Using a RealmFive Ready Sensor

Davis AeroCone Rain Collector

REALM AGRICULTURE

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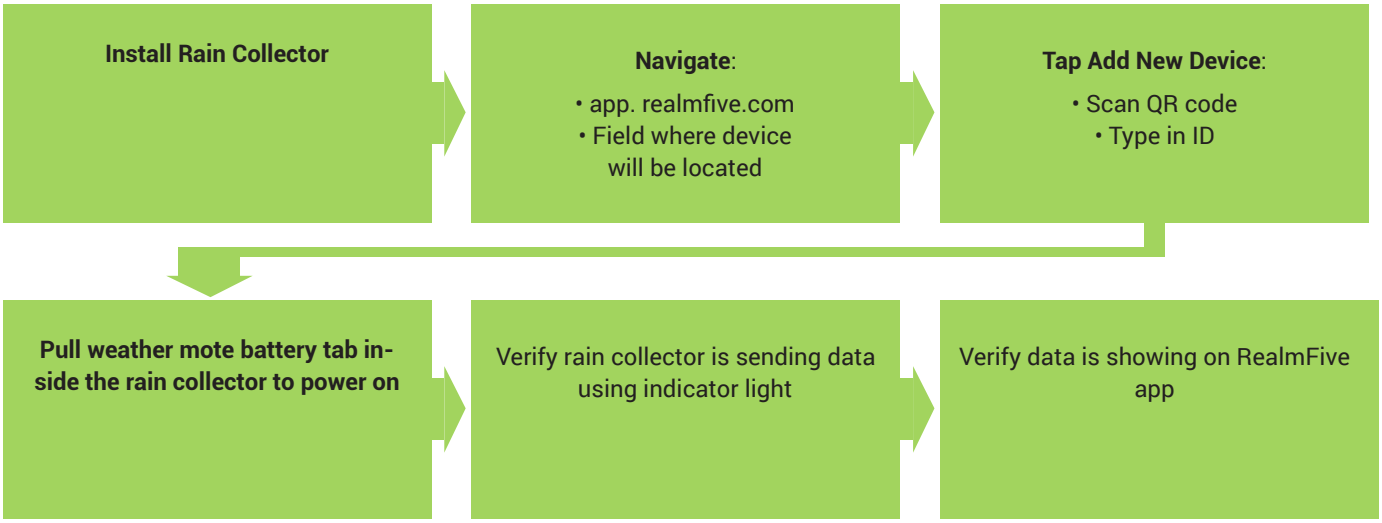
Quick Start Guide

1.1



Field Install

2.1 Tools

Gather tools needed for installation:

- Flags (if installing in the field)
- Appropriate safety gear per manufacturer's instructions
- Tools needed for rain collector installation per the manufacturer's instructions

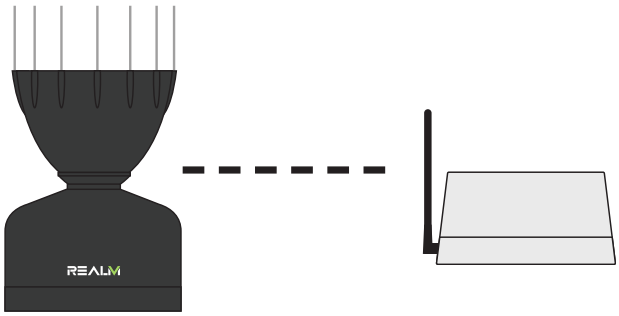
Installation

2.2

The rain collector needs the Data Gateway to send in its data packets. Data Gateway must be installed before the rain collector. See Data Gateway Installation manual to set up the Data Gateway.

2.3

Install the rain collector per the manufacturer's instructions. Wait to cut the zip tie as per the manufacturer's instructions until step 2.7.



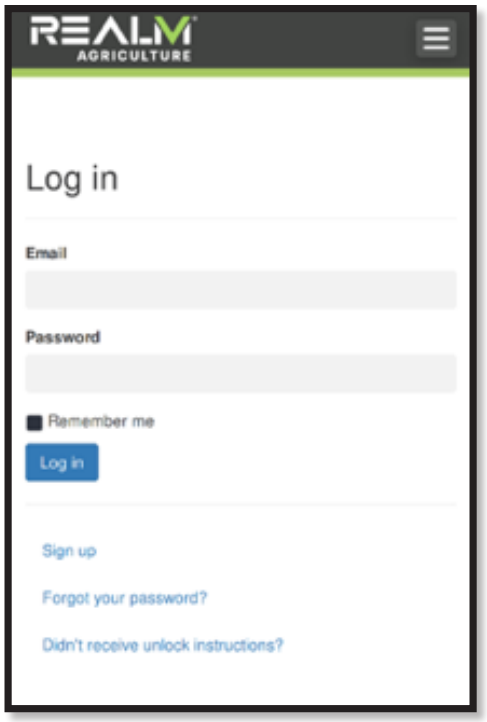
Verification

2.4

Log into RealmFive's browser-based installation app.

Not able to login.

Check that the Data Gateway is already installed and functioning. Refer to the Data Gateway installation guide for login instructions.



2.5

All received devices are already provisioned to each customer. The installer will need to assign each device to the grower, farm, and field.

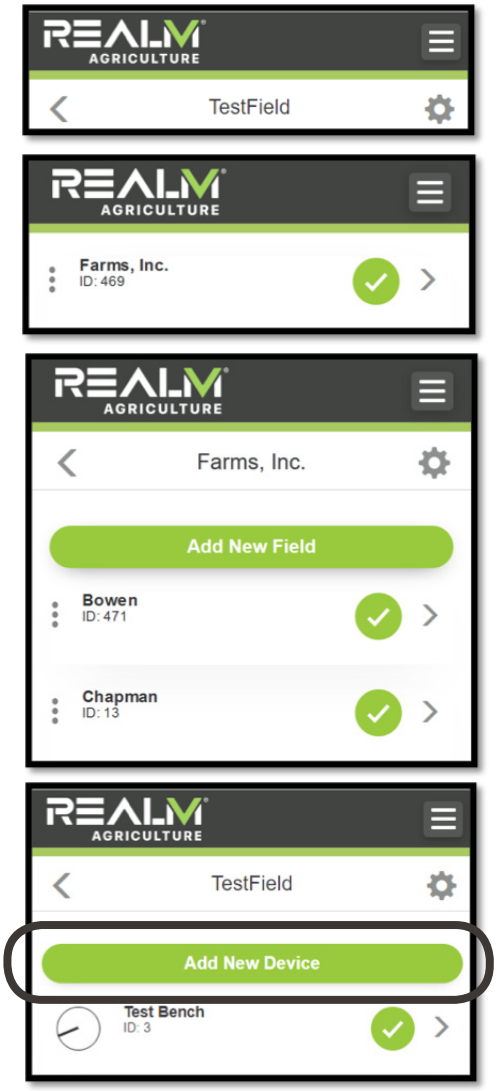
Navigate to (as necessary)

- Organization located at the top middle of the page
  - Use in the upper right corner on mobile devices and select Organization
- Grower
- Field

Tap Add New Device.

☹ The user is unable to find grower, farm, and field.

☺ Refer to the Data Gateway installation guide for how to set up grower, farm, and field.



2.6

Remove the rain collector cone from the base to expose the unique device QR code.

Scan the rain collector QR code via smart phone when prompted from app.realmfive.com.

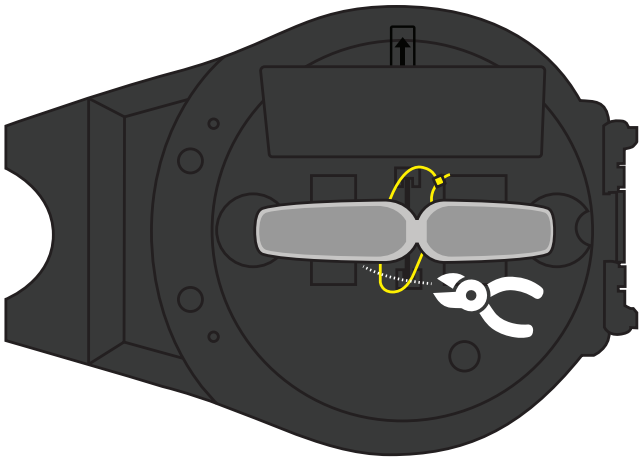
If you are having trouble scanning the QR code, type in the device's entire 10 character identifier starting with 0x as it appears on the label.

Make sure app.realmfive.com accepts either the QR code or the device's entire 10 character identifier.

2.7

Cut the zip tie that is holding the tipping mechanism in place.

Pull the tab from the weather mote.



2.8

The device LED will repeatedly blink red-yellow-green-yellow as it boots. It will then blink cyan while it acquires time and location via GPS.

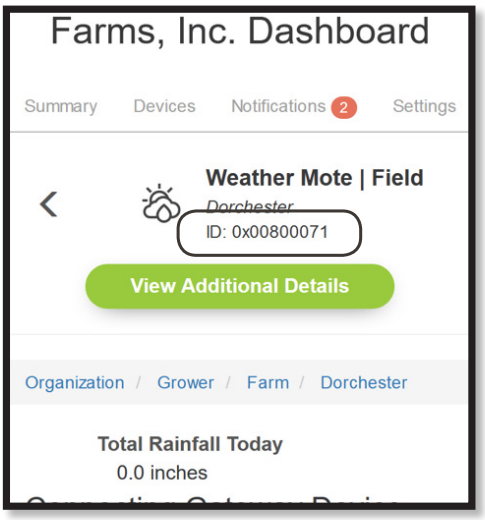
While the device acquires GPS, it will also occasionally flash magenta-green or magenta-red, indicating it is sending radio packets.

Magenta-green means it received an acknowledge from Data Gateway.

Magenta-red means no acknowledge was received. This may occasionally happen if other devices are sending packets at the same time or if there is short interference with the signal. If every single packet is magenta-red, the device needs to be mounted higher or closer to Data Gateway.

2.9

After step 2.6, device app page for rain collector should be displayed. The ID number in the middle of the top of the page should correspond to the ID number on the rain collector.



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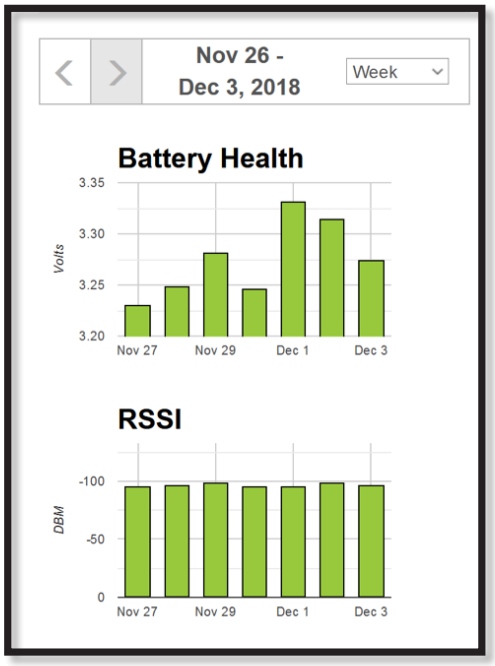
2.10

Verify the timestamp is showing the current date on battery health, RSSI, and total rainfall on device dashboard. This may take up to 15 minutes to display after the pull tab is removed in step 2.7.



2.11

You can test the tipping mechanism while waiting for the timestamp information to display. Tip the tipping mechanism once and then wait 5 seconds to tip the tipping mechanism again. Watch the LED indicator as it flashes dark blue each time a tip
is recorded.

2.12

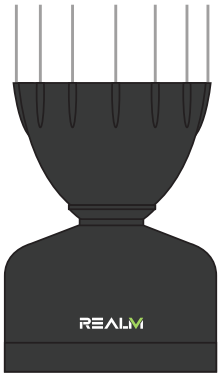
You can check the battery voltage by looking at the battery health. The included AA Energizer Ultimate Lithium batteries should be about 3.4V or 3.5V when new. Batteries need to be changed BEFORE the voltage gets below 2.7 V.

The signal strength number is the RSSI of the cellular connection. If the RSSI is lower than -115, consider mounting the rain collector higher or relocating the device closer to location of Data Gateway. This should be considered especially if crop is expected to grow above the height of the rain collector.

2.13

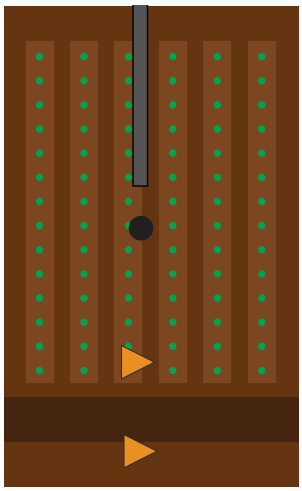
Put the rain collector cone back on the base and lock it back into place.

The rain collector cone will only fit back on the base if the logo is facing outward and away from the mounting mechanism.



2.14

Add a flag at the end of the row and in the end rows near the ditch to mark its location if you installed the rain collector in the field. This will help you find the rain collector easier if it needs to be replaced or serviced.



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Support

3.1

Contact customer support with issues by reaching us at

E-mail support@realmfive.com

Phone 402-318-3583
Slack: Company specific channel provided to you after purchasing the rain collector.

Part Numbers

4.1

Product Part Number
Realm-Ready Davis AeroCone Rain Collector 150-00425

Important FCC and IC Compliance Information

5.1

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

This product meets the applicable FCC Part 15 rules. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent materiel est conforme aux CNRexempts de licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne peut pas provoquer d'interférences, et (2) cet appareil doit accepter toute interférence, y compris celles susceptibles de provoquer le fonctionnement du dispositive.

To limit RF exposure, please ensure 8 inches (20 cm) of separation from the transmitter antennas at all times.