Protrack® ID Rotary
Product Guide

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Contents

Introduction

Protrack® ID Rotary is part of the Protrack® modular product suite.

Protrack ID is a system designed to identify animals on the platform during the milking as they walk into the bails. You can then draft the animals, record events for the animals and perform other actions which will be covered in detail in this document.

To ensure that you have accurate identification, you need to keep your animal information up to date.

Your Protrack ID system has been designed to work with your MINDA® LIVE animal records. An internet connection to the Protrack ID system is required to enable the link to MINDA LIVE. Any updates in MINDA LIVE will be automatically communicated to your Protrack ID software in-shed.

Feature list

The Protrack® ID Rotary includes the following features:

Animal module

Event recording

- Pregnancy diagnosis
- Dry off
- Heat
- Health
- Give dose

Animal details

- Animal identifiers
- Groups
- Health
- Reproduction
- Production

Manage Groups

- Add/remove animals from PYO groups

Protrack ID Rotary

Automated matching cow to position

- System failure monitoring

Milking screen

- All Animal ID on live milking screen

Reports

- A milking plan providing a list of all animals requiring a treatment, animals in withholding and colostrum animals

Custom layouts

- Customise your layout to suit seasonal changes

Alerts

Audio alert as animals enter the bail, and visual highlight on milking screen for:

ID Alerts (standard with ID module):

- Dry cow
- Due to dry off
- Repeat cow
- Treatment
- Unknown cow
- Unlinked cow
- Custom alerts

Protrack Milk alerts:

- Blood in milk
- Conductivity
- Watery foremilk
- Yield dip

Protrack SCC alerts:

- Critical SCC
- Warning SCC

Protrack Heat alerts:

- Activated heat patch
- Missing heat patch
- Reapply heat patch

How it works

The system is based on animals entering the bail then the animals are identified by the EID reader once they are in the bail for milking.

In more detail:

1. Animals enter the bail then they are allocated to a position.

2. Your compatible device and/or pit PC is updated with the cow number in the position. Any alerts related to that animal are displayed to you.

3. Audio and visual alerts that notify you of any animal of interest, as long as you have purchased the relevant module.

Hardware description

Overhanging antenna and mount

The overhanging antenna and associated mounting bracket have been specially designed to operate with the Protrack ID Rotary system. The antenna hangs approximately 1.5m from the ground and can be adjusted for height, dependant on your animals size (although the lower it is, the more chance the system has of reading all cows). The antenna stays in this position permanently i.e. it is not lifted out of the way between milkings.

Antenna Hanging Frame
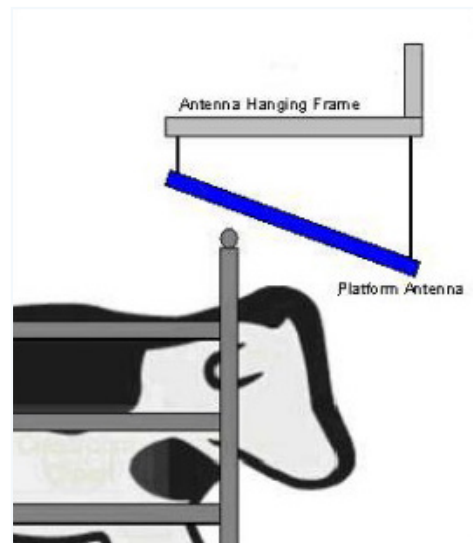
Platform Antenna

Components

The system, as installed, includes:

- The accubail on the platform.

- EID reader and antenna on the platform.

- The Protrack® Hub, which runs the software and services necessary to control the system.

The system does not include an in-pit device, which is sold and installed separately, as most mobile devices can run the application that displays your Protrack® ID results.

Protrack Hub

The Protrack Hub contains a set of components that are common to the new Protrack modular product range. The hub is usually purchased with the first Protrack module that you buy.

The components include:

- Industrial PC – runs the main application software and webserver.

- Router and Wireless Access Point (WAP) – enabling communication for smart device Protrack® ID system and sensors.

- Uninterruptible Power Supply (UPS) – protects your system should you have a power cut and/or power spikes.

- USB back up – enabling recovery of your on farm databases in the unlikely event of a system failure.

Speaker system

Audio alerts are an essential part of the system. They notify you of all animals of interest. There are two speakers, and you can assign them to different layouts depending on how you want to set them up. (See section on speaker set up, in Setting up).

Animal tags

All animals must be tagged with HDX ear tags.

The system must be used with good quality tags (such as those supplied by AllFlex) to ensure the best user experience.

Bring your own device/operational pit PC

Whilst any smart device can access and operate the system, we recommend using devices that meet the following minimum specification to provide a better user experience:

- Android or Apple device

- Chrome or Safari web browser

- 2GB RAM. Use http://www.gsmarena.com to lookup total Ram for your device - typical range is 512Mb to 4Gb

- 4.8" screen with at least 720 x 1280 pixels (306 PPI pixel density)

Recommended phone and accessories:

- Android – Samsung Galaxy S5 or higher

- Apple iPhone 6s or higher running Chrome or Safari

- Recommended items: a suitable protective case

Accessing the app on your phone

To connect your mobile device to the app, firstly connect your mobile device to the shed Wi-Fi network:

- **SSID:** Connected-<Your Supply Number>

- **Wireless Key:** Connected-<Your Supply Number>

Then, in your browser (e.g. Chrome or Safari), enter *http://shed.licautomation.com*

Alternatively, a service agent may have placed an icon on your home screen or created a bookmark.

NOTE: If it appears that the app is not updating then reload the page.

Software description

Navigation

The in-shed software has a number of different menu options, each with their own purpose and function.

To navigate to these options, click on [≡ Menu] (top left of the screen).

Select a function from the **Menu.**
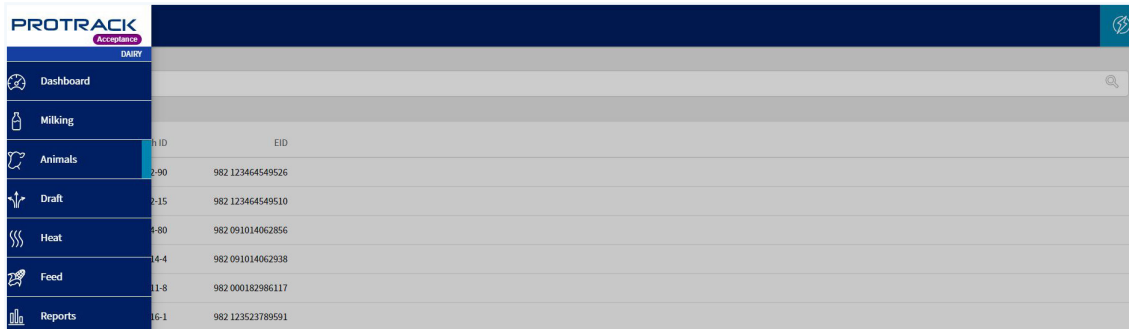
> NOTE: Some of the Menu options like **Draft** will not be visible if you have not bought the Protrack® Draft module.
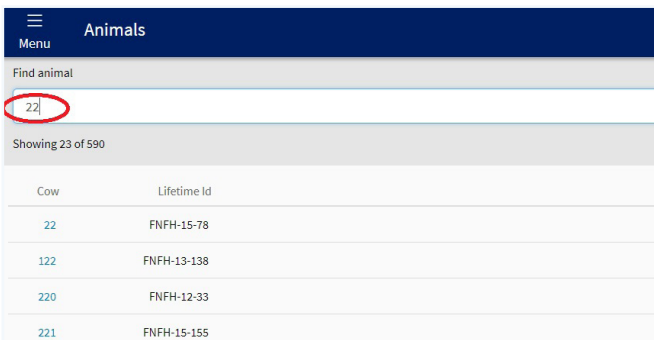
Animals

In the [Animal] screen you can:

- **View** a full list of all animals recorded in MINDA® LIVE.

- **See** the total animal count for the herd.

- **Search** for an individual animal.

The animal details are shown in a list, sorted by management number and including their Birth ID (or Lifetime ID).

The total herd count is visible right below the search box.

Search for a specific animal by entering its management tag or cow number in the **Find animal** search box at the top of the page.

This filters the list to show all animals that match the number you typed.
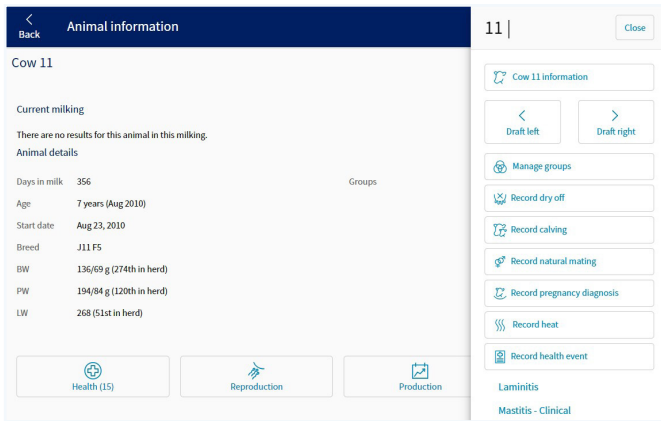
You can then click on a cow to view the animal details like age, days in milk, groups' information, health records, treatment plans, reproduction data, etc.

You can also record events for the cow from this page and create a quick draft so the cow will be drafted the next time she is seen at the gate.

Milking screen

Selecting from the Menu options takes you to the Milking screen where you can:

- Identify the cows in the bails during the milking
- Get visual and audio alerts for cows as they walk on the platform
- View details of cows on the platform
- Identify slow milkers which stayed on the platform for more than one rotation
- View summary of current milking

Initially the Milking screen displays a message saying no animals have been seen in this milking yet.

As the milking starts and platform starts moving, you start seeing allocations in bails.

The summary is displayed at the bottom of the Milking screen and shows

- Rotation time
- Repeats
- Drafts
- Cows milked
- Duration
- Time

Configuring alerts and recording events are covered in later sections **Setting up the shed** and **Animal Alerts.**

Settings

Settings can be found in the Menu. You can set up or make changes to the Protrack modules you have purchased.

Setting up the Protrack® ID system

Milking times

Prior to using the system for the first time, you will need to tell your system when and how often the animals are going to be milked.

> TIP: Set the start time at least half an hour earlier than when you are expecting the animals to be brought into the shed.

If you change your practice from milking twice a day to once a day later in the season you will need to update your settings.

1. Go to Menu. Select **Settings.**

2. Then select **Milking times** and you will see the picture below.

3. The options you can choose from are:
   - Once a day,
   - Twice a day,
   - Three times a day, or
   - Every 16 hours (3 times in 2 days).

4. Select the applicable milking frequency and enter the AM and PM milking times.

> NOTE: Milking start times cannot overlap. You will receive a warning if a setting is incorrect.

Milking layout

The animal information displayed can be tailored for the season's events, so you only see what is important for that season. You can change and create layouts, alerts or columns depending on the activity that is happening. The Milking layout option gives you the ability to choose what details you wish to view on your selected device.

You can have multiple devices with different layouts/alerts/columns e.g. Cups on view and a Cups off view.

1. To create a custom layout select the **Milking layout tab** in the menu.

2. Select the **New milking layout** tab.
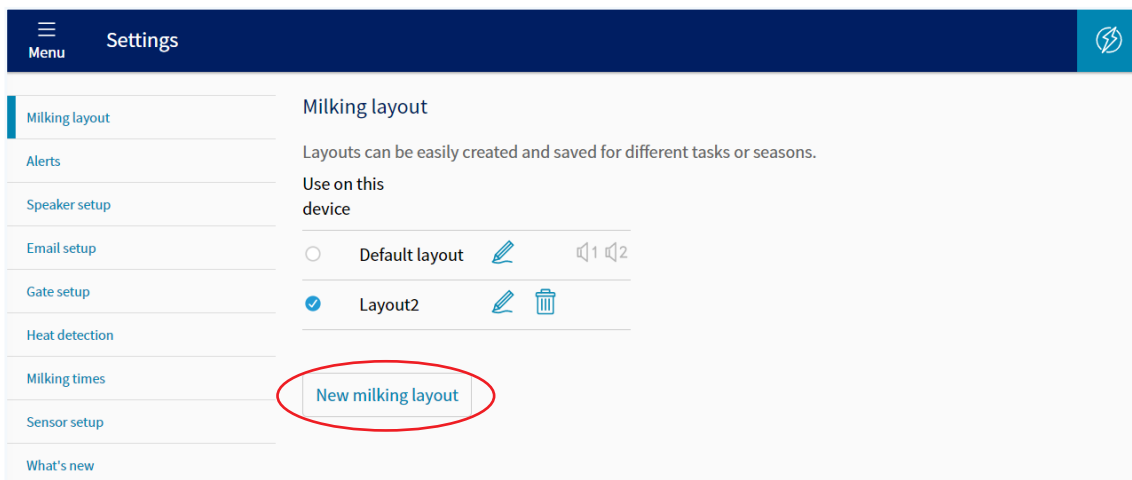
3. The default layout option is set when the software is first installed. You can modify this layout by selecting the **pencil icon** .

4. To create a new milking layout, select the **New milking layout** option. This will take you to the following screen.
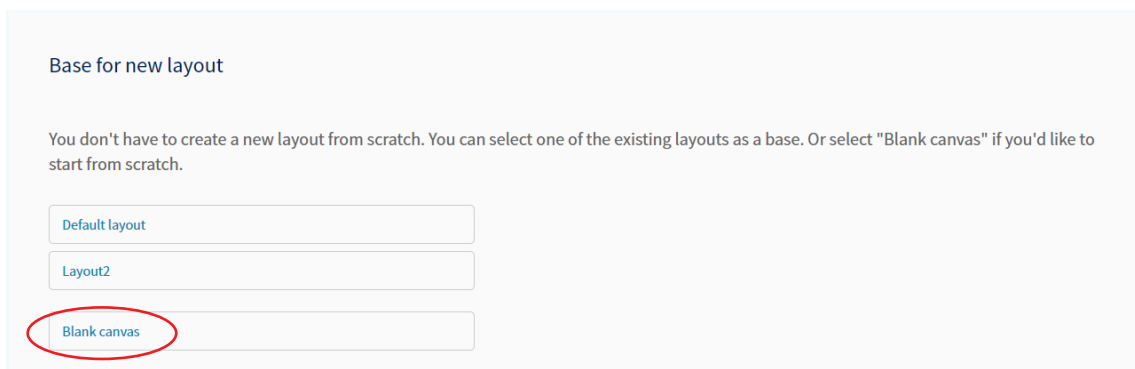
5. Select the **Blank canvas** option.

6. Enter a name for the layout e.g. cups on.

New layout builder

Name & position	Alerts	Columns

Name & watching position

Layout name

Watching position

3

Cancel   Save

Watching position

The Watching position is the position on the platform where you are performing a task e.g. cups on or cups off position.

Edit milking layout

Name & position	Alerts	Columns

Name & watching position

Layout name

Cups ON

Watching position

4

Cancel   Save

For example, with watching position set as 4, the 4th allocation on the Milking screen will be highlighted.

This can help you know which cow is right in front of you during the milking.
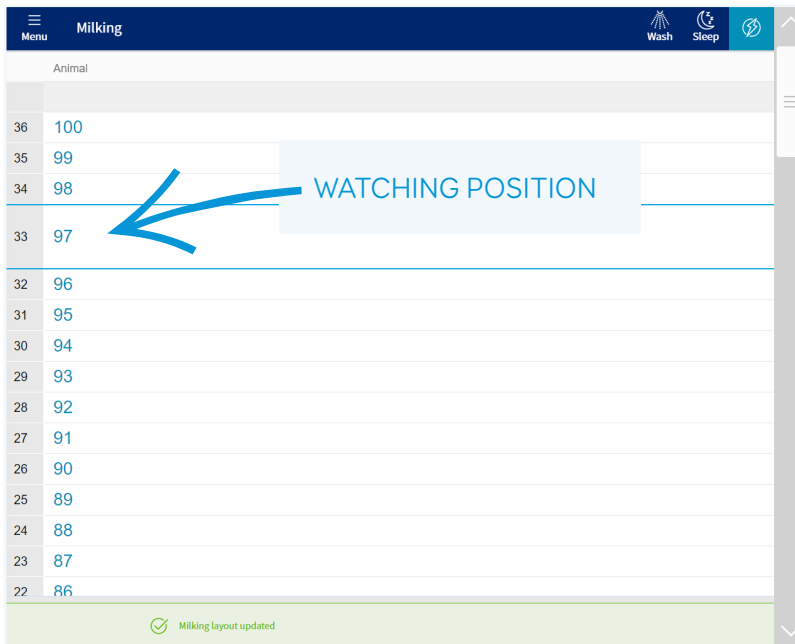
Once configured on your device – mobile or the Pit PC, this position would then be highlighted when viewing the ID screen.

Columns

Selecting columns

Once you have selected your watching position you then need to specify the columns that you wish to see on your screen. The columns available will depend on the modules you have purchased.

1. To add fields to the layout, select **drop down box.**
2. Select **new column** and one at a time click on the fields required. The number of columns you can display on your screen will be determined by the size of your device.

Removing columns from a layout

If you have added a column in error or wish to remove a column select 🗑 icon and **Save.**

Modifying columns

If you wish to modify an existing column from an existing layout go into **Customise layout** and select the ✎ icon. This will take you into that layout where you can either delete or add a column.

*Formatting columns for a layout*

Once you have added the fields required you can change the order that they display on the screen. The display from the top to the bottom of the list will be the order that the column will display left to right.

1. To move a column click on the ⌄ icon to move the column to the right and click on the ⌃ icon to move the column to the left, and **Save.**

Edit milking layout

Name & position	Alerts	Columns

Columns

Milk solids %	⌄		🗑
Fat %	⌄	⌃	🗑
SCC band	⌄	⌃	🗑
Days Since Heat or Mating	⌄	⌃	🗑
Mating Date		⌃	🗑

| Select new column ▾ |

The number of columns you can display on your screen will be determined by the size of your device.
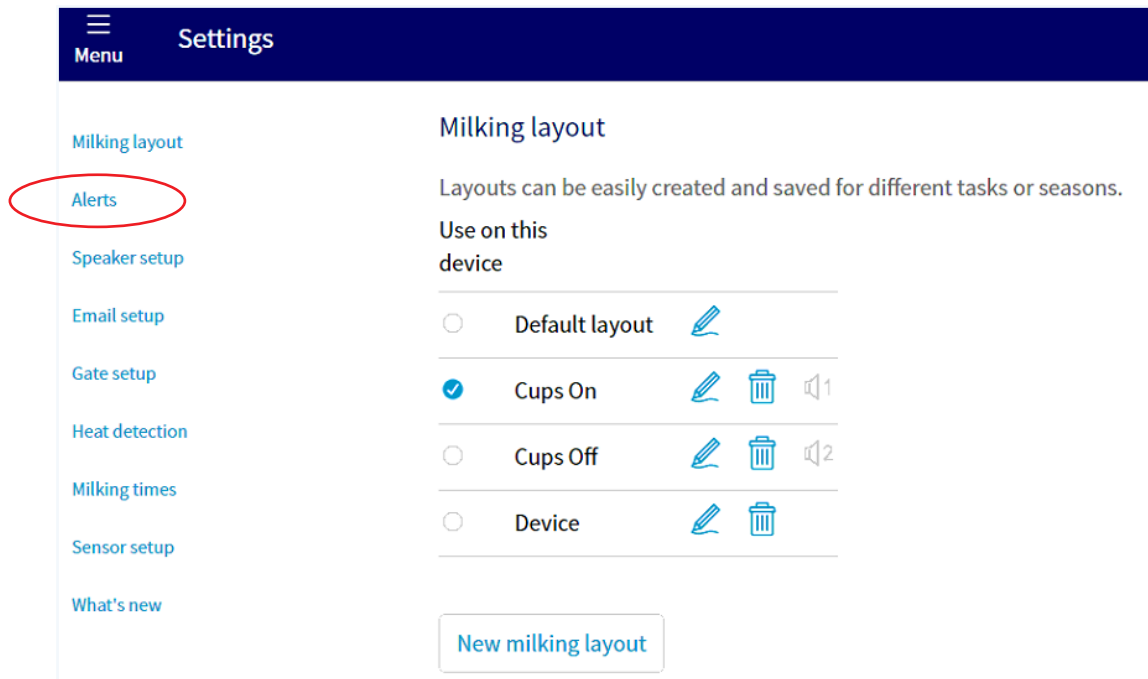
Cancel   **Save**

Alerts

Alerts have been upgraded and changed to allow more flexibility with your ID system. The following is a guide to show how they can be created, and what they are.

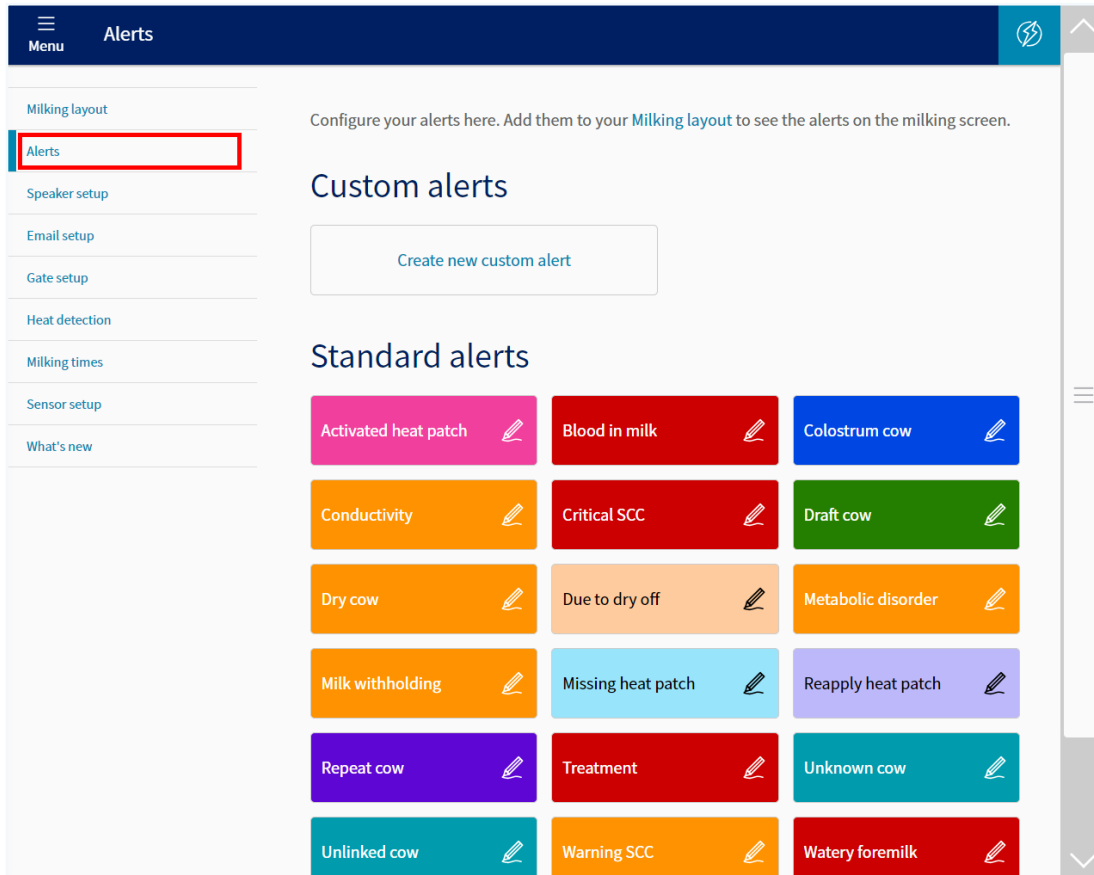*Finding the Alerts settings page in Protrack*

Alerts are configured from the Settings menu.

1. Click on the **Menu** bar, and you will see the **Settings** tab. Click on the **Settings** tab.

2. Click on **Alerts.** You will see the screen below, which has custom alerts, and standard alerts.
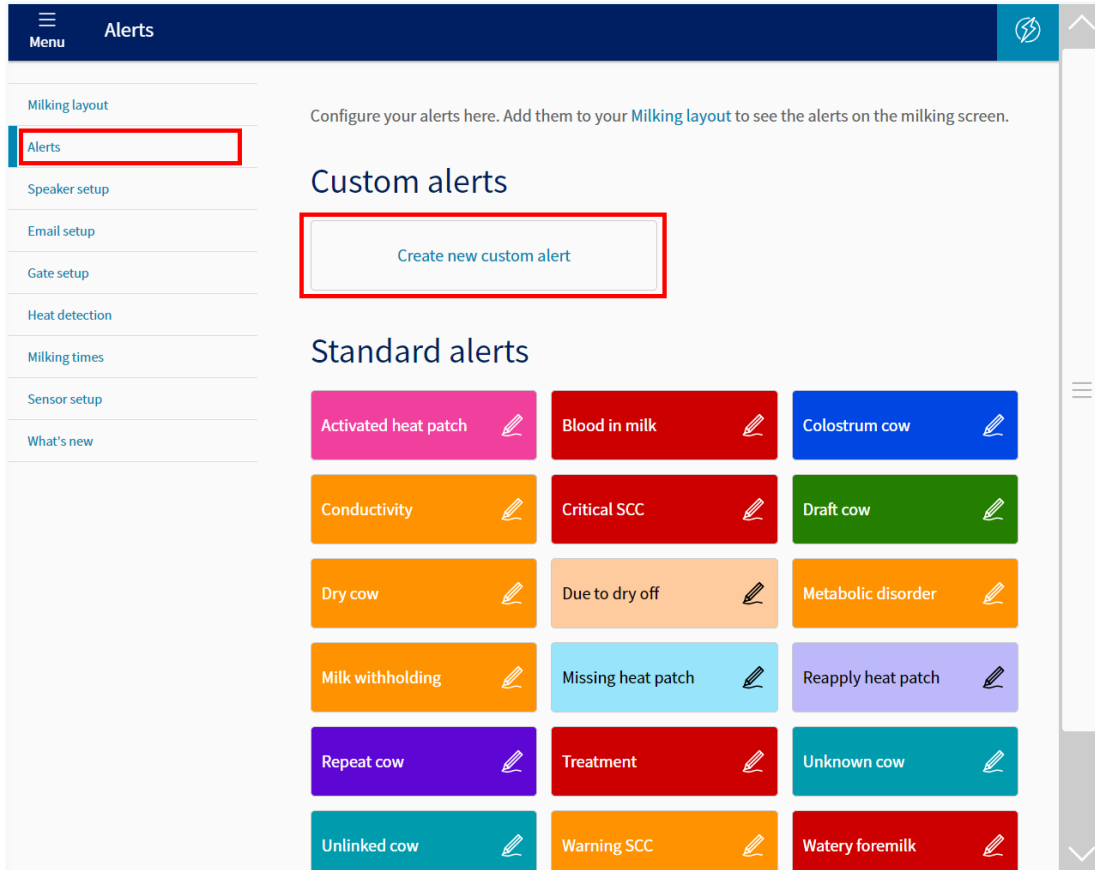

- **Custom Alert:** Alerts that you can set up yourself to identify different animals such as 'kickers', or '3 titters'.
- **Standard Alert:** Alerts that are generated by Protrack and relate to the modules you have bought. You can edit the alert to change the colour and audio options for each standard alert. See table in Appendix 1 for an explanation of each standard alert.

Creating a custom alert

A common use for custom alerts is to alert on animals known to kick while they are being cupped. For example, we can create a group called 'kickers'.

1. On the **Alerts** page in Settings, click on **Create new custom alert.**

2. Name your custom alert. You can do this in the box marked **Alert name.** In this instance it is called 'Kicker'.

Create custom alert

Changes made to this alert will be made for all users on this network. Go to Milking layout to add this alert to a layout or change alert priority in a layout.

Alert name

Kicker

Colour

Yellow

Audio

✅ Voice	⚪ Tone	⚪ Mute
🗣️	∿	🔇

What to say ⓘ

Kicker

▷ Preview audio

Select animals to alert on   Clear

Search for animal or group

8 ✕   20 ✕

☐ Default layout
☑ Cups On (current)
☑ Cups Off
☐ Device

Cancel   **Save**

3. Then choose a **colour** to represent this alert.

4. You can then choose the **audio** sound you would like to hear with this alert.

   The options are:

   • **Voice** – enter the text that you wish to be converted to speech with the cow number being read out first. For example, the text in the screen above the alert name reads 'Kicker' in the What to say box on this alert and when Cow 8 entered the cups on position, you would hear "Cow 8 Kicker".

   • **Tone** – this is where your alert will be matched with a tone of your choice from the 12 options available. For example a cow enters cups on position, you will hear the tone selected.

   • **Mute** – no sound, just a visual alert on your device.

   NOTE: Make sure alerts are recognisable to you and your co-workers.

5. Next select the animals you want to alert on. You can choose to add one or more groups or individual animals, by using the dropdown **Select animals to alert on.**

Once you have added a custom alert, and you wish to add another animal to it, you will need to come back to the Custom alert page and add the animal to the alert.

6. Next pick the **Milking layout** that this alert relates to. In the example above, cups on and cups off have been chosen by clicking in the box next to them and having a tick appear.

7. Once you have completed this and you wish to save your alert, click **Save**. This will take you back to the Alert page in Settings.

Edit standard alert

1. To edit a standard alert, click on the alert you wish to change. You can change the following:

- Colour
- Audio – voice, tone or mute.

2. Click **Save** to save your changes, or cancel to remove them. Confirmation of saved changes will appear at the bottom of the screen.

Milking layout

> NOTE: You must assign your alerts to a milking layout or they will not alert.

In the milking layout screen you can add alerts to a layout, and set the priority for the alerts within each particular layout.

1. You can find the milking layout by going to **Settings** and then **Milking layout.**
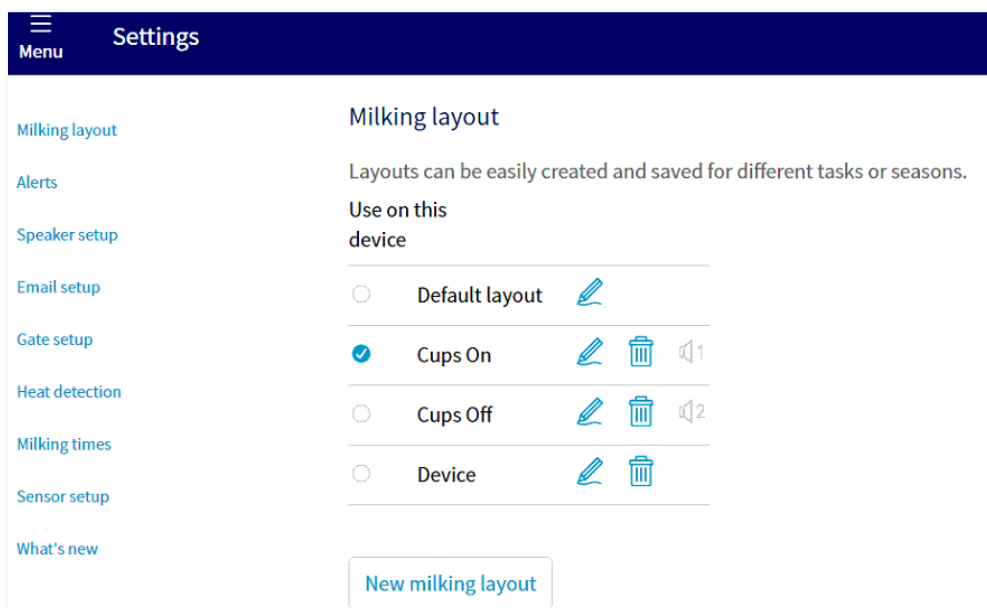
2. Click on the **pencil icon** ✐ beside the layout which you wish to add, or change alerts in.

3. You will see a screen like the one below. To add alerts to this layout click on **Select alerts to layout.**
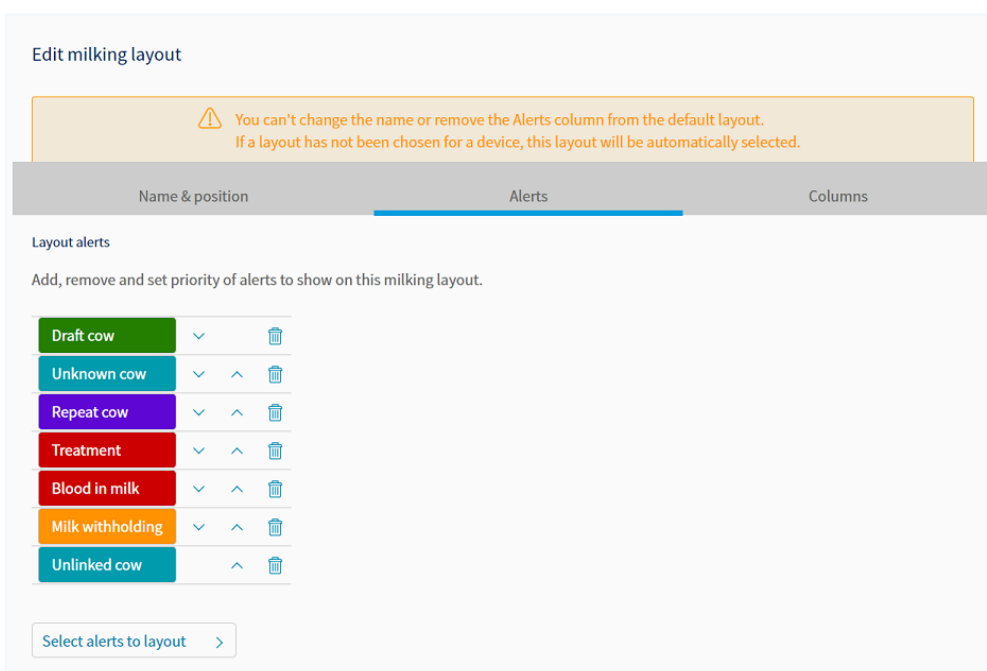
4. Pick the alerts you wish to add to the layout by clicking the tick box beside them. There will be ticks by the ones that are already assigned to that layout.

5. Click **Select alerts to layout** or **Cancel** to undo changes. This will take you back to the alerts page in the Milking layout screen. You can change the priority of your alerts here by clicking on the arrows next to the alerts. Click **Save** to save priority order or **Cancel** to undo changes.

Speaker setup

The **Speaker setup** page is where you assign a milking layout to the alert audio speakers. When you assign a milking layout to a speaker, the alerts in that layout will be played through the speaker. You can have up to two speakers installed in your shed and the Speaker setup page automatically shows them both.

Figure 1 shows an example where we have two speakers installed in the shed.
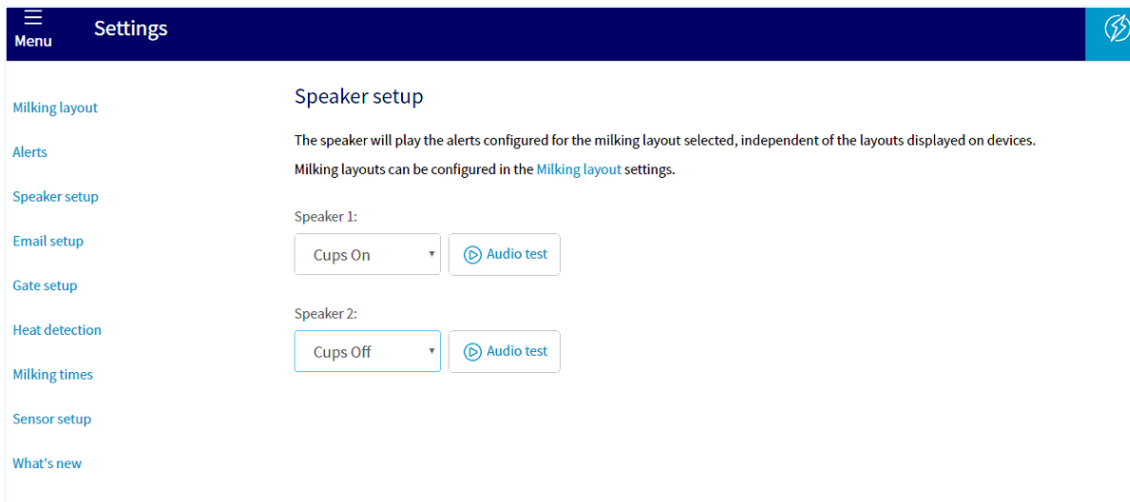
Assign a milking layout to a speaker:

1. Click on the dropdown for **Speaker 1.**

2. Select one of your milking layouts e.g. Cups on. The alerts in the Cups on layout will be played through Speaker 1.

3. If you have two speakers, repeat the above for Speaker 2. You can assign the same layout or assign different layouts to each.

4. You can use the **Audio test** button for each speaker to determine which speaker you will hear the alert audio from.

> NOTE: You must assign the layout to a speaker. If the layout is not assigned to a speaker you won't hear the alert sounds you expect.

To set the layout on selected device

Once you have created the layout, log into the device that you would like this layout to be displayed and tick the **Use on this device** tick box.
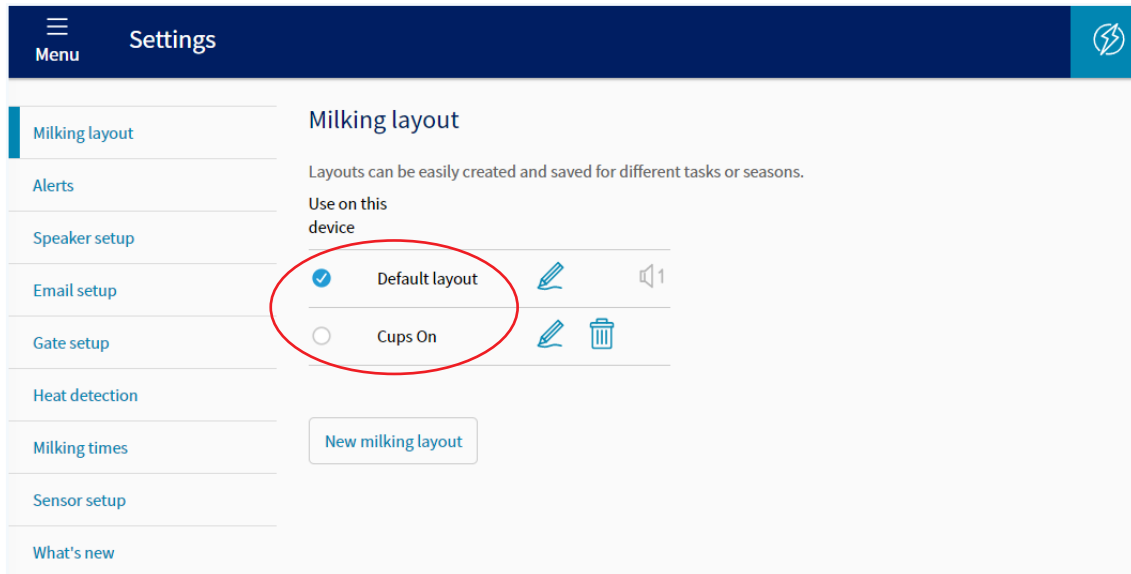
NOTE: Make sure the layout in use on your device has the alerts you wish to be alerted to.

NOTE: You can have multiple devices using different layouts.

Milking screen

A real time view

The Protrack® ID screen shows a real time view of the milking and displays the cows present in bails.

The top two **greyed out rows** show the cows which have arrived on the platform but haven't been allocated to a bail yet. This enables the system to alert you as early as possible to a cow with alerts on the platform.

The bail will show as:

- **Empty** if there is no cow in the bail.

- **Unknown** if the cow in the bail is missing EID tag.

- **Unlinked** or display the **EID** if the EID is not linked to a cow.

Assign an EID

To link an EID tag to a management tag number, tap on the unlinked animal you want to update. This will take you to the **Link animal** page.

Management tag

> Tag

Birth ID

Electronic ID

> 982 123535535700

Cancel   **Save**

NOTE: If the animal you have assigned the EID to has already had an EID recorded against it, then the old EID will appear as unlinked whenever seen at the gates or the platform so you can allocate the correct management tag to it.

Messages

When a component in your system has stopped working, a red banner will appear. When you click on the banner you will be provided details of how to fix it and get your system up and running.
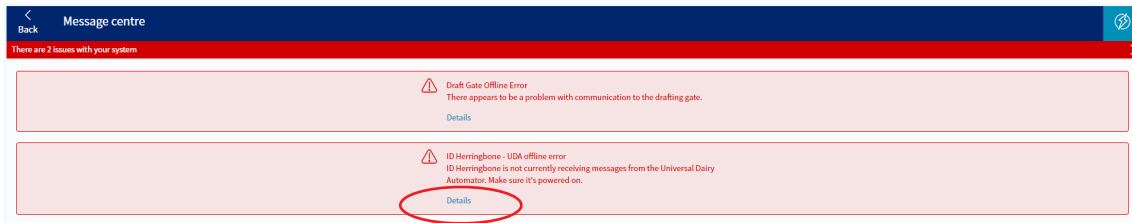
Click on the **Details** link of any message to see that message in full (including more details about why the error has occurred and how to fix it). The full error message will display, as shown in the example below.

Click **Back** to return to the previous screen.

Appendix 1

Table of standard alerts Name	Description	Required module
Activated heat patch	Animals will be alerted as soon as the heat system detects an activated heat patch or an animal that is scheduled to be mated in the current milking from a previously detected heat enters the platform.	Heat
Blood in milk	Animals that have a blood in milk result in the current or previous milking.	Milk
Colostrum cow	Animals that have calved within the specified number of days.	ID
Conductivity	Animals that have a conductivity result in the current milking.	Milk
Critical SCC	Animals that have a SCC count higher than 2 million in the current or previous milking.	SCC
Draft cow	Animals that are scheduled to draft in the current milking.	Draft
Dry cow	This will alert on any animal that has been dried off.	ID
Due to dry off	Animals that are due to calve within the specified number of days.	ID
Metabolic disorder	This will alert on any animal if the fat to protein ratio in the previous milking was out of bounds as compared to her 5 day average.	SCC/Milk
Milk withholding	Animals are in milk withholding within the current milking.	ID
Missing heat patch	Animals will be alerted as soon as the Heat system detects a missing/dirty heat patch.	Heat
Reapply heat patch	Animals requiring their heat patch to be reapplied in the current milking.	Heat
Repeat cow	Animals that have already been seen in the current milking.	ID
Treatment	Animals are due for a dose within the current milking.	ID
Unknown cow	Animals that the system is unable to identify who it is.	ID
Unlinked cow	Animals where the EID tag that has been read does not match any animals in the herd.	ID
Warning SCC	Animals that have has a high SCC count in the current or previous milking. The threshold for this alert is under Cell Count Alerting in Settings – Sensor Set up.	SCC
Watery foremilk	Animals that have a watery milk result in the current or previous milking.	Milk
Yield dip	Animals that have a Yield dip result in the current or previous milking.	Milk

Notes

Notes

Notes

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