

Operational Manual



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ONLY TRAINED STAFF IN HANDLING LIVESTOCK SHOULD ATTACH HERDINSIGHTS TO THE COW

A LOOSE FITTING COLLAR MAY INCREASE THE RISK OF THE COLLAR SNAGGING ON AN OBSTRUCTION AND/OR BECOME A CHOKING HAZARD

ONLY TRAINED PERSONNEL WITH THE RELEVANT CERTIFICATION/QUALIFICATION CAN CARRY OUT ANY INSTALL OR MAINTENANCE WORKS ON THE HERDINSIGHTS SYSTEM



OPERATION MANUAL

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Overview - HerdInsights

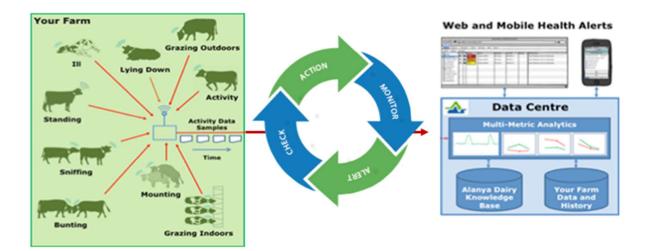
Introduction - What is HerdInsights?

HerdInsights is a multi-metric, cloud-based 'Smart Collar' which optimises the efficiency of farm breeding and healthcare programs by reducing farm operating costs, increasing the quality and quantity of milk and overall farm profitability

It allows the farmer to gain an informed, data led insight into efficiency of nutrition and feed quality, reproduction performance, cow efficiency and let the cow tell you how to maximize her performance.

How Does HerdInsights Operate?

A collar, placed around the cow's neck, contains a sophisticated processor to analyse the cow's behaviour and changes in body temperature. Data is communicated wirelessly from each cow to Alanya's cloud application via base stations fitted at key locations on the farm.



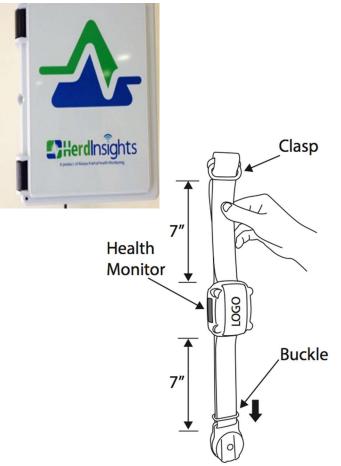
Algorithms on Alanya's cloud application analyse data from and interpret the overall health and estrus status of each cow.

Actionable alerts are then presented in a user friendly online interface and issued via preferred technology to all the key stakeholders.

Once logged in to the cloud computing application, the farm manager and partners such as the Artificial Insemination company and farm vet can access live information 24/7 about the health and reproduction status of any given herd. The application can be customized in order to communicate alerts to relevant staff in realtime. Staff receive alerts in desired format and can also have the ability to update individual cows following treatment; insemination, veterinary treatment, feeding etc.

HerdInsights system consists of the following units:

- Gateway
 - Power supply
 - o Basestation
 - Internet dongle (optional)
- Health monitor
 - o Health unit
 - Webbing
 - o Weight



HerdInsights Capabilities

HerdInsights current features includes the following:

- Estrus detection
 - Cows mounting behaviour
 - Estrus activity
 - $\circ~$ Chin resting behaviour
 - $\circ~$ Feeding pattern and behaviour
 - Resting behaviour
- Health index
 - Resting behaviour
 - Feeding behaviour
 - o General activity
 - \circ Rumination

As HerdInsights is a cloud based product and can communicate with each health monitor the above capabilities and existing features will evolve over time

Safety

Only trained technicians should be allowed to install and service the HerdInsights system. The Farmer/User **Must Not** attempt to alter any part of the System.



Mechanical

Power & Electrical Requirements

100-240AC outlet

Operating Environment

Operating Temperature Range: -20°C to 60°C. Humidity: 10-95 % RH non-condensing Storage temperature: -30°C to 70°C

FCC Compliance

This device complies with Part 15 of the FCC Rules.

Conformity was demonstrated by testing to the following standards.

CISPR 22: 2008 / ANSI C63.4

Equipment Classification: Class B

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

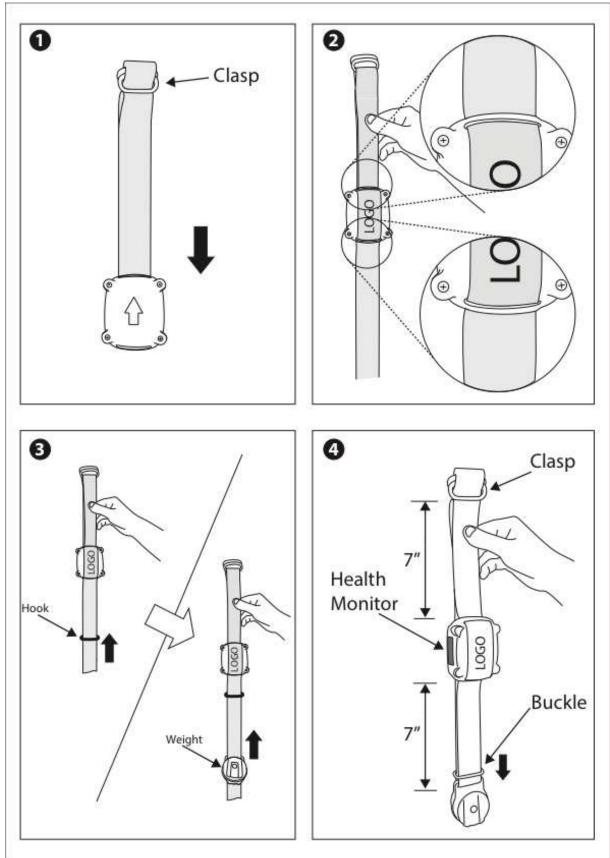
Battery

HerdInsights contains 1no Lithium Metal battery

Lithium Metal batteries have specific transport requirements which need to be adhered to.

Health Monitor

Assembling the health monitor



Point 1: Loop webbing through the slots on the monitor ensuring that the health monitor is facing upwards as per the arrow embedded within the cover of the monitor

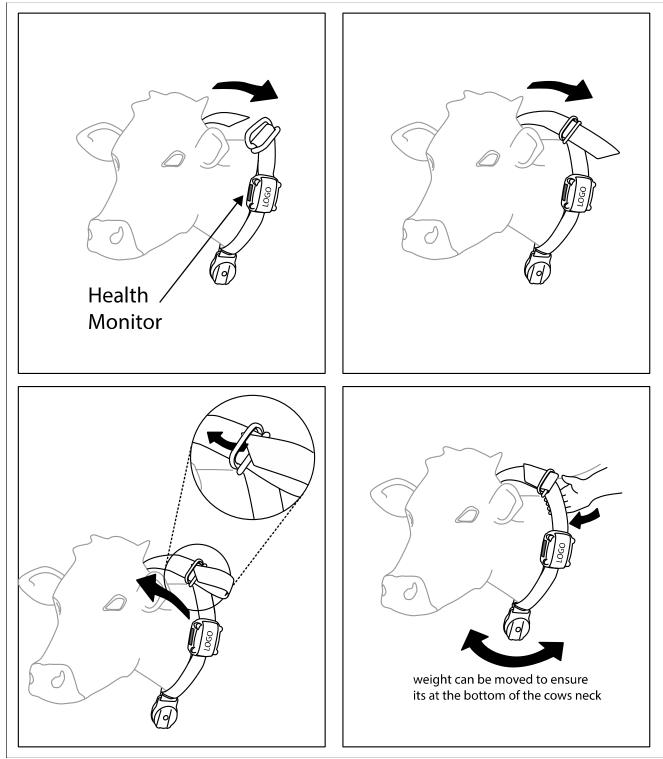
Point 2 : The logo should be centred over the health monitor as shown in figure 2 above.

Point 3: Place the buckle onto the webbing and then thread the weight up through the webbing ensuring the orientation as per the figure 3 above.

Point 4 : Thread the webbing back through the buckle to secure the weight in place. Slide the buckle down against the weight

NB: The dimensions in figure 4 are indicative and will vary depending on the size of the cow

Attaching the health monitor



Point 1: Place collar around neck ensuring monitor is on the left side of the cow and the weight is centred at the bottom of cows neck.

Point 2: Place webbing through the two buckles

Point 3: Return the webbing back through the second buckle

Point 4: Check the tightness and positioning of the monitor and the weight

The health monitor should be located just below the cows ear

The weight should be located centrally directly under the cows neck

NB: Ensure the health monitor is located on the left side of the cow

and the weight is located centrally under the cows neck.

The weights position can be amended by moving the weight along the webbing as desired

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CAUTION

TO PREVENT ACCIDENTAL INJURY ENSURE PPE IS USED DURING THE INSTALLATION OR MAINTENANCE WORKS AND THAT ANY SAFETY DEVICES ARE PROPERLY MAINTAINED

Follow the current Health & Safety standards appropriate to your region.

Ensure Tools used, are appropriate for the task.

The work area has been checked by a suitable person; who has been identified in accordance with the relevant industry / statutory regulations in your region as a capable person to access the work area. This person must deem the work area is a safe suitable working environment.

Safe systems of work are in place and are being adhered to.

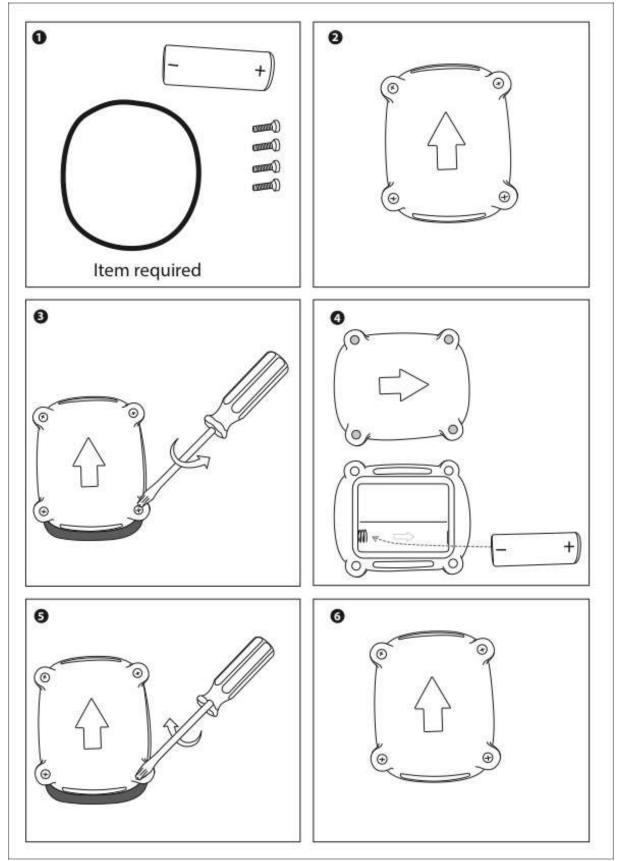
That all equipment has been checked by a suitable person and are appropriate for the task.

Fitting of the collar is vital to ensure the HerdInsights is giving accurate readings.

The collar must be a snug fit to ensure that all movements are recorded.

A loose fitting collar may increase the risk of the collar snagging on an obstruction and/or become a choking hazard.

Changing the battery



Point 1: Ensure you have the correct replacement battery, gasket and screws

Point 2: Undo the 4 screws by turning anti clockwise using a Philips screwdriver

Point 3: Remove the lid and replace the battery

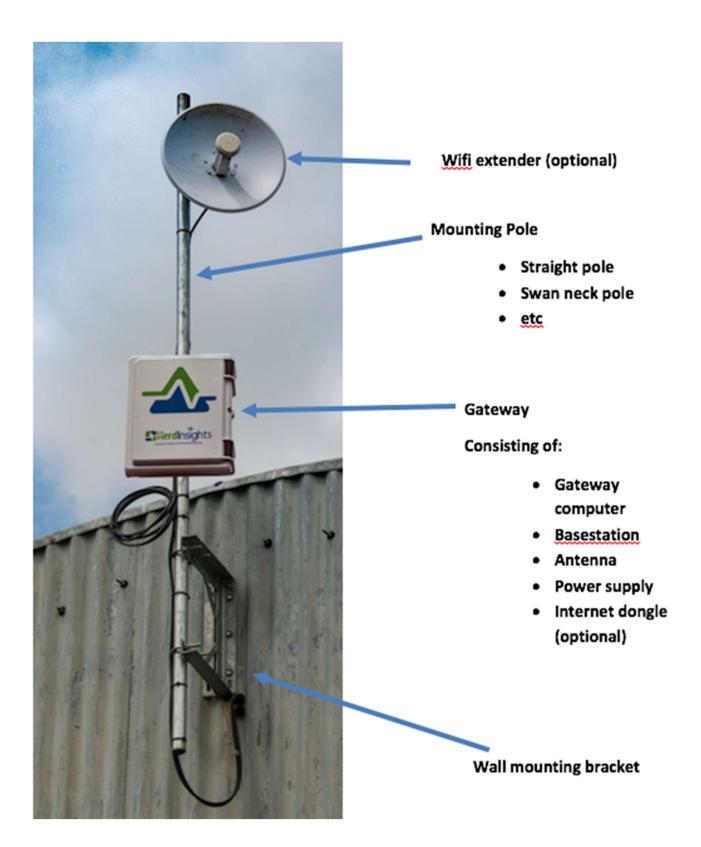
Ensure the battery is positioned correctly with the negative side being at the spring end

Point 4: Replace the existing gasket with the new ensuring that the gasket is pushed down adequately into the recess.

Point 5: Replace the monitors lid ensuring that the directional arrow on the lid is in the same direction as the arrow at the back of the monitor

Tighten the four screws back up by turning clockwise

Gateway



Vertical pole secured using "U" bolts





Bracket secured to farm structure

Considerations:

Things to consider when installing HerdInsights Gateway:

- Power source:
 - HerdInsights comes with an additional 10m of cabling
 - If additional cable length is required from the Gateway to the power source a qualified/competent person is to carry out this extension or move the socket closer
- Internet connectivity:
 - HerdInsights can be connected to the internet via existing on-farm wifi or by installing an internet dongle
- Range:
 - HerdInsights Gateway should be located in a suitable position to enable the data to transfer from the health monitor to the gateway. Range can be enhanced with height.

ONLY TRAINED PERSONNEL WITH THE RELEVANT CERTIFICATION/QUALIFICATION CAN CARRY OUT ANY INSTALL OR MAINTENANCE WORKS ON THE HERDINSIGHTS SYSTEM

REMEMBER BEFORE CARRYING OUT ANY INSTALLATION OR MAINTENANCE WORKS TO ALWAYS ISOLATE THE ELECTRICAL SUPPLY

MyHerdInsights

How to log in

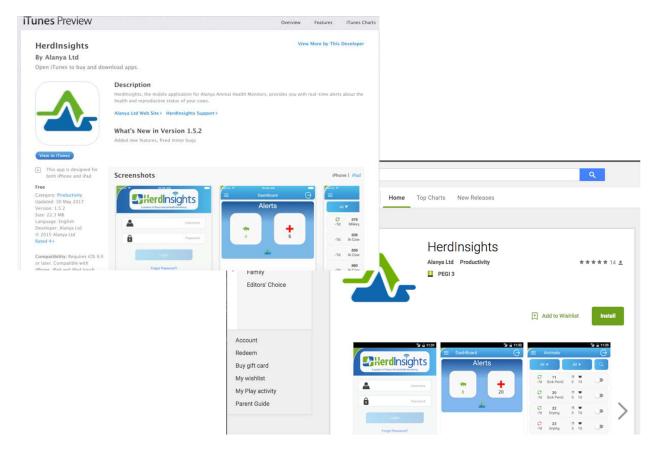
There are several ways to access your data and log into your herd.

You can access the web browser two ways:

www.myherdinsights.com

or alternatively go to <u>www.herdinsights.com</u> and use the login button on the top right of the web page.

HerdInsights is available to download on both IOS and android devices:



Once you download the relevant App you can log in and view your herd.

	A product of Allarya Animal Health Monitoring	s	
A		Username	
ô		Password	
	Forgot Password?		

"How to" videos

Once you log into Myherdinsights you will have access to video tutorials on how to carry out the various tasks available to you. The tutorials will outline how to get the most out of HerdInsights by showing you how each feature works.