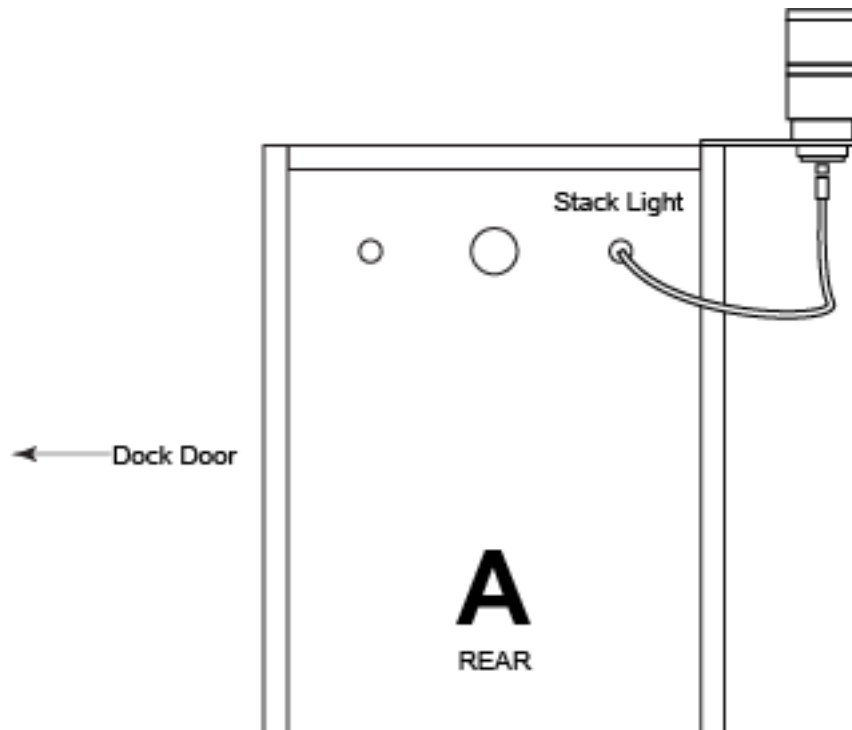
4. The red light in the back of photo eye will blink when it is in line with the reflective tape—the faster the light blinks, the better the signal).
5. Adjust the position of the photo eye as necessary.

## Stack Light Installation

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



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



### 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
No Light or Audible	No Power, Check Connection

# Cleanup

Make sure to remove any packing material, packing ties, tools, and other equipment from the installation.

Make sure to clean up any dust or debris created by the installation.

