

Beidou Muxun MINI-Intelligent Positioning Collar

WE-S502 Product Manual

Product Overview

The WE-S502 BEIDOU MUXIN MINI positioning collar is specifically designed for free-range livestock tracking applications. Combining BeiDou/GPS positioning with LoRaWAN communication technology, this collar achieves a maximum communication range of 5 kilometers between the device and base stations. Once worn around cattle or sheep necks, it automatically collects location data and activity metrics, transmitting information to cloud servers via relay base stations. Featuring dual-mode BeiDou/GPS positioning modules, the collar ensures precise livestock tracking with low power consumption. Equipped with a three-axis accelerometer, it accurately measures daily movement counts, allowing health status and estrus cycle monitoring through step pattern analysis. The BEIDOU MUXIN collar operates independently without carrier network connectivity, representing a revolutionary breakthrough in free-range livestock tracking technology.



Product Instructions

I. On-site Survey

Prior to implementing the Beidou Muxun MINI positioning collar, on-site surveys must be conducted to determine livestock restraint methods and potential risks.

Confirm the confirmation method

Observe the livestock rearing environment on-site to preliminarily assess immobilization difficulty and develop immobilization and installation plans. If the livestock are equipped with collars, confinement pens, immobilization frames, or transfer pens, these devices can be utilized to minimize collar application challenges. In the absence of immobilization equipment, it is recommended to prepare immobilization tools such as hemp ropes and lassoes prior to collar installation.

Two collar installation

The collar requires no configuration before use. Once the gateway is powered on, it can upload real-time data immediately.

After receiving the collars at the implementation site, log in to the data platform to check the online status of all collars. The specific evaluation criteria are as follows:

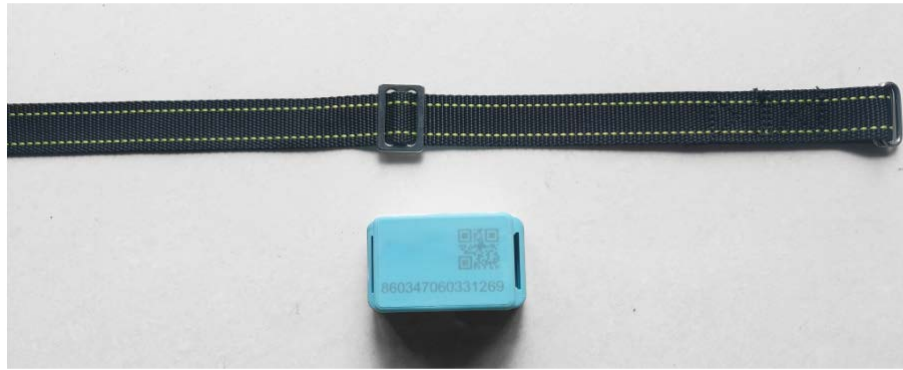
A battery voltage above 2.95V is considered normal.

Updated in real time during the data cycle

After passing the initial inspection of the collar, on-site installation can proceed.

The installation steps are as follows:

First, attach the smart collar to the neck strap. During installation, ensure the correct orientation: the edge-locking side of the strap should face downward while the QR code side faces upward, as shown in the figure below.



The smart collar features two openings at each end. Follow the installation sequence shown in the image to thread the neck strap through the openings and adjust the collar to the desired position.





After installation is completed, proceed with collar fitting by securing the collar around the livestock's neck using dual buckles. When operating the dual-ring mouth, ensure the tail end of the strap passes sequentially through both buckles, then invert the tail end and insert it into the first buckle for tightening.



Tighten the neck strap and adjust the position and tightness of the collar (allowing approximately two finger-width gaps between the strap and the neck). If the strap end is excessively long, it can be trimmed using a V-shaped ring.



III. Installation Inspection

After collar installation, inspect the wearing condition. Observe for two upload cycles post-wearing. If significant data anomalies occur, replace the collar.