



SensiWatch®  
Gateway and Remote Sensors  
Installation Guide

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## **Document Purpose**

This guide outlines the hardware installation and software setup process for SensiWatch Gateway and SensiWatch Remote Sensor devices. Depending on the facility, different individuals may handle the software and hardware components of the installation. Although the overall process is similar, variations in brands and configurations of refrigeration units should be considered.

## Gateway and Remote Sensor Devices Overview

SensiWatch® Gateway and SensiWatch Remote Sensor devices are provisioned for and associated with Distribution Center (DC)-to-Store programs managed on SensiWatch® Platform.

Route tracking and quality assurance begins with monitoring devices that capture and transmit Asset environment (zone) and location data to SensiWatch Platform. This process (the Outbound Solution) uses two hardware devices that provide firmware, extended battery life, frequent reporting intervals, and location accuracy required for real-time monitoring of DC-to-Store routes.



Image showing communication flow between SensiWatch Gateway and Remote Sensor devices and SensiWatch Platform for cab/trailer installation.



- Serves as a wireless routing device for data.
- Transmits location data (originated from the Gateway device) and Remote Sensor devices
- to SensiWatch® Platform.



- Communicates sensor data to SensiWatch Platform through the gateway.
- One remote sensor per Asset Zone.
- Transmits sensor data through any available gateway that is in range.

## Prepare for SensiWatch Gateway and Remote Sensor Devices Installation

This section outlines the required steps to prepare for installation of SensiWatch Gateway and Remote Sensor devices:

1. Confirm Receipt of Items in Installation Kit.
2. Scan and Assign Gateway and Remote Sensor Devices.
3. Start Gateway and Remote Sensor Devices.
4. Verify Device Communication with SensiWatch Platform.

### Confirm Receipt of Items in Installation Kit

When you receive your installation kit from Sensitech, it is important to first confirm you have received all items needed to successfully complete the installation. If you are missing any of the parts listed below, please contact Sensitech Client Services (refer Contact information page).

Item Description	Item Picture
1 Gateway device	 A rectangular, silver-colored SensiWatch Gateway device with a red top section. The top section contains the text "SensiWatch GATEWAY". Below this, there are three status indicators: a Wi-Fi icon labeled "Internet is connected", a USB icon labeled "SensiWatch is connected", and a power icon labeled "On/Off". A red circular "START" button is located in the center. At the bottom right, there is contact information for Sensitech Inc.
2 Remote Sensor devices	 Two identical rectangular, silver-colored SensiWatch Remote Sensor devices. Each device has a red top section with the text "SensiWatch REMOTE SENSOR". A red circular "START" button is located in the center. At the bottom right, there is contact information for Sensitech Inc.

*SensiWatch® Gateway and Remote Sensor Installation Guide*

Gateway device power cable – for connection to the power supply.



Gateway device Mounting Bracket with industrial 3M™ VHB™ tape on back.



2 nuts and 2 bolts for securing Gateway device to the mounting bracket.



## SensiWatch® Gateway and Remote Sensor Installation Guide

<p>2 clear bags with for Sensor installation:</p> <ul style="list-style-type: none"><li>• Wipe</li><li>• Metal Zip tie (for the Remote Sensor devices)</li><li>• Remote Sensor mounting bracket</li></ul>	
<p>Optional Metal Hanger Strap (for attaching Gateway device to refrigeration unit)</p>	
<p>Spade and Ring Terminals for connecting to wires of the power cable.</p>	
<p>2 screws for attaching Gateway mounting bracket to the trailer (if permitted by your company).</p>	
<p>Cable Zip ties</p>	

## Scan and Assign Gateway and Remote Sensor Devices

Use the SensiWatch Platform App to scan and assign the Gateway and Remote Sensor devices.

Gateway and Remote Sensors need to be assigned to an **Asset**. In addition, Remote Sensors need to be assigned to specific areas within the Asset, called a **Zone**. Example of a Zone can be Refrigerated or Frozen.

Note: The Asset feature in SensiWatch Platform is used for Outbound programs with Gateway and Remote Sensors. It allows users to identify the location of in-transit or stationary assets (trailers) in near real-time.

### Step 1: Add an Asset to the SensiWatch Platform App

1. Open the SensiWatch Platform App on your mobile device. If you do not have this application, you will need download and install it from your device app store.



2. Choose a program, if not already selected.

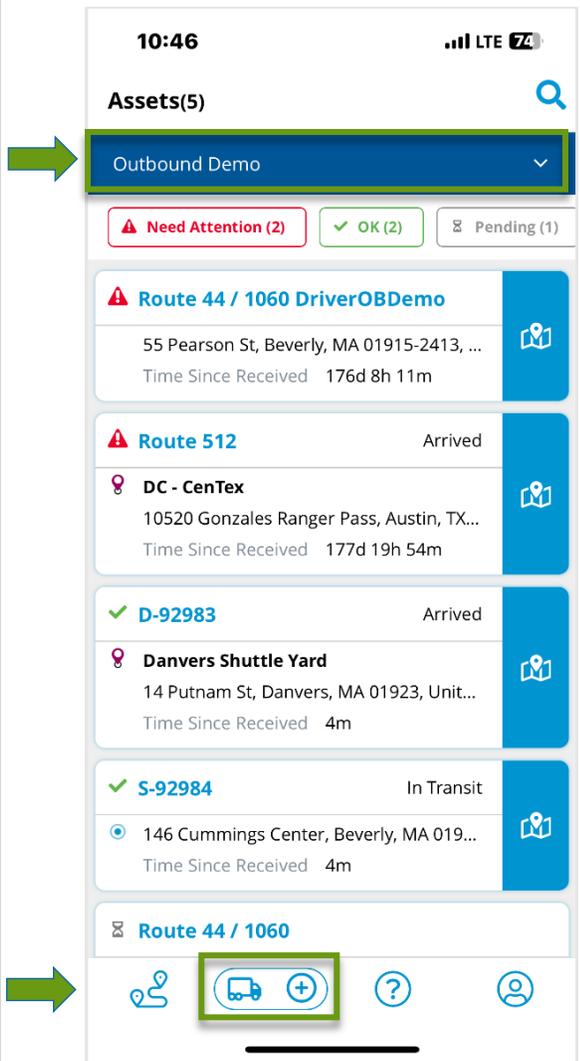
3. At the bottom of the screen, tap the Asset icon.



4. Choose an existing Asset, if available, or tap the plus icon to create a new Asset. 

5. If you are creating a new Asset, name the Asset and then tap the Asset to assign it to an Asset Group.

*It is best practice to use the Asset ID or Vehicle ID number.*



## SensiWatch® Gateway and Remote Sensor Installation Guide

6. Select an Asset Group and then tap Save.

Once an Asset is created in the SensiWatch Platform App, you will need to assign the Gateway device to the Asset.

10:47 LTE 74%

< Add Asset

trailer2

**Site**

NEDC - Delivery ✓

Centex

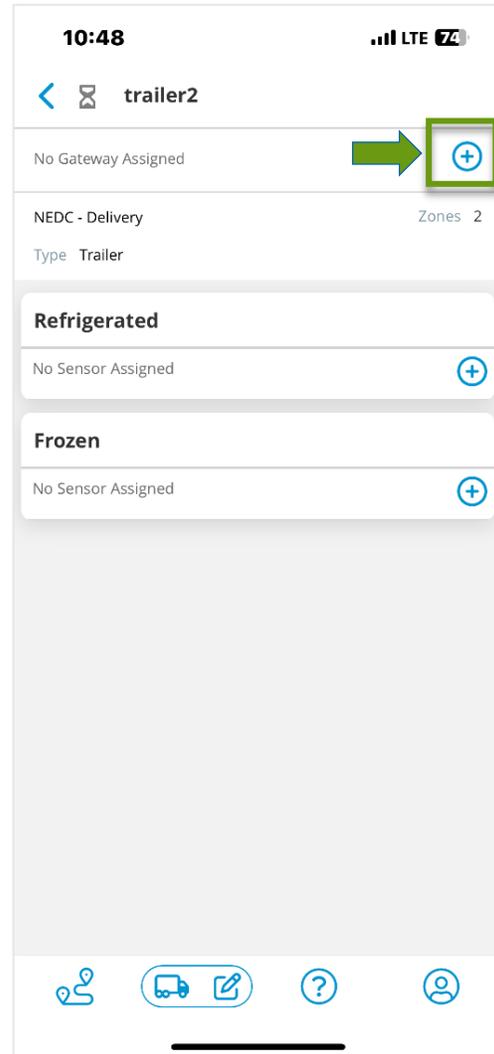
NEDC - Stationary Container

North Shore (NS)

Cancel Save

## Step 2: Add Gateway Device to an Asset in SensiWatch Platform

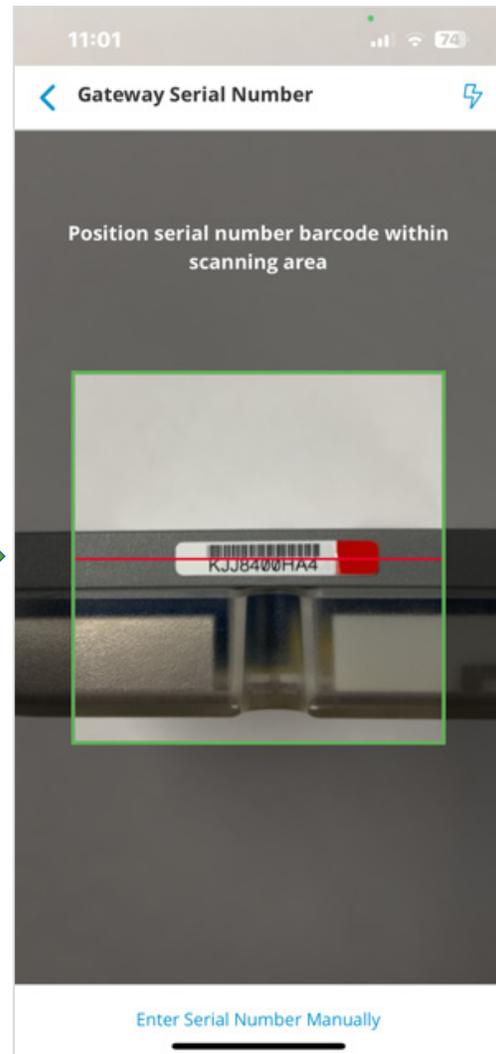
1. Tap the plus icon to add the Gateway device to the Asset.



## *SensiWatch® Gateway and Remote Sensor Installation Guide*

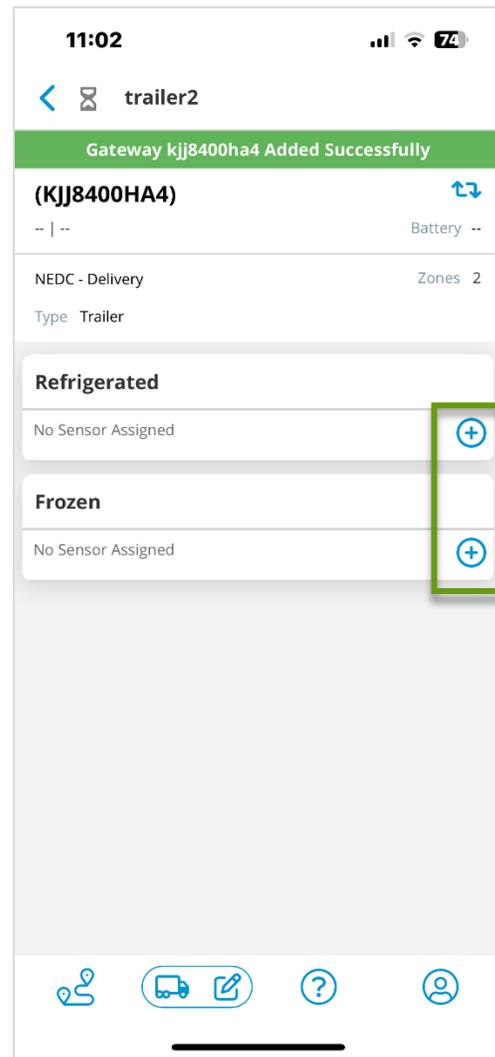
2. Scan the serial number barcode (located on the top of the Gateway device).

The SensiWatch Platform App will confirm that the Gateway device has been added. You can now add the Remote Sensor devices.



### Step 3: Add Remote Sensor Devices to Zones in SensiWatch Platform

1. Tap the plus icon to add a Remote Sensor device to a specific zone. In some instances, you may only have Refrigerated or Frozen zones.



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2. Scan the serial number barcode (located on the side of a Sensor). Once the device is added, the App will confirm.



3. Repeat scanning process for additional Sensors.

Mark each Sensor to identify which zone it has been assigned to (suggestion: "R" – for Refrigerated zone and "F" – for Frozen zone). Write the trailer number on each installation kit box, Gateway device, and Sensor devices assigned to a specific trailer. This helps to avoid confusion during the physical installation process.

## Start Gateway and Remote Sensor Devices

Once you have added devices to SensiWatch Platform, start the Gateway and then the Remote Sensor devices to verify they are communicating properly with each other.

### Step 1: Start Gateway Device

Firmly press and hold the START button for 3 seconds to start the Gateway device. The Gateway device has LED lights that indicate its status.

All three LED lights should be on or blinking.



#### Internet is connected LED

- Blinking **BLUE** = Connecting to Internet
- Solid **GREEN** = Connected

#### Sensors are connected LED

- Blinking **BLUE** = Connecting to Remote Sensor device
- Solid **GREEN** = Connected

#### On/Off LED

- Solid **GREEN** = Battery is fully charged
- Blinking **GREEN** = Battery is charging
- Blinking **RED** = Battery is low and needs to be charged, or charging error
- No lights = Battery is depleted and needs to be charged
- Two **BLUE** blinks = Gateway device is OFF and needs to be started



## Step 2: Start Remote Sensor Devices

Next, you will need to start the Remote Sensors to ensure they are operating properly.

To start, firmly press and hold the START button for at least 1 second.



You will see 4 **BLUE** blinks when the device is starting up.

After starting the device, there will be no LED lights. All subsequent presses of the START button will provide sensor status.

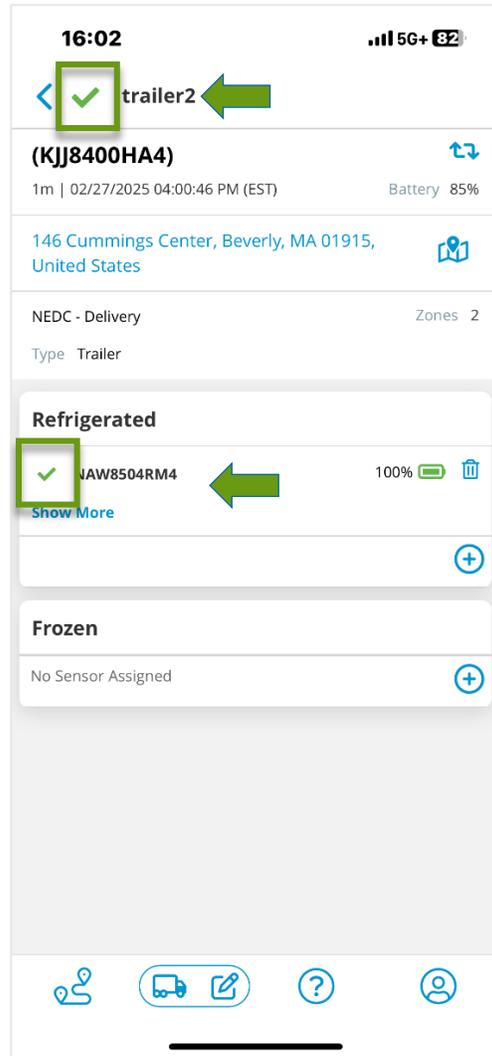


## Verify Device Communication with SensiWatch Platform

1. Open the SensiWatch App on your mobile device. If you do not have this application, you will need download and install it from your device app store.



2. SensiWatch Platform will display the check mark icon next to the devices it can communicate with.



## Install Gateway Device

Once the devices are scanned and assigned in SensiWatch Platform, have been started, and verified as communicating properly with each other and SensiWatch Platform, it is time to mount the Gateway and Remote Sensor devices.

### Installation on Trailer with Refrigeration Unit

Install the Gateway device mounting bracket on the outside of the trailer below the refrigeration unit. The exact position may vary based on refrigeration unit model, accessories, or other obstructions.

Once the Gateway device is mounted and connected to the refrigeration unit's power supply, battery charging only occurs when the Gateway device is connected to the refrigeration unit and the refrigeration unit is powered on.

The Gateway device needs to be placed on a mounting bracket. The mounting bracket requires a safety strap in addition to industrial 3M™ VHB™ tape to secure it to the trailer. It is very important that the trailer be clean and free from any debris for the industrial tape so that it bonds correctly to the surface.

3M™ recommends cleaning surface where tape will be adhered with 50/50 mix of isopropyl alcohol and water. Surface temperature must be between 60°F and 100°F for the VHB™ Tape to bond correctly.

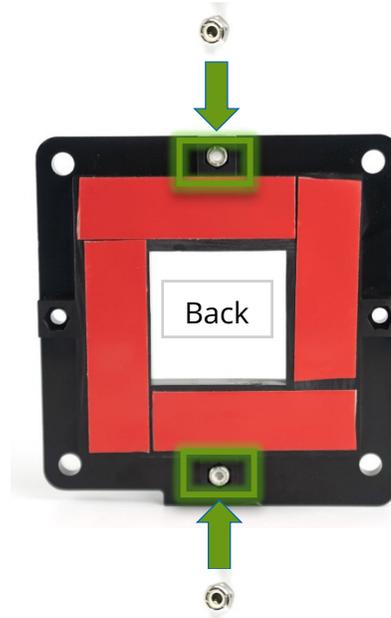


Image of Gateway device attached to lower part of refrigeration unit.

## Step 1: Attach Mounting Bracket to Trailer

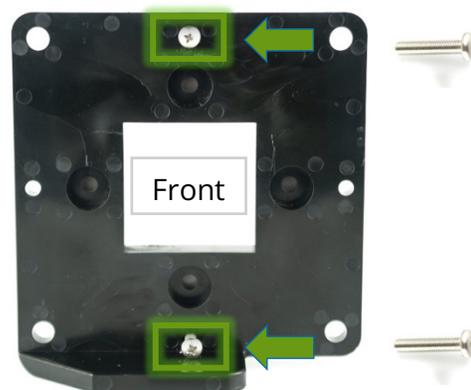
1. From the back of the mounting bracket, place a locking nut into the top and bottom center holes. A small piece of tape is helpful to hold the nuts in place temporarily.

The bolts provided are designed for an exact fit. Make sure that the nuts fit the opening in the back of the mounting bracket.



2. Use your hand or a screwdriver to screw in the bolts into the nuts, leaving them loose for now. They will be removed later prior to attaching Gateway device to the mounting bracket.

**Do not** tighten bolts at this time.



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3. Locate a spot on the outside of the trailer where you will attach the mounting bracket.

The location for the Gateway device mounting bracket needs to allow for easy tethering with optional metal hanger strap.



4. Thoroughly clean the surface of the trailer then wipe it dry with a towel to prepare it for the device mounting bracket.

Trailer surface and the surrounding temperature must be between 60°F and 100°F to ensure the industrial 3M™ VHB™ tape bonds correctly.

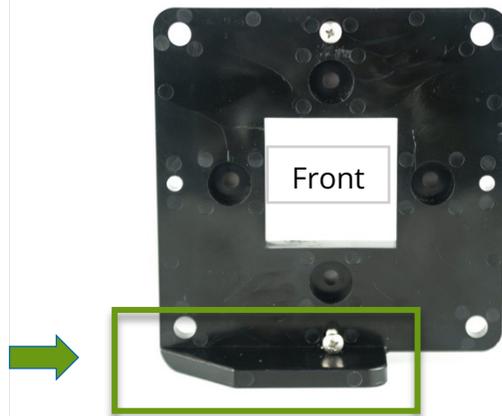


5. From the back mounting bracket, remove the backing from the industrial tape.



## SensiWatch® Gateway and Remote Sensor Installation Guide

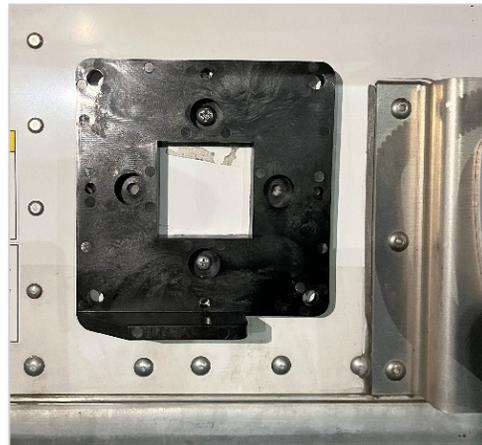
6. Position the mounting bracket so that the shelf is at the bottom. This shelf will provide additional support to the Gateway device.



7. Press the mounting bracket firmly against the trailer and hold for 30 seconds to ensure proper adhesion.

If your company's policy allows it, use the screws to secure the mounting bracket onto the trailer.

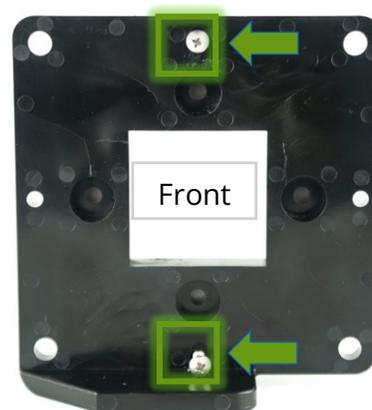
After adhering the tape to the trailer, maintain the 60°F to 100°F temperature environment for at least an hour to allow for proper bonding time.



8. Attach the power cable to the bottom of the Gateway device and **hand tighten** the threaded locking ring of the power cable to the Gateway device power connector.



9. Remove the 2 bolts from the top and the bottom holes of the bracket. The locking nut should be secured between the bracket and the unit surface.



## Step 2: Attach Gateway Device to Mounting Bracket

### **With Optional Metal Hanger Strap:**

Attach the metal hanger strap **only** if you did not secure the mounting bracket onto the trailer with screws.



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1. **(Optional)** Measure and cut a length of metal hanger strap to size.
2. **(Optional)** Attach one end of the metal hanger strap to an existing bolt on the trailer and the other end to the top bolt, which attaches the Gateway to the mounting bracket.
3. **(Optional)** Holding the metal hanger strap in place, attach the Gateway device to the mounting bracket. The metal hanger strap must be positioned in between the Gateway device and the mounting bracket.
4. **(Optional)** Use a screwdriver to screw the bolts tightly into the nuts in both top and bottom holes of the Gateway device.



### ***Without optional metal hanger strap:***

If you are not using the metal hanger strap, attach the Gateway device directly to the mounting bracket.

Use a screwdriver to tighten bolts into the nuts on both top and bottom holes of the Gateway device.



### Step 3: Connect Gateway Device to Refrigeration Unit Power

After the Gateway device/mounting bracket is securely attached to the trailer, you need to ensure that the Gateway device power is connected properly to the refrigeration unit's fuse panel.

The Gateway device has an internal, rechargeable lithium-ion battery. Use an in-line 2 Amp fuse between the Gateway power supply cable and within 2 inches of the refrigeration unit's power control module connection point, in a slot that only provides power when the key is on, or the engine is running. If the trailer will operate outside of recommended temperatures (0°C/32°F to 45°C/113°F) for extended periods of time, connect to a slot that provides constant 12V charge to the Gateway battery. This ensures that the Gateway operates properly.

1. Route the power cable to and into the fuse panel located behind the side panel of the refrigeration unit.
2. Use cable zip ties to secure. If needed, use flexible conduit to protect the cable.
3. Trim wires to the correct length inside the fuse panel.



4. Connect a ring terminal to the ground wire of the power cable. Protect with shrink wrap. The ground wire is black.



Fuse add-on block



5. Connect an in-line 2A fuse to the positive wire of the power cable, such that the fuse is within 2 inches of the end of the wire.

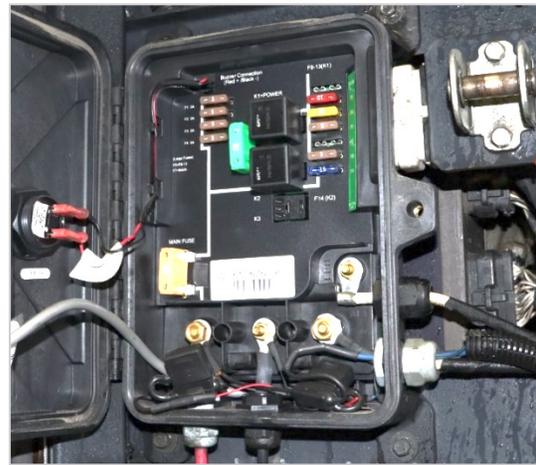
The positive wire is black with a white stripe or red.

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6. Connect a spade terminal to the positive wire of the power cable. Protect with shrink wrap.

**Do not** force an electrical connector into a fuse port. If needed use a fuse add-on block like the example shown here.

7. Connect the ground wire to grounding stud of the box.

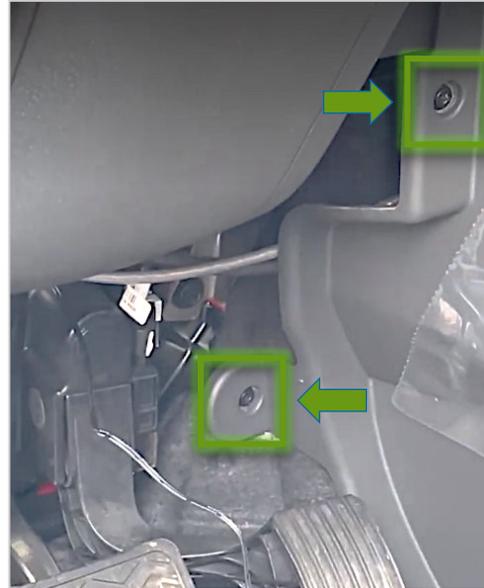


## Installation on Box Truck

Install the Gateway Device behind the center console of the box truck. The exact position may vary based on truck model, accessories, or other obstructions.

### Step 1: Install Gateway Device Inside Box Truck

1. Access the back of the console by removing screws holding it in place. It does not need to be fully removed, just loosened enough to access the space behind it.



2. Attach the power cable to the bottom of the Gateway. Hand-tighten the threaded locking ring of the power cable to the Gateway power connector.



3. Place the Gateway device in the open space on right side, below accessory power outlets.



DO NOT replace the center console until after checking the Gateway device status

## Step 2: Connect Gateway Device to the Box Truck Power

1. Route the power cable to and into the fuse panel located on the firewall on the driver side of the engine compartment. There is an existing hole in the firewall leading into the cab.



Hole in firewall  
to left of fuse panel

2. Secure power cable in engine compartment and under dash with cable zip ties. Use Flexible conduit to protect the cable if needed.



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3. Trim the wires to the correct length inside the fuse panel.



Box truck fuse panel example

4. Connect a ring terminal to the ground wire of the power cable. Protect with shrink wrap. The ground wire is black.
5. Connect a spade terminal to the positive wire of the power cable. Protect with shrink wrap. The positive wire is black with a white stripe or red.
6. Connect an in-line 2A fuse to the positive wire of the power cable, such that the fuse is within 2 inches of the end of the wire.

The positive wire is black with a white stripe or red.

**Do not** force an electrical connector into a fuse port. If needed use a fuse add-on block like the example shown here.



Fuse add-on block

### Step 3: Check Gateway Device Status

Once the power supply is connected, with the Gateway device started, turn on the truck to test that the Gateway is receiving power.

All three LEDs should be on, with a **GREEN** LED (blinking or solid) next to the **on/off** indicator. This confirms the Gateway is on and receiving power.

If you see a blinking **BLUE** LED refer to the above instructions to start the Gateway.

After confirming the Gateway is receiving power, turn off the truck and confirm the lights on the Gateway have turned off 5 to 10 seconds. If not, go back and confirm that the power is connected to a slot that is only powered when the truck is on.

Refer to the Start Gateway and Remote Sensor Devices section on page 15 for more information about LED lights on the Gateway device.



## Install Remote Sensor Devices



Each Gateway device comes with 2 Remote Sensor devices for refrigerated and frozen zones.

Place Remote Sensor devices inside the trailer on the passenger side, close to the ceiling. Position the first remote sensor horizontally in the middle of the cooler (after the door rail) and the other remote sensor in the middle of the frozen section, as shown in the image. This ensures accurate temperature readings and reduces the risk of damage during loading and unloading.

1. Before you install Remote Sensor devices, clean the trailer wall where it will be installed with the alcohol swab. Wipe the surface with a towel after cleaning with the alcohol swab to make sure the surface is dry.



2. Adhere the self-adhesive Remote sensor mounting bracket included with kit to the trailer wall, pressing for about 30 seconds to ensure adhesion.



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- Put the Remote Sensor zip tie through the top hole of the Remote Sensor device and the Sensor mounting bracket. Leave enough slack in the zip tie for the device to move freely.



- It is strongly recommended that you create and use stickers, such as the example shown here, and place them next to the Remote Sensor devices.

**TEMPERATURE MONITORING  
IN PROGRESS  
DO NOT TOUCH OR REMOVE DEVICE**

## Additional Information

This section describes additional functions you can do with the SensiWatch Gateway and Remote Sensor devices.

### Charge a Gateway Device

If you need to charge the battery on the Gateway device, follow steps below:

1. Ensure the power cable is securely connected to the refrigeration unit and the Gateway device.

2. Ensure that the refrigeration unit is ON.

3. Verify the ON/OFF LED light is blinking **GREEN**. This indicates the battery is charging.

4. Confirm the device is fully charged. LED light becomes solid **GREEN** when the device is fully charged.

If only the power LED light is ON, this indicates that the device is charged but not started. To start it, press and hold the START button for 3 seconds to start the device.



## Reboot a Gateway Device

If the Gateway device is charged but SensiWatch Platform still indicates there is a battery issue, try rebooting the Gateway device.

3. To reboot it, press and hold the START button firmly for at least 30 seconds. You can use the stopwatch.

4. When you release the START button, the Gateway device goes through a reboot process which should take approximately 2-3 minutes.



## Check Remote Sensor Device Status

Press the START button once.



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- Single **GREEN** light blink = Device connected to Gateway device
- Single **BLUE** light blink = Device is searching for Gateway device
- Two **BLUE** light blinks = Device is not started



## Replace Remote Sensor Device

Remote Sensor devices have a limited battery life depending on use and age. When a device nears the end of its battery life it needs to be replaced to ensure the best performance. You might also need to replace devices that have gone missing.

### Step 1: Start the New Remote Sensor

Start the new Remote Sensor device to make sure that it operates properly.

Review the [Start Gateway and Remote Sensor Devices](#) section on page [15](#) to learn how to start it.



### Step 2: Update SensiWatch Platform with New Remote Sensor Device Info

Update the Asset Zone in SensiWatch Platform with new Sensor Information:

1. Open the SensiWatch Platform App on your mobile device. If you do not have this application, you will need to download it from the app store and install it.



## SensiWatch® Gateway and Remote Sensor Installation Guide

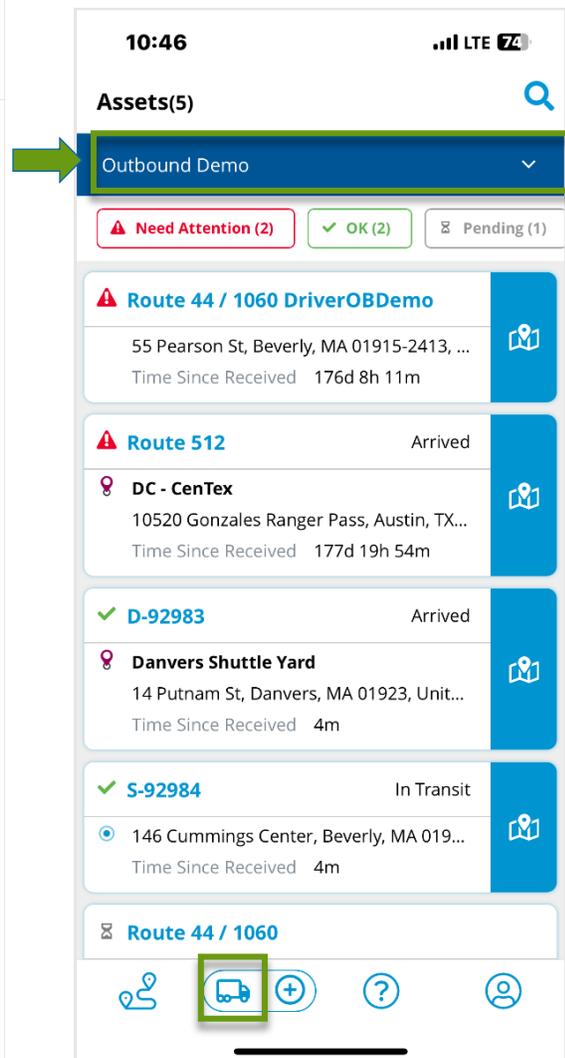
2. Choose the program if it is not already selected.

3. Open the Asset Dashboard by tapping the Asset icon at the bottom of the screen.



A list of assets displays.

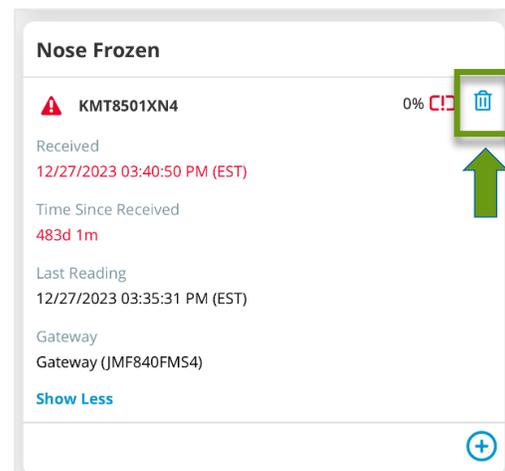
4. Use the **Need Attention** filter to locate Assets that require Remote Sensor replacement.



5. Tap the Delete Icon to delete the old Remote Sensor.



6. Then, on the next screen, tap **Yes** to confirm that you want to delete the current Sensor.



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7. Review the [Scan and Assign Gateway and Remote Sensor Devices](#) section on page 8 to add the new Remote Sensor device.

8. After you add the new Remote Sensor device, confirm that a green check mark displays next to it in the App.



This means that the new Remote Sensor is communicating with the Gateway device and SensiWatch Platform.



9. Now remove the old Remote Sensor device from the trailer and replace it with the new one. Refer to the [Install Remote Sensor Devices](#) on page 3 to see steps on how to do this.

10. Follow your company's policy on how to recycle Sensitech devices.



## Sensitech Contact Information

Request Category	Who to Contact?
<ul style="list-style-type: none"><li>To order Gateway and Remote Sensor devices, installation hardware</li></ul>	Sensitech Client Services Sensitech.clientservices@carrier.com  +1 800-843-8367 +1 978-720-2650
<ul style="list-style-type: none"><li>Monitor Evals / Post Validation</li><li>Installation / Training</li><li>Software Support</li></ul>	Sensitech Support Services Sensitech.support@carrier.com +1 800-843-8367



Tap or scan the QR code to see a high-level overview of the process outlined in this document and links to additional resources.