

# NANO

Powered by  FieldWise<sup>LLC</sup>

## NANO SOLAR

### SELF-INSTALL INSTALLATION MANUAL

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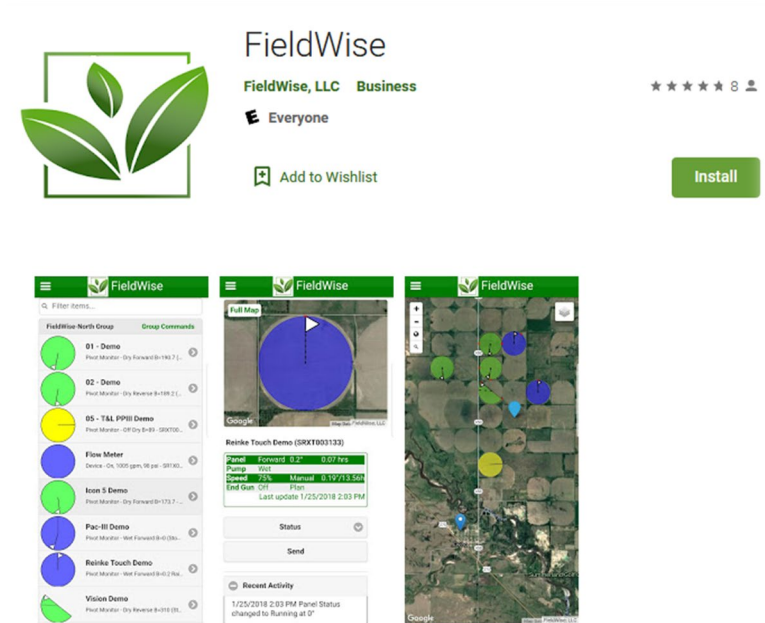
[www.field-wise.com](http://www.field-wise.com)

# Nano Set-Up




Do not install the device or peel off the label until you have it set up on the FieldWise Portal. Device should not be used on pivots that move less than 5%.

1. Download the FieldWise App from the App Store or Play Store.



FieldWise provides easy-to-use controls for center pivots, moisture probe readers, and other sensors used in farming operations. The FieldWise app provides access to your FieldWise equipment on your mobile device.

2. Log-in using FieldWise Portal using the FieldWise app or browser



## FieldWise Portal

User Id:

Password:

[Forgot Password](#)

3. Locate the device ID on the outside of the box (bottom right corner) or on the front side of the Nano enclosure. Scan the QR code with your camera next to the device ID. It will take you to the device details page.



You may also find the ID from the device list on the FieldWise Portal or through your FieldWise app.

4. If you used the QR code to scan the device you should already be at the device details page. If not, click on the device from the list. From here, go to Device Settings. Use the handheld GPS to locate the center position. Fill out the remaining pivot information.

## Pivot Monitor Settings

Handheld GPS

1 Zoom 2 Use for Center

Location Finder

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General

Device Id N100020003

Name 3 N100020003

Time Zone Central (GMT-06:00) v

Units Imperial v

System Type Pivot v

Pivot Length (ft) 4 1300

Rev. @ 100% (HH) 5 13:56

App. Rate @ 100% 6 .125

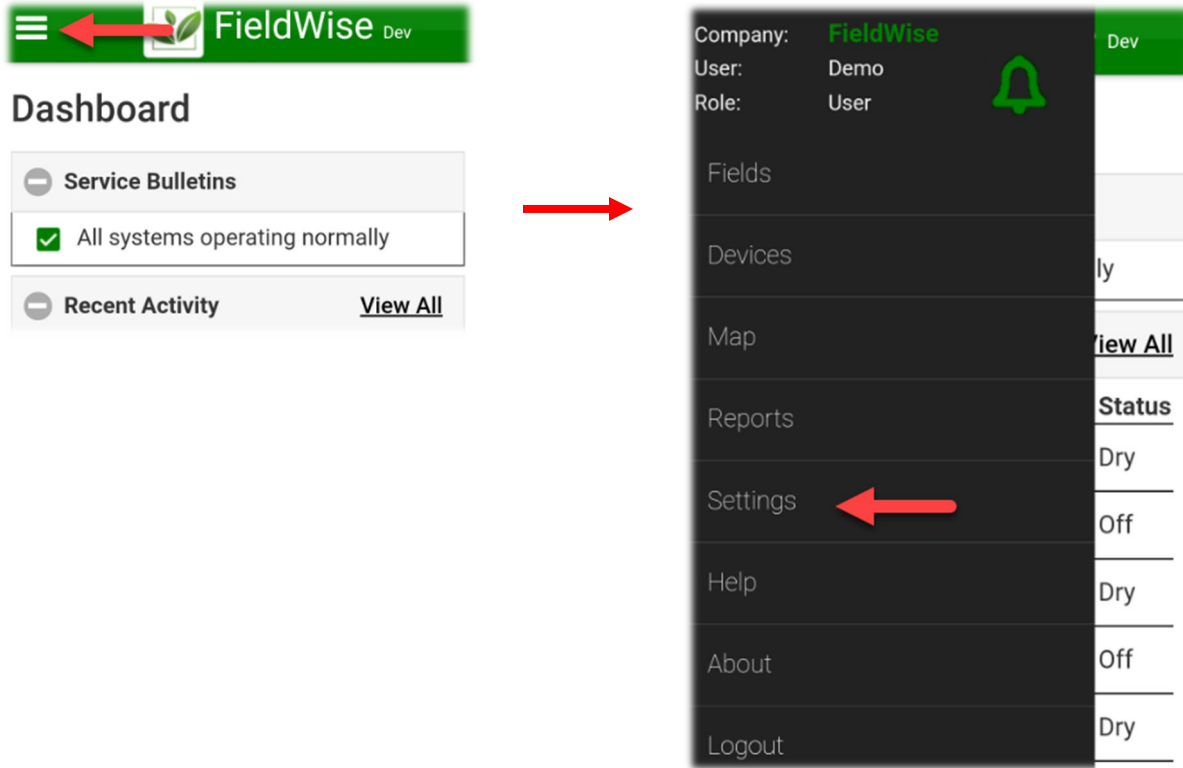
Well GPM 7 900

Irrigated Acres 8 135

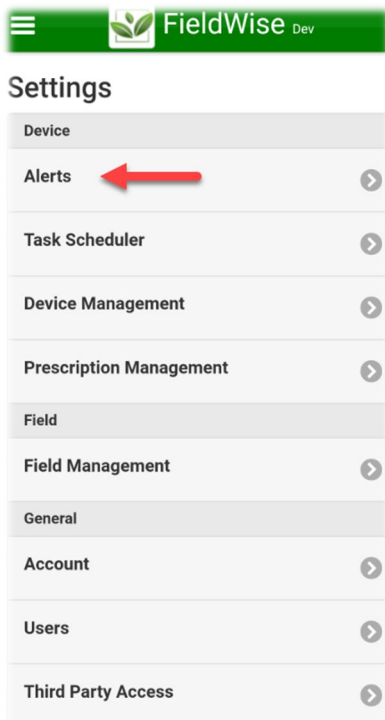
End Gun Radius (ft) 9 20

# Setting up Alerts

1. From the FieldWise Portal click menu and then select settings.



2. Select Alerts from Settings Page




3. Create New Alert: make sure everything matches each category of the alert.

### Alerts

[+ New Alert](#) [Alert Analysis...](#)

---



### Alert Details

Alert Name

Enabled  
 Yes  No

Notification Hours  
 Any Time  Custom

Devices Monitored  
 Device  Group

▼

**Nano Pivot Monitor** ▼

Action <sup>⌨</sup>  
Send Push Notification / SMS  
 On  Off

+

Notification Sound  ▼

Send Email  
 On  Off

Send Command To Device  
 On  Off

Hit update. You're now ready to install your device.



## Remove Nano and mounting bands



# Mount to the Pipe

Place the enclosure over the span cable on top of the pipe. Make sure the Nano Solar is centered and level. Run the cable ties through the outer slots in the saddle and around the pipe and tighten.

Previously metal bands were used in the center slot of the saddle to secure the Nano Solar to the pipe. To tighten the metal band, you will need a 5/16" Nut Driver or Flat screwdriver.



**DO NOT MOUNT NEXT TO A TOWER BOX OR ANYTHING THAT CAN OBSTRUCT THE GPS. THIS DEVICE IS NOT WIRED INTO THE PIVOT FOR DIRECTION MONITORING SO THIS STEP IS CRITICAL.**

Correct Way to Mount:





# Remove Cover from Solar Panel



Slowly peel away solar panel cover. Once the cover is removed, the device will power up and connect to the network. Open the FieldWise app to verify the device is online and has updated its position in the field. At the top left of the details page for the device you will see it say: Last update with the current date and time.

<b>Panel</b>	Forward	195.2°	317.37 hrs
<b>Pump</b>	Wet		On
<b>Speed</b>	40%	Manual	0.31"/34.83h
<b>End Gun</b>	On	Plan	
<b>GPS</b>	Locked		
<b>Start Reason</b>	Remote Command		
	Last update 6/25/2020 1:52 PM		



You will also need to make sure the location and bearing look correct on the map view at your details page.

# Additional Mounting Pictures

Correct Way:





Wrong Way: Do not mount next to a tower box or anything that can obstruct the view or sun throughout the day. Many solar panels do not work well with partial obstruction.



Overhang is obstructing sunlight

# Pressure Sensor

The plumbing kit must be installed if the Nano is equipped with a pressure switch or transducer. Use the kit to get access to a fresh water source on the pivot. The 1/4" tubing will connect straight to the Nano enclosure. Make sure the connector is facing down (to allow for drainage). The pressure sensor is prewired, so there is no need to open the enclosure during this process. Pressure sensors must use the FieldWise plumbing kit to secure the sensor in the enclosure. We do not provide warranty on failed installations that may use other plumbing parts.



Preinstalled with  
Pressure Switch



Preinstalled with  
Pressure Transducer

# Installing Pressure Sensors



FieldWise does not warrant improperly installed pressure sensors.

## Pressure Switch

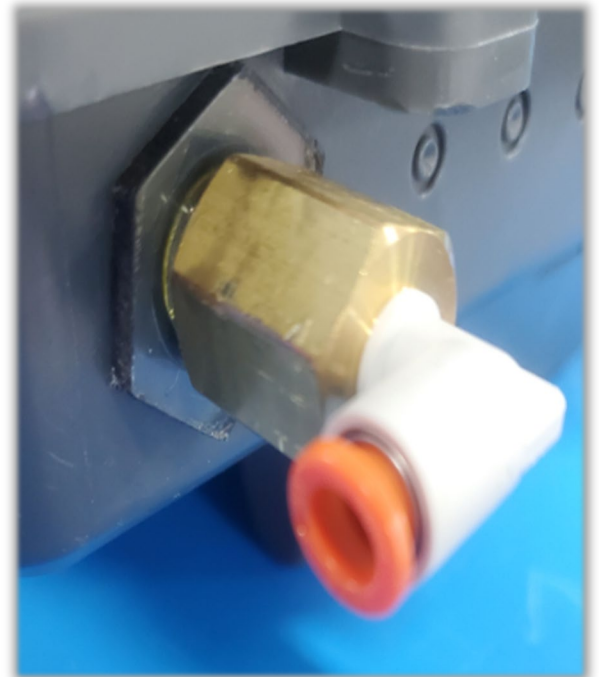
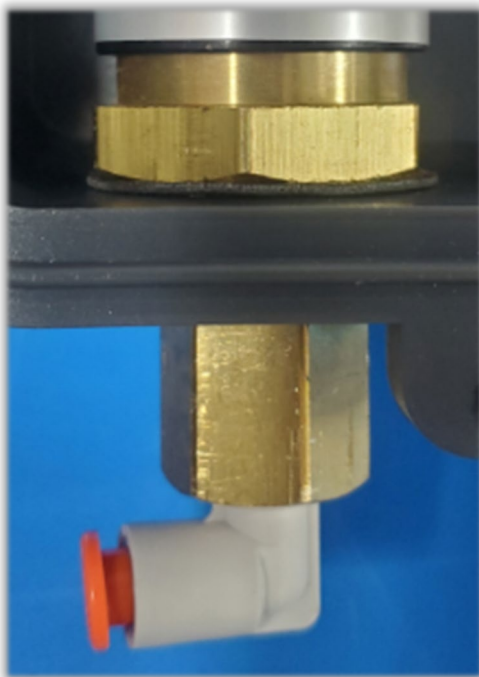
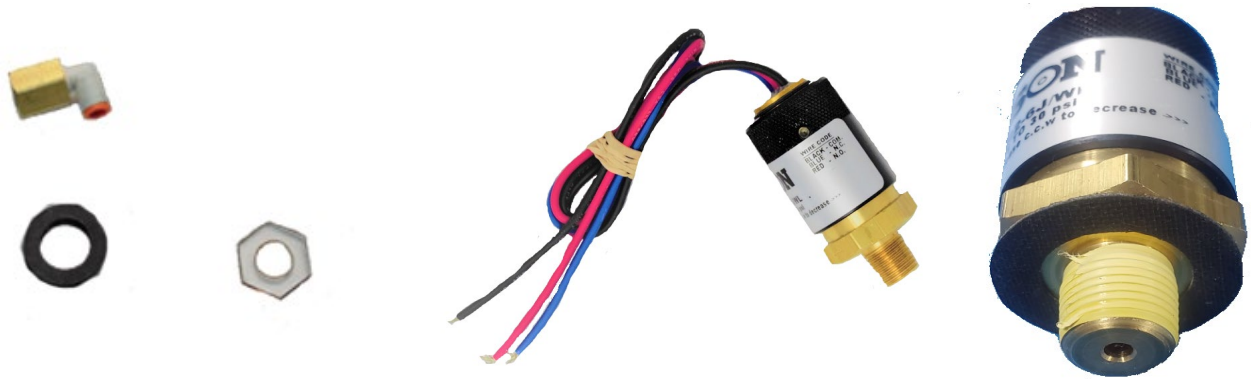
### Step 1- Drill hole

Drill hole in bottom of enclosure to exact dimensions of knockout as shown in pictures below.



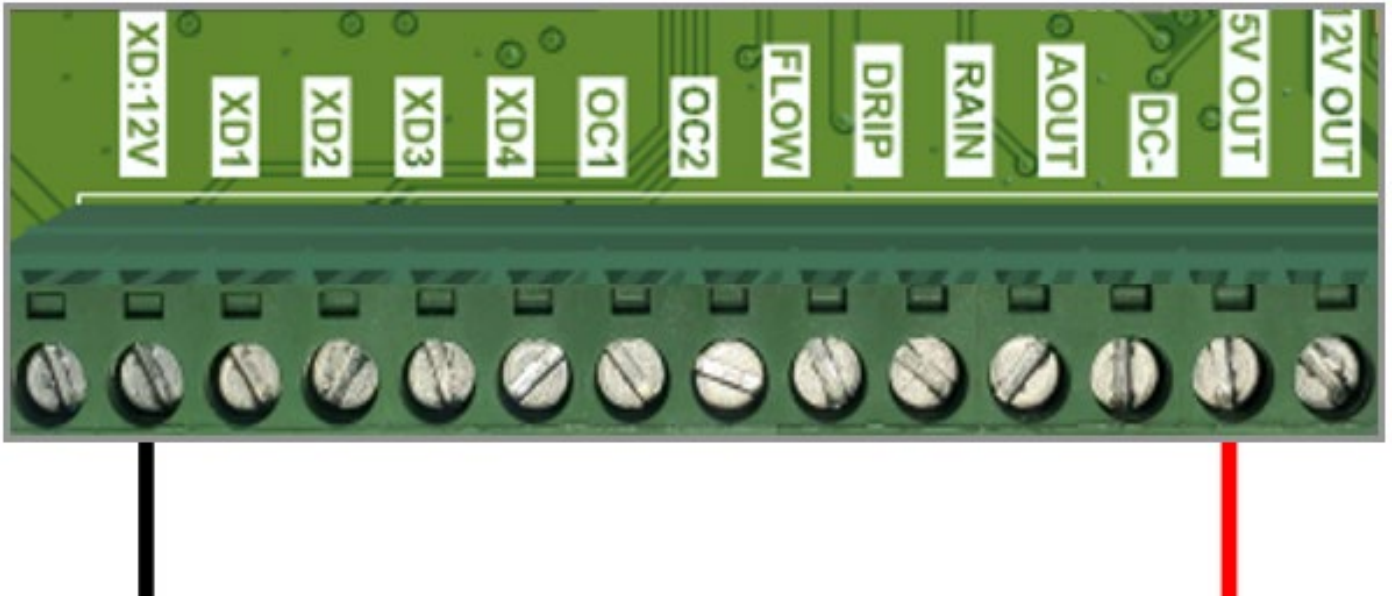
## Step 2- Install Pressure Switch

Ensure the gasket is located on the base of the pressure switch. Use PTFE film tape or thread sealant on the pressure switch threads. **FAILURE TO ADD PTFE or THREAD SEALANT CAN RESULT IN WATER GETTING INTO ENCLOSURE AND DAMAGING THE DEVICE.** Loosen the set screw on the pressure switch before mounting. This will allow the pressure switch to be adjusted once installed. Secure pressure switch using the nut provided. Tighten the nut enough to create a seal with the gasket inside the enclosure, and also so the pressure switch does not rotate.



### Step 3- Pressure Switch Wiring

Wire the pressure switch into the Nano-Core using the black and red wires. Make sure the device is powered off during this process. Secure the wires so they don't get smashed when the lid is closed.



### Pressure Switch Wiring

**BLACK: XD1**

**BLUE: Not Used**

**RED: 5V OUT**

## Pressure Transducer

### Step 1- Drill hole

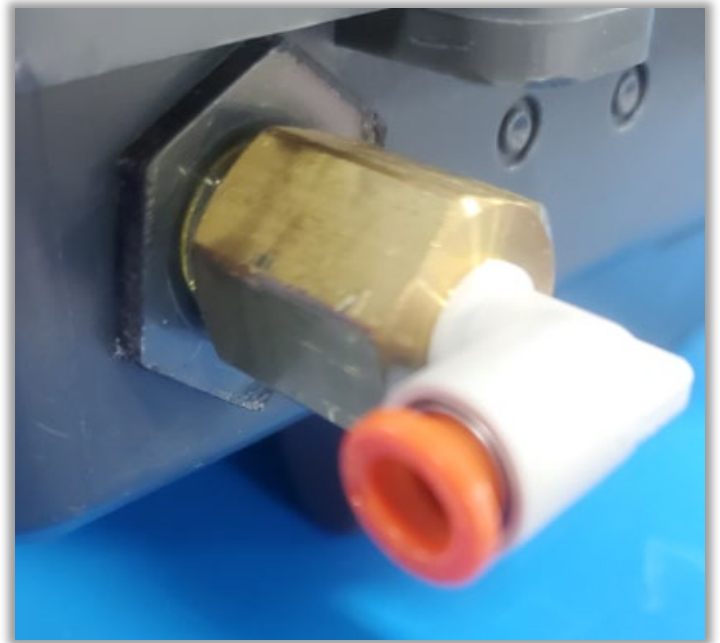
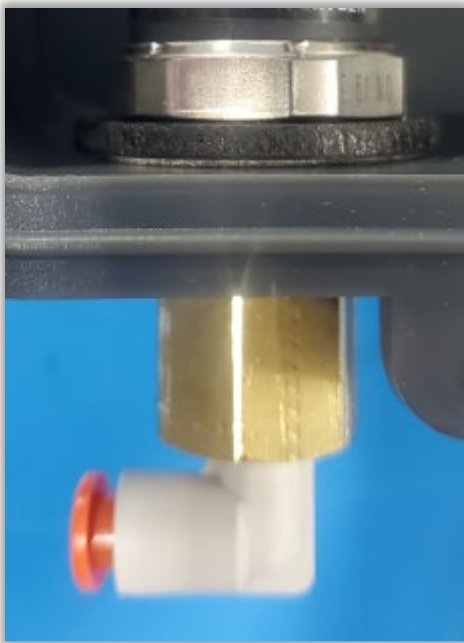
Drill hole in bottom of enclosure to exact dimensions of knockout as shown in pictures below.





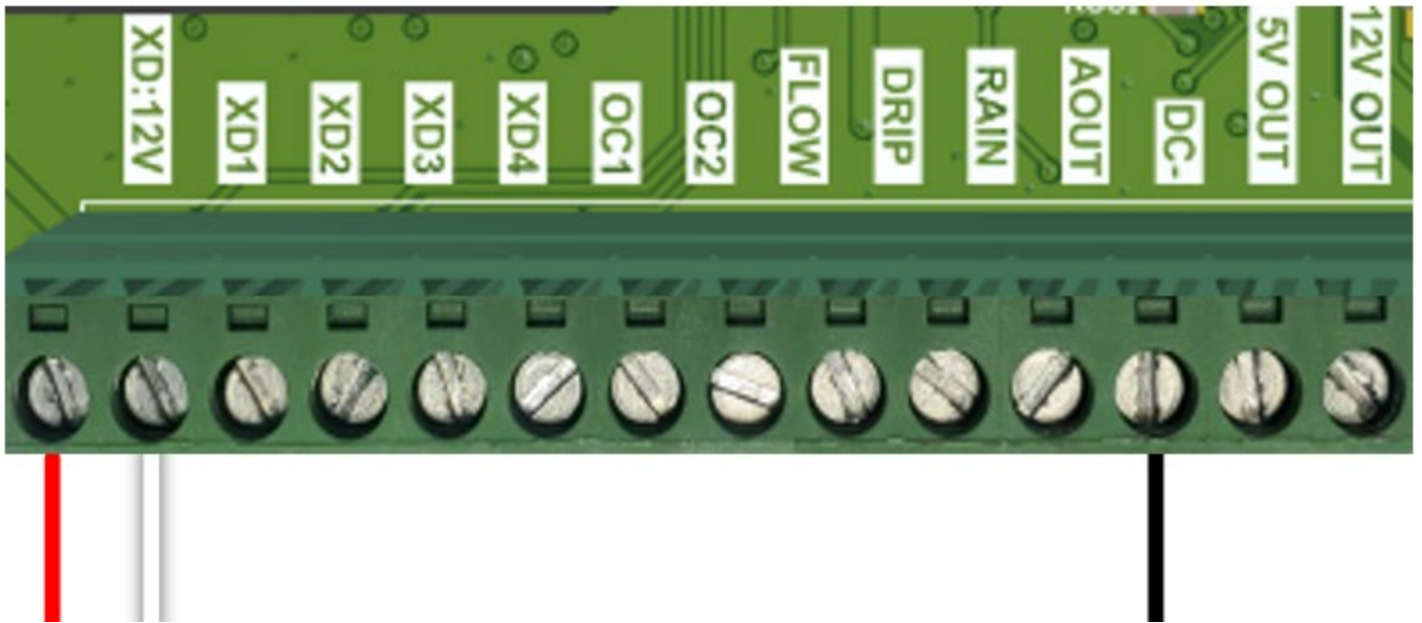
## Step 2- Install Pressure Switch

Ensure the gasket is added to the round washer included in kit. Use PTFE film tape or thread sealant on the transducer threads. **FAILURE TO ADD PTFE or THREAD SEALANT CAN RESULT IN WATER GETTING INTO ENCLOSURE AND DAMAGING THE DEVICE.** Secure with transducer using the nut provided. Tighten the nut enough to create a seal with the gasket inside the enclosure, and also so the transducer does not rotate.



### Step 3- Pressure Transducer Wiring

Wire the transducer into the Nano-Core using the black, red, and white wires. Make sure the device is powered off during this process. Secure the wires so they don't get smashed when the lid is closed.



### Transducer Wiring

**BLACK: DC-**

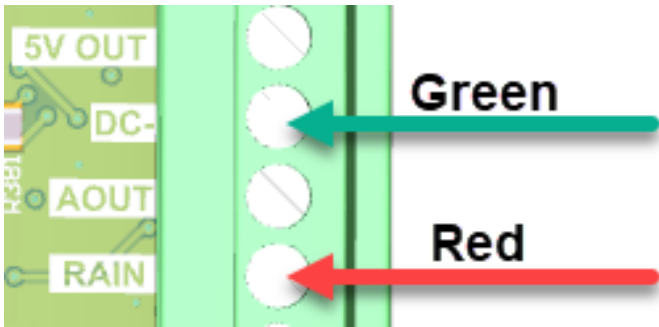
**RED: XD:12V**

**WHITE: XD1**

# Rain Bucket

The Nano Solar, even though has no external power is still able to record rain while in sleep mode. You will have to open up the Nano Solar enclosure and run the rain bucket wire through the cable gland.

Rain enters the collector cone, passes through debris-filtering screen, and collects in one chamber of the tipping bucket. The bucket tips when it has collected an amount of water equal to the increment in which the collector measures (0.01" or 0.2 mm).



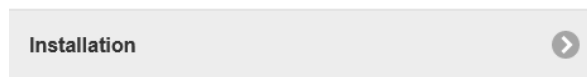
It is best to mount the rain bucket on the A-frame utilizing the U-bolts supplied.



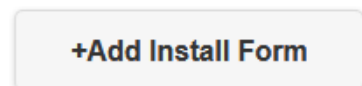
# Installation Form

Once you are finished mounting the device and accessories and you have confirmed the device has reported in and the positioning is correct you now will complete an Installation Form. This is required and allows us to view the overall installation of the device to ensure everything is mounted correctly.

Scroll down on the details page and click on Installation



From there you need to click on Add Install Form.



**Complete the information requested. The more specific the more we can help troubleshoot in the event there is a support call.**

**Pictures are required, so please take a picture of the Nano Solar unit mounted on the pipe. Pictures uploaded should relate to the product installed. Wait for the picture to attach to the form before you click submit.**

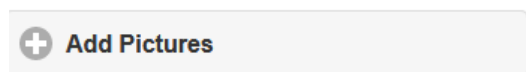
Don't worry about selecting the features for this particular unit.

Do Add in notes that you find important.

**Click on submit when done.**

If you forgot to submit a picture that you took, you can go back to the

Device Installation page and click on Add Pictures



The device installation page will show you the

Installation forms submitted and the pictures that were attached.

## Installation Form

Device Id	N000000001
Configuration	Nano Pivot Monitor
Name	Nano Demo
Client	Test Company (529)
Bill To	Test Company (529)
Group	Group #1

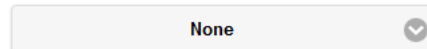
[How to successfully complete an install form](#)

[How to replace/upgrade a modem](#)

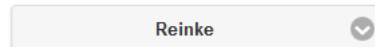
Action



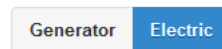
Trade-In



Pivot Type



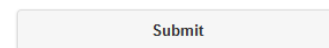
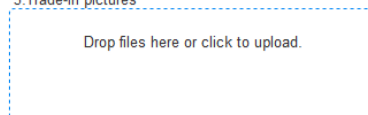
Power Source



Notes

Pictures (required)

- Recommended pictures for installation:
1. Inside of FieldWise box
  2. FieldWise box and antenna mounting
  3. Trade-in pictures



Wait for the upload to complete before leaving the page.

# Notices and Terms, Conditions and Warranty

To view a copy of the FieldWise Notices and Terms, Conditions and Warranty information, please click on the link below.  
You must have access to the FieldWise Portal to view this information.

<https://portal.field-wise.com/portal2/Mobile/Documents.aspx>