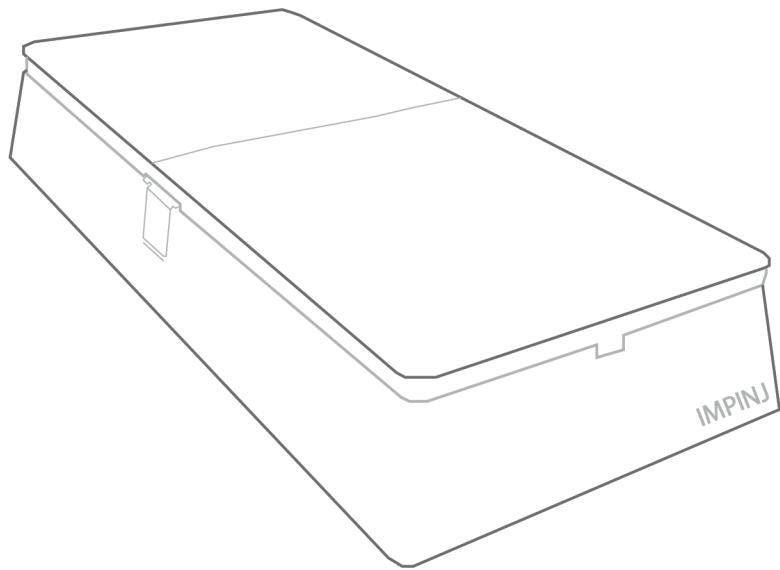
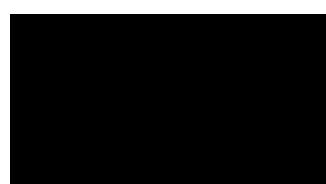


[REDACTED] RFID Overhead 360° System Installation and Setup Guide



2023-09-19



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About the guide

This guide explains how to install and configure the Sensormatic [REDACTED] System. The system connects to the [REDACTED]

For additional help with this installation, refer to the following guides:

- [REDACTED] *Solution Installation Guide,* [REDACTED]
- [REDACTED] *Installation Guide, [REDACTED]*
- [REDACTED] *Installation and operations Guide*

Note: Authorized JCI service technicians, or third party service providers perform the installation and service of the device.

Technical support

For product bulletins and updates to documentation, if you are a JCI employee or JCI subcontractor, visit [REDACTED]. If you are a business partner, visit [REDACTED]

Training

Complete the Sensormatic [REDACTED] Hardware Installation Training module before you install the Sensormatic [REDACTED]

For additional help with this installation, complete the following training modules:

- Introduction to RFID
- Networking 101

About the product

The [REDACTED] System is an exit solution that works with the [REDACTED]. The system includes, the optional alarm controller and the optional digital remote alarm DRA.

When an unsold RFID tag passes through an exit, the exit and entry data logs are sent to the server. This information is then passed to the alarm controller and DRA.

Features

The [REDACTED] System, includes the following features:

- The [REDACTED]
- The optional alarm controller
- The optional DRA
- The customer can use [REDACTED] to remotely manage equipment and generate reports.

Deployment use cases

Determine which installation setup you require. The system is available as either a standalone model or a microservice model. The following is a list of potential use cases for the [REDACTED] System.

- Standalone model:
 - RFID as electronic article surveillance (EAS) alarming only setup: Alarm unsold RFID tags at the exit. Displays a real time dashboard of events and RFID movement data. This setup requires the alarm controller kit. It may include a point of sale (POS) component to mark tags safe at exit.
- Microservice model:
 - Inventory no alarming setup: Identifies all tags exiting the system. This setup does not require the alarm controller kit.
 - Electronic product code (EPC) as EAS and inventory setup: Alarm unsold RFID tags at the exit. This setup requires the alarm controller kit. It may include a POS component to mark tags safe at exit.

Kit and part numbers

The following table lists the [REDACTED] part numbers for each region.

Table 1: [REDACTED] part numbers

Description	Part number
North America	[REDACTED]
European Union	[REDACTED]
Asia-Pacific / Latin America	[REDACTED]
China / South Africa	[REDACTED]
Australia	[REDACTED]
Japan	[REDACTED]

Table 2: [REDACTED] Alarm Kit, [REDACTED]

Description	Quantity	Part Number
xSpan 360° Alarm Kit and Light bar sub assembly	1	[REDACTED]

Table 3: Digital Remote Alarm Kit, [REDACTED]

Digital Remote Alarm Kit, ZPALARM-GAC		
Description	Quantity	Part number
Four digit display DRA	1	[REDACTED]
DRA install kit, legacy	1	[REDACTED]
AMC-1060 power supply	1	[REDACTED]
125V K power cord	1	[REDACTED]
DRA remote control	1	[REDACTED]

Table 4: PoE Injector Kit

Description	Quantity	Part number
PoE, 30W, 802.3at, compliant power supply	1	[REDACTED]
125V K power cord, USA	1	[REDACTED]

Note: If you require a power cord for a country that is not the USA, order one of the following power cords separately.

Table 5: Power cords

Description	Quantity	Part number
250V B power cord, SCHUKO	1	[REDACTED]
250V D power cord, UK	1	[REDACTED]
125V J power cord, Japan	1	[REDACTED]
Power cord to IEC 32, Australia	1	[REDACTED]

Table 6: [REDACTED] Kit, [REDACTED]

Description	Quantity	Part number
[REDACTED]	1	[REDACTED]

Table 7: Patch Cords

Description	Quantity	Part number
Patch cord, 3' black	1	[REDACTED]
Patch cord, 7' black	1	[REDACTED]

Table 8: Setup Kit [REDACTED]

Description	Quantity
Test tag board	1
ASM, Hard tag test kit	1
C/L, Ethernet, Advanpay	1
C/L, POE, Advanpay	1
Sensormatic [REDACTED]	1
Installation an e up u e	1

If you are completing a pole mount installation, choose one of the following pole mounts.

- ① **Note:** One pole mount is required per [REDACTED].

Table 9: Pole mounts

Description	Quantity	Part number
3 ft telescoping tube, white	1	[REDACTED]
6 ft telescoping tube, white	1	[REDACTED]
12 ft telescoping tube, white	1	[REDACTED]
17 ft telescoping tube, white	1	[REDACTED]
3 ft telescoping tube, black	1	[REDACTED]
6 ft telescoping tube, black	1	[REDACTED]
12 ft telescoping tube, black	1	[REDACTED]
17 ft telescoping tube, black	1	[REDACTED]
6 ft pole extension	1	[REDACTED]

- ① **Note:** One xSpan adapter plate is required per pole mount.

Table 10: Impinj® xSpan adapter plate

Description	Quantity	Part number
xSpan adapter plate	1	[REDACTED]

Safety

- ⚠ **WARNING: Risk of electric shock.** Disconnect all power sources before servicing.
- ⚠ **WARNING: Regulatory restriction.** Only for indoor use.

Installation requirements

- ⚠ **WARNING: Intended use:** Install this device only as described in this guide.
- **Important:** If you install this product in a European Union or European Free Trade Association member state, give the Declaration of Conformity included with this product to the manager or user. By law, you must provide this information to the user.
- **Important:** You require a network connection at the install site. Before installing the device, confirm network and local proper drop locations.

Guidelines for installation

The installer or contractor must adhere to the following criteria:

- Have electrical work comply with the latest national electrical code, national fire code, and all applicable local codes and ordinances. National or local wiring codes or rules may differ between regions. Adherence to these codes supersedes instructions in this document.
- Coordinate all work with other trades to avoid interference.
- Verify existing site conditions and coordinate with the owner's representative and appropriate utilities as required.
- Obtain copies of all related plans, specifications, shop drawings, and addenda to schedule and coordinate related work.
- Review the project to ensure that all work meets or exceeds the above requirements. The installer or contractor must bring any alleged discrepancies to the attention of Sensormatic USA, LLC.

Cabling

- ⚠ **WARNING: Risk of electric shock.** During the installation process, if you must leave the device, turn off the power or cover high voltage components to prevent unauthorized access to hazardous voltages.
- ⚠ **WARNING: Risk of electric shock.** The AC power can carry 120 VAC or 240 VAC.
- ⚠ **WARNING:** Do not run the power and comm cables in the same conduit or raceway. Building codes require that you lay the power wiring separate from other types of wiring.
- ⚠ **WARNING:** In accordance with the USA National Electric Code and applicable US local codes, a licensed electrician must install a 15 A or 20 A, two-pole, ganged disconnect device, which also provides short circuit and overload protection and has a minimum 3-millimeter open circuit clearance, at a location that is readily accessible to the equipment.

For installations in other countries, a qualified electrician must provide or install an electrical outlet, suitable for the voltage and current used in the primary electrical supply input of the equipment. You must follow the National Electric Codes, regulations, cable, and fusing requirements applicable for the equipment and type of installation at all times.

- ⚠ **CAUTION:** The AC source must be a two-wire plus ground, 24-hour, unswitched outlet with less than 0.5 VAC between neutral and ground.

- ▲ **CAUTION:** Install pluggable equipment in a position that is near a socket-outlet, and easy to access.
- ▲ **CAUTION:** For continued protection against the risk of a fire, replace the fuse only with the same fuse type and rating.
- **Important:** Unless approved by customer IT, do not use orange-colored outlets that are dedicated for computer equipment.
- **Important:** Do not share the AC source with neon signs, motors, computers, cash registers, terminals, or data communications equipment.
- **Important:** Existing AC circuits must conform to all local codes.
- **Important:** Follow all local, state, and federal electrical and fire codes for cabling.

Before you begin

Before you install the [REDACTED] System, adhere to the criteria that the following sections outline.

- [Survey and planning requirements](#)
- [Component installation requirements](#)
- [Safety](#)

Survey and planning requirements

The site survey and planning requirements are critical to a correct installation.

Site survey requirements

When you complete the site survey, ensure that you document detailed and valuable information of the location site and intermediate distribution frame (IDF) closet. Adhere to the following site survey requirements.

Surveying the intermediate distribution frame (IDF) closet

When you survey the IDF closet at the site, make a note of the following site components:

- The number of power outlets
- The distance between the IDF closet and each installation location.
- The ceiling height and type. List whether it is a solid drywall, an open, or drop ceiling.
- The number and location of the access panels.
- The number of ports in the switches that are open.
- The ports that are open
- Are the available switches PoE switches?

Surveying the [REDACTED] and DRA installation locations

When you survey the device installation locations, make a note of the following site components:

- Are any existing systems installed?
- The ceiling height and type. List whether it is a solid drywall, an open, or drop ceiling.
- How are the surrounding walls constructed?
- The position of the nearest tagged merchandise to the store entrance.
- Are there metal columns, doors, signs, shopping carts, or physical items near the store entrance? These can cause RFID tag reflections and generate false exits and false alarms.
- The door locations
- The width and height of the door
- The door type and orientation
- Is shielding required?
- Check that the space above the ceiling is plenum.

Site survey photograph requirements

When you survey the device installation locations, provide photographs of the following items:

- All doors and entrances to the installation area
- Any existing overhead or in-floor systems
- Ceiling fixtures
- Access panels
- Recessed ceilings

- Existing device locations
- The surrounding area of the exit
- The IDF closet
- The Ethernet switches in the IDF closet
- The available power sources at the IDF closet

Network topology map requirements

For each device that you place on the network, you require the following information:

- A switch name
- A port
- A virtual local area network (VLAN) name
- A VLAN number
- A static IP address
- A subnet
- A gateway
- A network time protocol (NTP) server
- A Sensormatic identifier
- A MAC address
- The install location
- The Group Description
- The message queuing telemetry transport (MQTT) Topic Structure
- The Erlang MQTT Broker URL

① Note: You can access this information in the Network Topology Map or in the IP Request form.
The customers, IT department supplies the IP request form.

Laptop requirements

You require the following items:

- A laptop with the latest version of Internet Explorer®, or Mozilla® Firefox® browser installed.
- A USB cable or an Ethernet cable to connect to the system components.

Network switch and PoE

- You can use PoE and non-PoE switches with the Sensormatic RFID Overhead 360° System.
- The Sensormatic RFID Overhead 360° System, requires a single PoE network connection. Each Impinj® xSpan requires one PoE and one AT Ethernet connection.

MQTT, device management, and port requirements

The Sensormatic RFID Overhead 360° System, supports the Erlang MQTT Broker, which operates outside the store network.

① Note: The Impinj® xSpan 360° does not require access from the MQTT Broker; this is accessed from the server side of the solution.

For more information on the MQTT broker, refer to the [REDACTED]

You require the following open ports beyond the firewall:

- [REDACTED]

① Note: Ports [REDACTED] are IAN compliant for MQTT use.

The [REDACTED] requires access to the server API within the store. You require the following default port:

- [REDACTED]

The following table contains all possible ports.

Table 11:

Technology	Port	From	To
EASy Microservice	[REDACTED]	xSpan devices	EASy Microservice
EASy webpage	[REDACTED]	Utility server / workstation	xSpan devices
EASy device management	[REDACTED]	Utility server / workstation	EASy Microservice
SIP web service	[REDACTED]	EASy Microservice	TrueVUE enterprise
Web-based device management	[REDACTED]	Utility server / workstation	xSpan devices
SSH	[REDACTED]	Utility server / workstation	xSpan devices
NTP	[REDACTED]	xSpan devices	NTP server
MQTT	[REDACTED]	EASy Microservice	MQTT broker
MQTT	[REDACTED]	Utility server / workstation	MQTT broker dashboard
SQL	[REDACTED]	EASy Microservice	TrueVUE database
JCI device manager	[REDACTED]	JCI device manager	MQTT broker
MQTT	[REDACTED]		
JCI device manager client	[REDACTED]	Utility server / workstation	JCI device manager
Web based device management (Advanpay)	[REDACTED]	Utility server / workstation	Advanpay POS device
DHCP	[REDACTED]	xSpan device / Advanpay	DHCP server
EASy Greylog	[REDACTED]	EASy Microservice	Greylog server
Multicast (in store only)	[REDACTED]	xSpan device / Advanpay	xSpan / Advanpay

Solutions requirements

There are two models available for the [REDACTED] Solution. There is a standalone and microservice model available.

- The standalone model is RFID as EAS for alarming only.
 - The microservice model is used for EPC as EAS or for inventory purposes reported in TrueVUE.
- ① Note:** The microservice model is an advanced model that is installed and configured by Professional Services North America.

Standalone requirements

The standalone model requires the following files and items:

- EASy application file
- License key for each [REDACTED]
- Connectivity to the customers network or a multicast switch

Microservice requirements

The microservice model requires the following items and files:

- EASy applications and license key for each device
- Connectivity to the internal network or switch
- Default port 9001 from the store to the server must be open
- CAT5 cabling
- PoE 802.3 at power
- Device Manager to update firmware, configurations, and log pulling
- License key for each [REDACTED]
- Optional TrueVUE Cloud compatibility
- Optional TrueVUE on premise [REDACTED] and [REDACTED] compatibility through SIP

TrueVUE Cloud requirements

To support TrueVUE Cloud reports, you require the following items:

- EASy application.
- Installed TrueVUE Cloud microservice.
- An open outbound TCP port [REDACTED] from the microservice to TrueVUE Cloud.

TrueVUE on premise requirements

To support TrueVUE on premise reports, you require the following items:

- TrueVUE on premise versions [REDACTED] or [REDACTED]
- A TrueVUE Storefront Visibility license. This license has the following features:
 - Essentials Web Write and Read Tag workflows
 - Commissioning
 - A limited feature set for Site or Enterprise Manager
 - Import of custom reports in TrueVUE Administrator
 - Configuration options in TrueVUE Administration based on the feature sets.
 - TrueVUE Reporting, with access to all Inventory and Sold reports. For this feature, the following reports display tag movement: the inventory by location, dispositioned items, items sold, and tag writing summary.

Component installation requirements

Confirm that the following component installation requirements are in place.

Electrical power requirements

Confirm that the following electrical power requirements are in place:

- The AC power source must be $\square \times \square$, and include a $\square \times \square$ un-switched outlet, less than \square VAC, and between neutral and ground.
- Do not use orange-colored outlets, which are dedicated for computer equipment.
- Existing AC circuits must conform to all local codes.
- Follow all local, state, and federal electrical and fire codes for cabling.
- The AC source must not be on a circuit that powers other high-load devices, such as neon signs, motors, computers, cash registers, terminals, or data communications equipment. High-load devices can draw significant amounts of current, and generate electromagnetic interference (EMI).

Wiring requirements

For Ethernet cables, use $\square \times \square$, or higher.

- ⓘ **Note:** Ensure that the Ethernet patch cable is located within \square of the final \square installation location.

DRA requirements

When you install a DRA, confirm that the following requirements are in place:

- Follow all local, state, and federal electrical and fire codes for cabling into the DRA.
- The area temperature at the installation site is between \square and \square .
- The area humidity at the installation site is between \square and \square , non-condensing.
- Mount the DRA to a wall, shelf, or ceiling. Ensure that the substrate can support the weight of the DRA and the cabling.
- If you mount the DRA to a ceiling, use ceiling studs to attach plywood that is larger than the alarm to the ceiling.
- Use the optional J-Box mounting bracket kit, \square , to mount the DRA to a junction box.
- The DRA needs to be within \square of the outlet.

General system requirements and RFID requirements

Tags

- The choice and quality of RFID tagged merchandise impacts the performance of the system. Consult your sales representative to discuss what tag types, manufacturers, and chips work with the system.
- RFID tags with a high sensitivity and high range work best.
- RFID tags applied to metal, metal-foil packaging, or liquid perform poorly or not at all.
- Small RFID tags, for example tags applied to jewelry, perform poorly due to the size of the tag.

Body shielding

- If an RFID tag is cupped in a person's hand, the performance of the system reduces significantly.

Environmental factors

- Metal columns and doors, signs, shopping carts, or physical items that are located near the system can cause RFID tag reflections and generate false exits or false alarms. It is important to record these issues during the site survey.
- Tables or racks of tagged items directly under the system can result in low read performance and false alarms. Place tagged merchandise a minimum of  inside the store, or away from the system.

Tools and equipment requirements

You require the following tools and equipment:

- A  tester for validating PoE.
- An  termination crimp tool.
- An  eight-position connector plug.
- A #2 Philips screwdriver
- A drill with a 1/2 inch drill-bits appropriate for drilling through the mounting surface.
- Cable ties
- Cable mounts
-  Setup kit
- Safety goggles
- A vacuum cleaner
- Painters tape
- Hand tools
- A screw gun with different tips

Reviewing the build order

Professional Services provide a site specific build order for each Sensormatic System. Review the build order before you proceed.

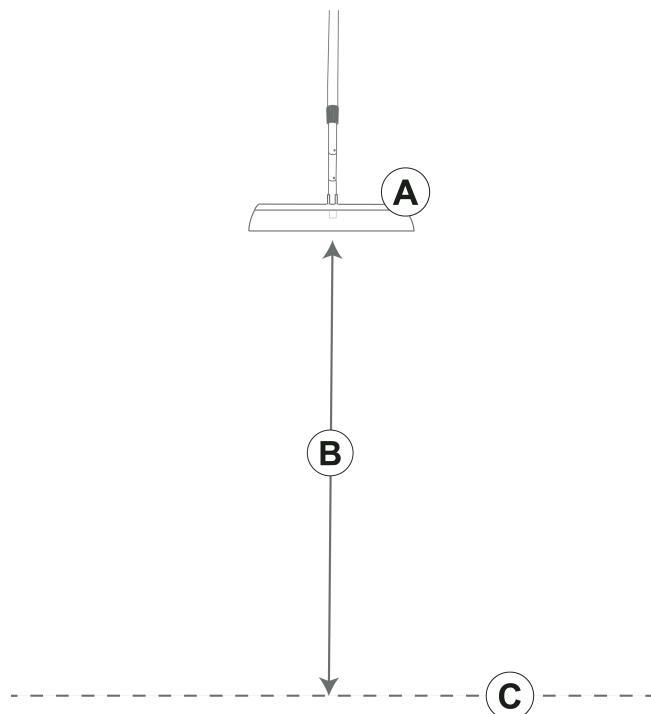
Component layout

⚠ WARNING: Do not place the [REDACTED] in front of or behind a ceiling mounted exit sign or people counter.

Complete the following guidelines to create the component layout:

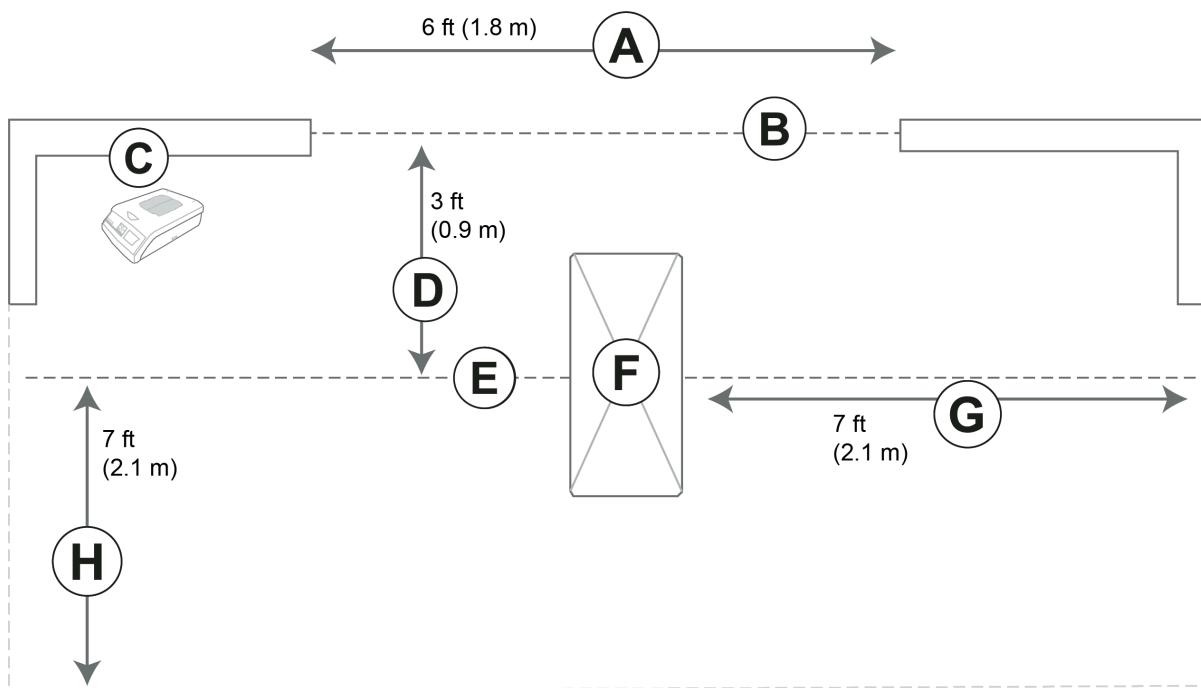
- One DRA can support up to ten [REDACTED].
 - Do not place tagged items within the keep out zone.
 - Center the Impinj® xSpan within the doorway.
- ⓘ Note:** The preferred distance between the [REDACTED] and the floor is [REDACTED]. You can improve performance if you can install the [REDACTED] at a distance of [REDACTED] from the floor if the environment allows. You can install the solution at [REDACTED]. It is best practice to get support to review this installation by Professional Services.

Figure 1: The [REDACTED] System, ft



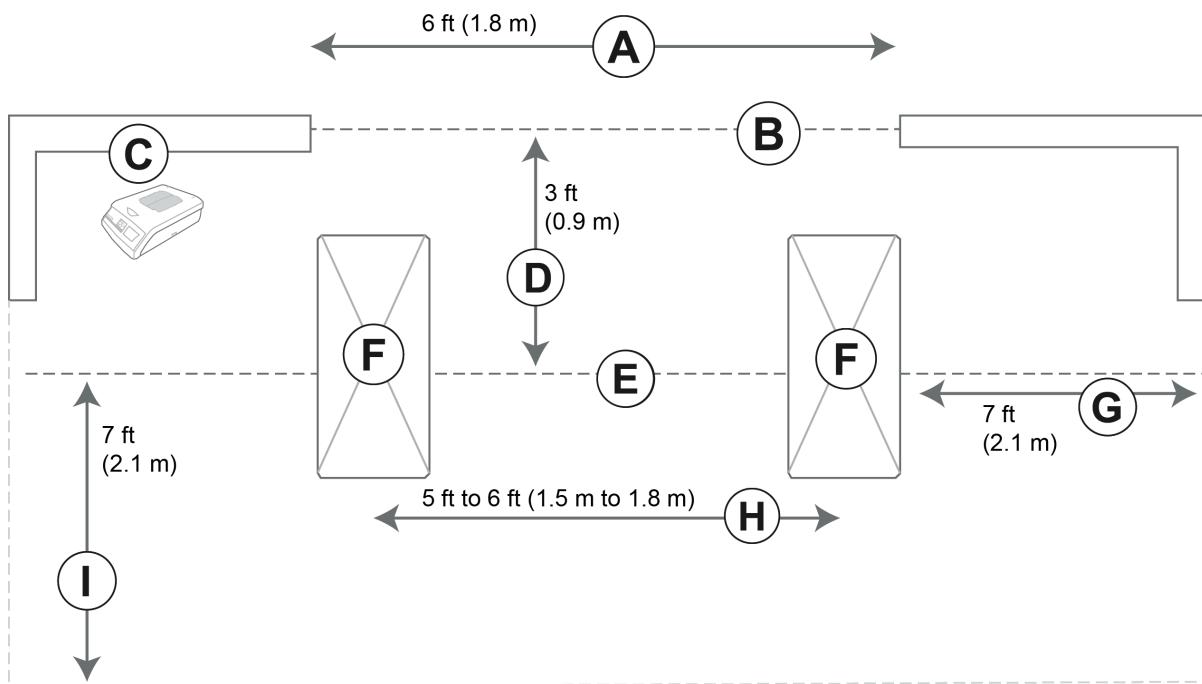
Callout	Component	Callout	Component
A	Impinj® xSpan on a pole mount	B	Preferred installation height 9ft (2.7 m)
C	Floor		

Figure 2: Sample top view component layout of a single system, ft (m)



Callout	Component	Callout	Component
A	Width of the doorway	B	Alarm line
C	AMC-1060 Digital Remote Alarm	D	Distance from center line, where alarm will sound
E	System center line	F	Impinj® xSpan
G	Distance from the Impinj® xSpan to the closest product	H	Distance from the system center line to the keep out zone line

Figure 3: Sample top view component layout of a dual system, ft (m)



Callout	Component	Callout	Component
A	Width of the doorway	B	Alarm line
C	AMC-1060 Digital Remote Alarm	D	Distance from center line, where alarm will sound
E	System center line	F	Impinj® xSpans
G	Distance from the Impinj® xSpan to the closest product	H	Mounting width between Impinj® xSpans
I	Distance from the system center line to the keep out zone line		

Installation at the IDF closet

Use the customers PoE switch or a PoE injector to supply power to the Sensormatic [REDACTED] System.

To connect PoE, validate the site power and network connections at the IDF closet, Ethernet drop termination, and PoE device locations. You require a Microsemi® PoE tester.

Site power and network validation

To supply PoE to the [REDACTED] System, complete one of the following procedures:

- [Connecting to a PoE switch](#)
- [Connecting to a non-PoE switch using a PoE injector](#)
- [Connecting to a PoE switch using an Ethernet isolator](#)

Connecting to a PoE switch

1. In the IDF closet, use a patch panel cable to connect the patch panel to the customers PoE switch.
2. Affix an orange PoE label to both ends of the patch panel cable.

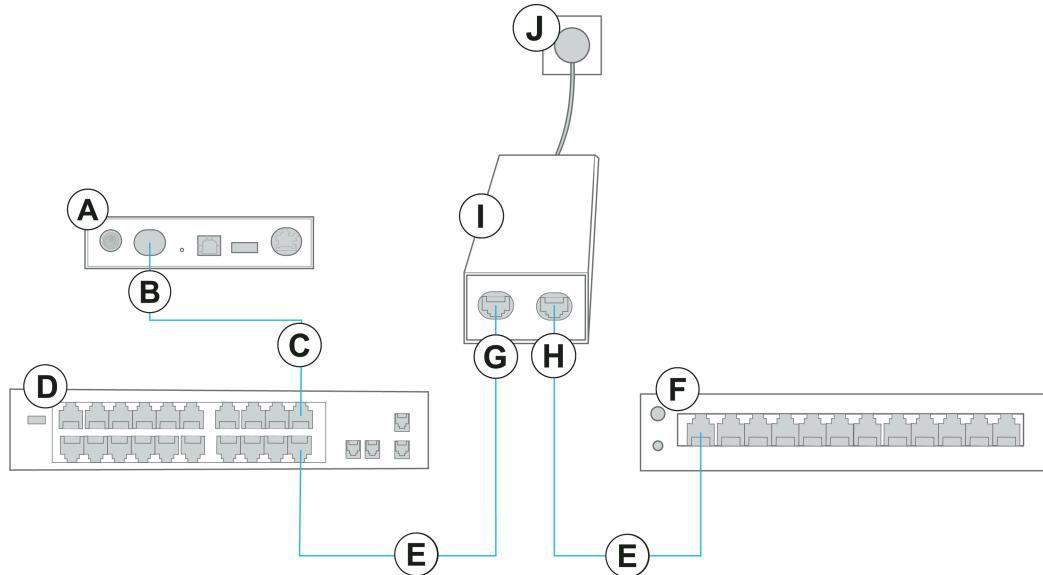
Connecting to a non-PoE switch using a PoE injector

About this task:

To connect to a non-PoE switch using a PoE injector, complete the following steps:

1. In the IDF closet, validate the local power source.
2. Use the Ethernet patch cable to connect the PoE injector to the non-PoE customer switch.
3. Connect the PoE injector to the power source.
4. Use an Ethernet patch cable to connect the PoE injector to the customer patch panel.
5. Affix an orange PoE label to both ends of the Ethernet patch cable.

Figure 4: Connecting to a non-PoE switch using a PoE injector



Callout	Component	Callout	Component
A	Impinj® xSpan	B	Impinj® xSpan PoE port
C	Customer provided Ethernet drop	D	Customer patch panel
E	Ethernet patch cable	F	Non-PoE customer switch
G	Injector LAN and PoE port	H	Injector LAN port
I	PoE injector	J	120 VAC power supply

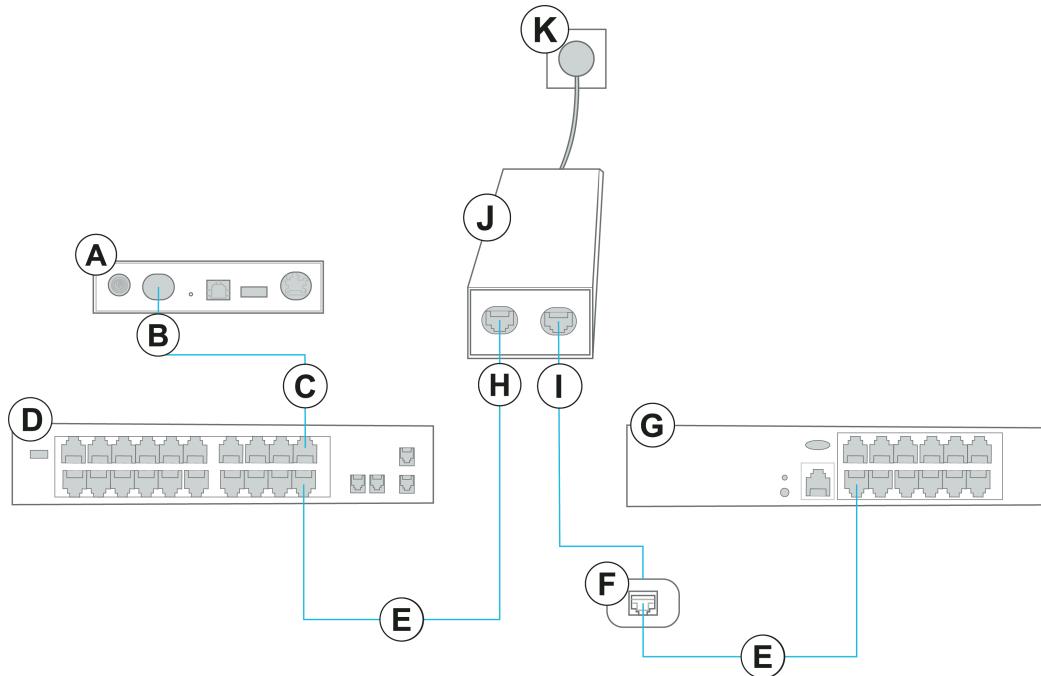
Connecting to a PoE switch using an Ethernet isolator

About this task:

To connect to PoE switch using an Ethernet isolator, complete the following steps:

1. In the IDF closet, validate the local power source.
2. Use the Ethernet patch cable to connect the Ethernet isolator to the PoE customer switch and the PoE injector.
3. Connect the PoE injector to the power source.
4. Use a Ethernet patch cable to connect the PoE injector to the customer patch panel.
5. Affix an orange PoE label to both ends of the Ethernet patch cable .

Figure 5: Connecting to a PoE switch using an Ethernet isolator



Callout	Component	Callout	Component
A	Impinj® xSpan	B	Impinj® xSpan PoE port
C	Customer provided Ethernet drop	D	Customer patch panel
E	Ethernet patch cable	F	Ethernet isolator
G	PoE customer switch	H	Injector LAN and PoE port
I	Injector LAN port	J	PoE injector
K	120 VAC power source		

Validating the PoE+

About this task:

To validate PoE+, complete the following steps:

1. Locate the Ethernet patch cable at the installation area.
2. Verify that the number and location of the Ethernet terminations is correct, and as listed in the Professional Services document.
3. Use a Microsemi PoE tester to verify that each Ethernet termination receives  at power.
4. Verify that  in all of the Ethernet patch cables are in use.

Preparing the software

To prepare the software, complete the following tasks:

- [Downloading the Overhead 360 Installer](#)
- [Preparing the unit for firmware update](#)
- [Optional: Loading Impinj® xSpan Reader \(Gateway\) Firmware](#)
- [Loading the EASy Application file \(CAP\)](#)
- [Accessing the web page](#)
- [Importing the new license key](#)

Downloading the [REDACTED]

To download the Overhead 360 Installer, complete the following steps:

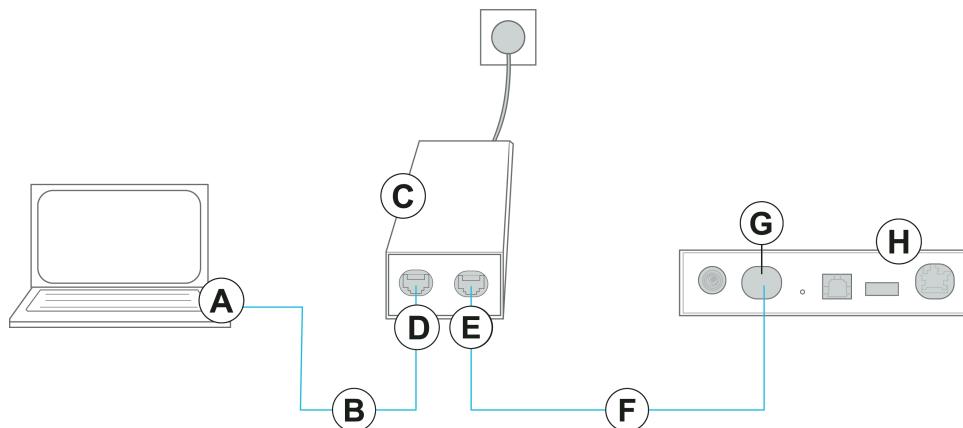
1. Open a web browser and navigate to [REDACTED]
2. Enter your logon credentials and click **Log in**.
3. Click **Software Download**, and click **RFID**.
4. Click **Overhead** [REDACTED]

Preparing the unit for firmware update

To prepare the unit for a firmware update, complete the following steps:

1. Plug the injector into the power source.
2. Connect the [REDACTED] from the laptop to the [REDACTED].
3. In your network settings, set the laptop IP to [REDACTED].
4. Connect the [REDACTED] from the [REDACTED] and [REDACTED] to the [REDACTED] and PoE port.

Figure 6: Preparing the unit for firmware update



Callout	Component	Callout	Component
A	Laptop Ethernet port	B	Ethernet patch cable #1
C	Injector	D	Injector LAN port

Callout	Component	Callout	Component
E	Injector LAN and PoE port	F	Ethernet patch cable #2
G	Outer edge of the coverage zone	H	Impinj® xSpan ports

Optional: Loading Impinj® xSpan Reader (Gateway) Firmware

Verify that the [REDACTED] firmware version is [REDACTED] or higher. If you need to update the reader complete the following steps:

1. On a web browser, enter the IP address or the gateway name, and press **Enter**.
Note: If you are using an Ethernet cable, the default fixed IP address of the gateway is [REDACTED]
2. Enter the following logon credentials:
 - **User name:** [REDACTED]
 - **Password:** [REDACTED]**Note:** After you logon, change the default password to a customer password.
3. In the **READER UPGRADE** pane, click **Browse**.
4. Select the upgrade .upg file, [REDACTED] or higher.
5. In the **READER UPGRADE** pane, click **Upgrade**. Wait for the status to ask for a reboot.
6. Click **Reboot**.
Note: If the [REDACTED] firmware is version [REDACTED] or later contact remote support.

Loading the EASy Application file (CAP)

Before you begin:

Ensure that the model name is [REDACTED] and the hardware version is [REDACTED] or higher.

About this task:

After you load the firmware on the [REDACTED] you must load the application file to the [REDACTED]

To load the [REDACTED] Application file (CAP), complete the following steps:

1. Open a web browser, enter the IP address or the gateway name, and press **Enter**.
Note: If you are using an Ethernet cable, the default fixed IP address of the gateway is [REDACTED]
2. Enter the following logon credentials:
 - **User name:** [REDACTED]
 - **Password:** [REDACTED]**Note:** After you logon, change the default password to a customer password.
3. In the **READER UPGRADE** pane, click **Browse**.
4. Select the upgrade file [REDACTED]
5. In the **READER UPGRADE** pane, click **Upgrade**.
6. Wait for the countdown to complete, and click **Reboot**.

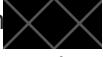
Accessing the web page

After loading the EASy application CAP file, you can access to the application web page over https on port 9000, for example [REDACTED]

About this task:

- Note:** A secure connection is required, ensure HTTPS is typed before the IP address.

To access the web page, complete the following steps:

1. In the **Password** field, enter your password.
 **Note:** The **User** field will be auto filled with 
2. In the **Confirm Password** field, enter your password.
3. Click **Apply**.
 **Note:** The system redirects you to the  application dashboard.

Importing the new license key

Before you begin:

Before you import the new license key, ensure the device is powered through PoE, the device is connected to the network, and that you have access to the web page.

About this task:

The Professional Services team provide the license key. You must register a unique license key for each  device in the  application.

To import the new license key, complete the following steps:

1. Select **License** from the navigation bar.
2. Click **Import New License**.
3. Open the license key text file you received with Notepad++.
-  **Note:** If you did not receive a license key, contact Remote Support.
4. Copy the license key into the **License Key** box, click **Import**.
5. From the navigation bar on the web page, click **License. Etc.**
Result The application automatically restarts, and the **License Details** information box appears.

Configuring the software application

To configure the  software application, complete the following sections.

application configuration use cases

The configuration differs depending on the use case. The setup can either be a standalone model or a microservice model.

Application configuration for standalone and microservice models are done through simple setup.

If using the microservice model you must first complete the standalone configuration. Professional Services will then install and configure the microservice.

Standalone configuration

To set up an Impinj® xSpan for a standalone model installation. Complete the following configurations in the simple setup dashboard:

- [Accessing the web page](#)
- [Configuring the device settings](#)
- [Configuring the network settings](#)
- [Configuring the electronic product code \(EPC\) filtering settings](#)
- [Optional: Configuring the alarm module settings](#)
- [Optional: Configuring the self test settings](#)

Simple setup

The simple setup dashboard contains the device, network, EPC, alarm module and self test settings.

Configuring the device settings

About this task:

To configure the device settings, complete the following steps:

1. Navigate to the simple setup page to configure the  application.
2. In the **Device** pane, edit the device information. For more information on the device setting fields, see below.

Table 12: Configuring the device settings interface

Field	Description
Description	Enter a unique, easily identifiable name for the device.
Group	
Description	Enter the name of the group, for example Front Door.
Size	Select either Multiple Readers or Single Reader .
Position	Select the position of the device in relation to other devices of the same group.

- ① Note:** When choosing the **Multiple Readers** group option, the description must be the same for all the readers.

Accessing the web page

After loading the [REDACTED] you can access to the application web page over https on port [REDACTED] for example [REDACTED]

About this task:

Note: A secure connection is required, ensure HTTPS is typed before the IP address.

If it is your first time accessing the web page, complete the following steps:

1. In the **Password** field, enter your password.
- Note:** If you have created a password previously, complete Step 1 and Step 3.
- Note:** The **User** field will be auto filled with [REDACTED].
2. In the **Confirm Password** field, enter your password.
3. Click **Apply**.

Note: The system redirects you to the [REDACTED] dashboard.

Configuring the network settings

Use the **Network** pane, to view and edit the network information.

Table 13: Configuring the network settings interface

Field	Description
Hostname	Enter a unique, easily identifiable name for the device in the network.
Static IP	If enabled, you will need to manually specify the network IP parameters. If disabled, the reader will obtain the parameters automatically through dynamic host configuration protocol (DHCP).
IP Address	Enter the IP address, for example [REDACTED]
Subnet Mask	Enter the IP address of the netmask, for example [REDACTED]
Gateway	Enter the IP address of the gateway, for example [REDACTED]
Static DNS Preferred Server	Enter the IP address of the primary DNS server.
Static DNS Alternate Server	Enter the IP address of the secondary DNS server.
NTP Service	Enable or disable the network time protocol (NTP) server.
Preferred Server	Enter the hostname or IP address of the primary NTP server, for example [REDACTED]
Alternate Server	Enter the hostname or IP address of the secondary NTP server, for example [REDACTED]
FTP Service	Enable or disable the file transfer protocol (FTP) service.
SSH Service	Enable or disable the secure shell protocol (SSH) service.

Configuring the electronic product code (EPC) filtering settings

Use the **EPC Filtering** pane to view and edit the EPC filtering information.

Table 14: Configuring the EPC Filtering settings interface

Field	Description
Bit Flipping	If enabled the allowed state of the tag is obtained by looking at one of its EPC bits. The tag is allowed when the bit is set to 0. ① Note: Bit Flipping works with the POS reader.
Filter 1 to 6	If one of the filters is enabled, the EPCs covered by this filter rules are considered valid and tracked for entry and exit events.

Optional: Configuring the alarm module settings

Use the **Alarm Module** pane to view and edit the alarm module information. The optional alarm module in simple setup is used for a customer that is using a light ring and alarm controller for visual alarming.

Table 15: Configuring the alarm module settings interface

Field	Description
Steady State Color	This is the color that the light in the alarm module displays when the device is in a steady or idle state. ① Note: Set the steady state color to full black  to disable.
Primary Pattern	Select a primary pattern. This is the pattern played by the alarm module when a loss event occurs at the exit system.
Secondary Pattern	Select a secondary pattern. This is the pattern played by the alarm module when a loss event occurs at the exit system, triggered by another device of the same group.
Nuisance Threshold	Ensure this is disabled.
Run Silent Mode	Ensure this is disabled.
Multicast Test	Ensure this is disabled.

Optional: Configuring the self test settings

Use the **Self Test** pane to view and edit the self test information.

① **Note:** If using AAAA test tagboard you must disable the **EPC Filter**.

Table 16: Configuring the self test settings interface

Field	Description
Header Filter	Enable Header Filter .
Schema	Leave as default.
Length	Leave as default.
Pattern	Leave as default.
EPC Filter	If enabled, specify ten custom EPCs for the self-test board. Specify one EPC per line.

Microservice model

To configure the microservice model ensure you have completed the standalone configuration settings first.

- ① **Note:** The microservice model can be connected to TrueVUE Cloud or TrueVUE on premise.

Configuring the microservice settings

Use the microservice pane, to view and edit the microservice information.

- ① **Note:** The microservice settings are disabled by default.

- **Important:** Only configure the microservice settings if directed by Remote Support. Enable only when using microservice for an advanced installation.

Table 17: Configuring the microservice settings interface

Field	Description
Tenant UUID	Enter the customers UUID when using a TrueVUE Cloud system. Keep the field blank when using a TrueVUE on premise system.
Site Code	Enter the site code, this value must match the value defined in the inventory management software to identify the store.
API Address	Enter the API address, this is the address and port that communicates with the server side. ① Note: Change to HTTP if SSL is disabled in the easy-server configuration.
API Key	Enter the API key, this must match the value defined in the easy-server configuration files.
Inventory Polling	If enabled, only the EPCs found in the store inventory are tracked.
Event Publishing	If enabled, the tag entry and exit events are reported to the server component, which will forward them to the inventory management software.
Quarantine Period	Enter a time in seconds. This is the period of time between the tag entry or exit event and it being reported to the server. During this period, an event will be discarded if a contrary event for the tag is observed.
Reversal Period	Enter a time in seconds, this is the period of time that a tag reported as lost is eligible for a reversal event. If the tag is seen during this period, a tag entry event will be produced immediately. ① Note: Set to <input type="text"/> to disable the tag exit reversal.
Request Timeout	Enter a time in seconds. This is the timeout for the event publish request.

Advanced settings

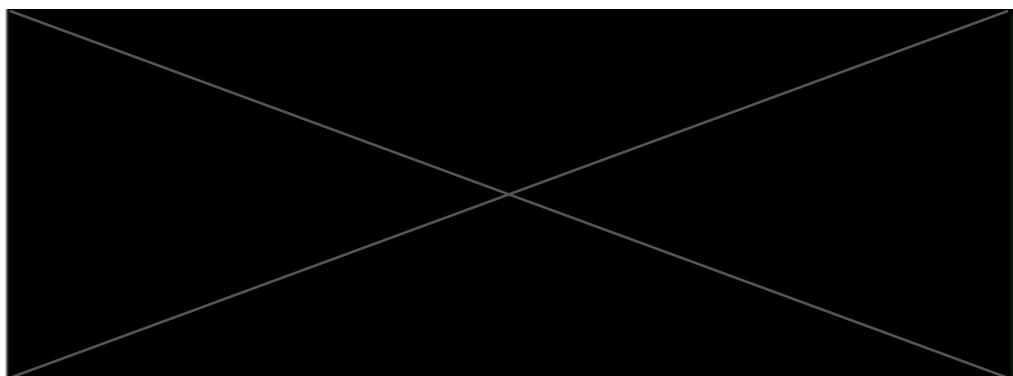
The advanced settings include POS integration, directional sensor, reader, and tracker and are made available if guided or design service changes are required without device management. Do not edit or modify the advanced settings, they will be configured by Professional Services.

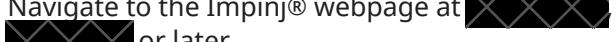
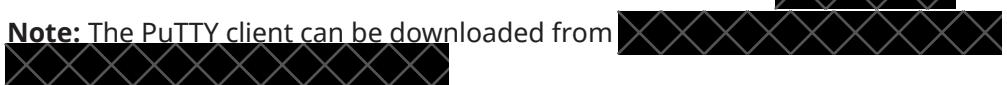
Configuring the network settings

To configure the network settings, complete the following steps:

1. On the laptop, navigate to the **Network Connection Details** window.
2. On the **Network Connection Details** window, determine the IP address for example 
3. On the laptop, open a command prompt, and type ping 

Figure 7:  ping at the default IP address



4. Navigate to the Impinj® webpage at  confirm that the readers firmware version is  or later.
Note: Contact Professional Services or Technical Support for firmware upgrade assistance.
5. Open PuTTY client, in the **Host Name (or IP address)** pane, enter 
Note: The PuTTY client can be downloaded from 
6. In the **Port** pane, enter 22.
7. To set the readers IP to static, in the **Connection type** pane, select **SSH**.
8. In the **PuTTY** command line, type login as:  and press enter.
9. A password prompt opens, type  and press enter.
10. Type the following commands:
 - > config network 
 - > config network ntp 
 - > config network ntp 
 - > config network dns add 
Note: To ensure each command is entered correctly, **Status='0,Success'** appears.

- > config network ip static XXX.XXX.X.XXX XXX.XXX.XXX.X XXX.XXX.X.X

i **Note:** Status='14, Success-Reboot-Required' appears to indicate a reader restart is required.

i **Note:** Use customer supplied data.

11. Restart the reader.

12. Open PuTTY client, in the **Host Name (or IP address)** pane, enter 

i **Note:** The PuTTY client can be downloaded from 

13. In the **Port** pane, enter 

14. To set the readers IP to static, in the **Connection type** pane, select **SSH**.

15. In the **PuTTY** command line, type login as:  and press enter.

16. A password prompt opens, type impinj and press enter.

17. Type the following commands:

- > show image summary
- > show network summary
- > show network ntp

i **Note:** To ensure each command is entered correctly, **Status='0,Success'** appears.

- > config network ip static XXX.XXX.X.XXX XXX.XXX.XXX.X XXX.XXX.X.X

i **Note:** Status='14, Success-Reboot-Required' appears to indicate a reader restart is required.

i **Note:** Use customer supplied data.

Installing the system components

Before you install the system components, complete the following preparation work on the ground:

- [Unboxing the Impinj® xSpan](#)

ⓘ Note: The alarm controller and light ring are optional components.

- [Installing the alarm controller](#)
- [Assembling the light ring](#)
- [Attaching the V-CAM bracket to the mounting plate](#)

The following preparation work is only necessary for a pole mount installation.

- [Preparing the pole mount](#)

To install the components for the Sensormatic RFID Overhead 360° System, choose either a pole mount or ceiling mount installation. Complete the following procedures at the ceiling:

Pole mount installation:

- [Attaching the pole mount to a support truss or channel strut](#)
- [Attaching the pole mount directly to the ceiling](#)
- [Attaching the light ring assembly to the pole mount](#)
- [Adjusting the height of the pole mount](#)

Ceiling mount installation:

- [Preparing the ceiling mount](#)

To install the optional DRA:

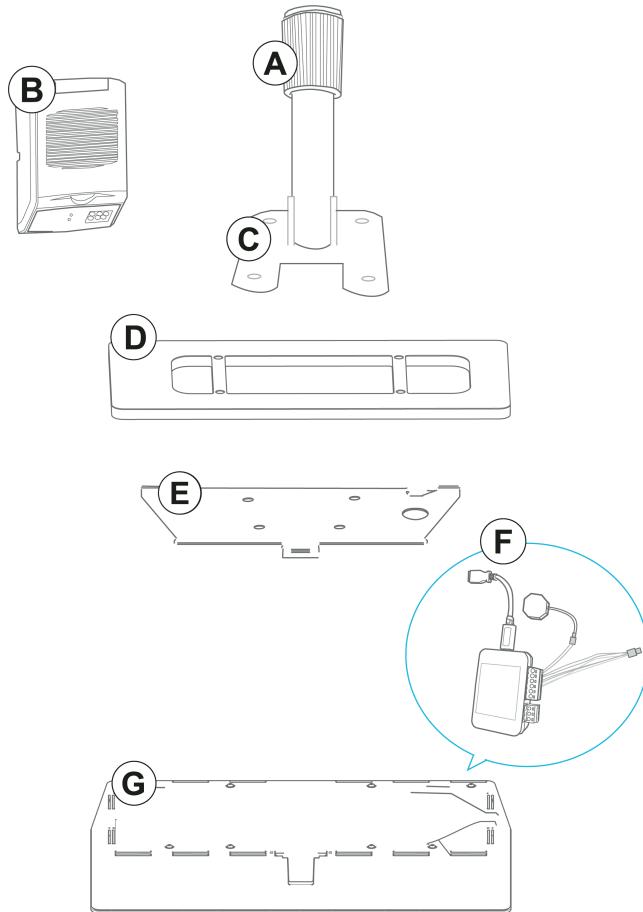
ⓘ Note: The DRA is an optional component which can only be used with the light ring assembly.

- [Mounting the optional DRA](#)

To attach the Impinj® xSpan to the mounting plate:

- [Attaching the Impinj® xSpan to the mounting plate](#)

Figure 8: Sensormatic RFID Overhead 360° components



Callout	Component	Callout	Component
A	Pole mount	B	Optional DRA
C	V-CAM bracket	D	Light ring assembly
E	xSpan mounting plate	F	Optional alarm controller components
G	Impinj® xSpan		

Unboxing the Impinj® xSpan

When unboxing the Impinj® xSpan take note of the protective set screw and wrench which are included.

1. Unbox the Impinj® xSpan, place the protective set screw and wrench to the side.
 2. Remove and discard the protective plastic sheeting from the Impinj® xSpan device.
- i Note:** The protective set screw and T-15 wrench are required in the following task, [Attaching the Impinj® xSpan to the mounting plate](#).

Installing the alarm controller

About this task:

To install the alarm controller, complete the following steps:

1. Connect the Micro USB end of the cable to the alarm controller.
2. Plug in the  pin connector to the alarm controller.
3. **Optional:** If the installation includes a DRA, remove the  pin connector from the alarm controller and set aside for the DRA installation.
i Note: If installing the optional DRA, complete the following procedures, [Mounting the optional DRA](#), [Setting the communications type jumper](#) and [Connecting the optional DRA](#).
4. Turn the alarm controller around, placing the front side of the controller inward.
5. Connect the USB type  end of the cable to the  on the Impinj® xSpan.
6. Peel off the sticky side of the Velcro and attach it to the front of the alarm controller and secure in place.

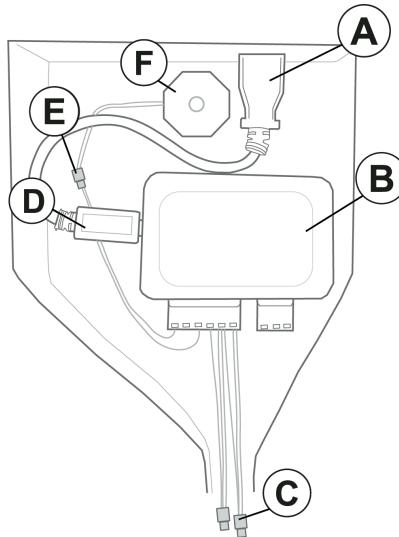
Installing the buzzer for a ceiling mount installation

About this task:

To install the buzzer for a ceiling mount installation complete the following steps:

1. Peel off the sticky side of the Velcro and attach it to the back of the buzzer. Mount the buzzer in the appropriate location.
2. Secure the buzzer inside the Impinj® xSpan cavity. The following image illustrates the appropriate location for the alarm buzzer

Figure 9: The alarm controller components for a ceiling mount



Callout	Component	Callout	Component
A	USB type A, connects the alarm controller to the Impinj® xSpan.	B	Alarm controller
C	LED JST connector	D	Micro USB
E	Buzzer JST connector	F	Alarm buzzer

- Note:** The buzzer installation for the pole mount installation will be installed during the [Installing the buzzer for the pole mount installation](#).

Assembling the light ring

- Note:** Complete the following steps on the floor in a device staging area.

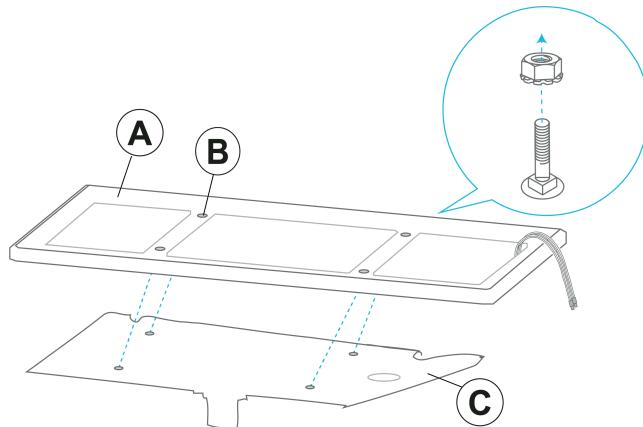
To assemble the light ring, complete the following steps:

1. Remove the protective paper backing from the light ring assembly.
2. Orient the light ring to the bracket.

Note: Ensure that the label side of the mounting plate is facing downward.
3. Screw the four [] screws through the preexisting mounting holes on the light ring assembly and xSpan mounting plate.
4. Secure in place using the four M4 external tooth lock nuts and [] screws.

Note: To avoid damaging the acrylic, finger tighten the screw and locknut. Do not over torque the screw.

Figure 10: Attaching the light ring assembly to the xSpan mounting plate



Callout	Component	Callout	Component
A	Light ring assembly	B	Four screw holes
C	xSpan mounting plate		

- Route the cables through the hole.

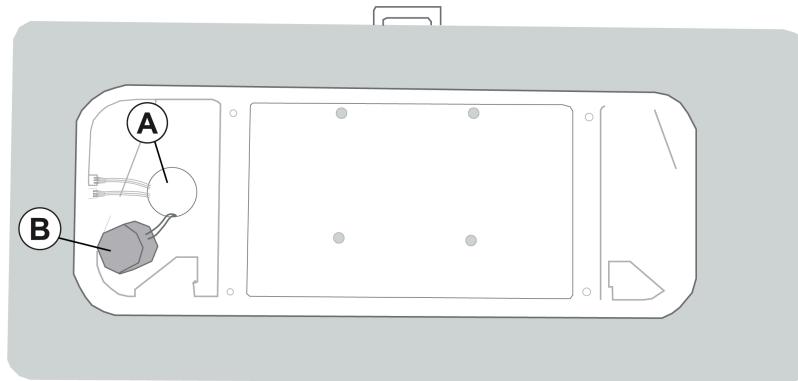
Installing the buzzer for the pole mount installation

About this task:

To install the buzzer for a pole mount installation complete the following steps:

- Remove the Velcro, secure the alarm buzzer to the top of the bracket and route the buzzer cable through the hole of the bracket.

Figure 11: Alarm buzzer location for a pole mount installation



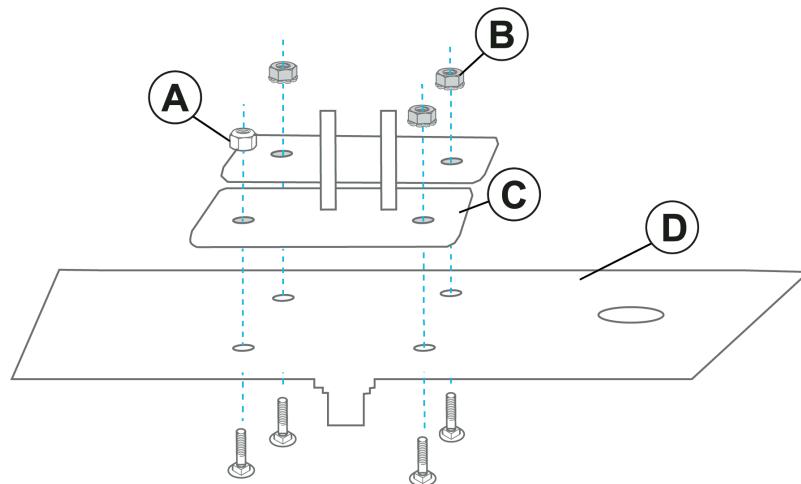
Callout	Component	Callout	Component
A	Cable access hole	B	Alarm buzzer

Attaching the V-CAM bracket to the mounting plate

To attach the mounting plate to the V-CAM bracket, complete the following steps:

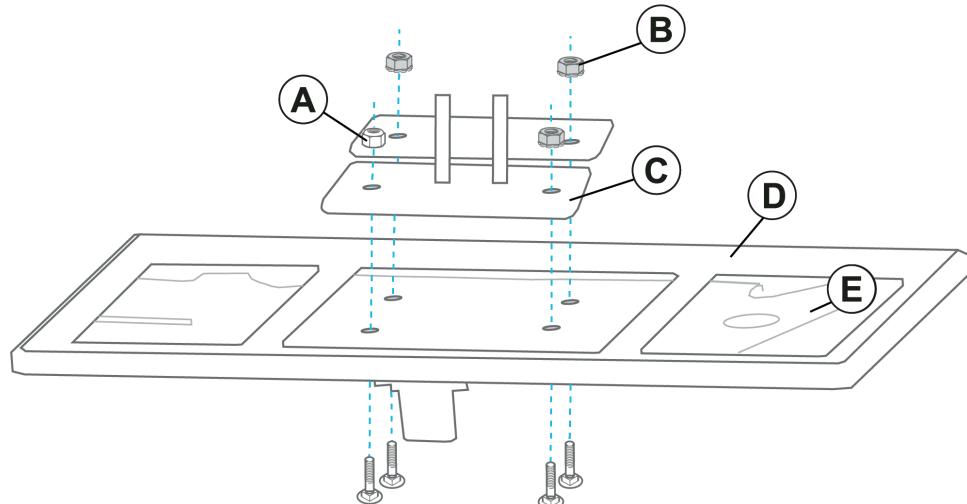
1. Line up the four screw holes on the mounting plate with the screw holes on the V-CAM bracket.
 2. Secure in place using the three M4 screws and tooth lock nuts with a Philips screwdriver.
- Note:** Leave one hole empty for the safety cable installation.

Figure 12: Attaching the V-CAM bracket to the mounting plate with no light ring assembly



Callout	Component	Callout	Component
A	Nylon lock nut	B	Tooth lock nut
C	V-CAM bracket	D	Mounting plate

Figure 13: Attaching the V-CAM bracket to the mounting plate and light ring assembly



Callout	Component	Callout	Component
A	Nylon lock nut	B	Tooth lock nut
C	V-CAM bracket	D	Light ring assembly
E	Mounting bracket		

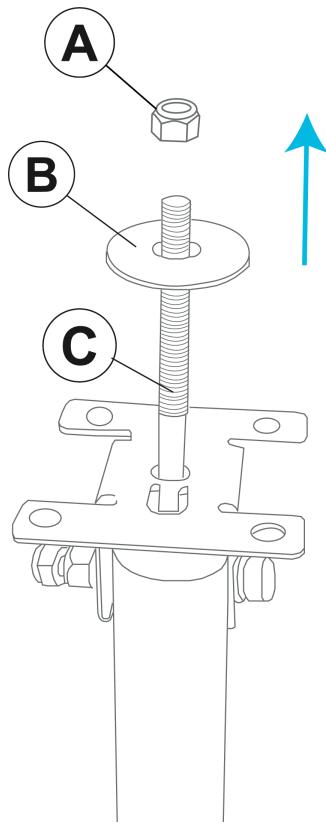
Preparing the pole mount

To prepare the pole mount, complete the following steps:

- The pole mount is pre-assembled. To disassemble the pole mount, complete one of the following options:
 - Unistrut installation:** Remove the [REDACTED] and fender washer from the mounting bolt, using a [REDACTED] wrench.
 - Direct ceiling installation:** Remove the [REDACTED] and fender washer from the mounting bolt, using a [REDACTED] wrench. Remove the mounting bolt from the assembly.

ⓘ **Note:** The lock nut, fender washer, and mounting bolt are not required for an installation directly to the ceiling.

Figure 14: Disassembling the pole mount



Callout	Component	Callout	Component
A	[REDACTED]	B	Fender washer
C	Mounting bolt		

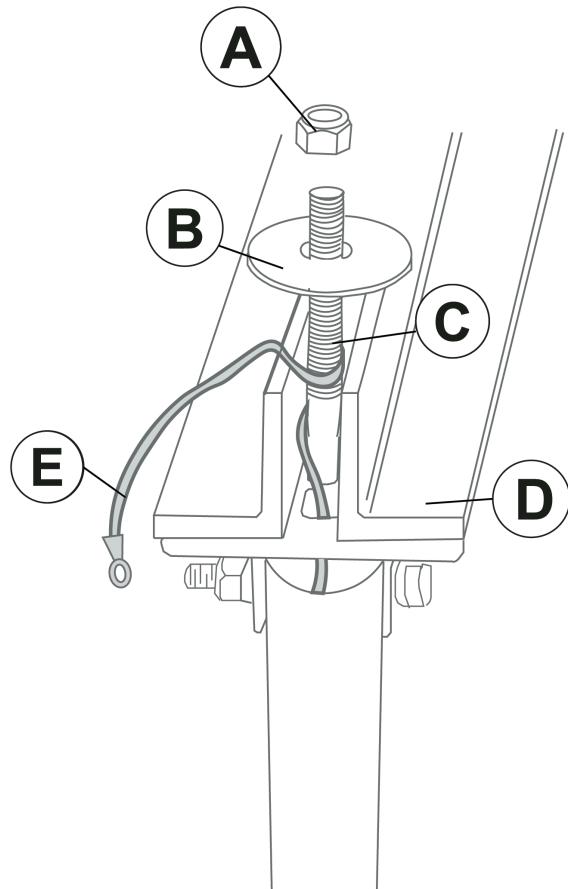
Attaching the pole mount to a support truss or channel strut

- ① **Note:** Ensure that the structure is suitable to attach and support the equipment. Only use hardware that is supplied with the mounting pole.

To attach the pole mount to a support truss or channel strut, complete the following steps:

1. **Optional:** If you need to create a hole to mount the pole, use a [XXXX] drill-bit to drill a hole in the mounting surface.
2. Insert the threaded rod between the truss gap or through the hole in a channel strut.
3. Use a fender washer and a [XXXX] lock nut to secure the mounting rod in place.
4. Use a [XXXX] wrench to tighten the lock nut.

Figure 15: Attaching the pole mount to a support truss or channel strut



Callout	Component	Callout	Component
A	[XXXX]	B	Fender washer
C	Mounting bolt	D	Support truss or channel strut
E	Safety cable		

Securing the safety cable for a support truss or channel strut installation

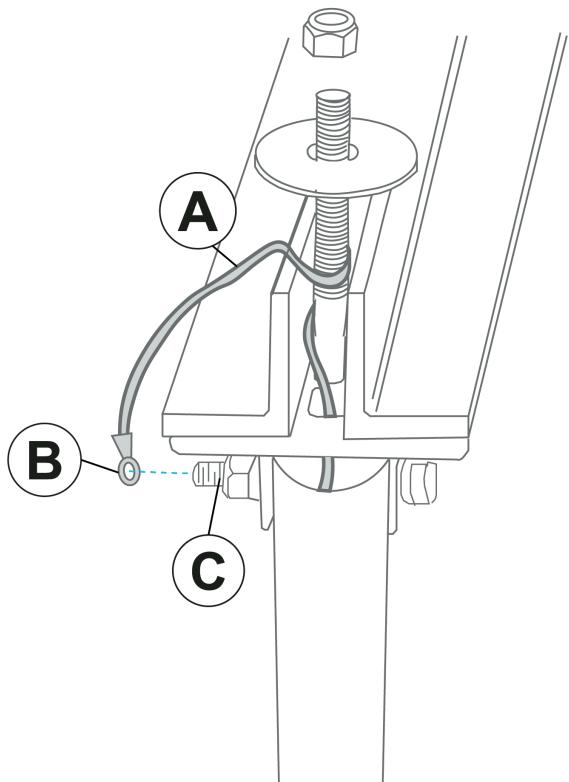
⚠ WARNING: Do not install the Impinj® xSpan without a safety strap. The safety strap eliminates stress or significant weight bearing on the opening in the ceiling.

⚠ WARNING: Risk of electric shock. Turn off the power before you proceed.

To secure the a safety cable, complete the following steps:

1. Feed one end of the safety cable through the pole.
2. Loop the safety cable around the mounting bolt.
3. Place the crimped eyelet end of the safety cable onto the Allen head bolt.

Figure 16: Installing the safety cable



Callout	Component	Callout	Component
A	Safety cable	B	Crimped eyelet
C	Allen head bolt		

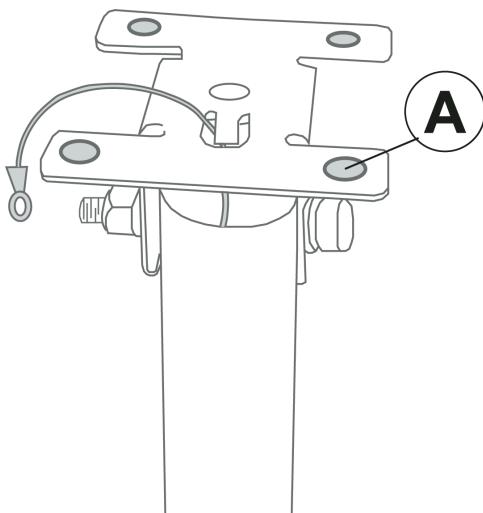
4. Tighten the lock nut with a wrench and a Allen wrench.

Attaching the pole mount directly to the ceiling

To attach the pole mount directly to the ceiling, complete the following steps:

1. Mark the mounting location, using the pole mounting plate as a template.
 2. Drill four holes into the ceiling which correspond to the mounting hardware. For information on the approved mounting hardware refer to, [Mounting the pole mount to a variety of ceiling substrates](#).
 3. Secure the pole to the ceiling using the appropriate mounting hardware.
- i Note:** Hardware selected to install the pole mount must exceed holding force of 10 lbs total weight.

Figure 17: Attaching the pole mount directly to the ceiling



Callout	Component
A	Four screw holes

Mounting the pole mount to a variety of ceiling substrates

Table 18: Pole mount hardware requirements

Mount surface	Hardware
Ceiling - Wood	Wood screws
	Toggle bolts
Ceiling tile	Drill a hole through the ceiling tile, mount the pole directly to the building structure above the ceiling tile.

Securing the safety cable for a pole mounted directly to the ceiling

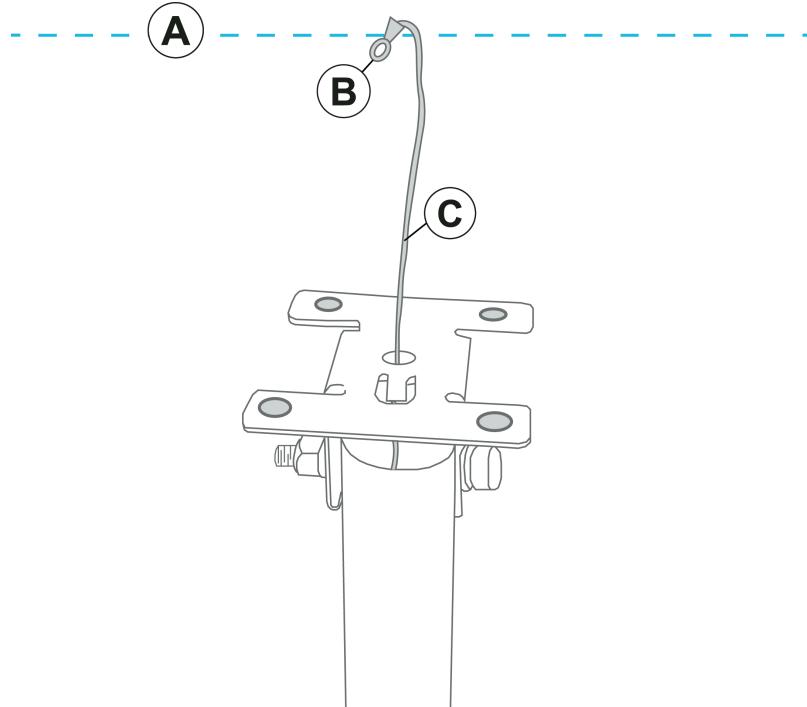
⚠️ WARNING: Do not install the Impinj® xSpan without a safety strap. The safety strap eliminates stress or significant weight bearing on the opening in the ceiling.

⚠️ WARNING: Risk of electric shock. Turn off the power before you proceed.

To secure the a safety cable, complete the following steps:

1. Feed one end of the safety cable through the pole.
2. Attach the crimped eyelet directly to the ceiling structure for example a red iron beam or floor pan.

Figure 18: Installing the safety cable



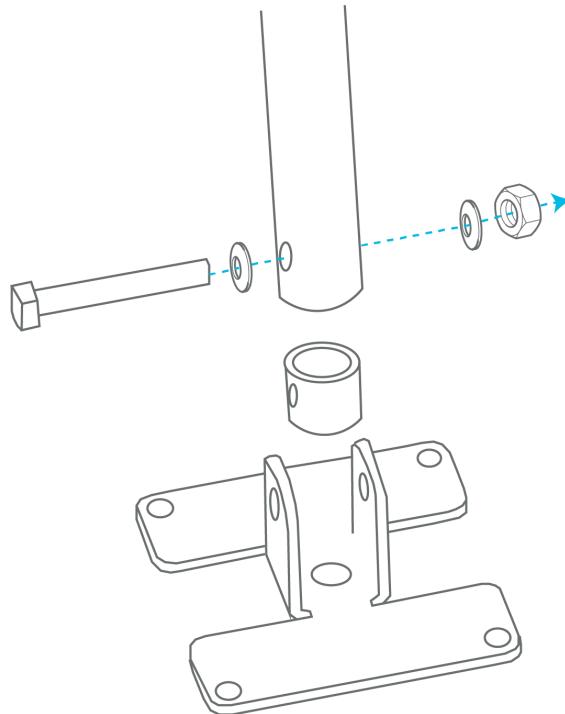
Callout	Component	Callout	Component
A	Ceiling structure	B	Crimped eyelet
C	Safety cable		

Attaching the light ring assembly to the pole mount

To attach the light ring assembly to the pole mount, complete the following steps:

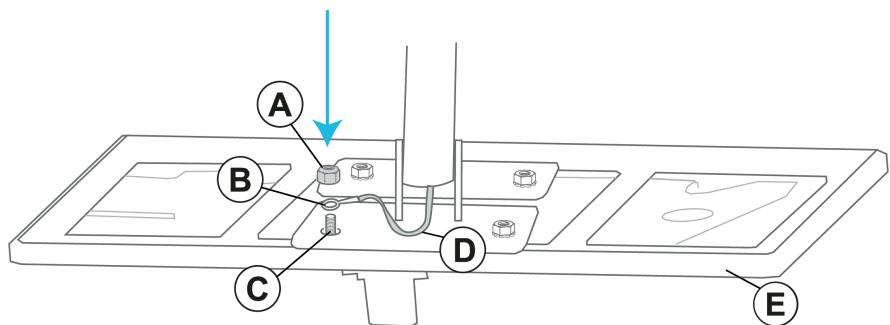
1. Place the V-CAM bracket over the pole mount.
2. Line up the hole in the V-CAM bracket and pole mount.
3. Thread the pin through the hole to secure in place.

Figure 19: Attaching the V-CAM bracket to the pole mount



4. Feed one end of the safety cable through the pole.
5. To attach the safety cable, place the eyelet of one end of the safety cable over the empty hole on the V-CAM bracket.
6. Place the remaining M4 screw through the safety cable and eyelet.
7. Secure the nylon lock nut in place with a Philips screwdriver.

Figure 20: Attaching the safety cable



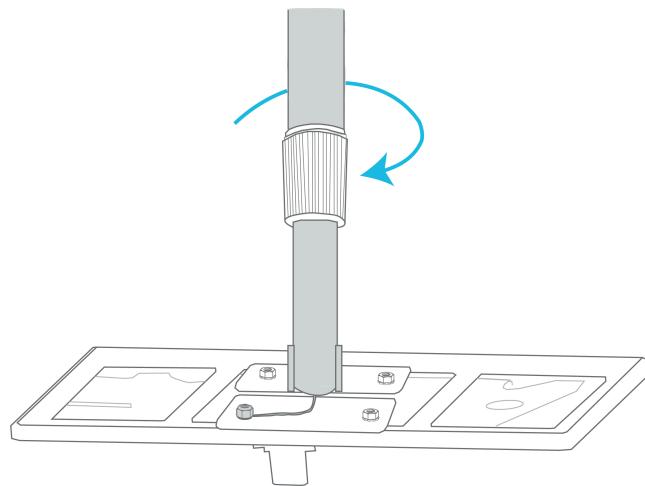
Callout	Component	Callout	Component
A	Nylon lock nut	B	Crimped eyelet
C	M4 screw	D	Safety cable
E	Light ring assembly		

Adjusting the height of the pole mount

To adjust the height of the pole mount, complete the following steps:

1. Hold the lower segment of the pole.
2. To loosen the twist lock collar, turn it in a counter-clockwise direction.
3. Extend or retract the mounting pole to the required height.

Figure 21: Adjusting the height of the pole mount



4. Turn the twist lock collar in the clockwise direction to lock the length of the mounting pole in position.
5. Ensure that you hand-tighten the twist lock collar as snug as possible to prevent the pole from extending.
6. Once the pole is set to a desired height, drill a 3/16 in. hole through one side of the inner pole at the pre-drilled hole in the outer pole.
7. Insert a rivet, until the backside of the head is flush with the outer surface of the pole.
8. Hold the backside of the pole, strike the pin with a hammer to expand the rivet.
9. To conceal the cables, feed the cables through the top of the pole and out through the bottom.

Preparing the ceiling mount

► **Important:** Do not install the Impinj® xSpan where objects, such as heating, ventilation, and air conditioning (HVAC), metal beams, or lighting can obstruct the beam formation. Any obstructions to the beam formation reduce the performance of the Impinj® xSpan.

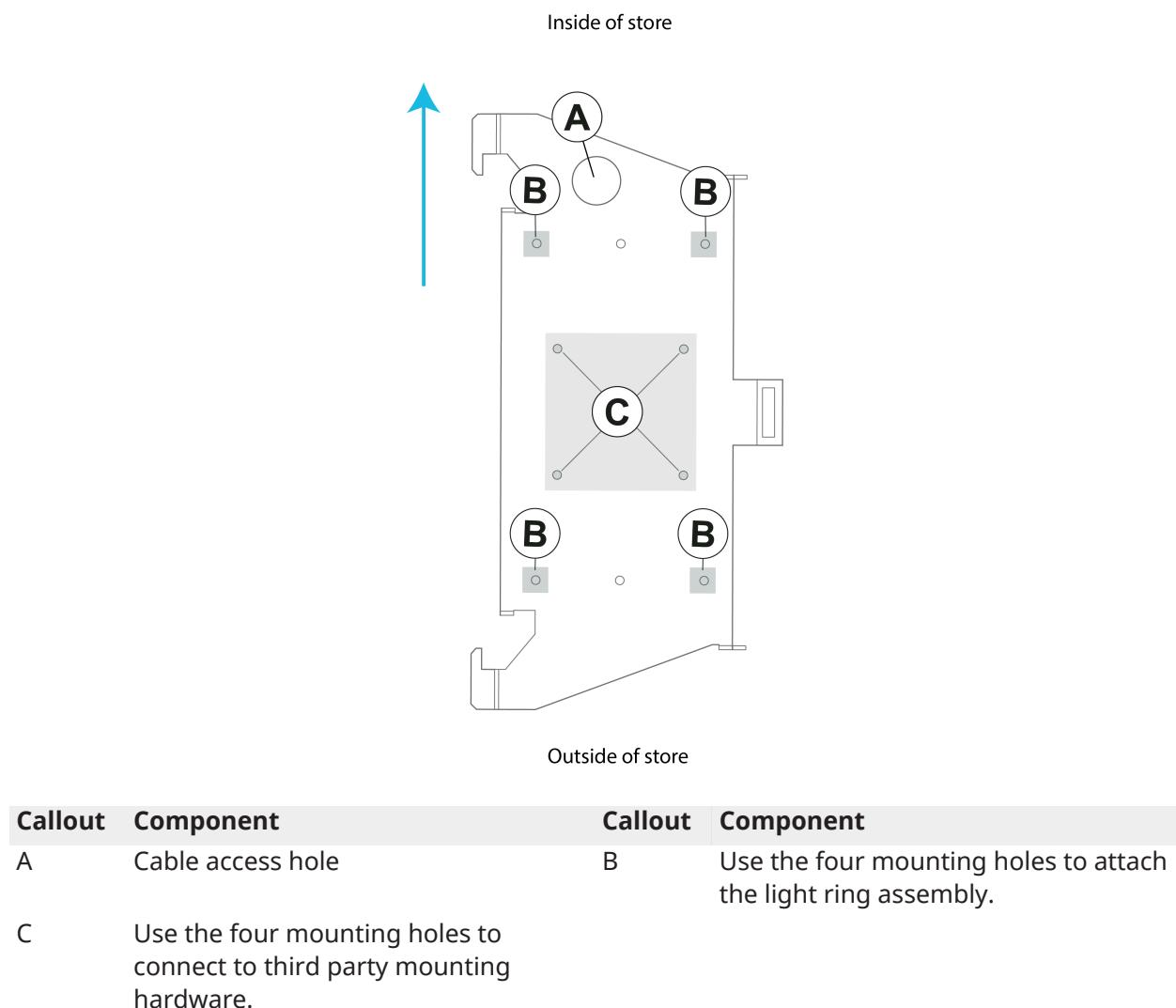
For information on how to install the xSpan to a unistrut channel or to third party hardware, refer to the [\[REDACTED\] Guide](#).

Use the xSpan mounting plate to mount the Impinj® xSpan to a ceiling, to a unistrut channel, or to third party mounting hardware.

ⓘ **Note:** You may need to install plywood to reinforce the strength of the ceiling.

⚠ **CAUTION:** Install the xSpan mounting plate with the cable feed hole pointing inside the store towards the sales floor.

Figure 22: xSpan mounting plate

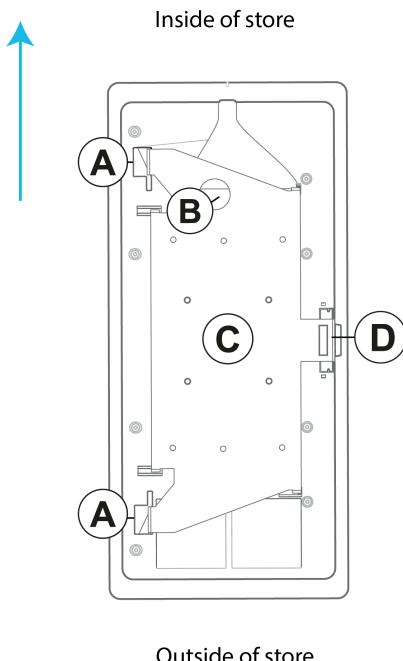


Ceiling mount hardware installation

To mount the mounting bracket to the ceiling, complete the following steps:

1. Use the xSpan mounting plate as a template. Use a pencil to mark the locations of the four mounting holes.
Note: Position the mounting plate so that the LED and cable hole are facing inside the store.
2. Use a drill with the appropriately sized drill-bit to drill the four mounting holes in the wall or ceiling.
3. Align the mounting plate over the mounting holes, and insert four M4 screws or #8 bolts into the mounting surface.
4. Use a Phillips head screwdriver to tighten the screws and to secure the mounting plate in place.
Note: Do not over-torque the screws as it could cause the acrylic to crack.
5. Place the mounting holes on the xSpan onto the mounting plate's brackets.

Figure 23: Top view of the xSpan mounting plate



Callout	Component	Callout	Component
A	Hinges on the mounting bracket	B	Cable access hole
C	Mounting plate	D	Horizontal mounting hole dimensions, 20 cm or 7.87 in.

Mounting the optional DRA

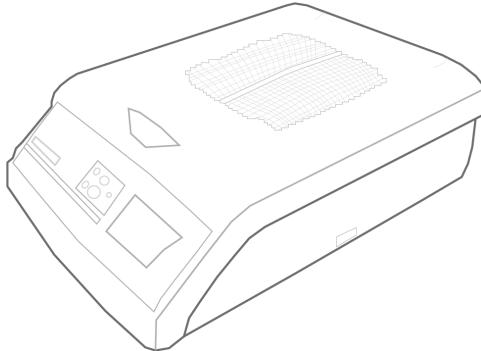
About this task:

Before you mount the AMC-1060 DRA, consider the following guidelines:

- Leave at least 23.2 cm or 9.13 in. between the ceiling and the top anchor to ensure that there is enough room for the cover to lock open.
- If you are replacing an existing [REDACTED] or [REDACTED] remote alarm, drill new holes, as the mounting-hole pattern for the [REDACTED] is different.

⚠ WARNING: Risk of electric shock. Turn off the power before you proceed.

Figure 24: [REDACTED] digital remote alarm



To mount the [REDACTED] DRA, complete the following steps:

1. Affix the drill template to the surface of the mounting location, and mark three holes for the anchors or screws.
2. **Optional:** If the alarm cable enters the [REDACTED] DRA from behind, mark a hole at one of the locations indicated on the template, and then drill a hole for the cable.
3. Use a drill with a 6.5 mm or 0.25 in. drill-bit to drill three holes in the mounting surface. Insert plastic anchors into the holes. Use self-drilling anchors for drywall surfaces.
4. Insert the mounting hardware into the wall. Leave 4 mm or 0.16 in. of the screw shaft exposed.
5. Slide the [REDACTED] DRA onto the screws, and tighten the accessible screws to secure the [REDACTED] DRA in place.

Mounting the optional DRA to a variety of ceiling substrates

Table 19: DRA mounting hardware requirements

Mount surface	Hardware
Plenum space	Machine screws to bracket
Ceiling tile	Toggle bolts
Wall - Drywall	Toggle bolts
Wall - Concrete	Concrete anchors
Other	Use best judgment

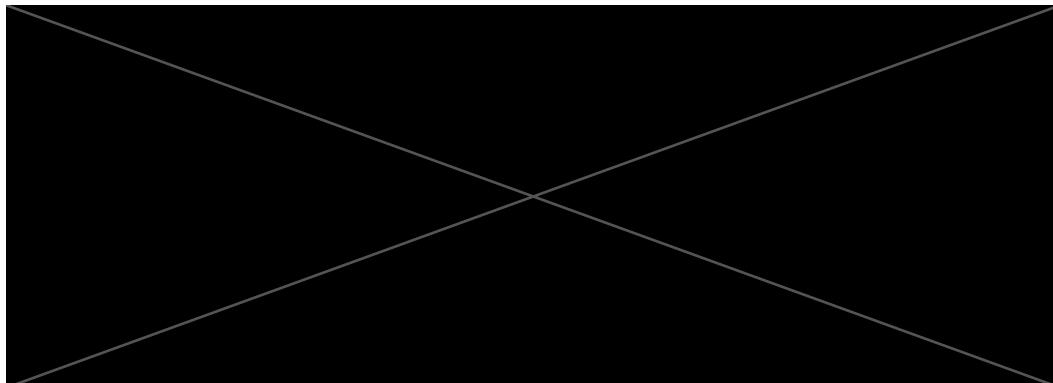
Setting the communications type jumper

ⓘ Note: For information on downloading a voice message see, [REDACTED]

The communications type jumper (P3) determines how the alarms are triggered at the remote alarm device.

For the [REDACTED] DRA the jumper is installed IN, the remote alarm monitors pin 5 and 7 of its communications connector for a relay contact closure.

Figure 25: Wiring diagram for connecting a remote alarm to an AMC-1060 controller relay port



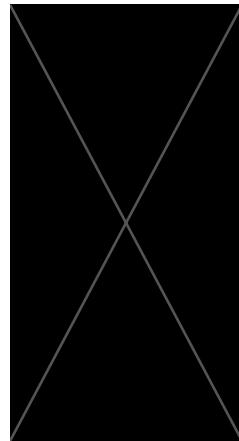
Connecting the optional DRA

To connect the cables to the optional DRA, complete the following steps:

1. Route the DRA cable through the raceway with the round tabs, or directly through the back of the DRA.
2. Connect one end of the DRA cable to the [REDACTED]
3. Connect the opposite end of the DRA cable to the [REDACTED] (J2 relay port). Connect the gray/white wire to pin two and connect the green wire to pin three on the [REDACTED] (J2 relay port).

ⓘ Note: The 3 pin plug is only connected if the DRA is being used.

Figure 26: Connecting the DRA to the 3 pin plug (J2 relay port)



Callout	Wire	Wire color
A	Relay COM	Gray/white
B	Relay NO	Green

4. Plug in the  connector, to the alarm controller.
5. Route the cables through the hole in the xSpan mounting plate.

Attaching the Impinj® xSpan to the mounting plate

⚠️ WARNING: The mounting pole can bear a maximum weight of 4.5 kg (10 lb).

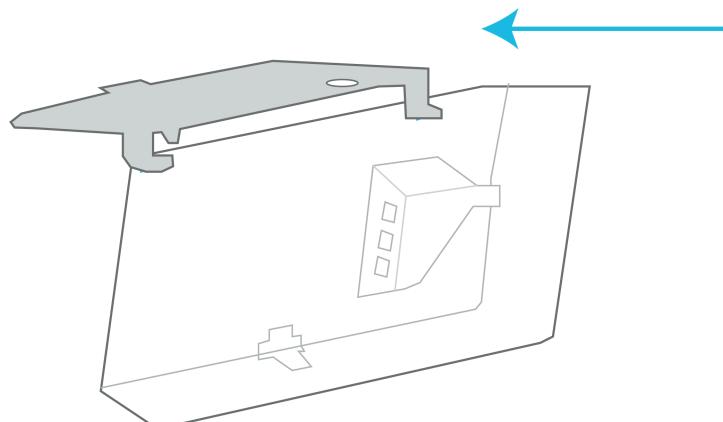
⚠️ WARNING: Risk of electric shock. Turn off the power before you proceed.

To attach the Impinj® xSpan to the bracket, complete the following steps:

1. Turn off the power to the Impinj® xSpan.
2. To route the cables for the Impinj® xSpan from the ceiling to the bottom of the mounting pole, complete the following steps:
 - a. Insert the cables into the cord management opening at the top of the mounting pole.
 - b. Route the Ethernet cable, optional LED cable, and optional DRA cable through and out of the opening in the base of the mounting pole.

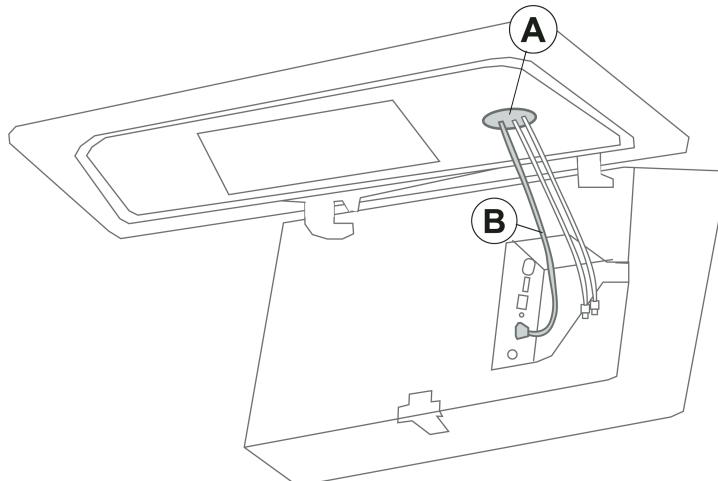
i Note: Ensure the cable is 18 in. in length for service purposes. You need a service loop at the top of the pole.
3. Slot the Impinj® xSpan, onto the two latches of the bracket. Allow the Impinj® xSpan to hang from the bracket.
4. Remove the alarm controller and set it aside.

Figure 27: Attaching the Impinj® xSpan to the latches of the mounting plate



5. Route the buzzer and LED connectors through the mounting plate hole.
6. Route the Ethernet patch cable through the mounting plate hole and plug it into the Impinj® xSpan Ethernet port.

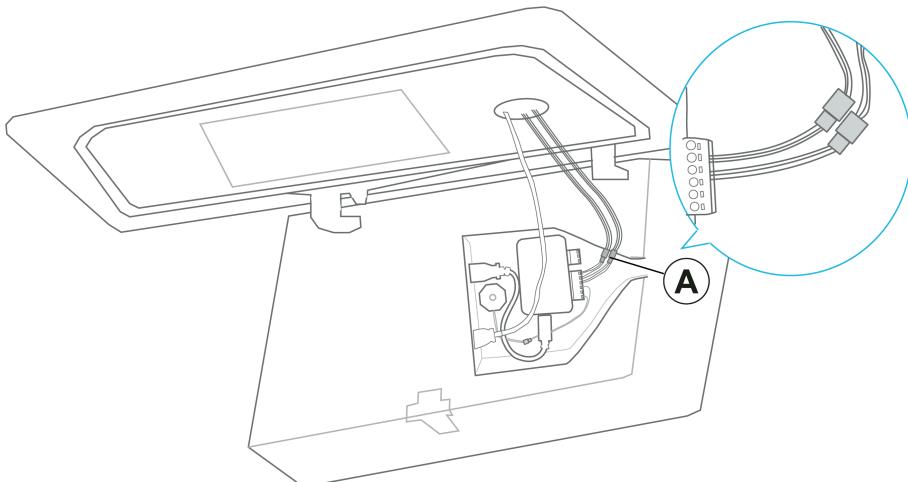
Figure 28: Connecting the Ethernet patch cable to the Impinj® xSpan Ethernet port



Callout	Component	Callout	Component
A	Mounting plate hole	B	Ethernet patch cable

7. Re-attach the alarm controller inside the Impinj® xSpan cavity using the velcro.
8. Connect the LED JST connectors to the acrylic light ring connectors.

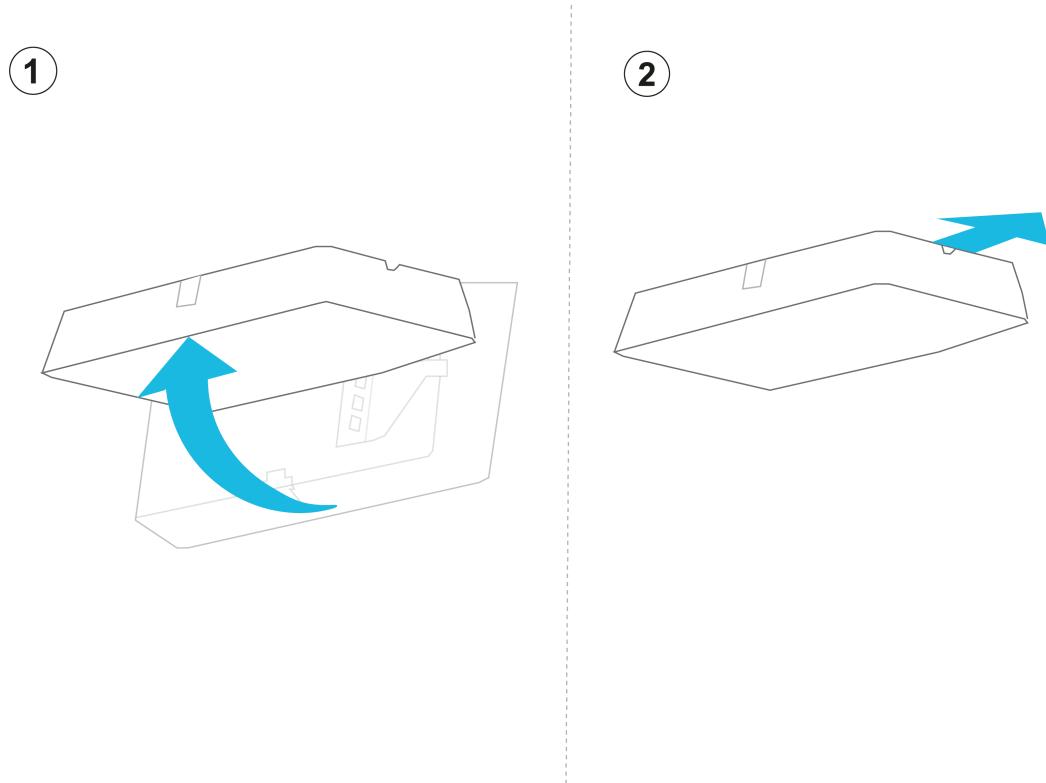
Figure 29: Connecting the LED JST connectors to the acrylic light ring connectors



Callout	Component
A	LED JST connection

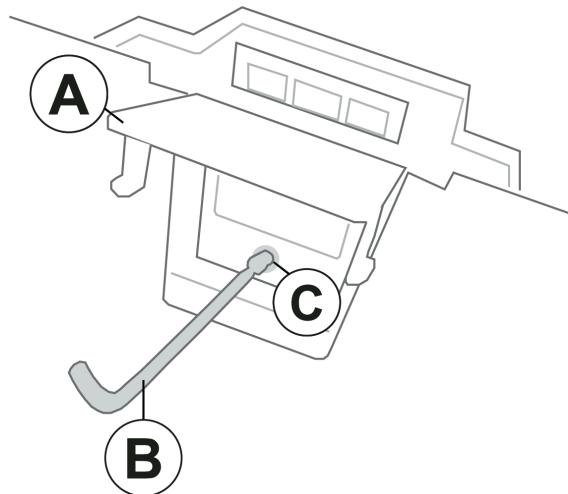
9. Connect the buzzer JST connector to the buzzer cable.
10. Rotate the Impinj® xSpan into the bracket.
11. Slide the unit forward until the latch clicks into place.
12. Close the latch cover.

Figure 30: Rotating and locking the Impinj® xSpan in place



13. Secure the protective set screw onto the latch of the Impinj® xSpan using the T-15 wrench.

Figure 31: Securing the protective screw onto the Impinj® xSpan latch



Callout	Component
A	Impinj® xSpan latch
B	T-15 wrench
C	Protective set screw

Configuring and verifying the system components

Contact Professional Services and technical support, for assistance with configuring and verifying system components.

Automated validation test - RFID as EAS

About this task:

If you are using a solution with a light ring, complete the automated validation test.

1. Ensure that the **Alarm Module** and **Self-Test** option is enabled in the simple setup.
2. Locate a test tag board, and place the board inside the store. Ensure that it is outside the keep-out zone.
 - ① **Note:** Ensure that you are 10 ft (3 m) past the system.
3. Hold the test tag board at waist height, in front of your body.

Figure 32: Walk through validation test



4. Walk out through the three lanes left, middle and right exits, while adhering to the following guidelines:
 - a. Ensure that you walk at normal walking speed.
 - b. Ensure that you are far outside the keep-out zone when you start walking through the system.
 - c. Wait for 15 seconds for the test results.
 - d. Pause for 30 to 40 seconds to allow the tags to power off after returning inside the store.

① **Note:** You can use the same tag board for each walk through test but it is optimal to use separate tag boards.
5. Check the result indicators on the light ring, the following colors indicate the status of the system:
 - Green: successful tag read test
 - Yellow: marginal tag read test
 - Red: failed tag read test

6. Complete steps 1 through 5 three times once walking to the left, middle and right of the Impinj® xSpan.
 - ① Note:** Always exit through a different zone to the zone being tested and cover the tag test board.
 7. **Optional:** If you are using a DRA, verify that the DRA sounds an alarm.
 8. Verify that the buzzer sounds an alarm.
 9. **Optional:** If the system reports to TrueVUE, check that the alarm occurrence appears in the exit or loss reports.
- ① Note:** The event may take a number of minutes to be displayed.

Result

After the self-test is complete, the regular alarm pattern occurs followed by different visual alarms, based on the number of tags read during the self-test. For information see, the following table.

Table 20: Impinj® xSpan LED definitions

LED colors	Definition
Solid green	If the tag read is between 90% and 100%.
Solid yellow	If the tag read is between 70% and 90%.
Flashing red	If the tag read is between 50% and 70%.
Solid red	If the tag read is less than 50%, this indicates that the self-test is invalid.

Non-alarming validation test

About this task:

If you are using an inventory with no alarming setup, complete the non-alarming validation test.

1. Locate a test tag board, and place the board inside the store. Ensure that it is outside the keep-out zone.
 - ① Note:** Ensure that you are 10 ft (3 m) past the system.
 - ① Note:** This process needs to be completed for each Impinj® xSpan reader in a system.
2. Hold the test tag board at waist height, in front of your body.
3. Walk out through the three lanes left, middle and right exits, while adhering to the following guidelines:
 - a. Ensure that you walk at normal walking speed.
 - b. Ensure that you are far outside the keep-out zone when you start walking through the system.
 - ① Note:** You can use the same tag board for each walk through test but it is optimal to use separate tag boards.
4. Wait for 15 seconds.
5. Press **Pause**.
6. Take a screen shot of the following dashboards:
 - Graph Series dashboard
 - RFID Movements dashboard
 - Multicast Messages dashboard
 - Tags in View dashboard
7. Provide the screen shots to the PSDG group for more information.

- Verify that the data has been reported to TrueVUE in exit or loss reports.

Figure 33: The Graph Series dashboard

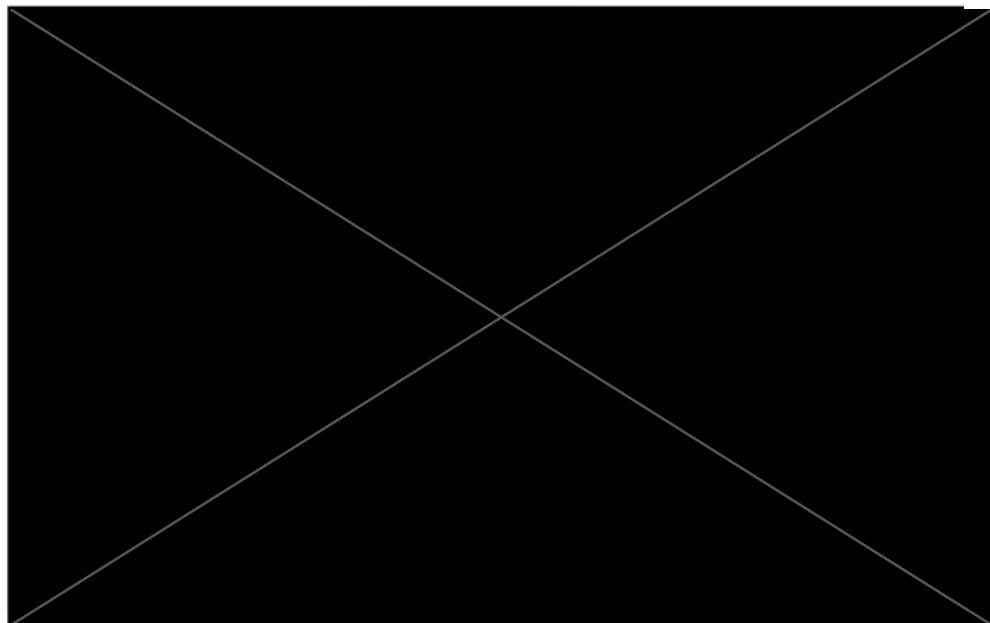


Figure 34: The RFID Movements dashboard

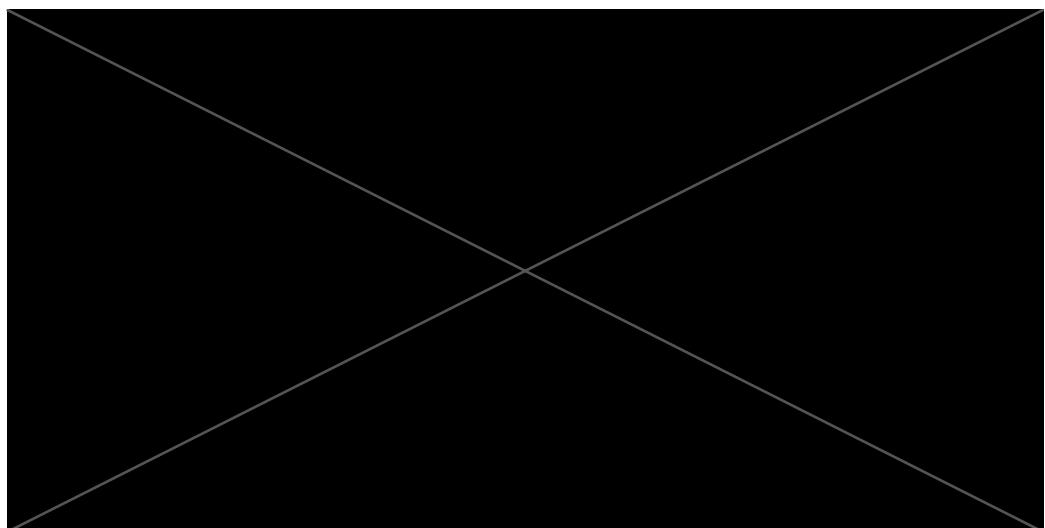


Figure 35: The Multicast Messages dashboard

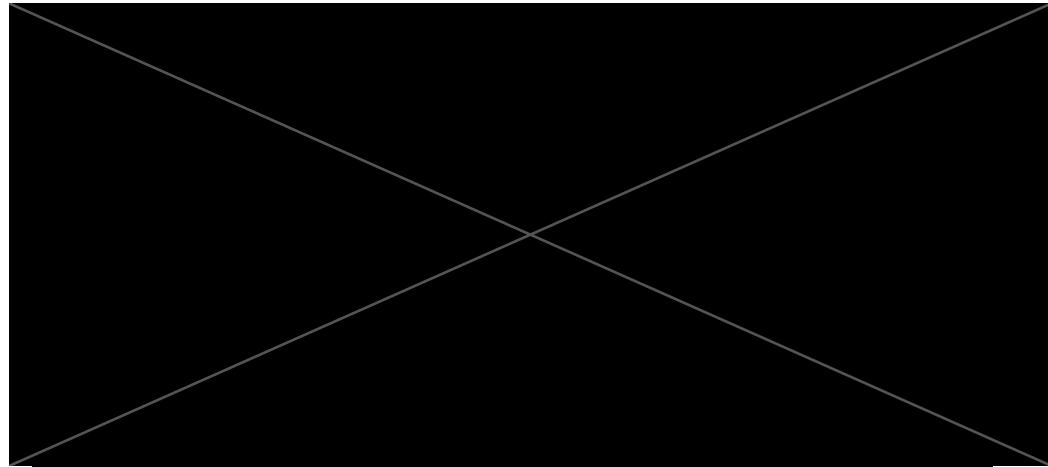
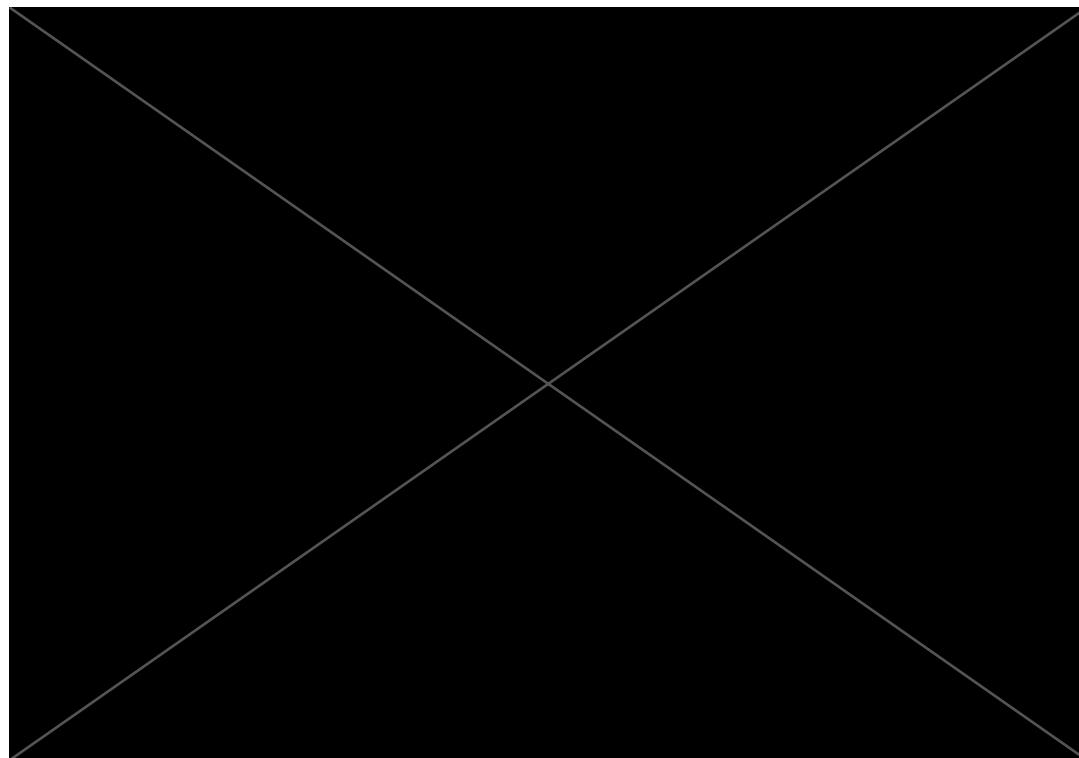


Figure 36: The Tag in View dashboard



Troubleshooting

Use the following troubleshooting procedures to analyze and resolve issues with the Sensormatic RFID Overhead 360° System.

IP Issues

Condition: The system web pages do not launch consistently, or there is an intermittent TrueVUE connection.

Cause: This can indicate an IP conflict between two or more devices on the same network.

Solution: To troubleshoot IP conflicts, complete the following steps:

1. Open the command window on the local computer.
 2. To display the arp table, enter  
 3. For Sensormatic devices, verify that the Sensormatic MAC address in the arp table starts with  If it does not, the device you are trying to connect to is not a Sensormatic device.
 4. For the Impinj® xSpan, verify that the MAC address in the arp table starts with  If it does not, the device you are trying to connect to is not an Impinj® device.
-  **Note:** If the arp command is disabled, contact the Remote Diagnostics Center (RDC) for further troubleshooting steps.

False alarms

Condition: Too many alarms or false alarms occur.

Solution: To troubleshoot this issue, check the following criteria:

1. Verify that there are no environmental concerns in the vicinity of the Impinj® xSpan. For example, the presence of reflections, metal, or water.
2. Check for stray tags. Stray tags can lead to invalid directionality decisions. Invalid directionality is also referred to as bouncing or pull-through. This can cause false alarms when people leave the store.

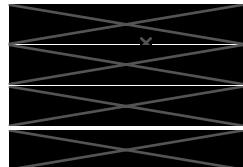
Specifications

For the necessary specifications and requirements for each component in the Sensormatic RFID Overhead 360° System, consult the following sections.

Impinj® xSpan specifications

Table 21: Impinj® xSpan with the alarm controller attached

Height
Length
Width
Weight



For specification information on the Impinj® xSpan, refer to the [REDACTED]

AMC-1060 Digital Remote Alarm specifications

For specification information on the [REDACTED] Digital Remote Alarm, refer to the [REDACTED]

Declarations

For the necessary regulatory information for each component in the Sensormatic RFID Overhead 360° System, consult the following sections.

Alarm controller declarations

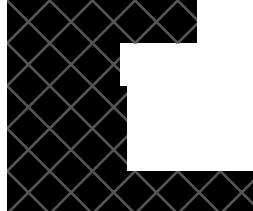
Table 22: Regulatory model

Regulatory model ID



Table 23: Regulatory compliance

EMC



Safety

FCC COMPLIANCE: This device complies with Part 15 of the FCC Rules and Industry Canada's ICES-003. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

EQUIPMENT MODIFICATION CAUTION: Equipment changes or modifications not expressly approved by Sensormatic Electronics, LLC, the party responsible for FCC compliance, could void the user's authority to operate the equipment and could create a hazardous condition.

Other declarations

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