MOOMONITOR + USER

MANUAL

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1 Introduction

The Dairymaster MooMonitor+ is the most advanced animal behavioural analysis tool in the world.

MooMonitor+ tags are lighter with reduced power consumption longer battery life along with extended range allowing the user greater flexibility with how the system is put into practice.

Dairymasters MooMonitor+ is a complete health and fertility monitoring system for beef and dairy cows that pair's cutting edge technology with a user-friendly cloud-based software system spanning Android, IOS, and browser-based interfaces.



Figure 1 - MooMonitor + Tag

The MooMonitor+ system is designed with the farmer in mind, providing the farmer important information on the health and fertility of each cow in the herd. It is the next generation in Cow activity monitoring systems as it measures and records millions of data points on every animal every day, these data points are used to identify different activity patterns of every cow.

The information recorded on the MooMonitor+ activity collar is wirelessly transferred to the internet via the MooMonitor+ Base station which is installed on site by the installation team.

This data is then interpreted by a Dairymasters own software programs, which use specially designed algorithms to analyse the data and provide the user with accurate information on each individual animal.

These algorithms have been built based on years of research and development to turn the raw data from the cow into usable information that the farmer can use to better manage the health and fertility of his herd.

The MooMonitor+ provides the user with health reports based on different criteria such as rumination, feeding activity, oestrous activity, lying time restlessness and much more as the system develops further.



Figure 2 – MooMonitor + Basestation assembly

2 Scope

The information in this manual is intended for the valued customer and end-user of Dairymaster's MooMonitor+.

This manual contains information allowing end-users to:

Use of the MooMonitor+ Applications on Android, IOS, and browser based platforms.

Understand and utilise The MooMonitor+ Interface.

The Information in this manual relates to the latest software version of the web interface and mobile devices. This manual contains information for the following:

Web Interface: Software Version 2.5 Android App: Software Version 2.0 IOS App: Software Version 2.0

This latest version of the installation manual contains new information relating to the latest Android and IOS Apps. There have been lots of additional features added to the mobile apps which will enable the user to receive and update more information at any time.

For repairs or replacements, it is recommended that you use Dairymaster replacement parts alone. Contact your Dairymaster installer or agent with any queries.

Dairymaster warranties cover the operation of its parts alone and cannot be held responsible for the malfunction of parts not supplied by Dairymaster.

For further information regarding Dairymaster's Moo Monitor + system or any other Dairymaster product please feel free to contact us through e-mail or by telephone using the details given below:

Email: <u>info@dairymaster.ie</u>
Telephone: +353-66-7131124

3 Safety

Only trained Dairymaster technicians should be allowed to install and service MooMonitor+ plant. The Farmer/User <u>Must Not</u> Attempt to alter any part of the MooMonitor+ System.



Before attempting any installation / maintenance works

Always isolate the electrical supply.

Warning

To prevent accidental injury ensure all safety devices and PPE are used during any maintenance / installation works. Always ensure that following guidelines are adhered to at a minimum.

- 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.

You alone are responsible for Health & Safety

This device complies with Part 15 of the FCC Rules.

The 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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operate in conjunction with any other antenna or transmitter.

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

3.1 Canada

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication."

This device complies with Industry Canada licence-exempt RSS standard(s). The 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.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada.

Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante."

"Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- 1. l'appareil ne doit pas produire de brouillage, et
- 2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."

4 Mechanical

4.1 Base station Installation (Main Kit components).

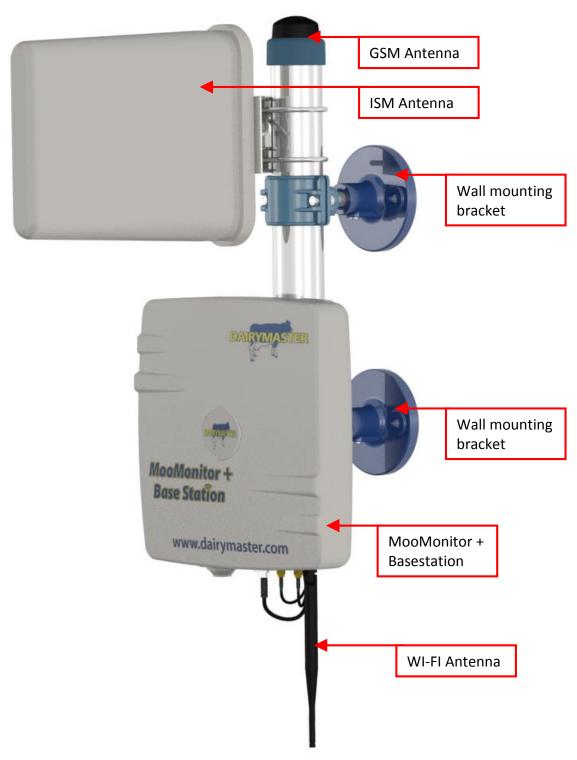


Figure 3 – Typical MooMonitor + Basestation assembly

4.1.1 Fitting the MooMonitor+ Collars to the Cows

Important Note:

Note: Always keep track of the MooMonitor+ serial number and CowID pairings. The MooMonitor+ serial number is located on the rear of the Tag.

The MooMonitor+ collar comprises of the strap, the collar sleeve, the retainer/locking ring, the collar weight, and the MooMonitor+ activity unit.

Fitting of the collar is vital to ensure the MooMonitor+ 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.

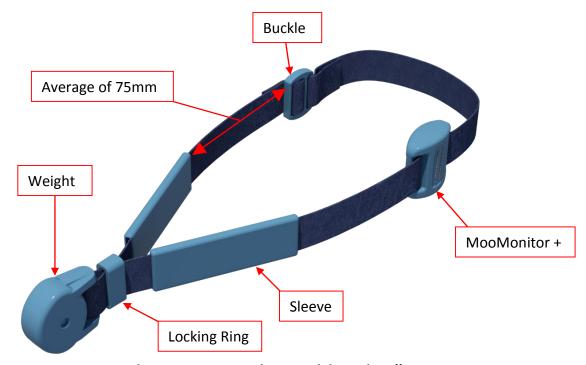


Figure 4 - MooMonitor+ Activity unit collar

Important Notes:

Only staff adequately trained in procedures for handling livestock should secure the MooMonitor to the cows.

When fitting the MooMonitor+ to the cow, thread the collar through the weight to the midpoint of the collar strap. Thread the locking ring into place over the weight. Add the buckle onto one side of the weight and the MooMonitor+ to the opposite side of the collar strap.

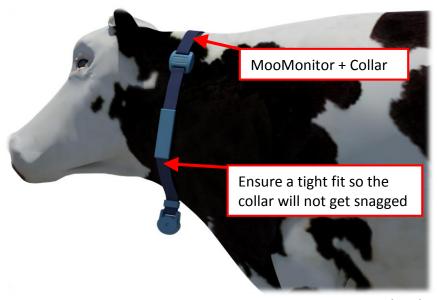


Figure 5 - Typical view of the MooMonitor on the Cow (LHS)

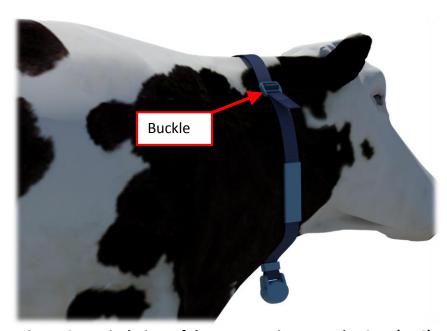


Figure 6 – Typical View of the MooMonitor + on the Cow (RHS)



Figure 7 - Typical view of MooMonitor + installed on a cow (Allow a minimum of a 100mm lap at this point)



Figure 8 - Typical View of the MooMonitor installed on the cow. (The Weight should be centred on the cow's neck to ensure the MooMonitor stays in position)

4.2 MooMonitor+ Web Interface (Version 2.5)

4.2.1 Logging in

The Dairymaster MooMonitor + Web interface provides the user with an intuitive interface which can be accessed by typing the following address into the address bar of google chrome or internet explorer:

cloud.dairymaster.com

Once the page loads a login page will appear and ask the user to enter the credentials provided to them by Dairymaster. These credentials i.e. the customer's Username and Password.

This information must be obtained from Dairymaster.

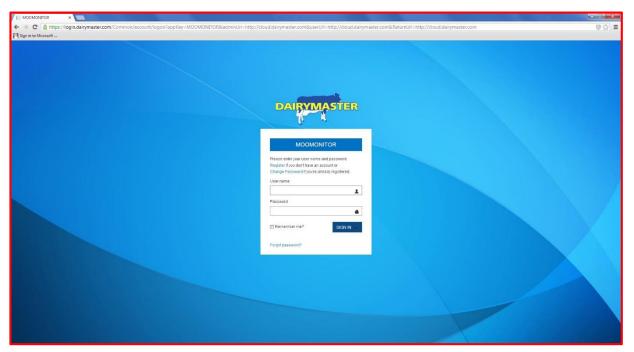


Figure 9 - MooMonitor + Web Interface Log in

5 Troubleshooting

In the event of an issue with an application or hardware malfunction, the user is asked to contact their local Dairymaster Agent for support.

6 Reference documents/appendices

For Information on the MooMonitor+ check on the Dairymaster website at http://www.dairymaster.com/

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