Collar User Manual

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Chapter 1: Collar Function Introduction

1. Function Overview

The collar uses an accelerometer to quantify cow behavior data in real-time. Through the built-in algorithm model, it calculates activity levels every 20 minutes, as well as the time spent on feeding, rumination, panting, and lying down. The data is uploaded to the gateway via a wireless network and then forwarded to the server.

Users can view relevant cow information such as estrus and health warnings through the cow management platform, helping the farm quickly identify cows in estrus, cows with health abnormalities, heat stress warnings, and assess the comfort level of the barn.

2. Usage

The collar device operates in real-time without any manual intervention. It only needs to be correctly assembled and worn in the specified position. If the device is to be used on a different cow, simply remove and reattach it, and perform the binding and unbinding operations in the software platform.

Note: Correct assembly and wearing position are essential for ensuring data accuracy.

To ensure real-time data upload, the wearing area must be covered by the gateway signal.

Chapter 2: Collar Assembly

1. Collar Structure

Smart Collar Components: Smart collar, cow strap (standard 1.35 meters), counterweight, 2 buckles

Collar

Counterweight

Buckle

Complete

2. Assembly Steps

1. Place the cow strap on the ground with the "stitching hole" facing down. The collar should be facing down with the logo towards you. Thread the triangular tips of the cow strap through the gaps in the

smart collar, ensuring the distance from the collar to the steel ring on the cow strap is 20 cm.

2. Thread the pointed end of the cow strap through Buckle 1, with the arrow side facing down and the arrow pointing towards the collar.

3. Thread the pointed end of the cow strap through the counterweight until it reaches the center of the strap. Then, thread the pointed end through Buckle 1, aligning it with the steel ring. Pull straight and lock the buckle at the counterweight position；

4. Thread Buckle 2 with the arrow facing down through the cow strap.

20cm

配重位于
中心位置

平齐、中心

Chapter 3: Wearing Steps

1.Face the cow's head towards the person wearing the collar. Wrap the collar around the cow's neck, folding the steel ring towards the collar. (Figure 1)

2. Thread the cow strap through the two steel rings. (Figure 2)

3. Rotate the cow strap and thread it out from the outer steel ring. (Figure 3)

4. Insert 2-3 fingers from the top to check for comfort, adjust the tightness, and pull the cow strap at the steel ring. (Figure 4)

5. Thread the cow strap through the plastic buckle. (Figure 5)

6. Adjust the plastic buckle to complete the wearing process. (Figure 6)

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

Chapter 4: Wearing Specifications

1. Wearing Standards

The collar should be worn behind the cow's right ear, 3 cm below the top of the neck, with a deviation of no more than 1 cm.

Tighten the strap until you can comfortably fit 2-3 fingers between the strap and the top of the cow's neck.

2. Issues Caused by Improper Wearing

Wearing the collar on the left side instead of the right ear can lead to incorrect feeding and lying down times.

Wearing the collar behind the right ear but with excessive deviation from the standard position or too loosely can result in incorrect rumination times and the collar flipping over.

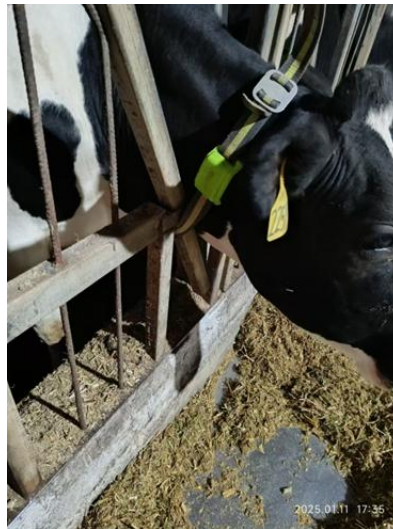Below are some examples of improper wearing.

Too loose, collar flips easily

Too loose, should not exceed three fingers

Too loose, collar is lifted by the counterweight during feeding

Too loose, collar gets caught

Properly wearing the collar is the foundation for accurate data calculation of behaviors such as rumination, feeding, and lying down. It is essential to strictly follow the wearing standards and specifications. During daily use, farm personnel should promptly adjust any collars found to be improperly worn to prevent significant data deviations caused by positional shifts.

Revision History

Version	Revision Date	Revision Description
1.0	2025-3-18	Initial version

FCC Caution:

This device complies with part 15 of the FCC Rules. 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.

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

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception,which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different
   from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment can be used as portable exposure without any restriction.