

# Assembly Instructions

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## Feedlot Weather Station





# Getting Started

Thank you for purchasing the Feedlot Weather Station. Please read this installation manual thoroughly.

Ensure you have the following items.

- 1 Tripod assembly
- 3 Star Pickets, bolts and caps
- 1 Main mounting frame with logger, solar panel and battery
- 1 Black Body Temperature Sensor
- 1 Weather Sensor, mount and lead to suit
- 1 Tipping Bucket Rain Gauge and mounting bolts
- 1 1000mm cross arm with bird spikes
- 1 Antenna
- 1 Spare fuse kit inside logger
- 10 Cable ties

You will need general tools including the following:

- PPE
- Set of metric spanners
- Adjustable spanner
- Set of screwdrivers
- Large Hammer to drive in Star Pickets
- Gloves
- Spirit level
- Battery drill and 6.5mm bit
- Grease

Customer to supply the following:

We recommend installing a fence around the weather station and protection for the exposed cables and connectors if there is a chance of damage from animals.

## Prepare the Site

Select an open, level site well away from overhead power lines, other amenities, structures, trees and sources of excessive dust.

# Assemble the Tripod

Unfold the tripod and secure with the supplied pin and 'R' clip. [Fig 1]. Rotate the tripod so one of the legs is pointing directly to the South. Drive in a Star Picket next to each leg and drill a 6.5mm hole through the leg to secure it to the star Picket using the supplied bolts. Use a spirit level to make sure the tripod is vertical. To help against gnawing lubricate the threads on the stainless-steel bolts before assembly.



Fig 1

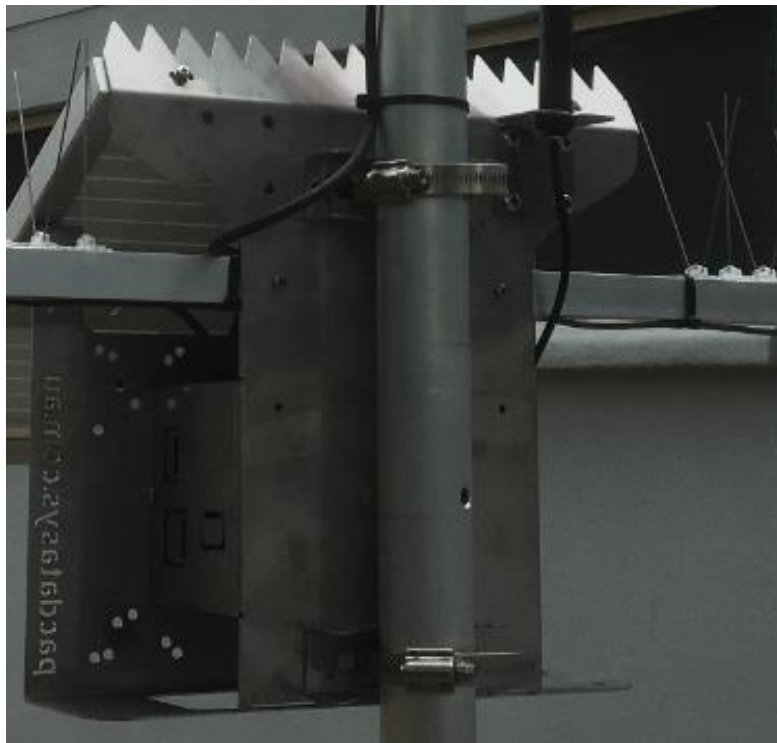
# Assemble the Components

## Main Enclosure:

Pass the cross arm through the main enclosure and secure with the two metal threads [Fig 2]. Lift the enclosure over the top of the tripod and secure it, 100mm down from the top, facing the solar panel towards the North [Fig 3].



Fig 2



*Fig 3*

### Weather Sensor:

Unpack the weather sensor and attach the plug taking care to note its orientation. Secure it with the white lock ring on the tripod adaptor. Screw the tripod adaptor and sensor on to the top of the tripod orientating it to the North [Fig 4]



*Fig 4*

## Antenna:

Cut the cable tie securing the antenna base to the enclosure. Screw the antenna to the antenna base and hand tighten firmly making sure the O-ring is in place. [Fig 5]



*Fig 5*

## Tipping Bucket Rain Gauge:

Fit the supplied bird spikes to the tipping bucket and attach it to the cross arm [Fig 6].



*Fig 6*

## Black Body Temperature Sensor:

Remove the Black Body from its packing taking care not to dent it. Mount it to the arm using the supplied M8 bolt [Fig 7].



*Fig 7*

## Run the Cables

Secure the Tipping bucket and Black Body cables under the cross arm using the supplied cable ties [Fig 8]. Secure the Weather sensor cable to the tripod. If you have problems with birds attacking the cables they can be protected with conduit or equivalent. The connectors will pass through 32mm conduit.

Connect the sensor connectors to the logger taking note of the orientation and location of the plugs. Take care not to cross thread the locking rings and secure firmly. Neaten up any loose cables with cable ties, cutting off the ends when finished.



*Fig 8*

# Powering Up and Testing

Ensure the main power switch and YDOC push button switch is turned off. Connect the main battery terminals if not already connected, Black goes to the minus terminal, Red goes to the plus terminal. Turn on the power switch on the right-hand side of the logger. (The YDOC switch is flush when it is on).

Refer to the *SatVUE Login Details* document supplied in the *Customer Documentation Folder* that was shipped with your weather station. Using this document, login to the SatVUE portal, you will be presented with an overview of your account.

The screenshot shows the SatVUE web portal interface. At the top left is the SatVUE logo with the tagline "SMART REMOTE MONITORING". The navigation menu includes HOME, USERS, SITES, DEVICES, REPORTS, DOCUMENTATION, and CONTACT US. On the right, there are buttons for MY ACCOUNT and LOGOUT, and a link for (Edit Page).

The main content area is divided into two sections:

- Devices with recent uploads:** A table listing devices with their Serial and Name. Each row has two icons: a pencil (edit) and an eye (view).

| Serial          | Name                                 |
|-----------------|--------------------------------------|
| 01026971SKY3444 | Weather Station                      |
| 01431216SKYDFAD | LinkVUE Demo                         |
| 01003634SKY4877 | Pacific Data Systems: Australia Demo |
- Device Map:** A map showing the location of devices. A callout box points to a location labeled "Pacific Data Systems Pty".

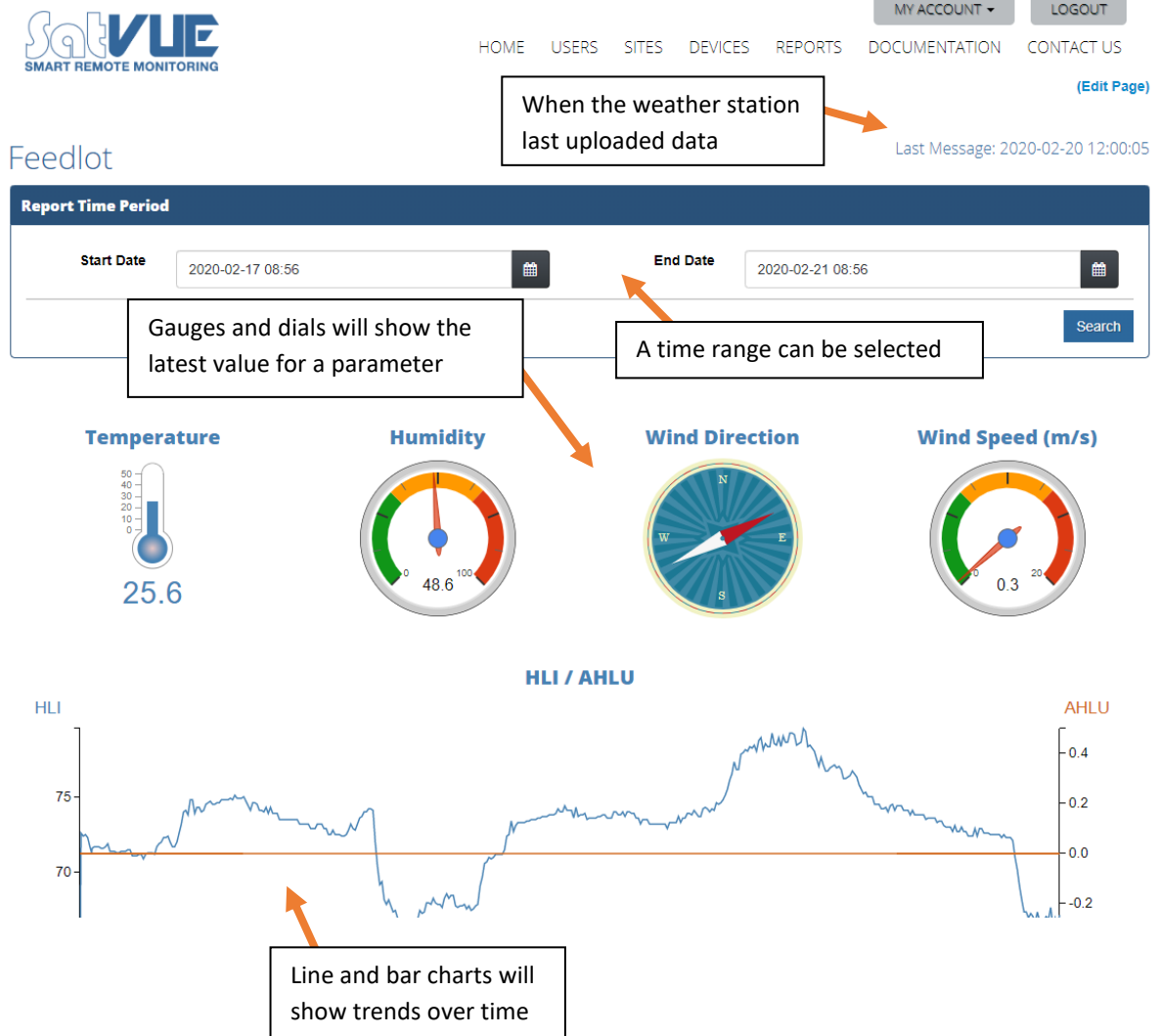
Callout boxes provide instructions:

- "Click this button to view a Device's view" points to the eye icon in the table.
- "Devices that have recently uploaded data" points to the table header.
- "Click this button to edit a device" points to the pencil icon in the table.
- "Shows the location of your devices, if a location is configured for the device" points to the map.
- "Shows a summary of your device's latest data" points to the Summary section below.

The **Summary** section displays the following data for the device "Weather Station" (Serial: 01026971SKY3444):

|                          |          |
|--------------------------|----------|
| <b>Rain Fall Today</b>   | 0.0 mm   |
| <b>Relative Humidity</b> | 70 %     |
| <b>Temperature</b>       | 26.3 °C  |
| <b>Wind Gust Speed</b>   | 5.61 m/s |
| <b>Wind Speed</b>        | 1.14 m/s |
| <b>Leaf Wetness</b>      | 534.5 mm |

You can then quickly check the status of the weather station by clicking on the button with an icon of an eye on it. This will bring up the Device's view, which allows you view the latest data from the station as well as trends over time.



More documentation on the SatVUE portal can be found here:

<https://www.satvue.com.au/documentation>





# Routine Maintenance

The system should be checked at least once a year depending on conditions. Systems located in corrosive or coastal environments should be checked more frequently.

Check that all the mountings are secure and free from damage and corrosion. Replace parts where required.

Check that the tripod is still vertically aligned and there is no damage to it and the bolts are tight.

Check the sensors and solar panels are orientated correctly, cables, connectors, sensors and solar panels are clean and undamaged.

Dismantle the tipping bucket clean and test.

Replace humidity sensor in the Weather Sensor. Available from PDSA. Part No. PDS-WX-RH-MODULE

Check the logger and connectors is clean and free from damage and there has been no sign of water or insect damage.

Ensure any vents are clean.

Check condition of the battery and replace if weak. Part No. FED-RM12-12DC

Check the connection to the SatVUE Weather Portal and all the parameters are being logged.

If you require further assistance, please contact (+617) 3361 2000 or [service@pacdatasys.com.au](mailto:service@pacdatasys.com.au)

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**Note** Information found within this manual is subject to change without notice. Screen images and hardware shown may vary slightly from actual product.