1 Introduction

The purpose of this document is to detail the necessary steps and key points for fitting of Datamars activity monitoring collar tags and ear tags.

Products covered

Tru-Test Activity Monitoring Collar Tag

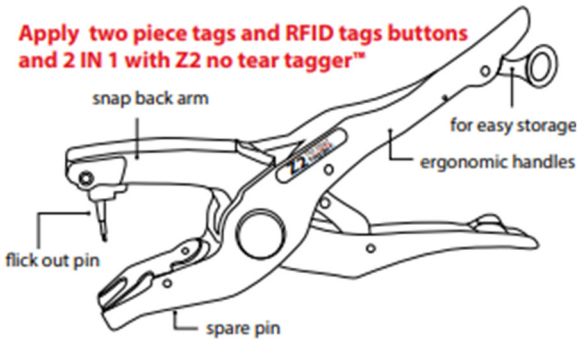
Tru-Test Activity Monitoring Ear Tag

Tools required

There are no tools required to fit collar tags.

Ears tags require the following tools:

- Z2 no tear tagger™



- Z2 male tag (one per ear tag to be attached)
- Sterilising solution – such as Nolvasan, Vetericyn or an iodine solution.

Risk Management

Extreme care and caution must be exercised when attaching tags and collars to cows.

Use two people to attach tags and collars and utilise appropriate equipment and locations while attaching to minise risk to people and animals, e.g. head bails, treatments stalls.

2 Collar Tag Setup

Attaching collars

It is important to fit the tags to cows as soon as possible to start recording information on cow activity. This information is needed to provide a baseline of activity for each animal and group. This baseline is then used to provide animal insights in future. The baseline activity collection typically takes between 4 and 7 days.

The collar tag and weight are already mounted on the collar.

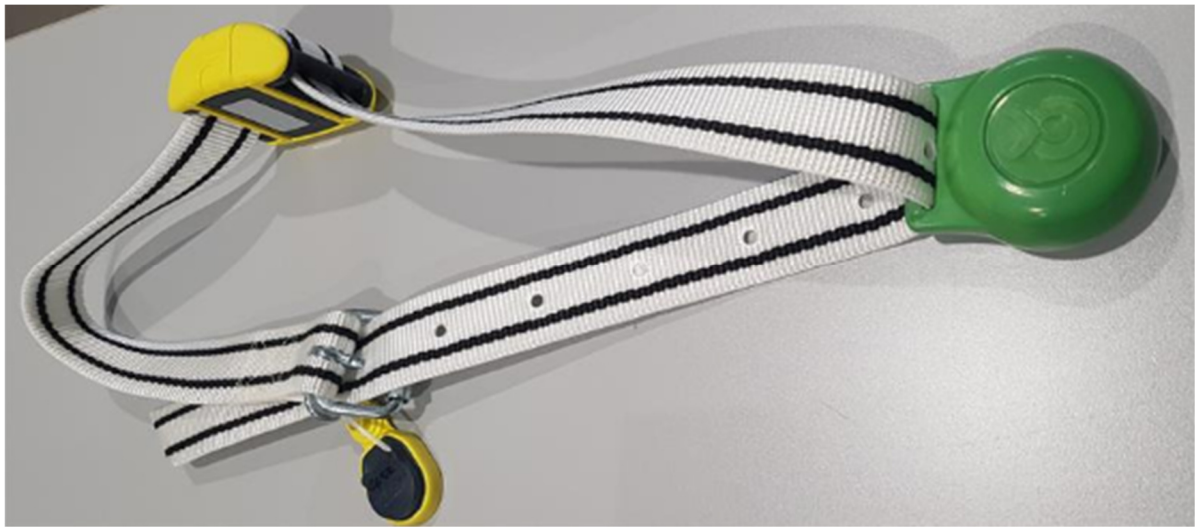


Figure 1: Collar fitted with Collar tag, weight (and also ear tag attached at buckle)

To apply the tag:

1. Collars have been functionally validated and switched to the correct operational mode prior to shipping.
2. Record the number on the rear of the collar tag, and the Visual ID of the cow that the collar will be installed on (record this information as it will be needed later to complete the setup on the Datamars Livestock information portal).

Figure 2 Collar ID on rear of collar tag

3. Stand on the right side of the cow and hold the collar by the buckle. Reach over the cow's neck and hang over the far side of the cow. Reach below the neck and hold the end of the collar (with holes) and lift up to the buckle. Fasten the buckle.

Pay attention to; the correct amount of slack (two fingers at the top of the cow's neck); and that the tag is placed directly behind the cow's left ear.

Correct positioning of the collar tag is critical for performance. Collar tags that are placed too high on the cow or too low on the cow will result in inaccurate data collection.

To position the tag:

1. When the collar tag is correctly positioned, slide the weight so that it hangs vertically downwards at the lowest point on the collar.

Removal of Collars

In the event that a collar needs to be removed from a cow, please follow the steps below.

1. Unbuckle the collar.
2. Hold collar by the buckle and allow the free end to drop.
3. Lift the collar by the buckle away from the left side of the cow and then up and over her neck.

3 Ear Tag Setup

Attaching Ear tags

It is important to fit the tags to cows as soon as possible to start recording information on cow activity.

This information is needed to provide a baseline of activity for each animal and group. This baseline is then used to provide animal insights in future. The baseline activity collection typically takes between 4 and 7 days.

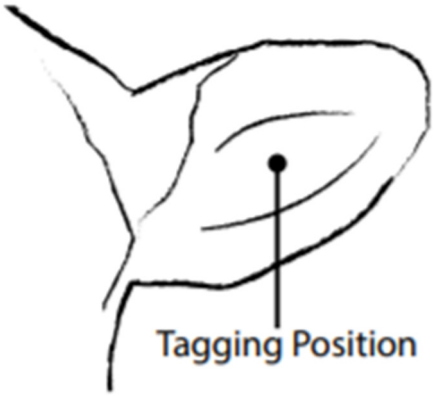
To attach the ear tag please follow the steps below.

1. Ear tags have been functionally validated and switched to the correct operational mode prior to shipping.
2. Record the number on the rear of the ear tag and the visual ID of the cow that the ear tag will be installed on.
3. Fit ear tag and male to the Z2 no tear tagger™ as follows:
4. Depress the metal clamp holder and place the ear tag under the clamp.
5. Push the male tag full onto the tagger pin.

Figure 3 Z2 tagger with ear tag and male fitted

You can view a video on use of the tagger at https://youtu.be/TKcMa4zOJrg

6. Immerse the loaded Z2 tagger in sterilizing solution.
7. Position the tag between the two main cartilages, approximately halfway between the animal's head and the tip of the ear.



If the ear tag is too close to the cow's head, then its range of motion may be limited by catching on the ear.

If there is already a tag in cow's ear, then place the ear tag as close to the mid-point as possible.

ALWAYS APPLY THE MALE TAG IN THE BACK OF THE EAR.

8. Squeeze the handles firmly and hold closed. When the tags have locked together, the tagger arm flicks and releases the tag preventing ripped ears.
9. To remove the tagger, pull straight down from the cow's ear in one smooth motion – no need to open the handles.

Figure 4 Ear tag attached next to NAIT tag

How to remove ear tags

In the event that an ear tag needs to be removed then follow the steps below.

1. Grasp the ear of the cow firmly.
2. Using the ear tag removal tool, slip the blade of the tool between the base of the small male side and the ear.
3. Pull the tool firmly and quickly to cut through the shaft of the small male pin and remove the ear tag from the cow.
4. Make sure to clean the ear tag removal tool between uses.

Figure 5 Z-Tags Multi-Cutter ear tag removal tool

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.

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.

This device must be used in such a way that a separation distance of at least 20 cm (8") is normally maintained between the device and the body of any nearby persons.

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

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.

Radio parameters:

Max. RF Power +10dBm (CE)

RF bands: 2.402 GHz - 2.48 GHz