INDICATOR
USER MANUAL

XR 3000
SR 3000
ID 3000
JR 3000

www.tru-test.com

WORLD LEADERS IN WEIGHING

This manual is written primarily for users of XR3000 indicators. However, users of ID3000, SR3000 and JR3000 indicators will find information relevant and useful, except where marked:

Information applies to XR3000, ID3000 and SR3000 indicators only.

Information applies to XR3000 and SR3000 indicators only.

Information applies to XR3000 indicators only.

TRU-TEST

XR 3000

The ultimate in weight management

USER MANUAL

World leaders in weighing

Version of software: 1.4

User Manual part number: WID82004 issue 5 04/05

Table of Contents

Introduction

Animal management has continued to intensify, presenting new challenges for data collection and management. Tru-Test have responded to these challenges with the XR3000 weighing indicator.

The XR3000 is the most advanced weighing indicator available. The XR3000 allows for both basic and progressive animal performance management. The XR3000 makes the collection of data efficient and encourages you to push the boundaries of your animal management system.

Comprehensive animal management features

The XR3000 provides for:

- Intensive monitoring of individual animal performance and the factors that impact on performance.
- Comprehensive sorting of animals into groups based on weight, animal ID, and many other characteristics.
- Handling multiple IDs for one animal.
- Recording full animal treatment history.
- Flexible reporting to meet your needs.

Easy to learn

The XR3000 comes with factory default settings, so that the indicator is easy to use as soon as you switch it on.

As you become more familiar with the XR3000 you can start to use more advanced features and tailor the indicator to meet your specific and developing requirements.

You will soon discover that many of the XR3000's features are complementary, creating a powerful management tool.

Other applications

The indicator can be customised to collect exactly the data you want. As a result the XR3000 can be easily tailored to a variety of non-livestock weighing applications.

Documentation

In addition to this manual, the XR3000 provides a comprehensive on-screen help system. With a single key press, you can obtain information about the operation you are performing.

There is also a separate Quick Start Guide that covers the basic operation of the indicator and is designed for use at the weighing site.

Structure of this manual

This manual guides you through the use of the XR3000, from simple weighing through to advanced animal management methods.

The manual is divided into 6 parts, each part containing several chapters.

Part 1 - Essentials

Tells you how to install and operate the indicator.

Includes:

- Getting Started, which gives a quick summary of how to operate the indicator.
- A typical weighing session using the indicator's factory default settings.

Part 2 - Making the most of the XR3000

Explains what features to use for several common application scenarios.

Shows how to combine multiple features to get the maximum benefit from the XR3000.

Part 3 - Getting Data In

Explains in more detail how to use features of the XR3000.

- How to set up and operate the indicator efficiently to collect all the data you want to record about your animals.
- Using some of the indicator's advanced features to speed up weighing sessions.

Part 4 - Getting Information out

Explains the advanced animal management features such as:

- Reporting on weight gain and current value of animals.
- Printing statistics.
- Reviewing an animal's complete history from birth.

Part 5 - Setup Reference

Describes each setup option.

Part 6 - Reference Information

Includes:

- Troubleshooting.
- Contact information.
- Comprehensive index to this manual.

Terminology

In this manual, the term 'platform' is used to mean the weighing platform or crate on which animals stand when being weighed.

Further information

For details of Tru-Test service centres, see "Contact Information" on page 223.

TRU-TEST®

PART 1

Essentials

If you choose just one part of this manual to read, then make sure it is this part. It discusses all the basics that you need to know in order to install and operate your indicator.

Brief Overview

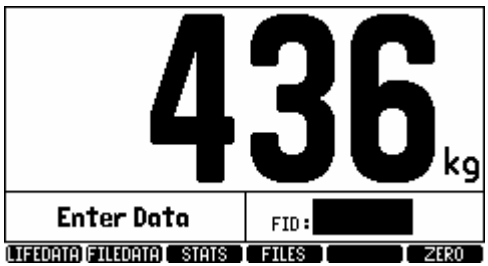
Switching on

To switch on the indicator:

- Press ⏻.

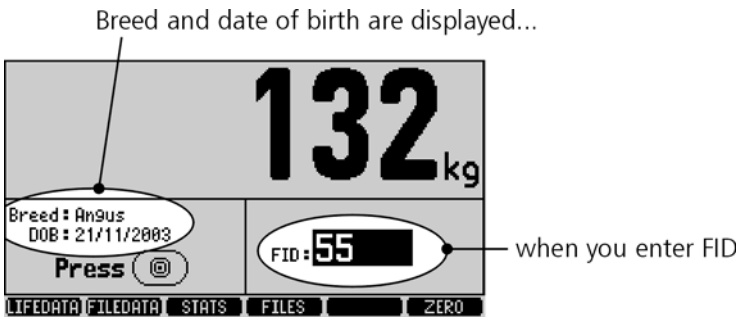
Weighing screen

The Weighing screen always shows the live weight on the platform.



Data fields

You can configure the Weighing screen to display fields of data you want to view or record. For example, the screen can display the animal's breed and date of birth when you enter its ID.



Moving the cursor

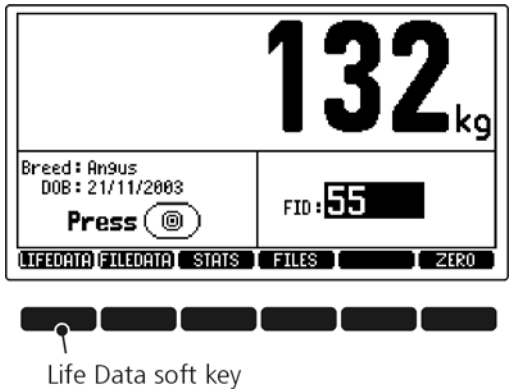
To move the cursor from one field to another on screen:

- Use the arrow keys: ←, →, ↑, ↓.

Moving from screen to screen

To display other screens:

- Use the soft keys that appear at the bottom of screens.



Entering data

To enter data in a field:

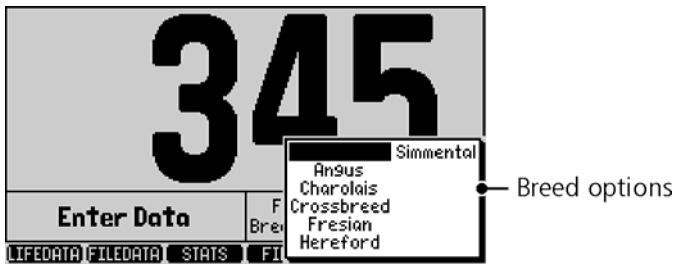
- Type the data and press ↵.

Selecting from a list of options

Some fields allow you to select from a list of options rather than having to type the data.

To select an option:

1. Press ↵ to see the list of options.

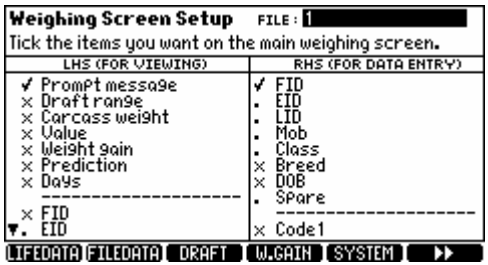


2. Use the arrow keys to highlight the required option.
3. Press ↵ to select the option.

Setting up the Weighing screen

To add or remove fields from the Weighing screen:

1. Press (✕✓).



2. Move the cursor to the option you want to change and press **1** to enable (tick) or **0** to disable (cross).

You can tailor the names and types of data of many of these fields to suit the application.

Setting up other options

To access other setup screens:

- Use the soft keys, which appear at the bottom of the Weighing Screen Setup.

Selecting files

The indicator provides 200 files for recording weighing session data. The weights are recorded in the currently selected file.

To select a file:

1. Press **FILES** to display the List of Files screen.

   The selected file is indicated by whichever row contains the cursor.

2. Put the cursor in the required row.
3. If required, enter a name for the file.
4. Press (ESC) to exit the screen.

Recording weights

A typical weighing session includes the following steps:

1. Select the file data file for the session.
2. Change the Weighing Screen Setup if necessary.

3. Move the first animal onto the platform.
4. On the Weighing screen, enter an ID for the animal. The indicator looks up and displays previously recorded information about the animal.
5. Enter or edit additional fields if required.
6. When the Stable light comes on, press  to record the weight.

- Repeat steps 3 to 6 for the other animals.

The indicator stores the weights and other entered data in the selected file.

Viewing life data

Each animal has a Life Data record that can be viewed and edited on the Life Data Form screen. Life Data is the general data about an animal, such as date of birth, ID, or breed, that normally stays the same throughout the life of the animal.

From the Life Data Form screen, you can also access the Animal History screen, which shows all the previously recorded weights and file data about the current animal.

Viewing file data

You can view and edit weights and other data recorded during a weighing session on the File Data screen.

Modifying data

If you make an error and the data is still on the Weighing screen, you can fix it there. Otherwise you can change it in the File Data screen or Life Data Form screen.

Online help

To see the online help screens:

- Press ?.

Installing the Indicator

This chapter describes how to install and connect the indicator. For information on installing loadbars and mechanical parts of the weighing platform, refer to the manual that came with your loadbars.

Installing the indicator

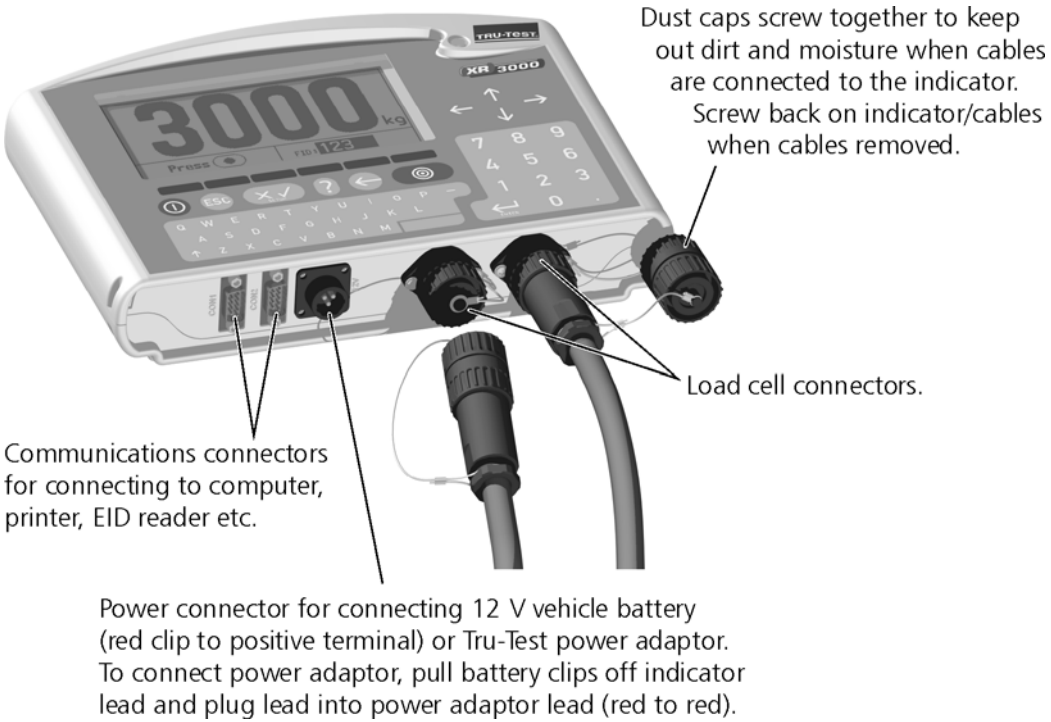
1. Mount the indicator bracket in a convenient place where animals cannot knock the indicator or chew the cables.

   Position the indicator so that the screen is out of the sun if possible.

   The bracket can be mounted on a flat surface, such as a timber rail or concrete structure, using screws or nails. Alternatively, mount the bracket onto horizontal pipework with the U-bolts supplied.

   The bracket must be firmly mounted to prevent possible operator errors or fatigue.

2. Connect the load sensor cables to the indicator. Connect the dust caps together to keep out dirt and moisture.
3. Connect the power cable (If using an external 12 V supply).
4. Check the weighing accuracy. See “Checking weighing accuracy” on page 13.



12 V power supply

The XR3000 has internal rechargeable batteries that provide a running time of up to 14 hours when fully charged.

The indicator contains an internal battery charger that operates from either the recommended Tru-Test power adaptor or a 12 V vehicle battery. The internal charger provides the fastest rate of charge while protecting the battery from overcharge and ensuring long life.

Damage to the indicator caused by using an unsuitable charging supply will void the warranty.

Automotive battery chargers are NOT suitable. The voltage and current they supply may be outside the required range.

Charging

The indicator starts charging when you plug in the approved 12 V power supply.

Charge the indicator for 12 hours before using it for the first time.

The indicator can be charged while in use, or when switched off.

You can safely leave the indicator on charge at all times.

The battery self-discharges over a period of a few weeks, so will need recharging before each use.

Further information on charging and battery management is given in "Battery Management" on page 220.

Calibration

The indicator automatically calibrates itself to Tru-Test load sensors.

CON 1 and CON 2

The two sockets, CON 1 and CON 2 are for connecting a serial cable to a PC, a printer or an input device such as an electronic tag reader.

For further information, see "Serial Setup Screen" on page 204.

Installation notes, care, and maintenance

- Route cables so that they cannot be chewed by animals, walked on or squashed in any way. Placing the cables inside heavy plastic hose, under timber, underground, or attached to posts helps to prevent damage.
- Dust caps must be screwed onto the loadbar plugs whenever the cables are unplugged from the indicator. The caps help to prevent damage from dust and moisture. When the loadbars are connected to the indicator, screw the two dust caps together.
- Store the indicator in a cool dry place when not in use.
- If the loadbars are not permanently installed, store them in a clean, dry place when not in use.
- Ensure that the underside of the crate or platform is free from dung, dirt and stones.
- If any method is used to restrain the platform or crate, there must be no tension or binding in the system during weighing. Chains should be slack and stops must not bind.

Checking weighing accuracy

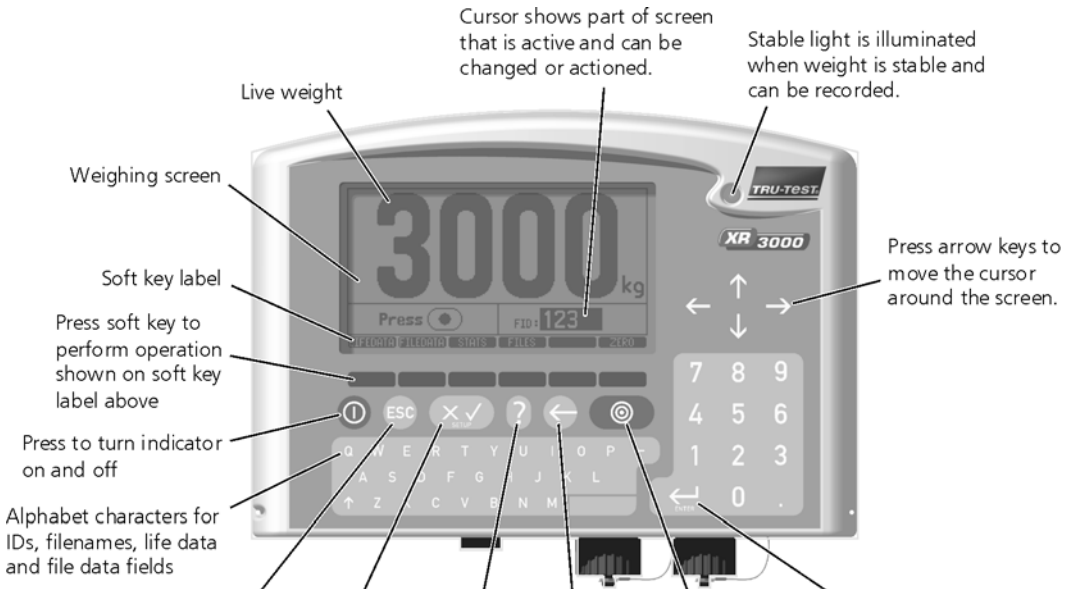
1. Switch on and zero the indicator.
2. Put a test weight (which may be a person) at one end of the platform and note the stable reading on the indicator.
3. Put the test weight at the other end of the platform and note the stable reading again.
4. Remove the test weight and note whether the reading returns to zero.
5. If the two readings differ by more than 1 kg, or the reading does not return to zero, refer to “Troubleshooting“ on page 216.

Note Repeat the above tests periodically, especially if the equipment has not been used for some time.

Troubleshooting

For information on possible problems and solutions, see “Troubleshooting“ on page 216.

Parts of the Indicator



Operating the Indicator

This chapter explains the basic operation of the indicator - how to switch on, navigate around the screens and enter data.

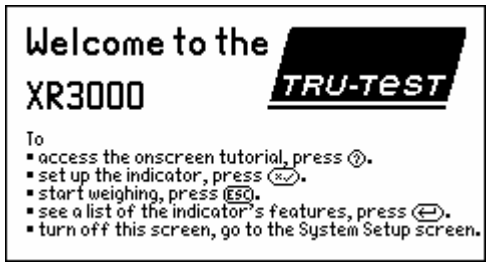
Switching On and Off

Switching on

To switch on the indicator:

- Press ⏻.

After a short pause, the indicator displays the Welcome screen.



Switching off

To switch off:

- Press ⏻.

Notes

- When not connected to an external 12 V supply, the indicator automatically switches off after 15 minutes of inactivity, in order to conserve the battery. This feature can be disabled if required.
- When the indicator is turned off, all data and setup information is retained in memory by a lithium backup battery.

Screens

Introduction

The indicator displays information in different screens that are broadly categorised as follows:

Name	Purpose
Weighing screen	The main operating screen used during weighing sessions.
Setup screens	Used to configure the indicator to your requirements.
Data screens	Screens of data recorded in the indicator, such as weights and other information about your animals. The data can be sorted, edited, and viewed in different ways on different screens. Data in these screens can be printed.
Help screens	Provide help information about operating the indicator.

The Weighing screen

The Weighing screen displays weights (and other data) during weighing sessions.

You can configure the Weighing screen to display the fields of data you want to view or record. When you change the content of the screen, the text automatically resizes to fit the information on the screen.

To configure the Weighing screen:

- Press (✕✓ SETUP).

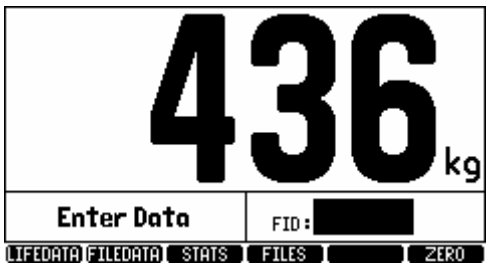
Weighing screen layout

The Weighing screen has three display areas:

- Weight display.
- Left hand column for viewing previously collected data.
- Right hand column for entering new data.

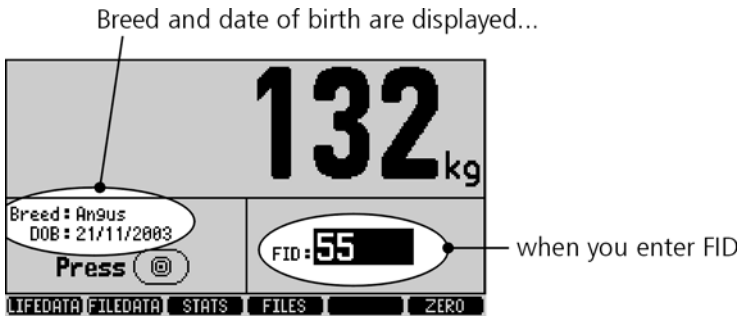
Displaying just the weight reading

The following example Weighing screen shows the live weight and a field to enter the animal's FID (friendly ID). The weight reading is always shown as large as possible at the top of the screen.



Displaying the weight and other data

The next example shows the layout when you display the live weight, a field for entering the animal's ID, and two other fields: Breed and DOB (Date of Birth).



When you enter the ID for the animal, the indicator looks up and displays the other information about the animal.

Soft Keys

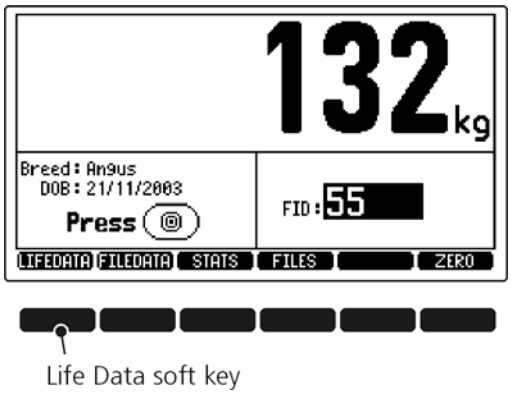
Introduction

The soft keys have different functions depending on the screen you are viewing at the time. The function of each key is displayed on the bottom line of the display just above the key.

Action of soft keys

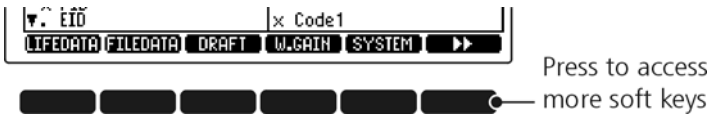
Soft keys can perform two types of actions:

- Navigation
  Pressing the soft key takes you to another screen.
- Function
  Pressing the soft key performs a function such as: FIND, SORT, PRINT, or ZERO.



Accessing more soft keys

Some screens have more soft keys than will fit on the bottom line of the display. In this case, you can scroll the soft key bar on the display by pressing ▶▶ to see more keys. To return to the first set of keys, press ◀◀.



Appearance in this manual

In this manual, soft keys are represented as white text on black background (as they appear at the bottom of screens). For example: "To access the Life Data Form screen, press LIFEDATA."

(This means press the key below the LIFEDATA label.)

Moving from Screen to Screen

Accessing screens

To access a screen, press:

- (setup) for the Weighing Screen Setup.
- (?) for help screens.
- One of the soft keys for a sub-screen.

Return sequence

The indicator remembers the sequence of screens you have visited since the Weighing screen.

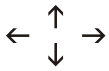
- To step back through the sequence of screens, press (←).
- To exit directly back to a previous group of screens, press ESC.

Moving from Field to Field

Arrow keys

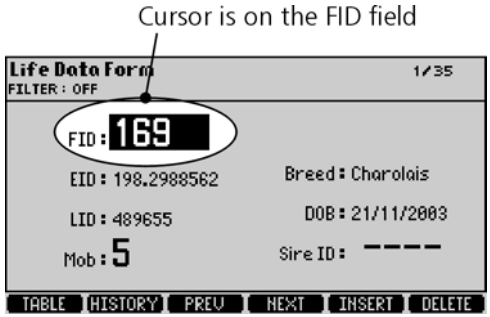
To move from one field to another on screen:

- Use the arrow keys.



Cursor position

The cursor position is shown by black shading over the field that the cursor is on.



Types of Fields

Introduction

A field is a place on a screen that displays one item of data or setup information. Generally, you can move the cursor to a field and change the data or setup.

The indicator uses the following types of fields:

- Text
- Number
- Option (Custom)
- Date
- Time

These field types are explained below.

Text fields

Text fields can be used to store numbers, letters, space, period, and -.

If you use Text fields to store numbers, the indicator automatically recognises this and includes the numbers in statistics calculations.

Number fields

Number fields force you to enter numbers in a specified format with the correct number of digits.

Although you can use text fields to store numbers, number fields have the following advantages:

- Use less memory.
- Force numbers to be entered with correct number of digits.
- Do not accept letter keys.

The last two points help to reduce data entry errors.

Option fields

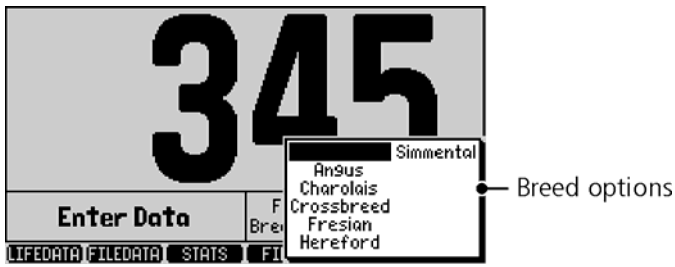
Option fields allow you to select from a pre-defined list of options. Most setup fields are option fields.

When option fields are used for user data, they are referred to as ‘custom’ fields. Custom fields are the fastest and easiest way to handle data that has a small number of pre-defined options.

The indicator comes with some default custom fields, such as the Breed field. You can edit these, and you can also set up your own custom option fields. See "Using Custom Fields" on page 91.

Selecting an option

1. Move the cursor onto the option field.
2. Press ↵ to see the list of options.



3. Use the arrow keys to highlight the required option.
4. Press ↵ to select the option.

Tip

As a shortcut you can:

1. Move the cursor onto the option field.
2. Press the number corresponding to the required option.

(This method is faster, but requires you to remember the position of the option in the list.)

Date fields

Date fields force you to enter dates in a particular format depending on the country you reside in. For example, DD/MM/YYYY or MM/DD/YYYY. The indicator inserts the separator characters and leaves space for you to enter the numbers. Date fields can be used, for example, to enter the birth dates of animals.

Time fields

Time fields force you to enter the time in the format HH:MM. Time fields only appear in the Files screen.

Entering Data in Fields

Introduction

You can enter or edit data at any time. For example, you can manually enter data, such as animal condition codes, on the Weighing screen during weighing sessions. The indicator also provides other screens where you can view, enter or edit the recorded data.

Entering data

1. Move the cursor to the required field on screen.
2. Type the data (or press ↵ and highlight the required option if it's an option field).
3. Press ↵.

Deleting characters

While entering data in a field, you can press ⌫ to delete the previous character.

XR SR ID ONLY

Shift key

To obtain lower case letters, press ↑, then type the letters. To return to upper case, press ↑ again.

Editing Data

Introduction

You can edit recorded data before or after a weighing session.

Editing a previously entered field

1. Move the cursor to the required field on screen.
2. Type the data (or press ↵ and highlight the required option if it's an option field).
3. Press ↵.

Tip

For Text, Date, and Time fields, you can press ↑ and ↵ together to get a text editing cursor within the field. You can then use the ← and → keys to move the cursor within the field and type new characters as required. You can also press ⊖ to erase the previous character (or current character if in the first position).

Clearing a previously entered field

The field can be changed so that it is completely empty.

Field type	To clear the field
Text	Press ␣, ↵ .
Number	Press "- -", ↵.
Option	Press 0, or select the first option, which is always blank.

ESCAPE key

If you press ESC while editing a field, the value in the field reverts to its previous value. However, if you have not started editing the field, the function of the ESC key is to exit the screen. The ESC key will always get you back to the weighing screen eventually.

Enabling Options

Introduction

The XR3000 uses the following symbols to indicate the status of certain options in setup screens.

Symbol	Meaning
✓	The field is enabled.
✗	The field is not enabled.

Changing the status of an option

1. Move the cursor to the appropriate tick or cross.
2. Press **1** to enable (tick) or **0** to disable (cross).

Getting Help

Introduction

The Help screens provide a built-in manual that gives on the spot instructions about every feature and function of the indicator.

Accessing Information about a field

To see information about a particular field or column on the screen:

1. Move the cursor to the field or column.
2. Press ⓘ.

The indicator displays a screen of information about the field you are working on.

Moving from screen to screen

You can move from one help screen to another by selecting links:

1. Move the cursor to the link you are interested in.
2. Press ⓘ.

To return to the previous screen of information:

- Press ⊖.

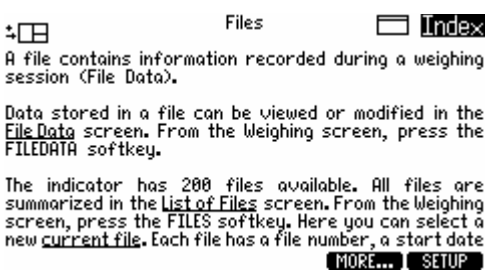
Index

The index link at the top right hand corner of information screens gives access to a comprehensive index.

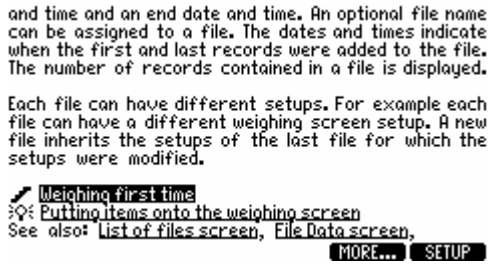
To search for a word in the index:

1. Enter the first one or two letters of the word you are looking for.
2. Use the arrow keys to move up and down the list of items.
3. Select the word.
4. Press ⓘ.

Help screen

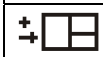


Help screen continued...



Icons

The following table explains the icons used on the help screens.

Icon	Description
	Select, then press ⓘ to see a step-by-step guide.
	Select, then press ⓘ to see a handy tip about this feature.
	Select, then press ⓘ to see more information about the screen rather than the field you are in.
	Select, then press ⓘ to see a list of help topics.
	Select, then press ⓘ to add the field to the Weighing screen.
	Select, then press ⓘ to remove the field from the Weighing screen.
	Press to see the rest of the information.
	Press to go directly to the Setup screen where the feature can be enabled or disabled.

Tutorial

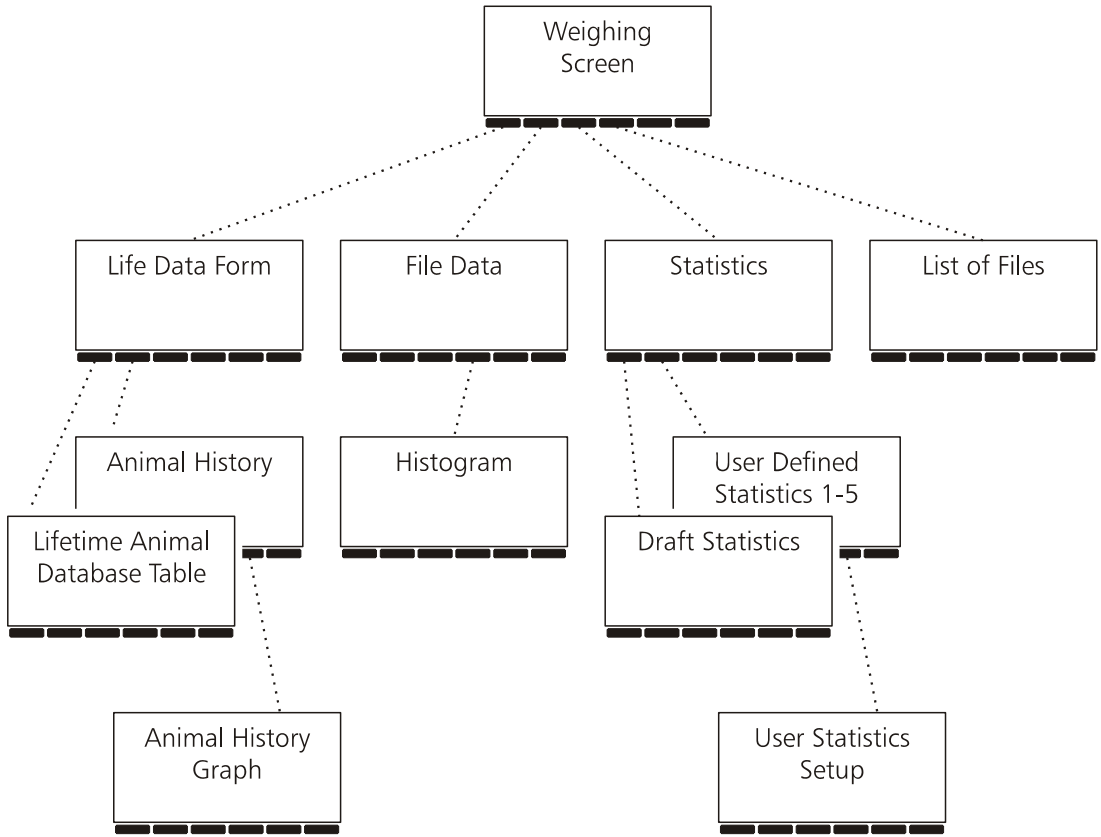
When you switch on the indicator for the first time, a welcome screen appears. A tutorial is available from this screen. You might like to complete the tutorial if you are a new user.

Map of the Screens

The diagrams below show the routes that allow you to access the different screens in the indicator.

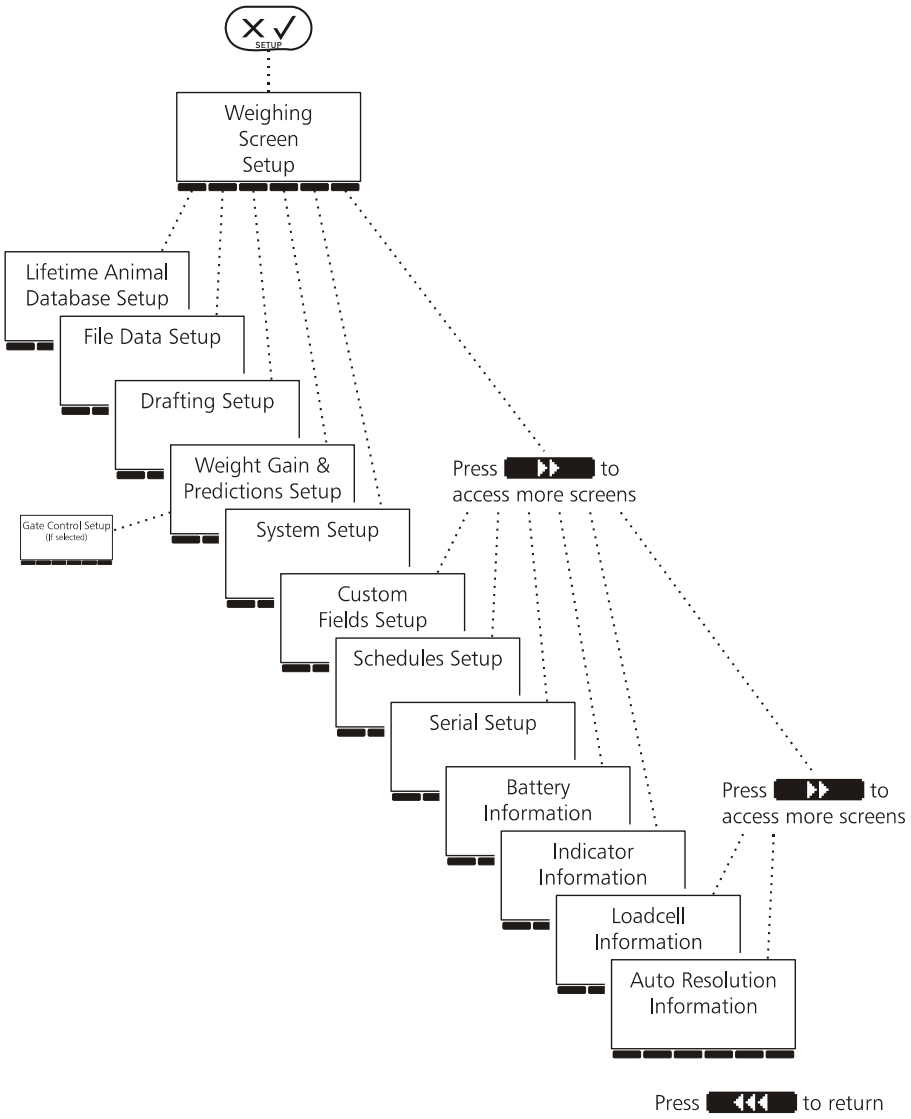
Data Screens

Data screens are accessed using the soft keys, starting from the Weighing screen.



Setup Screens

Setup screens are accessed by pressing SETUP to display the Weighing Screen Setup and then using the soft keys to access the other setup screens.



Data Storage Principles

There are a few important principles to understand about using the XR3000 to store data. These principles will help you to customise the XR3000 to your requirements and obtain the best advantage from its powerful features.

Types of data

With the XR3000, Tru-Test have introduced a new database structure that facilitates the storage and retrieval of two different types of data:

- Life data
- File data (session data).

These are explained in the topics below.

Life Data

Introduction

Life data is the general data about an animal, such as date of birth, ID, or breed, that normally stays the same throughout the life of the animal.

Lifetime Animal Database

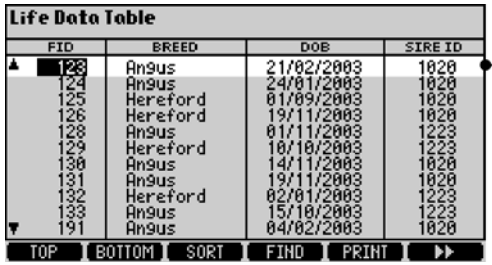
The life data for all animals is stored in a single database, called the Lifetime Animal Database (life data for short). Life data doesn't need to be entered at each weighing session. Life data is entered once and then called up from the database when needed.

Records and fields

The database consists of records (one for each animal) and up to eight fields of data within each record.

The database can be represented in table format, where the rows of the table are the records and the columns contain the fields of data.

Example Lifetime Animal Database



XR ONLY Setting up life data

You can add fields to the database and customise the names and types of data to suit your own requirements. Each field can store up to 25 characters of data.

Setting up the life data is explained in "Configuring Life Data" on page 58.

XR ONLY IDs

Setting a field to be an ID causes the indicator to locate the animal's record whenever the ID is entered into that field.

File Data

Introduction

File data is the data that you collect during weighing sessions on an ongoing basis. For example, the animal's weight, condition, and treatments given on a particular day. It can also be used to record events, such as calving, or mating.

This is called file data because a new file is used for each weighing session.

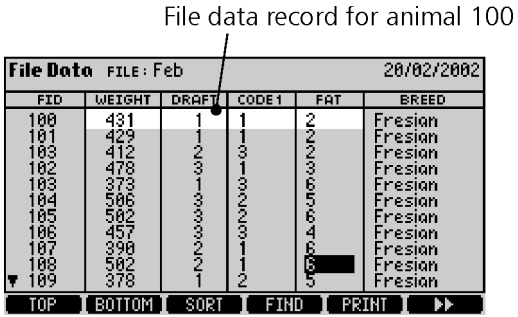
Files

Up to 200 file data files can be stored in the XR3000. Files can be identified by File Number, File Name or Date.

File data records

A file has a data record for each animal weighed during the session. In addition to the animal's weight, each record can have up to three fields of user-defined data.

Example file data



Comparisons between life data and file data

- Values in life data, such as date of birth and breed, usually remain the same for the life of the animal. Whereas values in file data are usually different at each weighing session.
- The life data for all your animals is stored in the single Lifetime Animal Database. File data is spread over many files, one for each weighing session.
- A file data file contains only as many records as animals you weigh on the day. The Lifetime Animal Database contains a record for every animal known to the indicator.

Tip When deciding whether to use a life data or file data field, think about the type of data you are recording. Use a file data field for data that could be measured or recorded multiple times; otherwise, use a life data field.

Accessing and viewing data

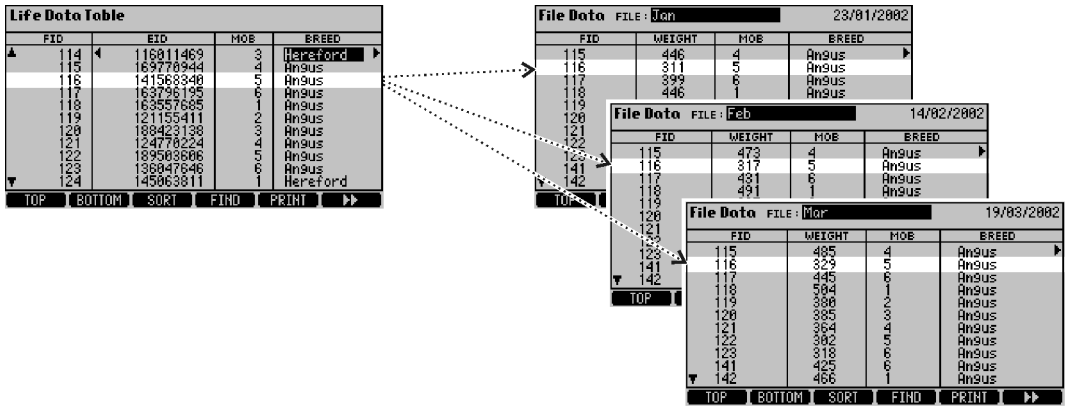
The XR3000 offers many different views of life data and file data. Some views combine data from both life data and file data. For example you can display an animal's ID and breed (stored in life data) together with its monthly weight gain (calculated from values stored in file data).

Because the XR3000 uses the same animal IDs to identify records in both life data and file data, you can easily link to all the information stored about a particular animal, whether it be its sire or its latest weight.

Linking data via IDs

File data records include links to the Lifetime Animal Database. This allows the indicator to store life data in one place instead of duplicating IDs and other life data in every file.

The following diagram shows how the animal's FID, Mob and Breed are stored in the Lifetime Animal Database, but are displayed in the File Data screen.



Example Weighing Session

This chapter guides you through the procedure for a simple weighing session.

The XR3000 is very flexible in the ways you can use it to collect data and turn it into useful information.

The processes can be considered in three parts:

- Setting up.
- Weighing and recording.
- Viewing recorded data and computed information.

Setting Up

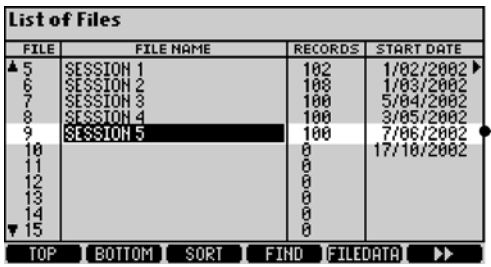
Introduction

Before a weighing session, you can set up the fields of data you want to record. In many cases the factory default settings are fine for what you want and there is no need to change them. For this example we will use the default settings, but we will have a look at the Weighing Screen Setup to see what fields are enabled.

Selecting a file

The selected file stores the weights and other file data that you record during a weighing session. You start a new file for each session.

1. From the main Weighing screen, press **FILES** to display the List of Files screen.

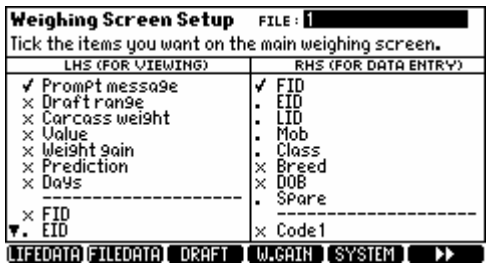


2. Move the cursor to the row for an empty file (one of the files with 0 in the Records column).
3. Type a name, such as 'Test File' and press ↵.
4. Press ESC to exit the screen.

Note When you select a file, the indicator remembers it as the **current file** and uses it for recording weights and viewing data on other screens, such as the File Data screen.

Setting up the Weighing screen

1. Press ✕✓ to display the Weighing Screen Setup.



The right hand side of the Weighing screen is designed for you to group together fields for entering data during weighing sessions.

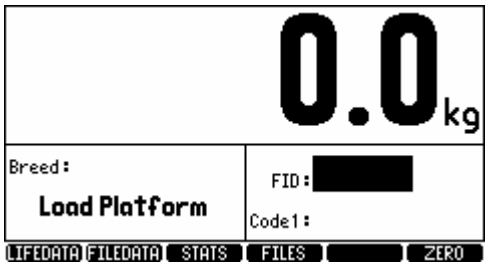
The left hand side is for previously entered information that the indicator looks up and displays once you enter an animal's ID.

2. In the left hand column of the setup screen, check that Breed is enabled (ticked). (If necessary, refer to "Enabling Options" on page 23.)
3. In the right hand column check that FID and Code 1 are enabled. All other fields should be disabled.
4. Press ESC to exit the setup screen.

Note You may want to enable Prompt message. This allows you to view prompts such as 'Load Platform' while you are weighing.

Weighing screen

On the Weighing screen, note that Breed appears on the left hand side, FID and Code 1 appear on the right hand side, ready for you to enter values.



Weighing and Recording

Typical weighing procedure

1. If the indicator does not read zero when there is no load on the platform, press ZERO to make the adjustment.

   (More options for zeroing the scale are explained on page 76.)

   Once zeroed, the indicator displays 'Load Platform'.

2. Bring the animal onto the weighing platform.

   The indicator displays the animal's live weight.

3. On the main Weighing screen, type the ID of your first animal in the FID field and press ↵.

   Because this is your first weighing session, the indicator does not have any records for your animals and cannot look up the IDs. The indicator asks you to confirm that you want to create a new animal record:

4. Select 'Create a new life data record' and press ↵.
5. Enter a value into the Code 1 field. This field accepts up to four characters and can be used to enter a condition code, for example.
6. When the Stable light comes on, press ◎. The indicator displays 'Weight Recorded' to show that the weight has been stored in the file.
7. Move the animal off the platform. The indicator returns to a zero reading and the data fields clear.

▸ Repeat steps 1 to 7 for more animals as required.

Note You can carry out the operations in a different order. See "Alternative Weighing Sequences" on page 83.

Avoiding weighing errors

To avoid weighing errors, observe the following simple precautions:

- Ensure that animals are fully on the platform during weighing.
- Do not touch any part of the crate or animal during weighing.
- Ensure that the next animal does not touch any part of the weighing system.
- Ensure that no part of the platform can touch or bind with an adjacent structure.
- Ensure that the underside of the crate or platform is clear of dirt and stones.

Weighing Resolution

The coarser the weighing resolution you select, the faster the indicator can obtain a stable reading.

For further information, see “Weighing Resolution” on page 101.

Reviewing the Recorded Data

Introduction

The XR3000 provides many ways to view, sort and manage the data you collect from weighing sessions. There are screens that display the raw data and screens that display computed data, such as statistics.

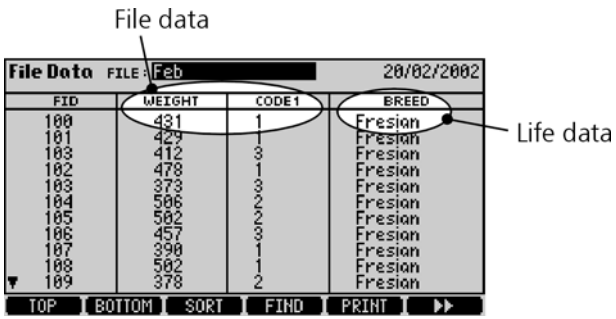
File Data screen

The File Data screen is one of the main screens used for reviewing recorded data.

To access the File Data screen:

- From the Weighing screen, press FILEDATA.

  The indicator displays the data recorded in the currently selected file together with the life data for each animal weighed.



Note Only Code 1 and Weight are stored in the current file. The other fields we can see in this view (such as Breed) are stored in life data.

◀ and ▶ indicators appear when there are more columns to the left or right, respectively.

▲ and ▼ indicators appear when there are more rows above or below, respectively.

Finding data

You can find a particular record using any of the fields. For example to find a record containing a particular ID, put the cursor anywhere in the ID column and press FIND. For further information, see "Finding a Record" on page 122.

Sorting the file data

You can sort the data by any of the displayed columns. For example to sort the records in order of weight, put the cursor anywhere in the WEIGHT column and press SORT.

You can sort by more than one column. For further information, see "Sorting File Data Records" on page 120.

Printing the data

If you have a printer connected to the indicator, you can print the data displayed on the File Data screen, by pressing PRINT.

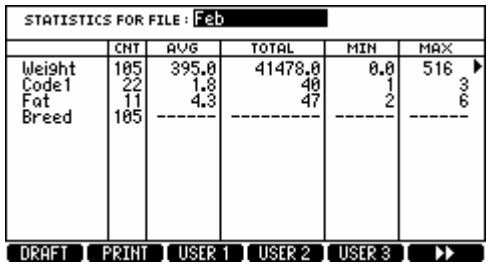
For further information, see "Printing" on page 155.

Viewing and printing statistics

To see a statistical report about the data you have just recorded:

- From the Weighing screen, press STATS to display the Statistics screen.

  The indicator displays statistics for all the data in the current file.



If you have a printer connected to the indicator, you can print the statistics report by pressing PRINT.

TRU-TEST®

PART 2

Making the most of the XR3000

This part focuses on some common applications of the XR3000 and points out which of the many features of the indicator are relevant to each application. It then provides references to those features, where required.

Inducting New Stock into the XR3000

The XR3000 has a number of features that make the induction of stock fast and simple by allowing as many details as possible to be recorded in the shortest time. Recording a variety of information provides for improved animal management by monitoring factors that impact on animal performance.

XR ONLY Set up the fields you need

You can specify things such as names of the fields, the type of data that they will store, and their length. You can enable just the fields you need.

For further information, see “Configuring Life Data“ on page 58 and “Customising File Data Fields” on page 73.

XR ONLY Custom fields

Animal details such as source and breed can be quickly entered via selection from a pre-defined list. Instead of having to type information using the keypad, you select from the list, or press a digit key.

For further information, see “Using Custom Fields” on page 91.

Enter life data before weighing

Use the Life Data Form screen to enter animal life data before weighing.

For further information, see “Entering Life Data” on page 81.

Set up the Weighing screen

Set up the Weighing screen so that data entry fields appear on the right hand side.

For further information, see “Configuring the Weighing Screen” on page 81.

Auto increment

To save time when tagging and weighing animals you can set an ID field to automatically increment for each new animal. This means you don’t have to enter the ID, the number (or letter) will increment by one each time you record a weight.

For example, if you are scanning EIDs while weighing animals, you can set up the indicator to automatically increment an FID system at the same time.

For further information, see “Auto Incrementing IDs“ on page 96.

XR ONLY **Repeat fields**

Data fields can be set to automatically repeat so that they do not need to be re-entered for every animal.

Setting a field to repeat means that the indicator automatically uses the last value you entered for this field when weighing.

If, for example, you want to enter the same value for all the animals in a weighing session, this feature greatly speeds up data entry time.

For further information, see “Repeat Fields“ on page 94.

Auto sequence

The indicator can speed up weighing by learning the sequence of data entry on the Weighing screen.

Fields, such as those set to automatically repeat, can be passed over until they need to be changed.

For further information, see “Automatic Sequence of Data Entry“ on page 92.

Review file data

Use the File Data screen to review all the data entered during a weighing session. You can sort records, find a particular record or print out the records.

For further information, see “Reviewing File Data” on page 118.

Review statistics

Use the Statistics screen to view statistics of all data that you have entered.

Identifying Most Profitable Sell Time

The XR3000 provides a number of features that help you to ensure that cattle are sold at the most profitable time.

XR AND SR ONLY

Carcass weight

You can use the carcass % feature to determine an estimated yield based on previous performance.

For further information, see “Carcass Weights“ on page 111.

XR AND SR ONLY

Schedules of values

You can use the schedule feature to calculate the value of animals based on live or carcass weights. Use the multiple schedule feature to quickly compare the likely return from different cattle buyers.

On the Statistics screen you can see the total expected return for different schedules.

For further information, see “Animal Values” on page 112.

XR ONLY

Predictions

You can use the weight prediction feature to determine when individual animals will reach the required live or carcass weight.

This allows you to make management decisions such as feed allocation and health treatments based on predicted days to target.

For further information, see “Predictions” on page 115.

Statistics

With predictions enabled, you can see the average, minimum and maximum days to target weight displayed on the Statistics screen.

You can also put statistics fields on the Weighing screen to see information such as average weight of a mob as you weigh.

For further information, see “Statistics” on page 140.

Drafting

You can use the drafting feature to direct animals that have reached target weights into different pens.

You can draft by ‘Days to Target’ in order to sort animals into mobs that will reach the target at the same time.

After drafting, you can view statistics for each drafting range.

For further information, see “Drafting“ on page 108.

XR ONLY **Histogram**

Gives you an idea of the weight spread of the animals.

For further information, see “Viewing File Data as a Histogram” on page 125.

Improving Rate of Genetic Gain

The XR3000 allows you to create detailed records of animal characteristics and performance so that you can select the best animals, and breed permanent genetic gains into your stock.

Identify animals

Animals should be uniquely identified so that individual performance can be monitored. Use the powerful ID linking features of the indicator.

For further information, see "Animal TAGs and IDs" on page 55.

XR ONLY **Record characteristics**

You can record characteristics that are believed to have an impact on animal performance, such as breed, source, sire and dam.

To speed up the recording of this data, you can set up custom fields that allow you to quickly select items from pre-defined lists.

For further information, see Configuring Life Data" on page 58, "Customising File Data Fields" on page 73 and "Using Custom Fields" on page 91.

Measure Key Performance Indicators

You can establish key performance characteristics that will be used to drive animal selection. For example, weight gain, weight at age milestones, and number of progeny produced per year.

XR ONLY **Create custom reports**

Use the user defined statistics feature to analyse the factors that most impact on the key performance indicators. For example, create a custom report to prove your theory that animals sourced from Farmer A produce progeny with a better rate of daily weight gain than the progeny of animals sourced from Farmer B.

For further information, see "User Defined Statistics" on page 144.

XR ONLY **Draft animals by performance enhancing characteristics**

Once you have identified the characteristics that most affect performance you can use the Draft feature to sort animals into groups based on key characteristics. Once drafted, further action can be taken, such as breeding, selling or culling.

For example, you can set up the Draft function to draft animals by source. Then, when you enter animal's ID, the indicator will display the relevant draft indicator for the animal.

For further information, see "Drafting" on page 108.

XR ONLY Animal history

View the history of weight, treatments and any other data entered for a specific animal.

For further information, see "Reviewing Complete Animal History" on page 136.

XR ONLY Weight gain graph

View the weight gain response to feed, treatments etc.

For further information, see "Viewing Animal History as a Graph" on page 138.

Generating Long Term Performance Gains

The XR3000 allows you to create detailed records of feeding and treatment regimes and monitor the resulting animal performance.

Identify animals

Animals should be uniquely identified so that individual performance can be monitored. Use the powerful ID linking features of the indicator.

For further information, see “Animal TAGs and IDs“ on page 55.

XR ONLY **Record characteristics**

You can record feed and treatment information.

For example, set up file data fields to record the feeding regimes for different groups of animals. To speed up the recording of this data, you can set up custom fields that allow you to quickly select items from pre-defined lists.

For further information, see “Using Custom Fields“ on page 91.

Measure Key Performance Indicators

To determine the effect of a feeding regime you must record the relevant key performance indicators. In most situations weight is the key performance indicator.

XR ONLY **Create custom reports**

Use the user defined statistics feature to analyse the factors that most impact on the key performance indicators.

For further information, see “User Defined Statistics” on page 144.

Recording Animal Treatments

The XR3000 assists in a number of ways when administering and recording animal treatments.

Weigh a sample of stock

Weigh a sample of stock and use the average weight to calculate the correct dosage.

Identify animals

Animals should be uniquely identified so that individual performance can be monitored. Use the powerful ID linking features of the indicator.

For further information, see "Animal TAGs and IDs" on page 55.

XR ONLY **Record treatment**

You can record treatment type and amount so that you can monitor the resulting impact.

For example, you can:

- Set up a 'Medication' file data field as a custom field so that you can quickly select from a list of your commonly used medications.
- Set up another file data field to record the dosage given.

If the treatment is being administered to a whole mob, set both the 'Medication' and 'Dosage' fields to auto-repeat so that you don't have to retype the treatment details for every animal.

Measure Key Performance Indicators

To determine the effect of a feeding regime you must record the relevant key performance indicators. In most situations weight is the key performance indicator.

XR ONLY **Monitor performance and review treatment history**

Use the Animal History screen to view the treatment and weight history for an individual animal.

For further information, see "Reviewing Complete Animal History" on page 136.

Prepare a custom report to compare the performance of animals on different treatment regimes.

For further information, see “User Defined Statistics” on page 144.

XR ONLY

Use the draft feature to hold back animals still inside the withholding period

Prior to a weighing session you can pre-enter, in a file data field, a warning for animals that are still within a treatment withholding period. While weighing use the draft feature to select animals within the withholding period.

For further information, see “Drafting” on page 108.

Alternatively, the file data field can be added to the right side of the Weighing screen so that the status can be viewed while weighing.

Tracing Individual Animals

A key strength of the XR3000 is its ability to collect detailed information so that you can easily trace the history of individual animals.

Specific features are:

- Handling the intricate ID schemes of various bureaucracies.
- Providing a quick and comprehensive means to record a variety of information.

Multiple ID schemes

The indicator can record multiple ID numbers that are all linked and can be used interchangeably to locate an animal's record:

- EID (Electronic ID) - as required in various official identification schemes.
- LID (Lifetime ID) – a visual ID number issued by government agencies.
- FID (friendly ID) – many farmers choose to create a friendly ID for their own use because the EID and LID are both cumbersome.

XR ONLY Source of animals

If the animals were not bred on your property, you can keep a record of the source of each animal in one of the life data fields.

If you regularly buy animals from the same sources you can set up a custom field so that you do not need to manually type in the names of the source farms each time.

XR ONLY Parentage

You can use life data fields to record parentage.

You can set up fields for Sire and Dam and then enter the Sire and Dam IDs for each animal.

Weight at age

You can set up and name separate files for recording birth weight, weaning weight, and other weights for different age milestones.

You can easily locate an animal's record in a file by means of the animal's ID.

Medication

You can use file data fields to keep full records of animal medication.

XR ONLY **Full history**

You can view the full history of an animal on one screen. The history can also be printed and provided to buyers of your animals.

To locate the animal's record you can type or scan its ID.

For further information, see "Reviewing Complete Animal History" on page 136.

PART 3

Getting Data In

This part explains various ways to enter data using features of the XR3000. The indicator can be set up to make data entry quick and simple. Some of the features discussed will speed up your weighing sessions.

Configuring the Weighing Screen

You can configure the Weighing screen to display the fields of data you want to view or record.

In some cases, the factory default settings are fine for your application and there is no need to change them. However, when operating the indicator, you will spend perhaps 95% of your time using the Weighing screen. For this reason, it's worth spending a little time configuring the screen to optimise your data entry process.

Weighing Screen Layout

Three display areas

The Weighing screen has three display areas:

- Weight display area.

  The animal's weight is displayed as large as possible, depending on how many other fields you have set up on the screen.

- Left hand column for viewing previously entered data.

  You can put fields, such as breed, previous condition code, or weight gain, in the left hand column. When you enter the animal's ID during a weighing session, the indicator looks up or calculates the data and displays the information.

- Right hand column for entering new data.

  The right hand column allows you to conveniently group together fields, such as ID, Condition, or Treatment that you will use to enter data during the weighing session. Keeping the data entry fields together allows you to easily see whether you have filled in all the data for each animal during a weighing session.

Note The layout described above is suggested for efficiency, but it is not compulsory. You can put fields in the left or right hand columns as required.

Cursor movement

By default, the indicator moves the cursor from field to field on the right hand side of the Weighing screen as you enter data.

You can 'train' the indicator to follow any sequence around the fields on the left or right of the Weighing Screen. For further information, see "Automatic Sequence of Data Entry" on page 92.

Weighing Screen Setup

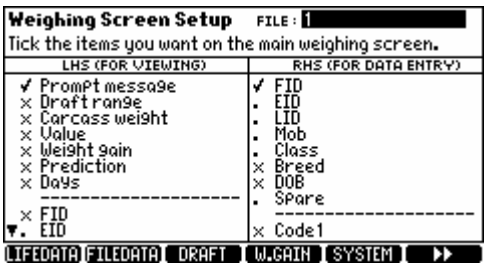
Introduction

Most of the configuration of the Weighing screen is done using the Weighing Screen Setup screen.

To display the Weighing Screen Setup:

- Press (✕✓).

  ▲ and ▼ indicators appear when there are more rows above or below, respectively.



The left hand column shows data that will appear on the left side of the Weighing screen. The right hand column shows the fields that will appear on the right side of the Weighing screen.

Note There are more setups on this screen if you scroll down.

For further information, see "Weighing Screen Setup" on page 160.

The Weighing Screen Setup is designed to be a 'one-stop setup shop'. The idea is that once you have all the other setup screens how you want, leave them alone and just use this screen to enable or disable the different features for each weighing session.

Putting other Fields onto the Weighing Screen

Introduction

Apart from using Weighing Screen Setup to configure the Weighing screen, you can also put other fields on the Weighing screen, including most of the fields that appear in the setup screens. For example, you can add a File field so that you can select the file data file without leaving the Weighing screen.

This is a separate procedure from the normal Weighing screen setup.

Method

To add a field to the Weighing screen, use the icon in the top left-hand corner of the field's help screen.

For detailed instructions on adding extra fields to the Weighing screen, see "Adding Other Fields" on page 165.

Animal TAGs and IDs

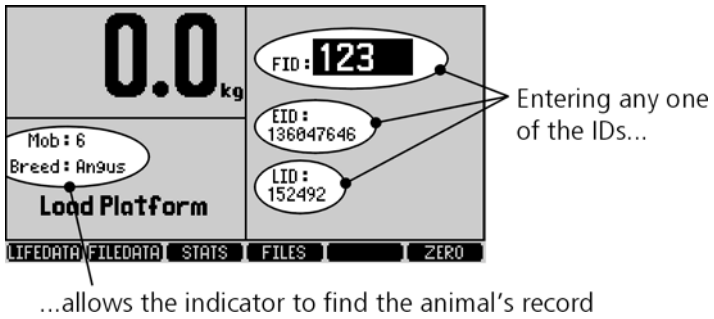
The XR3000 allows you to use more than one type of ID to identify animals. Any life data field can be configured to be an ID.

Example

You could set up the following fields:

ID Field Name	Description
FID	Your own farm ID system
EID	Electronic ID system (e.g. RFID)
LID	Lifetime ID. For official identification schemes (e.g. NLIS ID)

Once set up, you can use any of the ID fields to find the data stored about a particular animal.



XR ONLY Setting up ID fields

ID fields are set up when you configure the life data fields by putting a tick in the ID column. Setting a field to be an ID causes the indicator to locate the animal's record whenever the ID is entered into that field. Do not set a field to be an ID if you are just storing ordinary data. For example, if you are storing the ID of the animal's sire in the animal's record, do not set this field to be an ID. This ID does not belong to the current animal.

This topic will be described later ("Configuring Life Data" on page 58).

Adding individual animals

Once you have set up a system of ID fields, you can create a new record for each animal in several different ways:

- While weighing - if you enter a new ID the indicator will ask if you want to create a new record for this ID.
- On the Life Data Form screen, you can insert a new record.

These methods will be described in the relevant chapters.

Scanning an EID

If you have an electronic ID (EID) reader, you can scan the animal's ID instead of typing the ID number.

This is described in "Scanning an EID" on page 64.

XR ONLY Combination of ID fields

Apart from fields, such as LID and EID that would normally be unique for each animal, you can designate other fields as ID fields to work in combination. This allows you to use two ID fields together to identify an animal.

When combination IDs are being used and an ID is entered that is not unique, the indicator will not look up the life data record until sufficient IDs have been entered to uniquely identify a single record.

Using a combination of IDs is useful if you have more than one animal with the same ID.

For example, supposing you have a group of animals with ear tags 1..146 and a different group of animals with ear tags 1..121. You can set up a secondary ID to use in conjunction with the ear tag to uniquely identify each animal. The secondary ID could be the ear tag colour, the animal group number, the owner, the sire, or breed, for example.

Tip

When you use a combination of IDs, you need to enter both IDs to look up an animal. However, if you set up one of the ID fields as a repeat field, you won't have to enter it every time.

XR ONLY Creating records with combinations of IDs

Using combinations of IDs necessitates creating records that have duplicate IDs. Normally you cannot create such records in the Weighing screen because whenever you enter an ID that already exists, the indicator looks up the record that contains it. Therefore, to actually create records that use combinations of IDs, you need to use one of these methods:

- Set one of the IDs as a repeating field. When the other ID is entered, the indicator will try to find the combination, and if it doesn't already exist, the indicator will ask you if you want to create a new record.
- Use the INSERT soft key in the Life Data Form or Life Data Table screen. You can then fill in the blank fields, as required.
- Use a separate ID that is unique such as an EID or LID when first creating the record.

Configuring Life Data

Life data is the general data about an animal, such as date of birth, ID, or breed, that normally stays the same throughout the life of the animal. This information is stored in the Lifetime Animal Database and displayed by the indicator whenever you need to see the details of an animal.

This chapter explains how you configure the Lifetime Animal Database to suit your requirements. This operation is normally only done once, when you acquire the indicator. However, you can add more fields to your database later if the need arises.

The Life Data Setup Screen

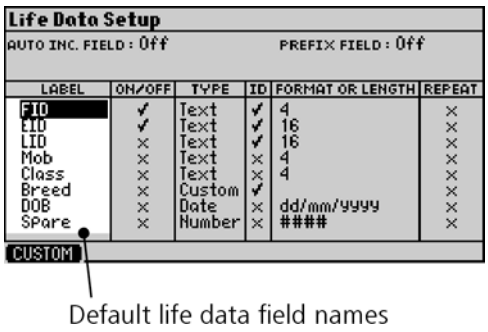
Introduction

The Life Data Setup screen is used to configure the Lifetime Animal Database.

Accessing the Life Data Setup screen

- Press (✕✓) then LIFEDATA.

  The indicator comes with a set of factory default life data fields.



Auto increment

To save time when tagging and weighing animals you can set an ID field to automatically increment for each new animal. This means you don't have to enter or scan the ID, the number (or letter) will increment by one each time you record a weight.

For further information, see “Setting up the Auto Increment Field“ on page 167.

Prefix

You can set up the indicator to automatically apply prefixes to IDs when you enter them on the Weighing screen. This feature saves time typing.

For further information, see “Prefix for IDs“ on page 95.

XR ONLY Customising Life Data Fields

Introduction

Each life data record must have at least one ID field.

In addition, you can have up to seven fields of data within each life data record that you decide how to use.

You can change the names of the fields and the types of data stored in each, using the columns in the Life Data Setup screen.

The columns are explained below.

Label

Used to specify the names of fields. You can use this column to change the name of a field.

On / Off

Used to enable or disable fields.

Enabling a life data field means that the field:

- Is included in the Lifetime Animal Database.
- Can be put on the Weighing screen.
- Appears in the File Data screen for all animals.
- Appears in the Statistics screen.

Type

The following field types are available for life data fields:

- Text
- Number
- Custom
- Date.

For further information on these field types, see "Types of Fields" on page 20.

A Custom field is an option field that you can customise with the options you require. See "Using Custom Fields" on page 91.

ID

Setting a field to be an ID causes the indicator to locate the animal's record whenever the ID is entered into that field.

A field that is not set as an ID generally causes the indicator to store data entered into the field.

You must have at least one ID field in life data.

You can have more than one ID field. For example, if you use both an FID and an EID, you can use either of them to find the data stored about the animal.

For further information, see "Animal TAGs and IDs" on page 55.

See also "Setting up Life Data Fields" on page 170.

Format or Length

For text fields, you can specify the number of characters stored in the field.

For number fields, you can specify the format and number of digits stored in the field.

For instructions on specifying formats, see "Format or Length" on page 172.

Repeat fields

You can set up a field to automatically repeat the last value you entered for it on the Weighing screen.

If, for example, you want to repeat the same value for all animals, this feature greatly speeds up data entry time.

You can change the automatically repeated value as necessary in the Weighing screen while weighing.

Entering Life Data

Life data is the data, such as date of birth, or breed, that generally remains the same for the life of the animal. You can view and edit an animal's life data at any time.

For an explanation of the principles of life data and file data, see "Data Storage Principles" on page 28.

According to personal preference, you can either pre-enter the basic life data about your animals at a quiet time before doing any weighing, or you can set up the Weighing screen to enter life data as you weigh the animals at the first weighing session.

This chapter explains how to enter the data on the Lifetime Animal Database Form screen (Life Data Form screen) prior to a weighing session.

XR ONLY The Life Data Form Screen

Introduction

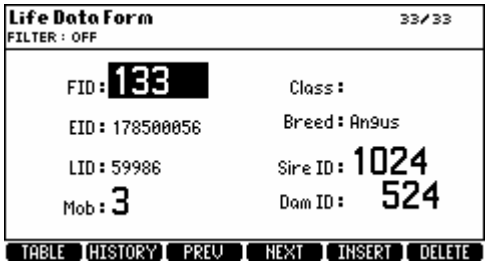
The Life Data Form screen shows the life data fields for a single animal's life data record. This screen primarily acts as an extension to the Weighing screen. It shows all the life data fields and is accessible by a single key press. It saves having to put all the life data fields onto the Weighing screen where they would occupy a lot of space. This screen can also be used for entering data before weighing, or after weighing using its filter feature.

The type and number of fields in life data are set up in the Lifetime Animal Database Setup screen. For details, see "Configuring Life Data" on page 58.

Accessing the Life Data Form screen

1. From the main Weighing screen, press [LIFEDATA].

   The indicator displays the life data for the current animal.



Note The numbers in the top right hand corner refer to the current record number and the total number of records. If you have 100 animals in the database and are viewing record 45, the display shows 45/100.

Scrolling through the records

- To see the next animal's record, press NEXT.
- To see the previous animal's record, press PREV.

Inserting a new record

1. Press INSERT.

   The indicator clears the fields on screen.
2. Enter the ID for the new animal.
3. Enter the data into the other fields.

Notes

- The data is automatically saved as you enter it into the fields.
- You can have more than one record with the same ID.

Inserting next animal

- For the next animal, repeat the above procedure from step 1.

Locating a record

In the Life Data Form screen you can find an animal's record by several different means:

- If you know the animal's ID, type it into the ID field and press ↵ The indicator finds the record and loads the life data fields.

  If you are using more than one ID, you can use any one of them, or a combination of them to locate the animal's record.

- You can press NEXT and PREV to scroll through the records to find the right one.
- You can use the Life Data Filter to display animals with a particular characteristic. For more details, see page 130.
- If you know some of the life data details of the animal, you can use the FIND feature on the Life Data Table screen. The Life Data Table screen is accessed by pressing TABLE. For further details see page 132. When you have found the correct record, press ⎋ to return to the Life Data Form screen.

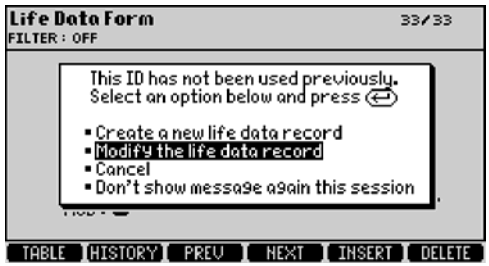
Changing an ID

You may need to change an ID because, for example, the animal has lost its ear tag and you are attaching a new one.

To change an ID:

1. In the Life Data Form screen, locate the animal's record as described in the previous topic.
2. Enter the new ID.

   The indicator displays the following prompt:



3. Select 'Modify the life data record' and press ↵.

   The indicator changes the ID and from now on all details about the animal are accessed using the new ID.

Notes

- If you select 'Create a new life data record,' the indicator creates a new record with the ID number you entered and all other fields blank.
- If the ID you enter already exists, the indicator goes to the existing record rather than changing the ID. This helps prevent duplicate IDs being created. If you really want to create a duplicate ID, go to the Life Data Table screen to change the ID.
- If you select 'Don't show message again this session,' the indicator will continue to use the option you choose last time, without prompting again. When you next switch on the indicator, the prompt message will be re-enabled.

Scanning an EID

Using an EID reader is the quickest way to enter IDs for large numbers of animals.

You need to plug the EID reader into one of the CON ports on the indicator, configure the serial communication settings to suit the scanning device, and direct the input to the required field. See "Serial Setup Screen" on page 204.

Note If an animal already exists with the scanned ID, the indicator looks up and displays that animal's life data record.

To create new life data records:

1. Scan the EID.

   The indicator displays a prompt.
2. Select 'Create a new life data record'.
3. Complete the other fields, as required (this can be done later).
4. Repeat for remaining animals.

Notes

- You can also create a new life data record by scanning an EID in the Life Data Table screen or the Weighing screen.
- For further information on the way IDs are handled, see “ID” on page 171.
- Duplicate IDs cannot be created using an EID reader, even in the Life Data Table screen.

Working with Files

The indicator provides 200 files numbered 0 to 199 for storing weighing session data. You can view the details of the files and select the current file on the List of Files screen.

The current file

When you select a file, the indicator remembers it as the **current file** and uses it for recording weights and as the default file on screens such as the File Data screen.

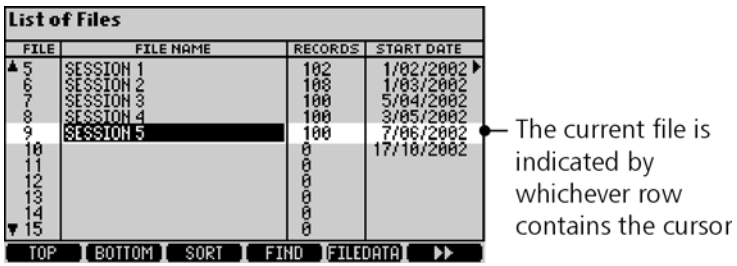
Selecting a file

1. Press FILES to display the List of Files screen.

   The 'current file' is indicated by whichever row contains the cursor.

2. Put the cursor in the required row.
3. Press ESC to exit the screen.

The List of Files screen



The screen shows the number of records stored in each file, together with start date / time of recording and end date / time. You may need to scroll to the right to see the Start Time, End Date and End Time columns.

◀ and ▶ indicators appear when there are more columns to the left or right, respectively.

▲ and ▼ indicators appear when there are more rows above or below, respectively.

Naming a file

XR SR ID ONLY

You can type a name in the FILE NAME column. This name will then appear in other screens that reference files. If you don't enter file names, file numbers are used to identify the files.

Alternative ways to select a file

- Put the cursor in the FILE column and enter the file number you require to go to a particular file.
- Use the FIND soft key to find a file with a particular name, date, or number of records. See "Finding files" on page 70.
- Enter the file number or part of the file name in the FILE field at the top of the File Data or Statistics screen.
- Add the FILE field to the Weighing screen to allow you to select the file there if required. The FILE field appears in the File Data screen and elsewhere. See "Adding Other Fields" on page 165.

Sorting the files list

To sort the list by one of the columns:

1. Put the cursor in the column.
2. Press SORT.

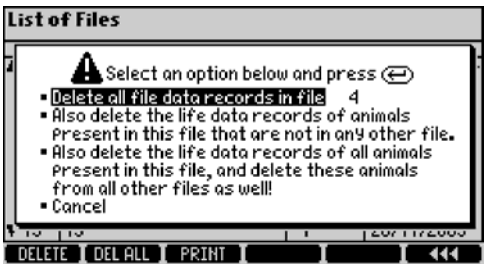
Deleting individual files

You can delete the data from a file. The indicator also gives you the option to delete life data records relating to the file. The file name and setups for the file can be deleted or left intact.

To delete a file:

1. Put the cursor on the row for the file.
2. Press ▶▶ then DELETE.

   The indicator presents four options:



3. Select an option and press ↵.

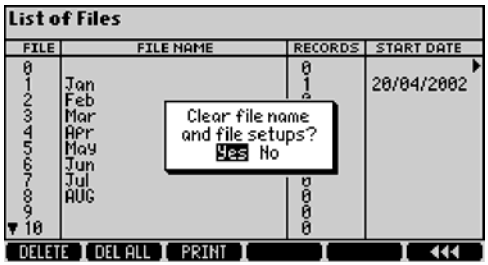
   To delete all the data in the file, select 'Delete all file data records in file'.

   To delete all the data in the file and also life data records if they are no longer being used by other files, select the second option.

   To completely remove all animals in the file from the indicator, select the third option. This will remove these animals from life data and all other files as well.

Note To delete all unused life data records, see "Deleting unused records" on page 133.

4. The indicator asks if you want to clear the setup information and the file name for that file.



   To keep the setup information and the file name, select 'No'. You will then have an empty file that is already set up for recording the same type of data as before.

   To clear the setups and the file name, select 'Yes'. The file will then have the same setups as the last file in which a setup was changed. The name will default to the file number.

Deleting all files

To delete all files (all the file data stored in the indicator):

1. Press ▶▶ then DEL ALL.

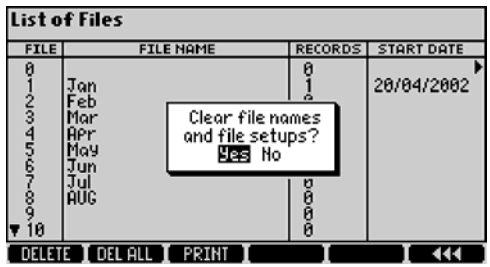
   The indicator prompts you to confirm the delete.

2. Select 'Yes' and press ↵.

   The indicator prompts again to make absolutely sure you want to delete all file data.

3. To clear all recorded weights and file data, select 'Yes' and press ↵.

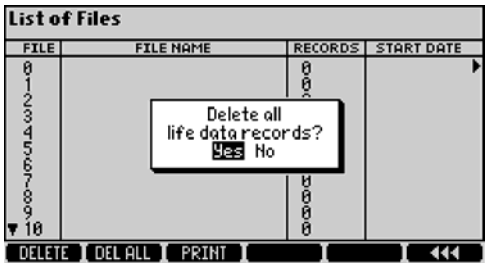
4. The indicator asks if you want to clear the setup information and the file names for all files.



To keep the setup information and the file names, select 'No'. You will then have empty files that are already set up for recording the same type of data as before.

To clear the setups and the file names, select 'Yes'.

5. The indicator asks if you want to delete all life data records.



To keep all life data records stored in the indicator, select 'No'.

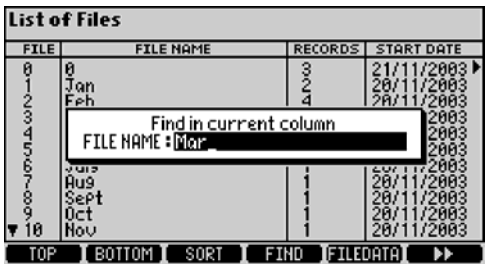
To delete all life data records, select 'Yes'.

Finding files

You can find a file by searching in any of the columns. For example you can find a particular file number or file name, or a file with a particular start date / time or end date / time. You can also find a file containing a certain number of records.

To find a particular file:

1. Put the cursor in the column that contains the information to be searched.
2. Press **FIND**.



3. Type the characters you want to search for and press ↵.

   If it finds a match, the indicator moves the cursor to the appropriate row in the files list and it becomes the current file.

Note When finding a file using its file name, you can type just a part of the file name. For example, typing “Smith” will find “Smith”, “SmithFarm” or “JohnSmith”.

Printing the files list

If you have a printer connected to the indicator, you can print the files list, by pressing PRINT.

For further information, see “Printing“ on page 155.

XR ONLY

Configuring File Data

File data is the data you collect during weighing sessions. For example, the animal's weight, condition, and treatments given on a particular day.

You start a new file for each weighing session, and each file can have a different setup (the number and types of fields it stores).

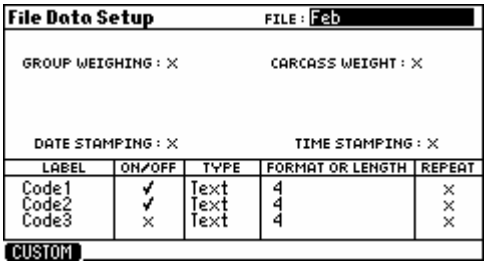
There are 200 files available (numbered 0 to 199). During a weighing session, the indicator stores the data in the current file, which you can select on the Files screen.

The File Data Setup Screen

Accessing the File Data Setup screen

To display the File Data Setup screen:

- Press (×✓ SETUP), then FILEDATA.



The top section of the screen allows you to configure:

Group weighing	See "Setting up Group Weighing" on page 174.
Carcass weight	See "Setting up Carcass Weight" on page 175.
Date and time stamping	See "Date and Time Stamping" on page 176.

The bottom section allows you to customise the file data fields.

Selecting the file

You can change the current file by entering a name or number in the FILE field.

Notes

- The default settings for an empty file will be the same as the last changes you made for any file.
- You can change the settings for a non-empty file without affecting the other non-empty files.

Customising File Data Fields

Introduction

In addition to weights and draft indicator, a file data file can store up to three other fields of data for each animal.

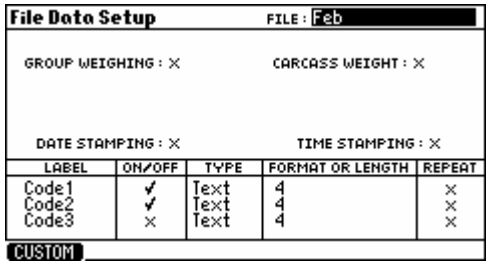
Default fields

The factory default file data fields are:

- Code 1
- Code 2
- Code 3

Customising the fields

You can change the names of the three fields and the types of data stored in each.



The columns at the bottom of the screen are described below.

Label

Specifies the name of the field. You can use this column to change the name of a field.

On / Off

Used to enable or disable fields for the current file data file.

Enabling a file data field here means that the field:

- Can be put on the Weighing screen.
- Can be used to record data in the current file.
- Appears on the File Data screen for this file.
- Appears on the Statistics screen for this file.

Type

The following field types are available for file data fields:

- Text
- Number
- Custom.

A Custom field is an option field that you can customise with the options you require. See "Using Custom Fields" on page 91.

For further information on these field types, see "Types of Fields" on page 20.

Format or Length

For text fields, the length specifies the number of characters that can be stored in the field.

For number fields, the format specifies the number of digits and decimal places stored in the field.

For instructions on specifying formats, see "Format or Length" on page 172.

Repeat fields

You can set up a life data or file data field to automatically repeat the last value you entered for it on the Weighing screen.

If, for example, you want to repeat the same value for all animals, this feature greatly speeds up data entry time.

You can change the automatically repeated value as necessary in the Weighing screen, while weighing.

Number of fields

Because you can set up the file data fields for each weighing session independently, you can store different fields of data from one session to the next.

When you review an animal's entire history on the Animal History screen, the indicator can display up to 10 different columns, depending on the fields it finds in different files.

Zeroing

This chapter describes the three different ways to zero the scale:

- Power up zero
- Manual zero
- Automatic zero.

Power up Zero

Introduction

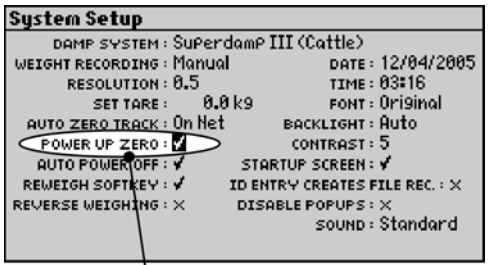
The scale normally zeroes itself on power up. i.e. when you switch on the indicator, the weight of the platform or crate on the loadbars is automatically zeroed out.

In some circumstances you may want to turn this feature off. For example, if you are loading a wool bale over a period of time and, during the process, the indicator switches off to conserve power. In this case, you don't want the scale to zero when you switch on to add another weight.

Changing the Power up Zero setting

1. Press (×✓), then SYSTEM.

   The indicator displays the System Setup screen.



Power up Zero enabled

2. Enable or disable power up zero as required.
3. Press ESC to exit the screen.

Automatic Zero

Introduction

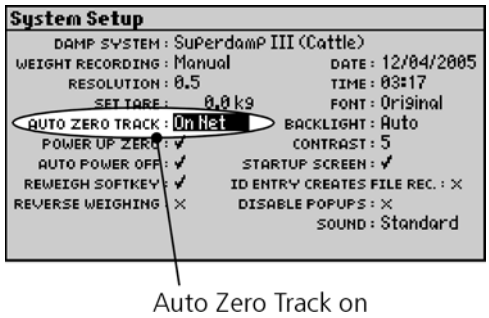
The scale normally re-zeroes automatically when a load is taken off the platform. This conveniently zeroes any build up of dirt on the platform.

In some circumstances, you may want to turn this feature off. For example, when legitimately adding small weights to the platform.

Changing the Auto Zero Track setting

1. Press (×✓ SETUP), then SYSTEM.

   The indicator displays the System Setup screen.



2. Select the required Auto Zero Track option as follows:

Off	Auto Zero Track off.	
On Net	Auto Zero Track on.	(Default setting)
On Gross	This option is used with Set Tare (see below).	

3. Press ESC to exit the screen.

Set Tare

If Set Tare is in operation, the action of Auto Zero Track is different. For further information, see "Setting a Tare Weight" on page 87.

Manual Zero

Introduction

If Auto Zero Track is off, or the indicator is reading an amount that is outside the automatic zero tracking range, the scale should be manually zeroed occasionally to compensate for any build up of dirt.

Manually zeroing the scale

1. Remove any load from the platform.
2. In the Weighing screen, press ZERO.

Weighing Procedures

The XR3000 provides great flexibility in the ways you can use it to record data.

Some of the features that aid flexibility are:

- Ability to change the fields that you see on the Weighing screen.
- Ability to enter and record data in any order, before, during, or after the animal is on the weighing platform.
- Ability to handle specialised weighing tasks.

You can customise the settings in the indicator and adopt weighing procedures to suit your own environment. This chapter explains some typical methods.

First Weighing Session

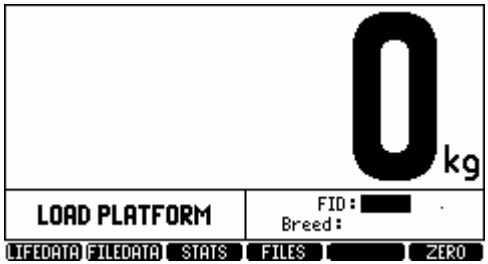
Introduction

On your first weighing session, it's likely that you will be entering the IDs of your animals and recording some of the life data in addition to the weights.

Setting up the Weighing screen

You can set up the Weighing screen to include the fields you want to record.

Normally, you put file data fields that you are going to record at each weighing session on the right hand side of the screen. However, on your first weighing session, you could also put life data fields, such as Breed, on the right hand side to remind you to enter that data.

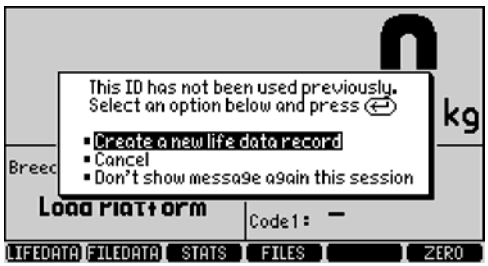


For full information on setting up the Weighing screen, see "Weighing Screen Setup" on page 160.

Typical weighing procedure

1. Move the first animal onto the platform.
2. On the Weighing screen, type the ID of your first animal and press ↵.

   Because this is your first weighing session, the indicator does not have any records for your animals and cannot look up the details. A prompt asks you to confirm that you want to create a new animal record:



3. Select 'Create a new life data record' and press ↵.

Tip

When you get tired of seeing the prompt message, select 'Don't show message again this session.' The indicator will then create new records without the prompt, until switched off. When the indicator is switched on again, the prompt will be re-enabled.

4. Enter the data in the other fields (if any), pressing ↵ after each.

5. At any time when the stable light is on, press  to record the weight of the animal.
6. Move the animal off the platform.

▸ For the next animal, repeat the above procedure from step 1.

Ensuring Accuracy

Handling animals

When moving animals on and off the platform, avoid the following possible causes of inaccuracy:

- Hands on the weighing crate gates.
- Handling the animal in the crate before recording its weight.
- Animals having one or more feet off the platform.
- 1½ animals on the platform.
- Next animal touching the gate of a crate or crush with its nose.
- Animal touching an unweighed part of the enclosure, such as the side of a race.

Weighing platform location and installation

During platform installation and use, avoid the following possible causes of inaccuracy:

- The weighing site not level.
- The weighing site very windy.
- The platform touching the surrounding race work.
- Restraining chains becoming tight.
- Dung or dirt building up under the platform.
- Loadbar feet not sitting evenly on the weighing pad, due to dirt or stones.

Subsequent Weighing Sessions

Introduction

Once you have recorded the life data for your animals, there is no need to re-enter this data at each session. You can turn off some of the fields in the Weighing screen, or you can move them to the left hand side for viewing only.

You will soon develop a standard setup and weighing procedure to suit your regular weighing sessions.

Typical weighing procedure

1. Select a new file.
2. If required, change the setup of the Weighing screen.
3. Move the animal onto the platform.
4. Enter the animal's ID.

   The indicator looks up the life data and possibly the file data, if any exists.
5. Inspect any fields of life data that you have set up to view. (These values appear when you enter the ID).
6. Enter any file data that you have set up to record, such as a condition code.
7. At any time when the Stable light is on, press  .

   The indicator displays WEIGHT RECORDED.
8. Move the animal off the platform.

   The indicator clears the ID and other data.

Notes

- If the animal ID entered is not recognised, the indicator will prompt you to create a new life data record. If the ID was entered incorrectly, you can cancel and re-enter the ID.
- If the animal ID entered appears in several life data records (where a combination of IDs has been used), the indicator will prompt you to enter an additional ID to distinguish the animal. See "Combination of ID fields "on page 56.

Next animal

- Repeat the above procedure from step 3.

Tip

To enter data in a specific order on the Weighing screen, you can pre-record a sequence. Then each time you press ↵, the indicator automatically moves the cursor to the next field in the sequence. For further details, "Automatic Sequence of Data Entry" on page 92.

Alternative Weighing Sequences

Introduction

The XR3000 has been designed so that you can use a weighing sequence that best suits your requirements.

Order of weighing

The indicator allows you to enter data before, during, or after the animal is on the weighing platform.

This gives you maximum flexibility to:

- Let the animal go as quickly as possible.
- Read an ear tag or EID before, during, or after the animal is on the platform.
- Enter additional data before, during, or after the weight is recorded.
- Put the animal back on the platform without losing the data you entered (if the animal moves off the platform too soon).

The indicator allows this flexibility automatically; you don't need to change the setup.

Note It is best to use the same sequence throughout a weighing session so that you always know which weight relates to which animal.

Entering data before the animal leaves the platform

1. Perform the following steps in any order (provided the animal is on the platform when you press ◎, of course).
   - Enter the animal's ID and other data.
   - Move the animal onto the platform.
   - When the Stable light is on, press ◎.

   The indicator displays WEIGHT RECORDED.
2. Move the animal off the platform.

   The indicator clears the ID and other data.

Entering data after the animal leaves the platform

1. Move the animal onto the platform.
2. When the Stable light comes on, press ◎.

   The indicator displays ID REQUIRED.
3. Move the animal off the platform.

   ID REQUIRED remains on the display.
4. Enter the animal's ID and other data.

   The indicator displays WEIGHT RECORDED.
5. When you move the next animal onto the platform, the indicator clears the ID and other data.

Alternative Record Key

As an alternative to pressing the ◎ key on the keypad, you can put the cursor on the equivalent icon when it appears on the Weighing screen, and press ↵.

You might prefer this option if you use the automatic sequence of data entry (described on page 92). The indicator automatically moves the cursor to the next field in sequence, including the "Press ◎" field if required.

Reverse Weighing

XR SR ID ONLY

Introduction

Reverse weighing allows you to put a number of weights on the scale together and then record individual weights as you take them off.

You can also use reverse weighing when emptying a container to see how much feed, for example, has been dispensed.

Example

1. Enable Reverse Weighing in the System Setup screen.
2. Put a crate of animals or a bulk amount of feed on the scale.

   The indicator displays the total weight.
3. Press ZERO to zero the scale.
4. Take one animal off, or dispense some feed.

   The indicator displays the weight of that animal, or the weight of feed dispensed.
5. Enter any ID and data fields you have set up to record.
6. If required, press ◎ to record the weight.

▸ Repeat steps 3 to 7 until all the animals have been weighed.

Group Weighing

XR AND SR ONLY

Introduction

Group weighing allows you to put a group of animals on the weighing scale together and record the weight at once. The indicator stores the weight and the number of animals in each group.

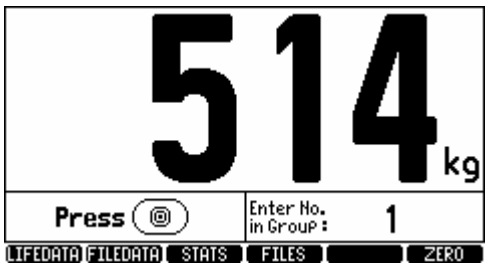
Setting up

To set up the current file for group weighing, enable No. in group in the Weighing Screen Setup. (See page 174.)

Group Weighing

1. Move the group of animals onto the weighing platform.

2. Enter the number of animals in the group.
3. When the stable light comes on, press ◎.

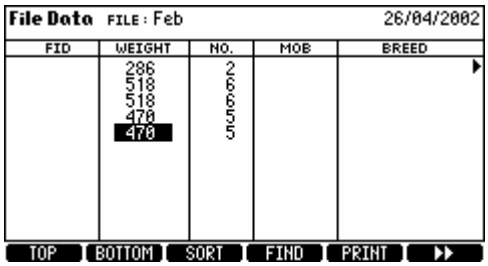


Accumulating groups

If you need to split a group into two or more smaller groups to fit them on the platform, the indicator will combine them back into one record by accumulating the weights and counts. To do this, use the same ID for sub-groups that you want recombined.

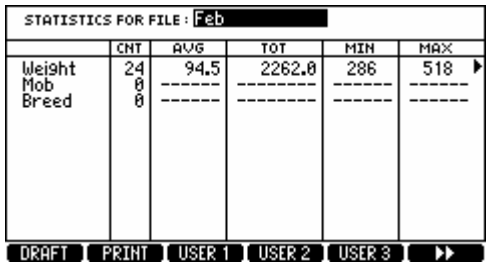
File data screen

The File Data screen for the file shows the weight and number of animals in each group.



Statistics

The Statistics screen for the file shows the total number of animals in all the groups and the average weight of the animals, as it would had the animals been weighed separately.



Setting a Tare Weight

Introduction

You can pre-enter a tare weight so that the indicator weighs only the contents of a crate or container.

When the empty crate is on the scale, the indicator reads zero. As you load up the crate, the indicator displays the weight of the load.

If you take the container off the scale, the indicator displays the negative of the tare weight.

The tare weight is entered in the System Setup screen. For further information, see “Set tare” on page 199.

Note Entering a tare weight alters the operation of the auto zero feature.

Correcting Data Entry Errors

In general

When entering data into fields, you can:

- Press ⌫ to delete the character just typed.
- Press ESC to return the field to its previous value.

Errors during weighing

If you have entered incorrect data into a field on the Weighing screen, you can:

- Return the cursor to the field and enter the correct value. The new value is saved automatically.
- Edit the data at any time on the File Data screen, or Life Data Form screen, except ID fields.
- Delete the complete record on the File Data screen.
- Insert a new record with correct data on the File Data screen.
- Re-record an animal's weight by pressing REWEIGH.

Note If the record that has an error is not showing on the Weighing screen, re-enter the ID to display the record.

Incorrect IDs

If an ID has been entered incorrectly, care is required to fix it, as entering an existing ID always causes the indicator to look up a different life data record.

- If you have entered the wrong ID and then recorded some file data, you cannot fix it in the Weighing screen. You must go to the File Data screen, find the record near the bottom and then enter the correct ID.
- If a life data record was created in error, first go to the Life Data Form screen and delete the record, then create a new record.
- If an ID is incorrect in the Lifetime Animal Database, the ID can be fixed in the Life Data Form screen. If the new ID already exists and you want to make a duplicate, then the ID must be fixed in the Life Data Table screen.

- If a file data record has the wrong ID because it is linked to the wrong life data record, the error must be fixed in the File Data screen. The new ID must already exist in life data.

Speeding up Weighing Sessions

This chapter explains various methods you can use to speed up data entry and the throughput of animals during weighing sessions.

The XR3000 has many features designed to facilitate fast and efficient data entry. For example:

- Ability to enter and record data with a single key press for each data item.
- Prompts that guide you automatically through the weighing sequence, thus minimising data entry errors.

You can optimise your weighing techniques to the extent that you only need to momentarily stop an animal on the weighing platform. The data is automatically recorded, then you move the next animal onto the platform.

Good Weighing Screen Setup

Introduction

The XR3000 allows you to customise the Weighing screen to suit your own procedures during weighing sessions. You can set up the Weighing screen with the fields you most commonly use.

On the other hand, you might want to minimise the number of data fields on the Weighing screen so that the weight reading can be as large as possible for viewing in low light conditions.

Further information

For further information, see "Weighing Screen Setup" on page 160.

XR ONLY Using Custom Fields

Introduction

The indicator provides special fields that allow you to select from a list of pre-defined options when entering data. For example, instead of having to type comments using the keypad, you select from the list.

These fields are called Custom fields. Custom fields are the fastest and easiest way to enter data that has a small number of pre-defined values.

Example

A good example of a custom field is the factory default Breed field, which provides a list of breeds:

Angus
Charolais
Crossbreed
Fresian
Hereford
Simmental.

Entering data using custom fields

See "Selecting an option" on page 21.

Tip

As a shortcut you can:

1. Move the cursor onto the option field.
2. Press the number corresponding to the required option:
   - Press 0 to select blank data.
   - Press 1 to select the first option.
   - Press 2 to select the second option.
   - And so on.

(It is not necessary to press ↵ when using this method).

Advantages of custom fields

- You don't have to remember the names of items.
- You can use descriptive names for options, you don't need to abbreviate.
- Fast data entry.
- Minimal use of memory (equivalent to a one character text field).

Setting up custom fields

See "Custom Fields Setup Screen" on page 193.

Automatic Sequence of Data Entry

Introduction

On the Weighing screen, when you press ↵ after typing data into a field, the cursor automatically moves to the next field.

The indicator can learn the order in which you want to enter the data. For example, you may have set up a field that is only used occasionally, or that is set to auto repeat. You can teach the indicator to skip that field when you press ↵ on the previous field.

Recording the sequence

To record the sequence, you repeat the same order of data entry for two animals in a row, using the arrow keys to force the cursor to go to the fields in the required sequence.

1. Type or select the data in the first field.
2. Press ↵.
3. Use the arrow keys to move the cursor to the next field in your sequence (if necessary).
4. Enter the data into the second field.
5. Repeat steps 3 and 4 for all the fields in your sequence.

▸ Repeat the above procedure for two animals in a row.

The indicator then remembers this order until changed (or the indicator is turned off). Now as you press ↵ on the Weighing screen, the cursor follows the pre-defined sequence from field to field.

Notes

- If you use the fast method of selecting items in option fields (pressing the number of the option) the indicator selects the option and moves the cursor to the next field in sequence with one key press.
- Although data entry fields are normally on the right hand side of the Weighing screen, you can include fields on the left hand side in the sequence if required.
- You can move the cursor to the "Press ◎" field on the screen for the purpose of recording the weight using the ↵ key as part of the sequence.

Skipping the Enter Key

If you routinely use a key sequence for each animal, such as:

1 2 3 4 ↵ ◎, you can omit the ↵ key from the sequence. Just press:

1 2 3 4 ◎.

This allows data entry with the minimum number of key presses.

Reweigh Key

The Reweigh soft key forces the indicator to take a new weight reading. This is useful if, for example, you are using the Automatic weight recording method and you don't think the animal was properly on the platform when the weight was recorded. The weight is measured again starting from the time the REWEIGH key is pressed and then recorded again without creating a new record.

Note The REWEIGH key only appears on the Weighing screen if it is enabled in the System Setup screen. For further information, see "System Setup Screen" on page 196.

Reweigh when using manual recording

With the animal on the platform, you can reweigh as follows:

1. Press REWEIGH.

   The indicator takes a new reading.

2. If required, when the stable light is on, press ◎.

   The indicator overwrites the weight in the animal's record in the current file, and also retains any other data you entered previously.

Reweigh when using auto recording

With the animal on the platform, you can reweigh as follows:

- Press REWEIGH.

The indicator pauses while it obtains another stable reading and then automatically records the weight in the animal's record in the current file, overwriting the previous weight, but retaining any other data you entered.

XR ONLY Repeat Fields

Introduction

You can set up a life data or file data field to automatically repeat the last value you entered for it on the Weighing screen.

If, for example, you want to repeat the same value for most animals, this feature greatly speeds up data entry time.

You can edit the automatically inserted value if necessary, and from then on the new value is used.

Setting up a repeat field

The setup is in the Life Data Setup screen or the File Data Setup screen, depending on which type of field you want to repeat. For detailed instructions, see:

- "Configuring Life Data" on page 58.
- "Customising File Data Fields" on page 73.

Prefix for IDs

Introduction

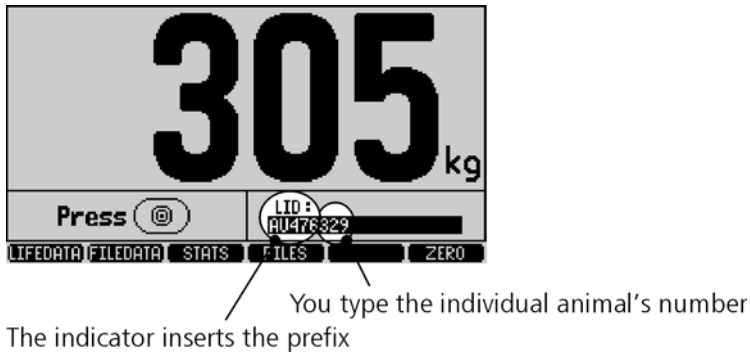
You can set up the indicator to automatically apply prefixes to IDs when you enter them on the Weighing screen. This feature saves time typing.

Prefixes are typically used for lifetime ID fields.

Example

If all your LIDs are of the form AU476 329, where 329 is the individual animal's number, you could set up a prefix of AU476.

On the Weighing screen, you type 329 into the LID field; the indicator automatically inserts AU476 as soon as you start typing.



Setting up the prefix feature

The setup is in the Life Data Setup screen. For detailed instructions, see "Setting up the Prefix Field" on page 168.

Auto Incrementing IDs

Introduction

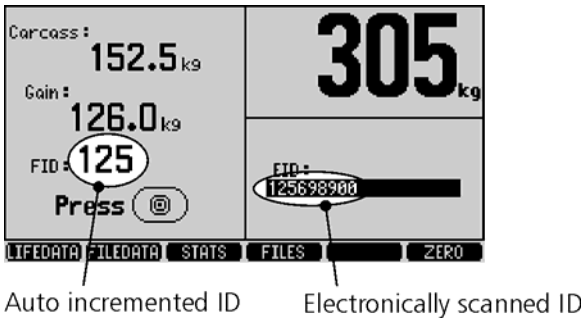
To save time when tagging and weighing animals, you can set an ID field to automatically increment for each new animal. This means you don't have to enter or scan the ID, the number (or letter) will increment by one each time you record a weight.

Example application

If you have a box of ear tags that are sorted in order, you can set up the indicator to automatically apply the next number in sequence as you weigh and tag each animal. This feature saves you having to read and enter the tag numbers.

Another example application

If you are scanning EIDs while weighing animals, you can set up the indicator to automatically increment an FID at the same time as you scan and place the tag in each animal's ear.



Notes

- The indicator always displays the next ID that will be used.
- The auto increment function can increment letters (from A to B to C and so on). Letter and number combinations can also be incremented (e.g. A1, A2, A3 and so on).

Setting up an auto incrementing ID

The setup is in the Life Data Setup screen. For detailed instructions, see "Setting up the Auto Increment Field" on page 167.

Note You can also use the auto increment feature with Automatic weighing weighing. For information on this feature, see "Manual and Automatic Weight Recording Options" on page 98.

Damp System Options

Introduction

The damp system options allow the indicator to be configured to weigh faster (sometimes a lot faster) during repetitive weighing. It works without unduly compromising accuracy, by taking advantage of the known characteristics of different weighing applications.

Superdamp III (Cattle) is the general, default weighing mode. It can be used for everything, not just cattle. Regardless of what is being weighed, it is the most accurate mode.

Note If you are weighing cattle, you should always use the default mode, otherwise accuracy will be compromised.

Mode	Effect	Applications
Superdamp III (Cattle)	For general weighing.	Cattle. Suitable for all other applications.
Superdamp III (Sheep)	For faster weighing.	Sheep and small animals.
Fixed weighing time	Even faster weighing. No accuracy tolerance.	Mob average.
Smart drafting	Fast, but slows right down when weight is near the draft limits.	Drafting sheep.
Averaging	Fastest possible weighing.	For produce, dead weights and filling a container or bag.

Manual and Automatic Weight Recording Options

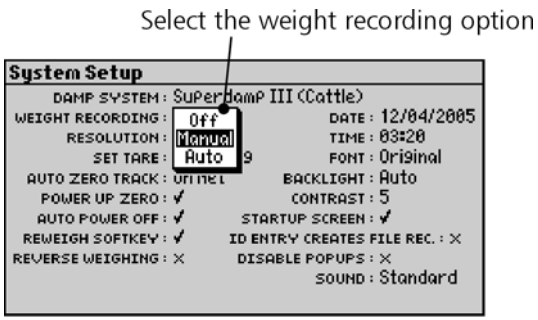
Introduction

The default method of recording weights is to press the record key when the stable light comes on. The indicator also provides other weight recording options to suit different circumstances.

- Off – can be used when not recording weights at all.
- Manual – press ◎ to record the weight.
- Auto – automatically records the weight.

Changing the method of recording

1. Press (×✓), then SYSTEM.
2. Move the cursor to the WEIGHT RECORDING field and press ↵.
3. Select the required option:
   - Off
   - Manual
   - Auto



The options are explained below.

Weight recording Off

Disables the record key. Weights are not recorded at all. The weight column in the File Data screen disappears.

Manual recording option

Use this option in situations where external influences could affect the weight reading. For example:

- Animal could touch an unweighed part of the enclosure, step off the platform, or lean against the rail.
- Operator's hands or another animal could touch part of the weighing platform or the animal.

With this option, the operator has full control over when weights are recorded.

Procedure

1. Move the animal onto the platform.
2. Ensure nothing is touching the animal or the platform.
3. Wait for the Stable light to come on.
4. Press  .
5. Move the animal off the platform.

Automatic weight recording option

Use this option where a fully enclosed weighing crate or crush is being used, or where hands-off operation is required.

Automatic weight recording uses two timing constraints that help to ensure that each animal is recorded only once:

- The animal must be on the platform for 1½ seconds before it can be recorded.
- There must be a minimum 5 second cycle time between animals.

This method is a fast and efficient method of recording weights.

Procedure

1. Move the animal onto the platform.

   As soon as the Stable light comes on, the indicator automatically records the weight.
2. Move the animal off the platform.

Fast automatic weight recording

With automatic weight recording selected, set Damp System to Superdamp III (sheep).

Use this method when fast throughput of animals is important.

For example, when sorting animals into broad weight categories, or weighing sheep to get an average statistic.

The two timing constraints described above are relaxed and the indicator weighs faster.

For more information on Damp System options, see page 97.

Entering data and automatic weight recording

If you are using IDs, and you want the Automatic Weight Recording function to wait for an ID, you should put at least one of your ID fields on the right hand side of the Weighing screen. The indicator will then wait for an ID before recording the weight, even if the red stable light is on.

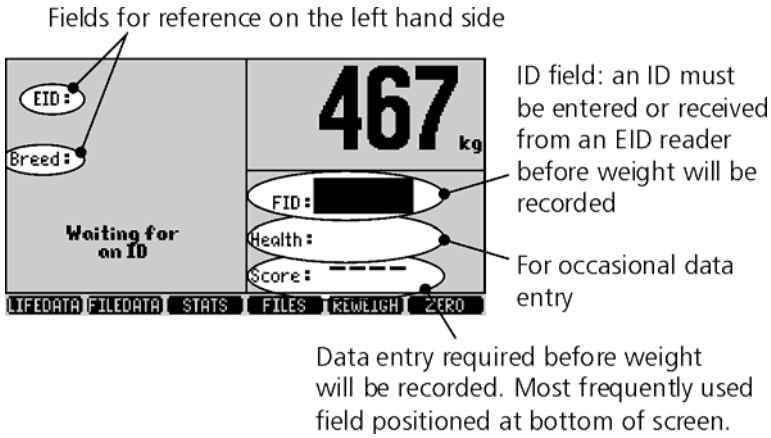
Any ID can be entered, or an EID can be scanned to allow the indicator to proceed and record the weight.

If you have a File Data or Life Data field set up on the right hand side of the Weighing screen, the Automatic Weight Recording function will wait until data is entered into this field as well. (The indicator does this to take full advantage of the available weighing time while you are entering your data, in order to get the most accurate weight possible.)

If you do not want the indicator to wait for you to enter data, put your fields onto the left hand side of the Weighing screen instead of the right hand side.

If you have more than one data (non ID) field set up on the right hand side, the indicator will only wait for the one at the bottom of the screen. So it is best to have a field that you always want to enter data in at the bottom.

Arrange the right hand side of the Weighing screen so that fields that you occasionally want to enter data in are at the top. If data is not required in the bottom field for a particular animal, with the field selected, press ↵ to allow the Automatic Weight Recording to proceed.



XR SR ID ONLY

Entering data and auto drafting

If using automatic drafting equipment, Weight Recording must be set to Manual, as the autodrafter itself tells the indicator to record the weight.

However, the guidelines for setting up the right hand side of the Weighing screen described above for Automatic Weight Recording should be applied. Because both the recording of the weight and the releasing of the animal is affected by fields on the right hand side of the Weighing screen, it is very important to set up this screen carefully.

See also

Automatic weight recording can be used with automatic methods of getting the animal's ID into the indicator, such as:

- Auto incrementing ID number. See page 96.
- Electronic tag scanning. See page 64.

Weighing Resolution

Introduction

You can specify the minimum weighing resolution. A coarser resolution will result in the scale stabilizing more quickly when the animal is moving.

Setting resolution

You set the minimum resolution in the System Setup screen. The indicator automatically applies coarser resolutions at higher weight ranges anyway.

See also

"System Setup Screen" on page 196.

"Auto Resolution Information Screen" on page 210.

PART 4

Getting Information Out

This part explains the features that allow you to view your data in various ways, either its original form as raw data, or processed in some way to give you useful information.

Some of the features discussed can be used during a weighing session, and some are for use afterwards.

Processing information

The indicator can perform calculations based on data entered, such as the animal's weight. The processed information can be viewed as you weigh or after weighing. You can use the Weighing Screen Setup to enable or disable features for processing information.

Introduction

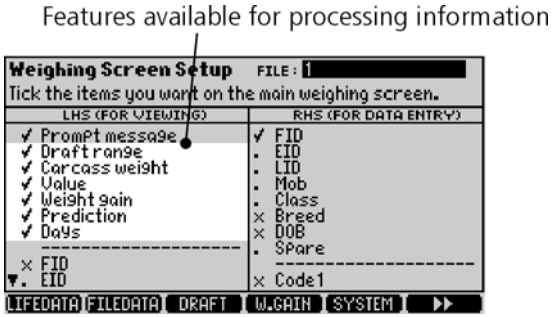
Features available for processing information include:

- Weight gain
- Drafting
- Carcass Weights
- Animal values
- Feed days
- Predictions.

Enabling and disabling features

To enable or disable a feature for processing information:

1. Press (✕✓).



2. Move the cursor to the option you want to change and press **1** to enable (tick) or **0** to disable (cross).
3. When finished, press (ESC) to exit the setup screen.

Note Features are enabled on a file by file (file data) basis, so that some files display processed information and others do not.

Changing default settings

In most situations, the default settings for features can be used. To change the default settings you will need to go to the relevant setup screen. Setup screens can be accessed via the Weighing Screen Setup. See "Route Map of Setup Screens" on page 158.

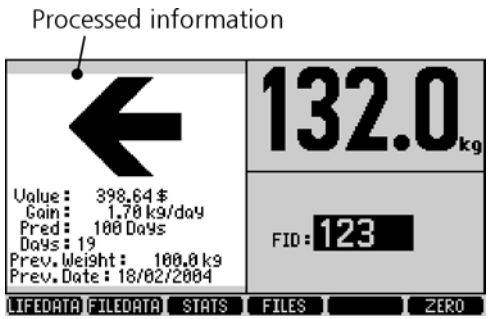
Viewing processed information

Once you have enabled a feature for a particular file, you can see the processed information in various screens:

- In the Weighing screen
- In the File Data screen.
- In the Statistics, Draft Statistics and User Statistics screens.
- In the Animal History screen.

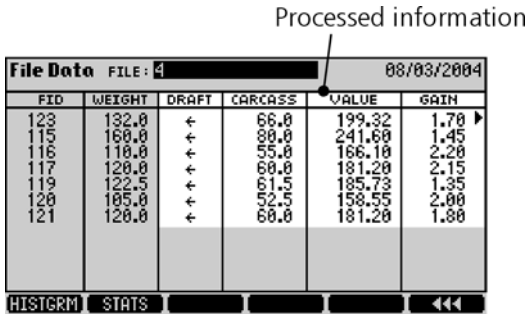
Weighing screen

Enabling a field in the Weighing Screen Setup will add the field to the Weighing screen. Then, whenever a weight is displayed on the screen, the indicator performs the calculation required and displays the result.



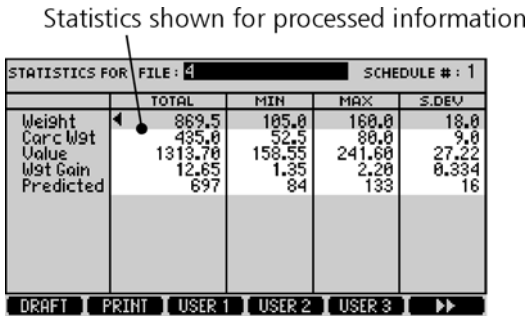
File Data screen

When a feature is enabled, the indicator adds a column to the File Data screen and displays the result.



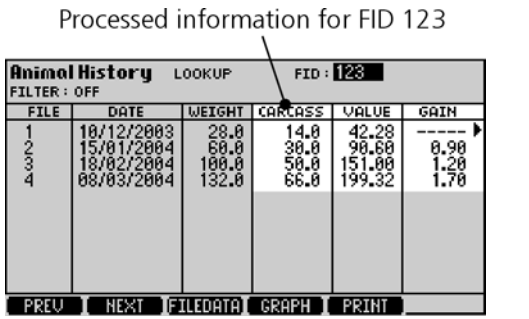
Statistics screens

The indicator calculates and displays the average, total, minimum, maximum, and standard deviation of data for all animals in the selected file.



XR ONLY Animal History screen

When a feature is enabled, the indicator adds a column to the Animal History screen. The complete recorded history of an animal is displayed.



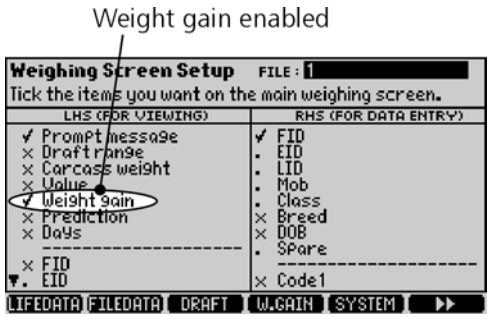
XR SR ID ONLY

Weight Gain

The indicator can calculate each animal's weight gain by comparing its current weight with the weight recorded in a previous file.

Enabling weight gain

Weight gain can be enabled and disabled in the Weighing Screen Setup. For further information, see "Processing information" on page 104.



In most situations, the default settings for weight gain can be used. To change the weight gain settings, press (×✓), then W.GAIN. For further information see "Weight Gain and Predictions Setup Screen" on page 185.

Viewing Weight Gain

Once you have enabled weight gain for a particular file, you can see the information in various screens:

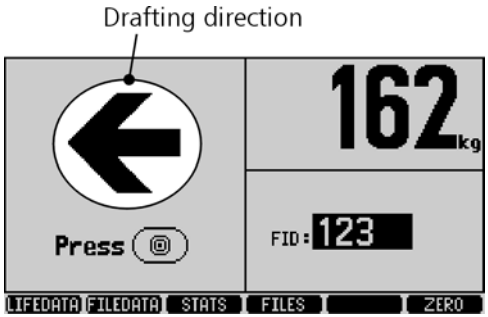
- In the Weighing screen.
- In the File Data screen.
- In the Statistics, Draft Statistics and User Statistics screens.
- In the Animal History screen.

Drafting

The drafting feature of the XR3000 allows you to direct animals into different groups as they are being weighed.

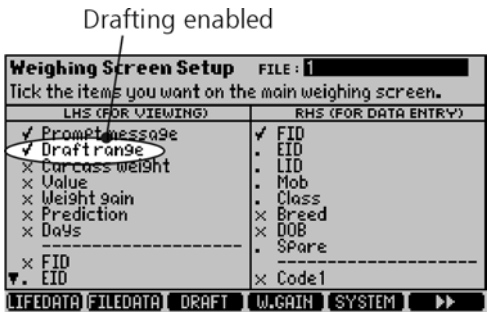
A typical example is to divide animals into different pens according to their weights. The indicator displays a symbol or number on the Weighing screen, showing which pen to put the animal in.

Example Weighing screen



Enabling drafting

Drafting can be enabled and disabled in the Weighing Screen Setup, press (✕✓). For further information, see "Processing information" on page 104.



In some situations, the default settings for drafting can be used. To change the number of groups or 'drafting ranges' that animals are divided into or any other drafting settings, press (✕✓), then DRAFT. For further information see "Drafting Setup Screen" on page 180.

Once you have enabled drafting for a particular file, you can see the information in various screens:

- In the Weighing screen.
- In the File Data screen.
- In the Statistics, Draft Statistics and User Statistics screens.
- In the Animal History screen.

Drafting Session

Introduction

Once you have enabled drafting, you carry out weighing in the normal way.

Draft value

XR AND SR ONLY

The value you are drafting by may be obtained by the indicator in several different ways depending on what the value is:

- The live weight on the scale.
- Data, such as a condition code, that you enter manually while the animal is being weighed or before the weighing session.
- A value calculated by the indicator, such as weight gain.
- A value obtained from life data, when you enter the animal's ID.

As soon as the draft value is available to the indicator, it displays a drafting symbol according to the 'drafting range' the animal belongs to.

Example

An animal moves onto the platform. The indicator shows the live weight of the animal and a drafting arrow is displayed, showing the drafting range the animal belongs in. The animal can then be moved into the appropriate pen.

Notes

- If no drafting range is matched, the indicator displays blank where it would display an arrow.
- You can override the draft result on screen if required. The overridden draft range is the one that is stored in the file data record.

Recorded draft data

The draft range determined during weighing is stored in the animal's record in the current file, so that you can refer to it later if required.

Note You can view or edit the recorded draft data in the File Data screen.

Draft Statistics

Introduction

You can view statistics broken down by draft ranges in the Draft Statistics screen for any file that had drafting enabled when the data was recorded.

Accessing the draft statistics report

- Press STATS, then DRAFT to display the Draft Statistics screen.

See "Draft Statistics" on page 141 for more information.

XR AND SR ONLY

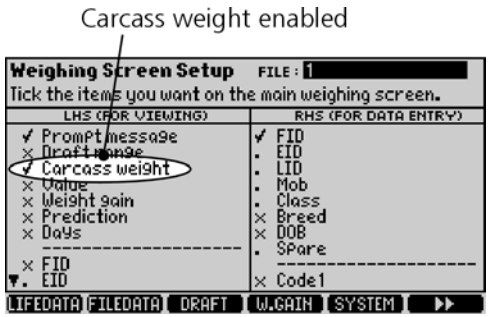
Carcass Weights

The carcass weight is the anticipated yield from an animal. The indicator calculates the yield from a percentage figure.

For example, if the animal weighs 100 kg and the carcass percentage is 50%, the indicator will display 50 kg as the carcass weight.

Enabling carcass weights

Carcass weights can be enabled and disabled in the Weighing Screen Setup, press (×✓). For further information, see "Processing information" on page 104.



To change the carcass percentage used to calculate the carcass weight, press (×✓), then FILEDATA. For further information, see "Setting up Carcass Weight" on page 175.

Viewing carcass weights

Once you have enabled carcass weights for a particular file, you can see the information in various screens:

- In the Weighing screen.
- In the File Data screen.
- In the Statistics, Draft Statistics and User Statistics screens.
- In the Animal History screen.

XR AND SR ONLY

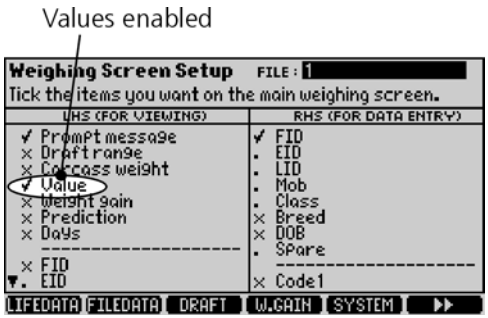
Animal Values

The XR3000 allows you to enter schedules of values for different weight ranges.

For example, you can obtain information about price breaks from abattoirs and then track the values of your animals as they put on weight.

Enabling values

Values can be enabled and disabled in the Weighing Screen Setup, press (✕✓). For further information, see "Processing information" on page 104.



In some situations, the default settings for values can be used, but you will probably want to add your own schedule of values. To access the Schedule Setup screen, press (✕✓), then SCHEDULE. For further information, see "Schedule Setup Screen" on page 191.

Carcass weights

IMPORTANT

- If the Carcass Weight option is enabled, values are calculated from carcass weights.
- If the Carcass Weight option is not enabled, values are calculated from live weights.

Viewing values

Once you have enabled values for a particular file, you can see the information in various screens:

- In the Weighing screen.
- In the File Data screen.
- In the Statistics, Draft Statistics and User Statistics screens.

- In the Animal History screen.

Note If you have set up more than one schedule of values in the Schedule Setup screen, you can select different schedules, to compare values. For more information, see “Schedule Setup Screen” on page 191.

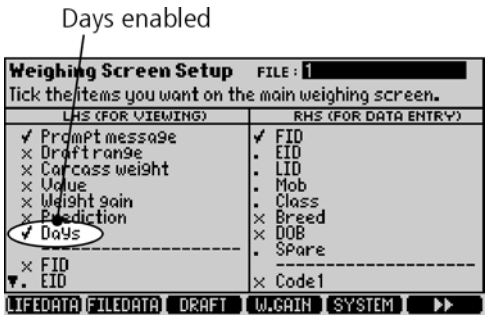
XR ONLY

Feed Days

The indicator can show the number of days an animal has been on feed. This is the number of days since animals were first entered into the indicator (into a file).

Setting up days

Days can be enabled and disabled in the Weighing Screen Setup, press (✕✓). For further information, see "Processing information" on page 104.



In some situations, the default settings for days can be used, but you may want to change some settings. Press (✕✓), then W.GAIN to access the settings for days. For further information, see "Feed Days Setup Fields" on page 188.

Viewing days

Once you have set up days for a particular file, you can see the information in various screens:

- In the Weighing screen.
- In the File Data screen.
- In the Statistics, Draft Statistics and User Statistics screens.
- In the Animal History screen.

XR ONLY

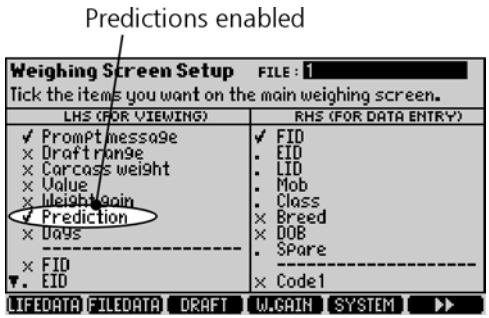
Predictions

Predictions are a powerful feature of the XR3000. Based on weight gain, the indicator can calculate the predicted weight of an animal after a certain time, or conversely, the time to reach a certain weight.

Armed with this information, you can make management decisions, such as feed allocation or health treatments.

Setting up predictions

Predictions can be enabled and disabled in the Weighing Screen Setup, press (✕✓). For further information, see "Processing information" on page 104.



In some situations, the default settings for predictions can be used. You may want to change some settings, for example add a target weight or target date. Press (✕✓), then W.GAIN to access the settings for predictions. For further information, see "Predictions Setup Fields" on page 189.

Displaying predictions

Once you have set up predictions for a particular file, you can see the information in various screens:

- In the Weighing screen.
- In the File Data screen.
- In the Statistics screen.
- In the History screen.

Previous Data

Previous data recorded for an animal can be viewed on the Weighing screen while you are weighing. For example, you might want to view the most recent weight recorded for an animal as it steps onto the platform.

You can view:

- Previous weight
- Previous date
- Previous weight gain
- Previous file data fields

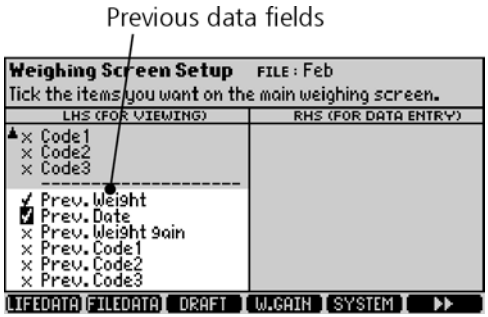
Setting up for viewing previous data

Previous data fields can be enabled and disabled in the Weighing Screen Setup.

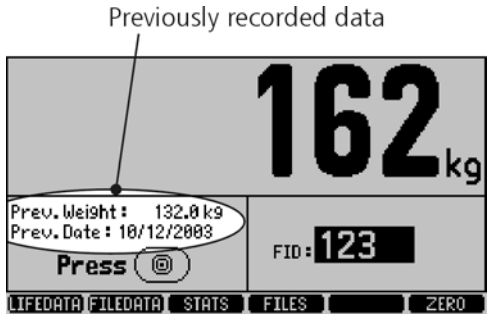
To set up a previous data field:

1. Press (✕✓).

2. Enable one or more previous data fields.



3. Press (ESC) to go back to the Weighing screen.



Previously recorded data in the most recent file containing the animal will be displayed.

Notes

- The indicator will only display previous data from a single file for the current animal.
- The previous data field will be blank if the most recent file containing the animal has no data recorded for the animal in the previous data field.
- All the information about an animal can be viewed in the Animal History screen. See “Reviewing Complete Animal History” on page 136.

Reviewing File Data

File data is the data, such as weight and condition code, that you record during a weighing session. For an explanation of the principles of life data and file data, see "Data Storage Principles" on page 28.

You can view and edit the data at any time in the File Data screen.

The File Data Screen

Introduction

The File Data screen is the second most important screen in the indicator, after the Weighing screen.

Common uses

You can use the File Data screen to:

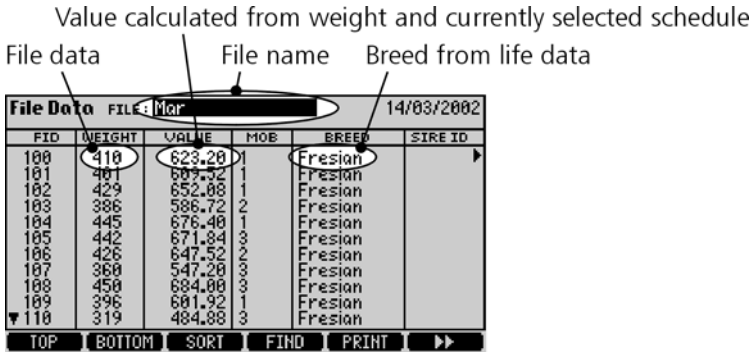
- Browse the results of a weighing session.
- Verify that data is being recorded correctly.
- Correct data entry errors.
- Delete weight records entered in error.
- Manually insert weight records.
- Sort and print the recorded data.

Accessing the File Data Screen

▸ From the main Weighing screen, press FILEDATA.

The indicator displays the File Data screen for the current file.

Example File Data screen



In addition to displaying file data, the File Data screen also shows the life data for the animals weighed in the session. This contrasts with the Life Data Table screen, which only shows the life data, but does so for all the animals in the indicator.

Columns

The columns of data appear automatically depending on which options you enabled in File Data, Life Data, and other setup screens.

◀ and ▶ indicators appear when there are more columns to the left or right, respectively.

▲ and ▼ indicators appear when there are more rows above or below, respectively.

Viewing a different file

To view a different File Data file:

1. Put the cursor in the FILE: field.
2. Type either the name or the number of the file.
3. Press ↵.

   The file name is displayed.

Sorting File Data Records

Introduction

When you display the File Data screen, the records are displayed in the order that they were originally entered into the indicator, with the first record at the top of the list.

Sorting by weight

You can sort the data by one or more of the displayed columns. For example to sort the records in order of weight, put the cursor anywhere in the WEIGHT column and press SORT.

The indicator sorts the list, putting the lowest weight at the top, highest at the bottom. To reverse the list with highest weight at the top, press SORT again.

Sorting by multiple columns

You can sort the data by more than one column.

For example, to sort animals by weight within each Class:

1. Put the cursor in the WEIGHT column and press SORT.
2. Put the cursor in the CLASS column and press SORT.

The indicator displays the animals in Class 1 in weight order followed by the animals in Class 2 in Weight order and so on.

Inserting a File Data Record

Introduction

You can manually insert a new record into the file data.

To insert a new record

1. Move the cursor to the row below the position at which you want to insert the new record.
2. Press ▶▶ then INSERT.
3. Type an ID or IDs in the appropriate columns.

   If you enter an ID that exists in life data, the indicator links to that record and fills in other life data fields automatically.

   If you need to enter an ID that does not already exist in life data, you must first create a life data record for it in the Life Data Form screen.

Deleting a File Data Record

Introduction

This action deletes a single record from the current file.

File data records are deleted with a single key press; no confirmation is requested. This allows you to delete many records without having to confirm for each.

To delete a file data record

1. Move the cursor onto the record (row) you want to delete.
2. Press ▶▶ then DELETE.

Deleting all Records in Current File

This action deletes all the records from the current file. Data in other file data files is not affected.

To delete all the records in the current file

1. Press ▶▶ then DEL ALL.

   The indicator prompts for confirmation:

2. To delete all the records, select 'Yes' and press ↵.

Note This action can also be done by pressing DELETE in the Files screen. See "Deleting individual files " on page 67.

Finding a Record

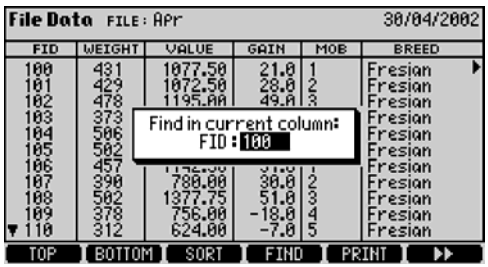
Introduction

You can find a particular record in the current file using data in any of the columns. For example you can find the record that contains a particular ID or weight.

To find the record

1. Put the cursor in the column that contains the data to be found.
2. Press FIND.

   The indicator displays a prompt for you to enter the value to search for.



3. Type in the value you want to find and press ↵.

   The indicator searches all the data in the current column and if it finds a match, moves the cursor to the relevant record.

Notes

- If more than one record is found, the cursor moves to the next one each time you do a find operation.
- If no exact match is found, the cursor moves to the nearest match.
- For text fields, you only need to enter part of the text to be found.

Search by scanning EID

In the File Data screen, you can scan an EID to locate the data for that animal. You don't have to put the cursor in the EID column, or press FIND.

Changing an ID in the File Data Screen

Introduction

If, for example, you entered the wrong ID during a weighing session, but the other recorded data is correct, you can change the ID in file data.

1. Locate the record by one of the methods given in the previous topic.
2. Type the new ID in the appropriate column and press ↵.

   The indicator can only change the ID if the new ID you entered exists in the Lifetime Animal Database.

   - If the ID exists in life data, the current file data record will be linked to it. The recorded data then applies to the different animal.
   - If the ID does not exist in life data, a prompt message appears telling you that the ID could not be found. If you want to, go to the Life Data Form screen and create a new life data record, then return to the File Data screen and change the ID to use that life data record.

Moving a file data record to another file

Introduction

You can move one or more animal records to another file after a weighing session. For example, if your animal IDs contain information such as date of birth, you could weigh all animals together, sort the records in the File Data screen then move records into different files according to the ID.

1. Sort records, as required.
2. Press ▶▶ then MOVE TO.

3. Enter the file name or file number you want to move records to.
4. Place the cursor on the record you want to move.
5. Press MOVE.

   The record is moved to the relevant file.
6. Place the cursor on the next record and press MOVE.
7. Repeat for remaining records.

Notes

- The file you move records to must have the same setups, or it must be empty.
- If the file you are moving to is empty, the file will adopt the same setups as the original file.

Printing

If you have a printer connected to the indicator, you can print the File Data, by pressing PRINT.

For further information, see “Printing“ on page 155.

XR ONLY

Viewing File Data as a Histogram

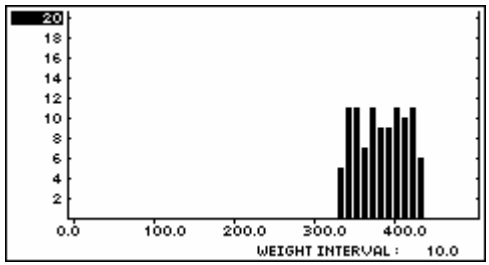
The weights recorded in a file can be viewed in the form of a histogram (bar graph). This allows you to see at a glance, the distribution of weights in a file.

Viewing a histogram

To display a histogram of the weights in a file:

1. Press FILEDATA to go to the File Data screen.
2. Enter the name or number of the file you want to view in the FILE field.
3. Press ▶▶, then HISTGRM.

   The indicator displays a histogram of weight values in the file.



Parts of the histogram

Each bar displays the count of the number of animals in a weight range:

- The vertical axis (y axis) shows a count of the number of animals.
- The horizontal axis (x axis) shows weight intervals.
- The size of the weight interval is represented by the width of the bar.

The indicator optimises the view settings, according to the data in the file. These settings can be changed, as required.

Changing the histogram view settings

To change the upper limit for count (y axis):

1. Select the figure used as the upper limit in the vertical axis.
2. Enter a number using the numeric keypad. Numbers can be 5, 10, 20, or 50; 100, 200 or 500; 1000, 2000 or 5000 and so on.
3. Press ↵.

To change the lower limit for weight (x axis):

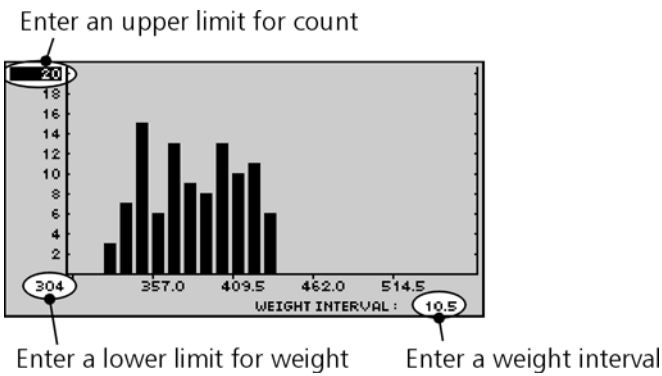
1. Select the figure used as the lower limit in the horizontal axis.
2. Enter a number using the numeric keypad.
3. Press ↵.

   The number entered will be rounded depending on the current resolution.

To change the Weight Interval:

1. Select Weight Interval.
2. Enter a number using the numeric keypad.
3. Press ↵.

   The number entered will be rounded depending on the current resolution.



Reviewing Life Data

Life data is the data, such as IDs, date of birth, or breed, that generally remains the same for the life of the animal. While the Life Data Form screen is intended primarily for entering data, you can also use it to view and edit the current animal's life data at any time in the Life Data Form screen.

In this respect, the Life Data Form screen acts as an extension of the Weighing screen, in case you don't have all the life data fields showing there.

With the NEXT and PREV soft keys, the Life Data Form screen also acts as a way to 'work through' all the animals in the Lifetime Animal Database.

Life data and file data

For an explanation of the principles of life data and file data, see "Data Storage Principles" on page 28.

XR ONLY Configuring life data

The type and number of life data fields are configured in the Life Data Setup screen. For details, see "Life Data Setup Screen" on page 167.

Current animal

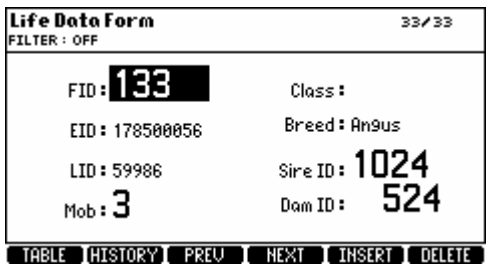
The current animal is the animal you have selected on the Weighing screen, Life Data Form screen or Animal History screen.

XR ONLY Accessing the Life Data Form screen

- From the Weighing screen, press LIFEDATA.

  The indicator displays the life data for the current animal.

Example life data



Finding a record

You can use NEXT and PREV to access records for other animals.

Alternatively, enter the ID of the record you want to view, or scan the EID of the animal you want to view.

If you enter an ID that does not exist in the database, the indicator displays the following prompt:

The options are as follows:

- Create a new life data record

  This creates a new life data record with the ID you entered and all other fields blank.

- Modify the life data record.

  This changes the animal's ID in life data to the one you entered. From now on all data in all files will be accessed using the new ID.

- Cancel.

  This returns to the Life Data Form screen and clears the ID you entered.

Note If you select 'Don't show message again this session,' the indicator will continue to use the option you chose last time, without the prompt appearing. When you next switch on the indicator, the prompt will be re-enabled.

Inserting a Life Data Record

Introduction

You can use this function to pre-enter all the life data records before you do any weighing, or, for example, to insert records at times when you acquire new animals. However, it is safer to create records by entering an unknown ID, as the insert function lets you create duplicate IDs.

Inserting a record

1. From the Weighing screen, press LIFEDATA.
2. Press INSERT.

   The indicator inserts a record after the last record in the database.
3. Enter the data into the fields. As usual, the data is automatically saved as you enter it.

Notes

- If the ID you enter already exists, there will be two records with the same ID. You may need to add or change an additional ID field to distinguish the animals. See "Combination of ID fields " on page 56.
- You can also add animals to your Lifetime Animal Database directly from the Weighing screen. For example during a weighing session, if you enter an unknown ID the indicator will ask you if you want to create a new life data record.

XR ONLY Deleting a Life Data Record

If you delete an animal's life data record, all the data recorded about that animal including life data and all file data will be lost.

Deleting a record

1. From the Weighing screen, press LIFEDATA.
2. Press DELETE.

   If there is one or more files using this life data record, the indicator displays the following prompt:

3. To delete the record, select 'Yes' and press ↵.

Note You can delete all the life data records in one action from the Life Data Table. See "Lifetime Animal Database Table" on page 132.

XR ONLY Filtering Life Data

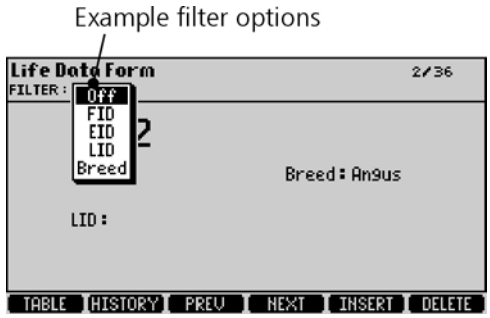
Introduction

The filter function allows you to specify a sub-set of life data records that will appear when you press NEXT and PREV. This is useful when you want to enter a new life data field for a select group of animals. For example, you can set the filter so that you see only those animals having a particular treatment, those belonging to a particular owner, or those in a particular mob.

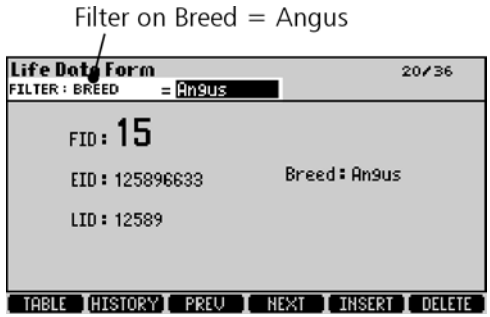
Setting a filter

1. From the Weighing screen, press LIFEDATA.
2. Move the cursor to the filter field and press ↵.

   The indicator displays a list of the fields available (the fields you have configured in life data setup).



3. Select a field from the list and press ↵.
4. Move the cursor to the right.



5. Enter a value that matches the animals you want to view.

Example filter

If you set the filter to:

Breed = Angus

You will then only see animals of that breed in the Life Data Form screen. You can press **NEXT** and **PREV** to scroll through the records of those animals.

Number of records

The record number and total number of records is shown in the top, right-hand corner of the screen. If a filter is active, these numbers are of the subset of records.

Lifetime Animal Database Table

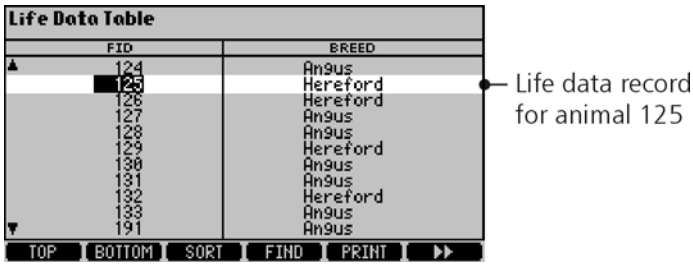
Introduction

The Lifetime Animal Database Table (Life Data Table for short) lets you view the life data for all the animals known to the indicator in a table format. The records can be viewed, modified, sorted or printed as required.

The Life Data Table screen contrasts with the File Data screen, which also shows life data, but only for those animals that were weighed in the current file.

Accessing the Life Data Table

1. From the Weighing screen, press LIFEDATA.
2. Press TABLE to display the Lifetime Animal Database Table screen.



Each row contains a separate animal's life data. You may need to scroll sideways to see all the fields.

◀ and ▶ indicators appear when there are more columns to the left or right, respectively.

▲ and ▼ indicators appear when there are more rows above or below, respectively.

Changing an ID

To change an animal's ID, overtype the new ID in the relevant column.

Note If the ID you enter already exists, there will be two records with the same ID. You may need to add or change an additional ID field to distinguish the animals. See "Combination of ID fields " on page 56.

Inserting records

1. Move the cursor to the row below the position at which you want to insert the new record.
2. Press ▶▶ then INSERT.
3. Enter the ID and other details.

Note If the ID you enter already exists, there will be two records with the same ID. You may need to add or change an additional ID field to distinguish the animals. See "Combination of ID fields " on page 56.

Deleting individual records

If you delete an animal's life data record, all the data recorded about that animal in life data and file data will be lost.

1. Move the cursor to the record (row) you want to delete.
2. Press ▶▶ then DELETE.

   If there is one or more files using this life data record, the indicator displays the following prompt:

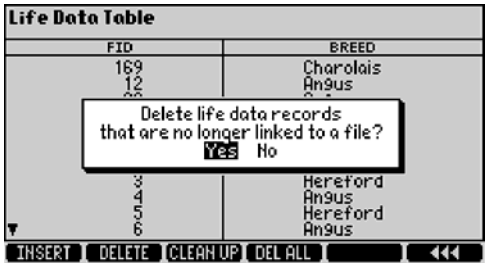
3. To delete the record, select 'Yes' and press ↵.

Deleting unused records

Sometimes, life data records are created but are never used by files. These obsolete records can be deleted at one time:

1. Press ▶▶ then CLEAN UP.

   The indicator displays the following prompt:



2. To delete the records, select 'Yes' and press ↵.

The indicator will delete all life data records that are not referenced by any file.

Deleting all records

Use this option with extreme caution. This action deletes all the data in the indicator, including life data and file data.

1. Press ▶▶ then DEL ALL.

   The indicator displays the following prompt:

2. Select 'Yes' and press ↵.

   The indicator displays another prompt to make sure you are absolutely certain about this action.

3. To delete all the data, select 'Yes' and press ↵.

Sorting records

You can sort the records by any of the displayed columns. For example, to sort the records in order of date of birth, put the cursor anywhere in the DOB column and press SORT.

Finding records

You can find a particular record using data in any of the columns. For example you can find the record that contains a particular ID.

For further information about the FIND function, see page 122.

If you have an electronic tag reader connected to the indicator, the life data table automatically positions to the animal's record when you scan an EID. You should not put the cursor in the EID column first.

Changing an EID

If the cursor is in the EID column, the action of scanning an EID that is not already known causes the indicator to change the EID for the current record. This is the only way to change an animal's EID using a scanner.

Printing

If you have a printer connected to the indicator, you can print the Life Data Table, by pressing PRINT.

For further information, see "Printing" on page 155.

XR ONLY

Reviewing Complete Animal History

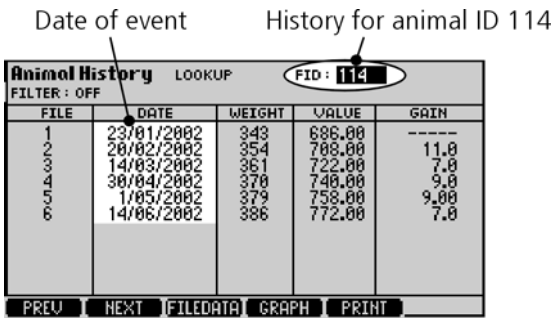
The Animal History screen shows the complete recorded history of an animal in one screen.

The table assembles the information from all the weighing sessions (file data files) that contain records for the animal.

This screen is a very important aid to managing animals.

Accessing the animal history screen

1. Press LIFEDATA.
2. Press HISTORY to view the Animal History for the current animal.



Displaying the history of a particular animal

- Press NEXT or PREV to reach the required animal,

  Or

- Enter the animal's ID in the LOOKUP field at the top of the screen.

◀ and ▶ indicators appear when there are more columns to the left or right, respectively.

▲ and ▼ indicators appear when there are more rows above or below, respectively.

Rows and dates

The table has a row for every file data file in which the animal has a record. The row shows all the data present in that file data record.

In other words, the table shows a complete history of all weighings and other events recorded about the animal.

The left hand column is the date of the event. This is the date of the file where the data comes from.

Columns

The Animal History screen automatically includes a column for every different field name it finds in the relevant file.

Because you can set up different files with different field names and different fields types, not all columns will have a value for a particular row.

Printing

If you have a printer connected to the indicator, you can print the animal history, by pressing PRINT.

For further information about printing, see “Printing” on page 155.

XR ONLY

Viewing Animal History as a Graph

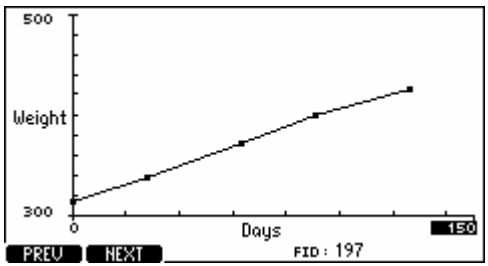
The weights recorded for an animal can be viewed in the form of a line graph. This allows you to see at a glance, the fluctuations of an animal's weight over time.

Viewing a graph of animal history

To display a graph of the weights recorded for an animal:

1. Press LIFEDATA to go to the Life Data screen.
2. Press HISTORY to go to the Animal History screen.
3. Press GRAPH to go to the Animal History Graph screen.
4. Enter the animal ID in the ID field.

   The indicator displays a graph of weight values recorded for the animal.



Parts of the graph

Each dot on the line graph represents the weight of the animal at a particular weighing session.

- The vertical axis (y axis) shows the weight of the animal.
- The horizontal axis (x axis) shows the number of days displayed by the graph. The starting point is the animal's date of birth if the DOB field has been used.

The indicator optimises the view settings, according to the data in the file. These settings can be changed, as required.

Changing the graph view settings

To change the upper or lower limit for weight (y axis):

1. Select the figure in the vertical axis.
2. Enter a number using the numeric keypad.
3. Press ↵.

   The number entered will be rounded depending on the current resolution.

To change the upper or lower limit for days (x axis):

1. Select the figure in the horizontal axis.
2. Enter a number using the numeric keypad.
3. Press ↵.

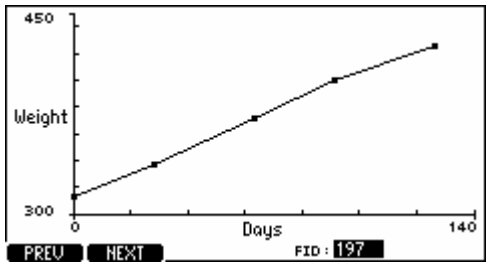
Viewing a graph for another animal

To view a graph for another animal:

- Enter another ID in the ID field.

- or -

- Press NEXT or PREV to scroll through the animals in the lifetime animal database.



Statistics

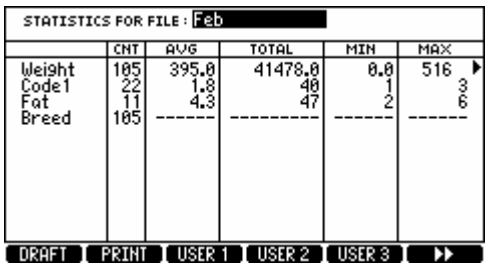
The standard Statistics screen shows the Number, Average, Total, Minimum, Maximum and Standard Deviation for the fields of data stored in the current file. For example, you can see the average of all the weights stored in a particular file.

You can also see statistics for calculated values such as weight gain and value and life data for animals in the current file.

You can view the statistics on screen and, if you have a printer connected to the indicator, you can print out the statistics.

Accessing the Statistics screen

- Press STATS to display the Statistics screen.



The screen shows one row of statistics for all fields and features that are enabled in the indicator.

Note In this example, the statistics for breed are not shown because the breed is not a numeric quantity. Only the number of (non-blank) breeds is shown in the CNT field.

File data file

The default file displayed will be the current file, but you can select any file by name or number.

◀ and ▶ indicators appear when there are more columns to the left or right, respectively.

XR AND SR ONLY

Schedule

If Values is enabled, you can select the schedule that will be used to calculate the statistics in the Value row. For information on Schedules, see "Animal Values" on page 112.

File data fields

The file data fields that appear in the left hand column are the fields that are enabled in file data.

XR AND SR ONLY

Other fields

The other fields in the left hand column are the life data fields and calculated fields, such as Weight Gain and Value if you have enabled those options in the indicator.

Statistical data

For each field, the screen shows the following information:

CNT	The number of records that contain a value for that field.
AVG	The average of the values.
TOT	The sum of all the values.
MIN	The minimum value
MAX	The maximum value.
S DEV	The standard deviation of the values.

Printing a Statistics Report

If you have a printer connected to the indicator, you can print the Statistics screen by pressing PRINT.

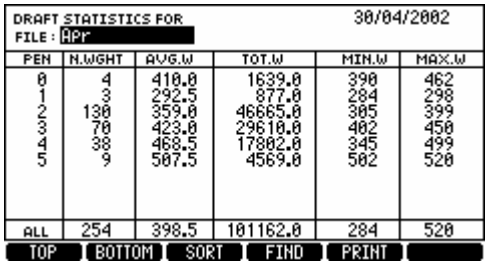
For further information, see "Printing" on page 155.

See also "Printing User Defined Reports" on page 151 for an example report.

Draft Statistics

You can see draft statistics that show the number of animals that were directed to each pen together with their weight.

1. Press STATS, then DRAFT to display the Draft Statistics screen.
2. Select the file for which you want the drafting statistics.



The screen shows the number of animals that were directed to each pen together with statistics, such as average weight, for each pen.

Notes

- The Draft Statistics screen shows weight statistics broken down by pen number (or other draft range indicator). To get statistics of other fields, see "User Defined Statistics" on page 144.
- The Draft Statistics screen also shows Average Weight Gain or Total Value when these features are enabled in the Weighing screen setup.

Printing the draft statistics

If you have a printer connected to the indicator, you can print the draft statistics report, by pressing PRINT.

For further information, see "Printing" on page 155.

How statistics are calculated

Each statistic is calculated using all records in the file.

Statistics calculations do not include:

- Numeric fields containing dashes.
- Text fields containing non-numeric characters.
- Custom fields containing blank values.

Count is the only statistic available for custom options. For example, a custom field is used to record the type of treatment given to animals and untreated animals are left blank; the statistics show a count for the total number of treated animals.

Value statistics are displayed according to the current schedule.

Rows that have statistics for Life Data do not represent all Life Data, but only Life Data records of animals represented in the current file.

XR ONLY

User Defined Statistics

The standard Statistics screen described on page 140 shows the Number, Average, Total, Minimum, Maximum and Standard Deviation for all the fields of data stored in the current file.

However, the XR3000 offers the powerful feature of user defined statistics. These screens allow you to do two things. Firstly you can break down statistics by one or more chosen fields. Secondly you can show only those statistics that are of interest.

You can set up five different user defined statistics screens to suit your requirements.

Example

If you have recorded values in a Mob field, the indicator can give you a break down of the statistics by Mob.

NAME : USER 1 FILTER 1 : OFF
FILE : SESSION 1 FILTER 2 : OFF

MOB	N.WGHT	AVG.W	TOT.W	MIN.W	MAX.W	SD.W
1	20	353.0	7062.0	306	398	32.5
2	20	342.0	6841.0	306	381	21.0
3	20	360.0	7199.0	307	400	30.0
4	20	363.5	7268.0	314	398	24.5
5	20	346.5	6929.0	307	396	31.0
ALL	100	353.0	35299.0	306	400	28.5

TOP BOTTOM SORT FIND PRINT SETUP

In this example, there were a total of 100 records in the file.

For records where the Mob was 1 (row 1):

- The number of weights recorded in the file was 20.
- The average weight of the 20 records was 353.0 kg.
- The other columns show further statistics for these 20 records.

Row 2 shows the statistics for animals in Mob 2, and so on.

The fact that this screen breaks down the statistics by Mob is because this field was chosen in the setup of the user defined screen. You can choose any of the available fields to do this. You can also break down the statistics by more than one field.

Setting up User Defined Statistics

Introduction

This procedure is best explained by working through an example. We will use the example of breaking down statistics first by a Mob field and then by combination of Mob and Breed. Mob and Breed are example fields that you might use to separate animals into different categories.

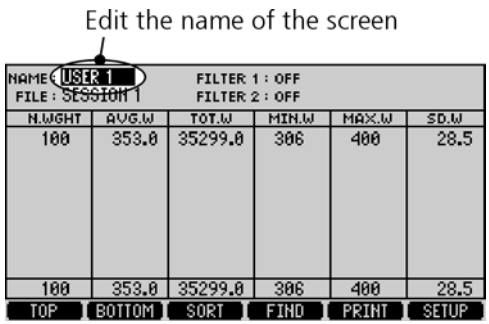
If you don't have these fields, you can use fields that you have set up in life data or file data.

To see the statistics results, you also need some file data. You can easily manually enter some dummy data into a trial file for this purpose (see "The File Data Screen" on page 118).

Accessing a user defined report

1. Press **STATS** to display the Statistics screen.
2. Press one of the five USER keys, such as **USER 1**.

   The indicator displays the user defined statistics screen. There may be some data already on screen due to default settings.



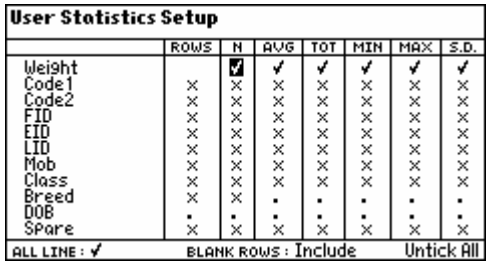
Edit the name of the report

- Move the cursor to the top left of the screen and edit the name of this screen. The name is limited to seven characters because this name will appear on the soft key at the bottom of the Statistics screen.

Accessing the setup screen

- Press the **SETUP** soft key (not the normal setup key).

  The indicator displays the User Statistics Setup screen.



The fields listed in the left hand column are the fields that are currently enabled in life data and file data, together with calculated quantities such as Weight Gain, Draft Range, and Value if those options are enabled in the indicator.

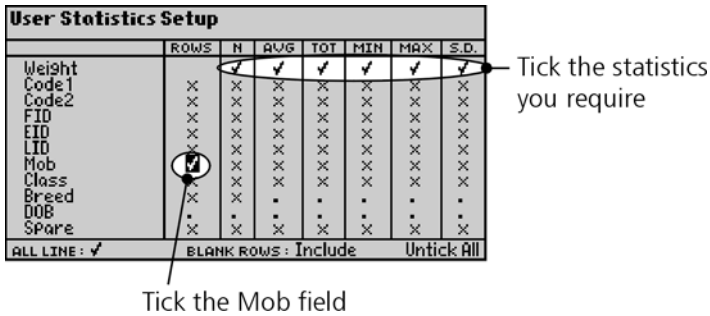
Setting up fields

1. Select Untick All and press ↵ so that all fields are disabled.
2. Set up the field(s) that will be used to break down the statistics:
   - In the ROWS column, tick the Mob field.
3. Set up the data you want to see:

   For each field at the left of the screen, put a tick in the column for the statistic you require, such as Average, Total, Min or Max. The N column refers to the number of records.

   For this example, tick N, AVG, TOT, MIN and MAX columns for Weight and the ROWS column for Mob.

   The setup screen should now look similar to the following illustration.



All lines

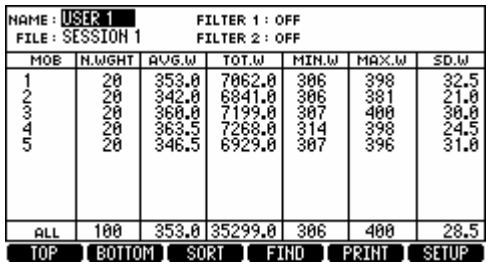
At the bottom of the screen, if you enable ALL LINE, the indicator will display a totals row at the bottom of the statistics screen.

Blank rows

If you exclude Blank Rows, the indicator will not display statistics for records where there was no value in the Mob field.

Displaying the results

- Press ⊖ to see the results on your customised statistics screen.



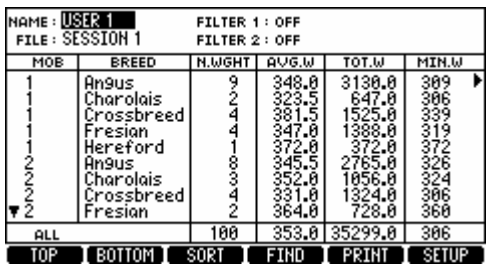
Columns

You can scroll the columns to the right to see the statistics for any other fields you have enabled in the setup screen.

Statistics by Two Fields

Example

You can break down statistics by two fields. For example Mob and Breed.



This report shows that there were 9 Angus in Mob 1. The average weight for these 9 records was 348.0.

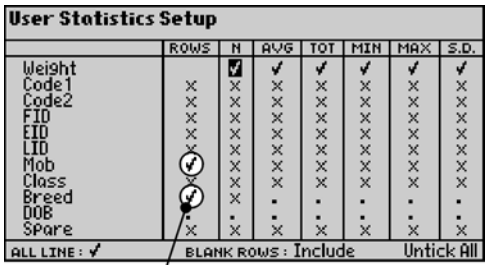
There were 2 Charolais in Mob 1.

There were 8 Angus in Mob 2, average weight 345.5 kg.

Setting up

1. From the User Statistics screen, press the SETUP soft key (not the normal setup key) to display the User Statistics Setup screen.
2. Tick the ROWS column for Mob and Breed.

   Ensure N, AVG, TOT, MIN, MAX and S.D columns are still ticked for Weight.



Statistics by Mob and Breed

3. Press ⏎ to see the new user defined statistics screen.

Note If you exclude Blank Rows (bottom of the setup screen), the indicator will only display statistics for records where there is a value in both the Mob field and the Breed field.

Filtering the Statistics Data

Introduction

You can filter the data to show statistics for records that contain particular values.

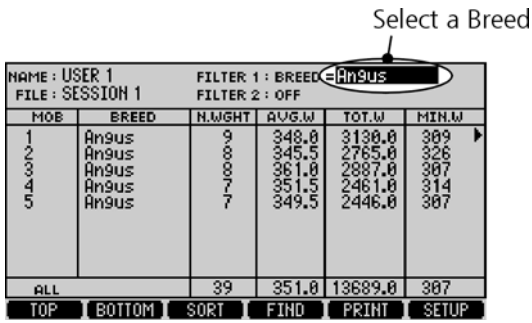
Example

We will filter the data to show statistics for animals of Angus breed.

1. In the user statistics screen, select Filter 1: and press ↵.
2. Select Breed and press ↵.
3. Press ↵ in the = field and select Angus from the list of breeds.

   The statistics will be recalculated and displayed.

   The indicator now shows the statistics broken down by Mob and Breed, but only where Breed has the value you entered.



Note You don't have to show the column for Breed because the values all read the same as the value you entered for the filter.

You can enable up to two filters. The two filters act simultaneously.

Sorting the Statistics Data

To sort the data:

- Put the cursor in the column you want to sort on, and press SORT.

You can sort by more than one column and in ascending or descending order. For further information on sorting, see "Sorting File Data Records" on page 120.

Finding Particular Data

To find a particular row, such as a Mob in the example above, put the cursor in the appropriate column and press FIND.

The indicator displays a prompt for you to enter the value of the field you want to find.

For further information, see "Finding a Record" on page 122.

Breaking Down by ID

Introduction

If you select an ID field for the field that you use to break down statistics, the result will be a screen with all your ID numbers in the left hand column and statistics for each in the remaining columns. This is similar to the File Data screen. However, breaking user statistics down by ID offers several advantages:

- You can customise what columns you see.
- You can use filters to display a selection of data.
- You can use the All Line feature to display calculations for all statistics displayed, for example, totals and averages.

Notes

- Unless you have the same ID for more than one animal, the number of records in each row will always be 1 and the Total Weight will be the weight of the animal.
- Since there is only one file data record accumulated into each row, you can effectively use the 'TOTAL' statistics to show the actual data present in the file.

Example

NAME : USER 1 FILTER 1 : BREED = Angus
FILE : SESSION 1 FILTER 2 : OFF

FID	N.WGHT	TOT.W	AVG.CODE1
100	1	324.0	21.0
109	1	373.0	26.0
115	1	316.0	24.0
116	1	341.0	21.0
117	1	397.0	21.0
118	1	391.0	23.0
119	1	307.0	25.0
120	1	310.0	24.0
▼ 130	1	368.0	21.0
ALL	39	13689.0	20.8

TOP BOTTOM SORT FIND PRINT SETUP

This example shows only animals of Angus breed because of the filter. The statistics have been broken down by FID, so the individual IDs are displayed in the left-hand column. One weight exists for each ID, so N.WGHT is 1 for all IDs. TOT.W displays the weight and AVG.CODE1 displays the code for each animal.

The ALL line displays the number of weights, the total of all weights and the average code for all filtered records.

Printing User Defined Reports

Introduction

If you have a printer connected to the indicator, you can print the User Defined Statistics screen by pressing PRINT.

However you define your user defined statistics, you get a printed report that looks the same as the screen.

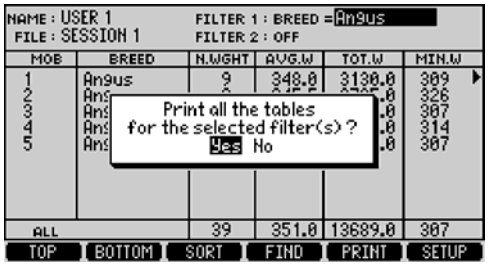
Example screen

NAME : USER 1 FILTER 1 : BREED = Angus
FILE : SESSION 1 FILTER 2 : OFF

MOB	BREED	N.WGHT	AVG.W	TOT.W	MIN.W
1	Angus	9	348.0	3130.0	309
2	Angus	8	345.5	2765.0	326
3	Angus	8	361.0	2887.0	307
4	Angus	7	351.5	2461.0	314
5	Angus	7	349.5	2446.0	307
ALL		39	351.0	13689.0	307

TOP BOTTOM SORT FIND PRINT SETUP

If you have a filter active, the indicator asks if you want to print separate tables for each value of the filter(s).



If you select 'No', the report will contain just the data you see on the current screen:

Report for single value of filter

```
Statistics: USER 1

    File: 5, SESSION 1
    Date: 01/02/2002
    Printed: 15/10/2002  14:46

Filter 1 : Breed  Angus
----------------------------------------
  Mob    Breed   N.WGHT  AVG.W  TOT.W
----------------------------------------
    1      Angus    9    348.0  3130.0
    2      Angus    8    345.5  2765.0
    3      Angus    8    361.0  2887.0
    4      Angus    7    351.5  2461.0
    5      Angus    7    349.5  2446.0
----------------------------------------
  All              39    351.0 13689.0
----------------------------------------
```

Note The lines are truncated at the right hand end because this report was printed to a 40 column printer. See "Printing" on page 155.

If you select 'Yes', the report will contain a separate table for each value of the filter that the indicator finds in the file.

Report for all values of filter

```
Tru-Test  3000
Statistics: USER 1

    File: 5, SESSION 1
    Date: 01/02/2002
    Printed: 15/10/2002  14:49
Table 1
Filter 1 : Breed  Angus
----------------------------------------
  Mob    Breed   N.WGHT  AVG.W  TOT.W
----------------------------------------
    1      Angus    9    348.0  3130.0
    2      Angus    8    345.5  2765.0
    3      Angus    8    361.0  2887.0
    4      Angus    7    351.5  2461.0
    5      Angus    7    349.5  2446.0
----------------------------------------
  All              39    351.0 13689.0
----------------------------------------

Table 2
Filter 1 : Breed = Charolais
----------------------------------------
  Mob    Breed   N.WGHT  AVG.W  TOT.W
----------------------------------------
    1  Charolais    5    395.5  1978.0
    2  Charolais    4    410.5  1641.0
    3  Charolais    3    367.0  1101.0
    4  Charolais    2    356.0   712.0
    5  Charolais    2    398.5   797.0
    6  Charolais    2    385.5   771.0
----------------------------------------
  All              18    389.0  7000.0
----------------------------------------

Table 3
Filter 1 : Breed  Crossbreed
----------------------------------------
 Mob     Breed    N.WGHT   AVG.W   TOT.W
----------------------------------------
   1  Crossbreed     4     381.5  1525.0
   2  Crossbreed     4     331.0  1324.0
   3  Crossbreed     7     374.0  2618.0
   4  Crossbreed     5     375.0  1874.0
   5  Crossbreed     8     330.0  2640.0
----------------------------------------
 All                28     356.5  9981.0
----------------------------------------
```

```
Table 4
Filter 1 : Breed  Fresian
---------------------------------------
 Mob     Breed    N.WGHT   AVG.W   TOT.W
---------------------------------------
   1     Fresian     4     347.0  1388.0
   2     Fresian     2     364.0   728.0
   3     Fresian     1     368.0   368.0
   4     Fresian     4     364.5  1458.0
   5     Fresian     2     371.0   742.0
---------------------------------------
 All               13     360.5  4684.0
---------------------------------------

Table 5
Filter 1 : Breed  Hereford
---------------------------------------
 Mob     Breed    N.WGHT   AVG.W   TOT.W
---------------------------------------
   1    Hereford     1     372.0   372.0
   2    Hereford     2     329.5   659.0
   3    Hereford     1     363.0   363.0
   4    Hereford     1     398.0   398.0
   5    Hereford     1     384.0   384.0
---------------------------------------
 All                6     362.5  2176.0
---------------------------------------


Table 6
Filter 1 : Breed  Simmental
---------------------------------------
 Mob     Breed    N.WGHT   AVG.W  TOT.W
---------------------------------------
   2   Simmental     1     309.0  309.0
---------------------------------------
 All                 1     309.0  309.0
---------------------------------------


Grand Total:
---------------------------------------
 All               100     353.035299.0
---------------------------------------
```

Note The Grand Total at the end of all the tables does not appear on the screen.

Printing

If you have a suitable printer connected to the indicator, you can print reports of all the animal data stored in the indicator. The printed reports have the same format as the data on the screens from which they are printed.

PRINT soft keys

The following screens have PRINT soft keys to print their contents:

- File Data
- Life Data Table
- Animal History
- Statistics
- Draft Statistics
- User Defined Statistics
- List of Files.

The indicator prints as many of the columns as will fit on the width of paper being used.

Setting up the Printer

The XR3000 connects to a printer using a serial cable. The printer must have a serial port. The type of cable depends on whether the printer has a male or female connector.

Connect the cable to the CON 1 or CON 2 port on the front of the indicator, depending on the settings in the Serial Setup screen. CON1 is the default port for the printer.

Ensure the Printer Type is set to 40 column if using a narrow width printer.

If you are using a 12 V printer, such as a Tru-Test printer, make sure you have an external 12 volt supply connected to the indicator. The printer cannot run from the indicator's internal battery.

Do not confuse the serial cable with a thicker parallel cable normally used to connect a printer to a computer.

Settings

The factory default serial communications settings in the indicator are correct for most printers. However, if necessary you can change them in the Serial Setup screen.

For details, see “Serial Setup Screen“ on page 204.

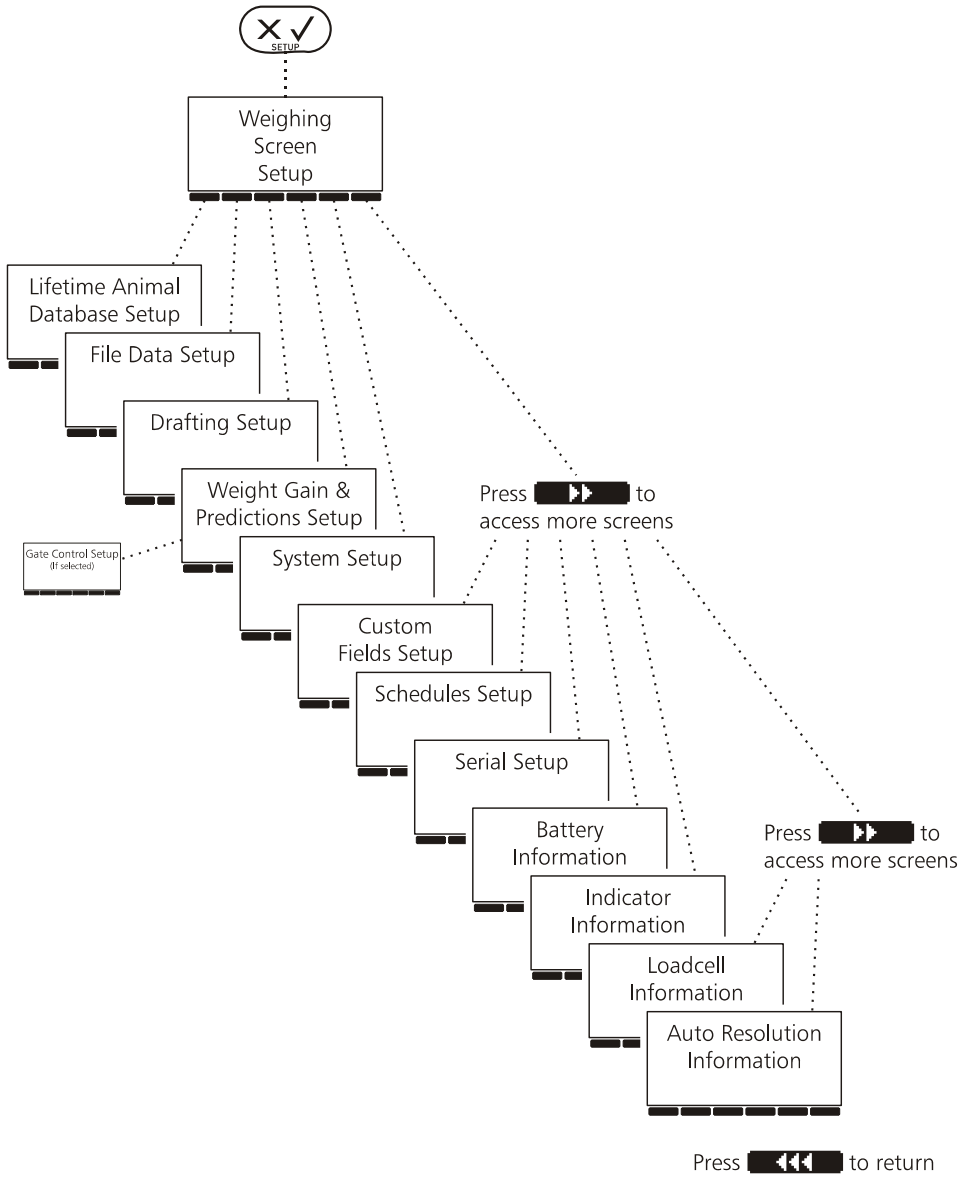
PART 5

Setup Reference

This part covers all the indicator setup options and is organised by the various setup screens.

Route Map of Setup Screens

The following diagram shows the access routes to the various screens.



Per File Settings

Introduction

Many of the setups are 'per file', which means that different files can be set up differently.

Per file setup are:

- Weighing Screen Setup
- File Data Setup (including group mode, carcass weight)
- Drafting Setup
- Weight Gain and Predictions Setup (but not Weight Gain Type, Weight Gain Search and Date)

Default settings

When you select an empty file, the per file setups are taken from the file that you last changed any per file setup in. When you change per file settings (in any file) you will not affect the setups of any other files that contain data.

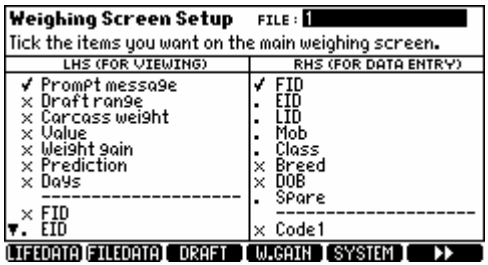
Weighing Screen Setup

The Weighing Screen Setup is where you configure the Weighing screen to display the fields of data you want to view or record. Here you can see in one place all the features available to you.

- Life data fields
- File data fields
- Calculated items
- Other miscellaneous fields

Setting up the Weighing screen

1. From the Weighing screen, press (✕✓ SETUP).



The left hand column shows data that will appear on the left side of the Weighing screen. The right hand column shows the fields that will appear on the right side of the Weighing screen.

2. Move the cursor to the option you want to change and press **1** to enable (tick) or **0** to disable (cross).
3. When finished, press (ESC) to exit the setup screen.

Weighing screen layout

It is recommended that you put fields that you will use to enter data during the weighing session on the right hand side of the Weighing screen.

- This keeps the data entry fields in one place so that you can easily see whether you have filled in all the data for each animal as it is weighed.
- By default, the indicator moves the cursor from field to field on the right hand side of the Weighing screen as you enter data.

Note You can 'train' the indicator to follow any sequence around the fields on the left or right of the Weighing Screen. For further information, see "Automatic Sequence of Data Entry" on page 92.

Enabling and disabling fields

When you enable a field in the Weighing Screen Setup, the feature will be automatically enabled in the relevant setup screen, such as File Data Setup or Drafting Setup if necessary. Provided the existing setups (or defaults) for the feature are appropriate, you can generally enable a feature in the Weighing Screen Setup without having to visit other setup screens.

When you disable a field in the Weighing Screen Setup, it is automatically disabled in the corresponding setup screen, unless data has already been stored in the field. The effect of this is that the field will be gone from the Weighing Screen but remain visible in the File Data and Statistics screens to show the stored data.

When a feature or field is enabled in a setup screen, it is not automatically enabled in the Weighing Screen Setup, unless it had previously been enabled there. When a feature or field is disabled in a setup screen, it is automatically disabled in the Weighing Screen Setup. If data is present in a file, a prompt message appears before deleting the data.

If you want a field to appear in the File Data, Statistics and Animal History screens, but not on the the Weighing screen, disable it in the Weighing Screen Setup, and then enable it in the relevant deeper setup screens as required.

Available Fields

Introduction

Some of the fields you see on the Weighing Screen Setup are concerned with life data or file data, and are linked to the configuration of those features. Other fields, such as 'Prompt Message', are fields that you can enable.

This topic explains the various fields and their dependencies.

Prompt message

Enables or disables the display of prompts such as 'Load Platform' that appear on the Weighing screen.

To disable popup messages, see "Disable popups" on page 202.

Life data fields

The following list shows the factory default life data fields.

- FID
- EID
- LID
- Mob
- Class
- Breed
- DOB
- Spare

If they are enabled in life data, you can put any of the above fields on the Weighing screen for the purposes of viewing or entering data.

The XR3000 uses the following symbols to indicate the setups in the Weighing Screen Setup.

Symbol	Meaning
✓	The field is enabled.
✗	The field is disabled.
▪	Applies to life data fields only. You must enable the field in the Life Data Setup screen before you can enable it on the Weighing screen.

For information on configuring life data fields, see "Configuring Life Data" on page 58.

File data fields

The following table shows the file data fields that can be put on the Weighing screen for the purpose of entering or viewing data. The default names are shown for the three file data fields.

File data fields	Relevant setup screen
Code 1	File Data
Code 2	File Data
Code 3	File Data

You can enable any of the above fields in Weighing Screen Setup.

Notes

- If you enable a file data field in Weighing Screen Setup, it will be automatically enabled in the File Data Setup screen.
- If you disable a file data field in Weighing Screen Setup, it will be disabled in the File Data Setup screen, unless data has already been recorded in that field.
- Because you can set up different fields for different files, the Weighing Screen Setup may change when you change to a different file.

For information on configuring file data fields, see "Customising File Data Fields" on page 73.

Calculated fields

If you enable one of these fields in Weighing Screen Setup, the feature will be displayed on the left side of the Weighing screen. Data cannot be entered in these fields, they are automatically calculated.

Field	Relevant setup screen
Draft range	Drafting
Carcass weight	File Data
Value	Schedules
Weight gain	Weight Gain & Predictions
Prediction	Weight Gain & Predictions
Days	Weight Gain & Predictions

Notes

- If you enable one of the above fields in Weighing Screen Setup, the indicator enables it in the relevant setup screen with:
  - Default settings, or
  - Current settings if already configured.
- If you disable one of the above fields in Weighing Screen Setup:
  - The feature is disabled in the corresponding setup screen.
  - The configuration settings remain stored in memory.

Prev. Weight
Prev. Date
Prev. Weight gain
Prev. Code 1
Prev. Code 2
Prev. Code 3

These options allow you to view previous file data.

If you enable one of these fields on the Weighing screen, the indicator displays the relevant data from the most recent file that has a record for the animal.

Note If you change the name of the default field Code 1, Code 2, or Code 3, the name of the Prev. field will also change.

XR AND SR ONLY **No. in Group**

Allows you to enter the number of animals in a group, when group weighing is enabled.

For further information, see “Group Weighing” on page 85.

Adding Other Fields

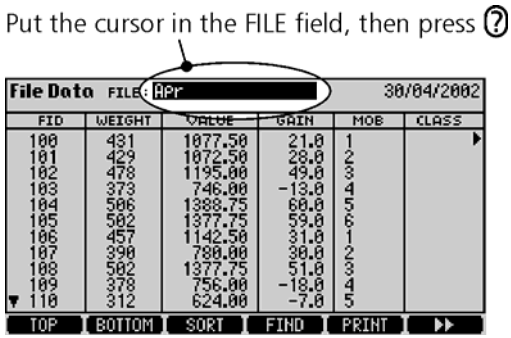
Introduction

In addition to the fields that you can enable on the Weighing Screen Setup, you can also put other types of fields on the Weighing screen, such as setup fields or statistics. In the following example, the File field will be added to the Weighing screen.

Example

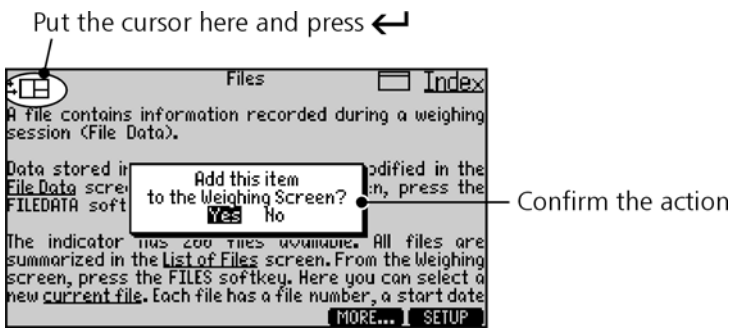
To add the file selection field to the Weighing screen:

1. In the File Data screen, put the cursor on the FILE field.



2. Press ?.

   The indicator displays the Help screen.



3. Put the cursor in the top left corner and press ↵.
4. Select 'Yes' and press ↵.

Once you have put the FILE field on the Weighing screen, you can select the current file without having to go to the List of Files screen.

Note When the FILE field is added, the field will accept either a file number or a file name, even though it is the file name that is displayed. To display the file number as well, add the FILE column in the Files screen. To add a field that will allow you to change the name of the current file instead of selecting a different file, add the FILENAME column in the Files screen.

To remove an additional field from the Weighing screen, repeat the procedure.

Fields that can be added

Any of the fields on the main Statistics screen can be added. Fields on the Draft Statistics and User Statistics screen cannot be added.

Most fields in the setup screens can be added.

Life Data Setup Screen

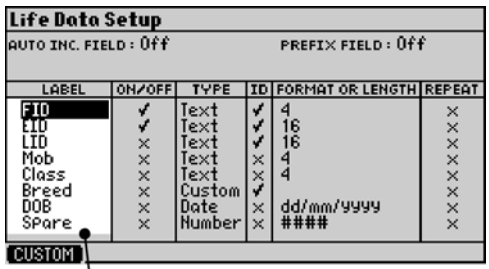
The Life Data Setup screen is where you configure the Lifetime Animal Database, which stores the general data about your animals, such as dates of birth, IDs, and breeds.

Once you have set up the database fields and entered the data about your animals, you normally don't change the configuration. However, you can add more fields to your database later if the need arises.

Accessing the Life Data Setup screen

- Press (✕✓ SETUP) then LIFEDATA.

  The indicator comes with a set of factory default life data fields.



Setting up the Auto Increment Field

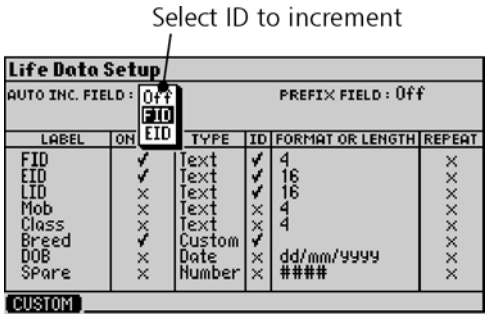
Introduction

During weighing, the indicator can automatically increment an ID field. This means you don't have to enter the ID number. The number (or letter) will increment by one each time you record a weight.

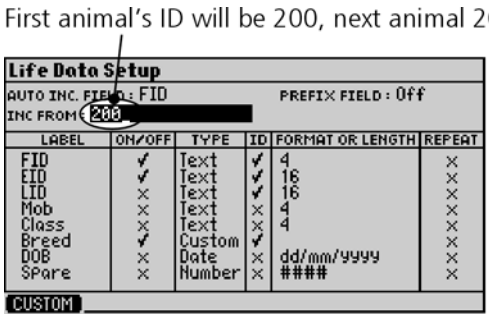
For examples on the use of this feature, see "Auto Incrementing IDs" on page 96.

Setting up auto increment

1. Put the cursor in the Auto Increment field and press ↵.
2. Select the ID field you want to auto increment and press ↵.



3. Enter the first ID number in the INC FROM field.



Setting up the Prefix Field

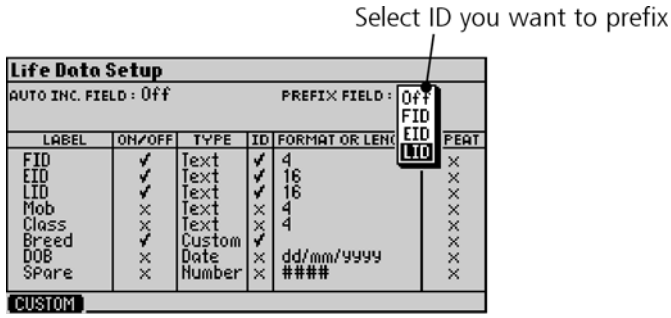
Introduction

You can set up the indicator to automatically apply prefixes to IDs when you enter them on the Weighing screen. This feature saves time typing.

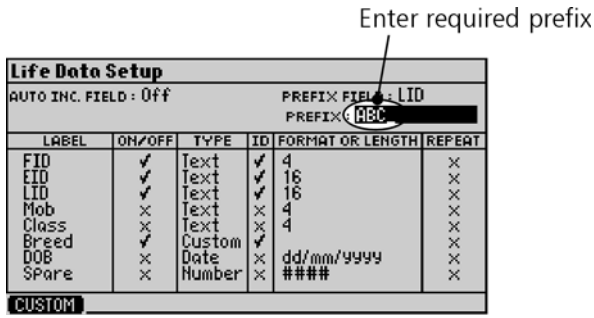
For an explanation of the use of prefixes, see "Prefix for IDs" on page 95.

Setting up a prefix

1. Put the cursor in the prefix field and press ↵.



2. Select the ID you want to prefix.
3. Enter the prefix.



Prefixes can contain numbers, letters, space, period, and -.

Notes

- You can use the prefix feature with Text or Number ID fields.
- In the example above, the LID field must be long enough to accommodate the prefix, "ABC" and an individual animal's number. See "Format or Length" on page 172.
- You can put the prefix field on the Weighing screen so that you can change it without having to access the setup screen. See "Adding Other Fields" on page 165.

Setting up Life Data Fields

XR ONLY

Introduction

In addition to the animal's ID, you can have up to seven fields of data within each life data record.

You can change the names of the fields and the types of data stored in each using the columns in the Life Data Setup screen.

The columns are explained below.

Label

Specifies the name of the field.

On / Off

Use to enable or disable fields.

Enabling a life data field means that the field:

- Is included in the Lifetime Animal Database.
- Can be put on the Weighing screen.
- Appears in the File Data screen.
- Appears in Statistics screens.

Notes

- To avoid using up memory unnecessarily, only enable fields that you need in your Lifetime Animal Database.
- Fields that have been enabled use up memory whether data is entered or not.
- When you disable a life data field, all data in that field in any life data records is deleted and the memory recovered. However, if there is data present, the indicator displays a warning before deleting the field.

Type

Fields must be one of the following types:

- Text
- Number
- Custom
- Date.

For further information on these field types, see "Types of Fields" on page 20.

Notes

- If you change the type of a field that already contains data, the indicator will attempt to convert the data. If this is not possible without some loss of information, a warning message appears.
- Number fields use about half the amount of memory as Text fields. Custom fields use very little memory.

ID

The ID attribute changes the way the indicator behaves when data is entered into the field.

In the Weighing screen or Life Data Form screen, entering data into a field that is set as an ID causes the indicator to look up the animal's record in the Lifetime Animal Database and display its data in all the other life data fields that are visible.

However, if a new record is being created, entering an ID into a blank ID field will not cause the indicator to look up the record.

In the Life Data Table screen, entering data into a field that is set as an ID field causes the indicator to change the data, just as it would for a field that was not set as an ID.

To look up a record in the Life Data Table screen, you must use the FIND soft key.

In the File Data screen, entering data into a field that is set as an ID field causes the indicator to link the file data to the life data ID you entered, if it exists. If no such life data record exists, then a warning is displayed.

To look up a record in the File Data screen, you must use the FIND soft key.

Scanning an ID with an external ID reader always causes the indicator to look up the ID, whether in the Weighing screen, Life Data Form screen, File Data screen or Life Data Table screen, if the ID is already known. This prevents the creation of duplicate EIDs.

An EID can only be changed by scanning when in the Life Data Form screen or Life Data Table screen. You must position the cursor on the EID to be changed, and then scan the new EID. The new EID must not be known to the indicator.

Combination of IDs

IDs normally uniquely identify animals, but you can use two or more IDs in combination. No special setup is required to do this, apart from to define the two fields, as required.

For further information, see "Combination of ID fields " on page 56.

Format or Length for text fields

Specifies the number of characters stored in the field. Specifying fewer characters conserves memory.

30 characters is the maximum field length for text fields.

Format or Length for number fields

Specifies the format and number of digits stored in the field.

This feature ensures that operators enter numbers in a specified format.

Specifying less digits for a number conserves memory and helps to reduce data entry errors.

9 digits is the maximum field length for number fields.

You specify the format by typing an example number and pressing ↵. The indicator displays the format and length on the setup screen using # symbols.

The following table shows some examples.

You enter	Field format
123	###
1.2	#.#
350.6	###.#
0.12	#.##

Note If you reduce the length of a field that already contains data, and this will result in some loss of information, a warning appears.

Repeat

You can set up a life data or file data field to automatically repeat the last value you entered for it on the Weighing screen.

If you want to repeat the same value for many animals, this feature greatly speeds up data entry time.

For example, you may want to enter the same Mob number for all or most animals.

You can change the automatically repeated value if necessary, either in this Setup screen or in the Weighing screen.

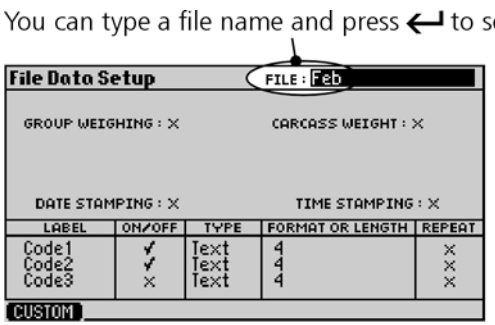
File Data Setup Screen

The File Data Setup screen is where you configure the fields of data you want to record in the current file. Each file can have a different setup.

The settings do not affect data you have recorded in previous files, although the settings will be the defaults for new files.

Accessing the File Data Setup screen

1. Press (×✓ SETUP) then FILEDATA.



2. Enter the name or number of the file you want to configure.

XR AND SR ONLY Setting up Group Weighing

Introduction

Group weighing allows you to put a group of animals on the weighing scale together and record the weight as one. The indicator stores the weight and the number of animals in each group.

Setting up

To set up the current file for group weighing:

- Enable the 'No in group' in the Weighing Screen Setup. This automatically turns it on in the File Data Setup screen.

When weighing is complete, you can turn it off in the Weighing Screen Setup, so that the field no longer shows in the Weighing screen. The group count will remain enabled in the File Data Setup screen and the counts continue to show in the File Data screen, unless there are no records.

If you force group weighing off in the File Data Setup screen, it will delete the group count data in the file.

Further information

See "Group Weighing" on page 85.

XR AND SR ONLY Setting up Carcass Weight

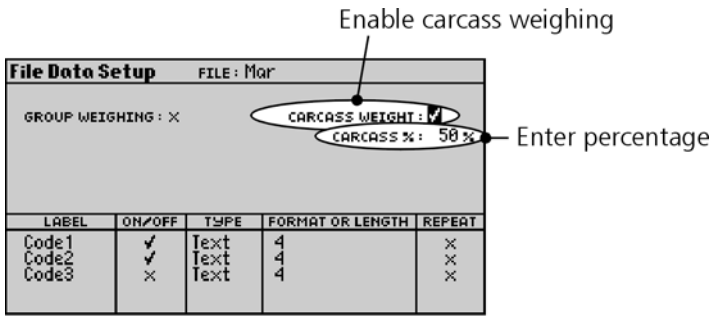
Introduction

The carcass weight is the anticipated yield from an animal. The indicator calculates the yield from a percentage figure that you enter.

Setting up carcass weight

To enable carcass weight for the current file:

1. Enable the CARCASS WEIGHT field.
2. Enter the required percentage in the CARCASS % field.



Notes

- If you enable the Carcass Weight field in the File Data Setup screen, the option will not be automatically enabled in Weighing Screen. This allows you to have carcass weights in the File Data screen without having them on the Weighing screen (but not vice versa).
- Changing the carcass percentage only affects the current file. The percentage used in existing file data files are not affected.
- Enabling Carcass Weight will affect the values calculated from schedules. See "Animal Values" on page 112.

XR ONLY

Date and Time Stamping

Introduction

The date and time of every recorded weight can be stored and viewed in a file data file. If these options are enabled, whenever a new weight is recorded in the Weighing screen, the current date and time will be recorded in the file.

Note When a weight is added or modified in the File Data screen, the current time and date is assigned to the weight.

If Date Stamping and Time Stamping are disabled, any date and time stamping information in the current file will be deleted.

Setting up File Data Fields

XR ONLY

Introduction

In addition to weights, a file data file can store up to three other fields of data for each animal.

This topic describes the fields on the File Data Setup screen. For a full description of setting up file data, see "Customising File Data Fields" on page 73.

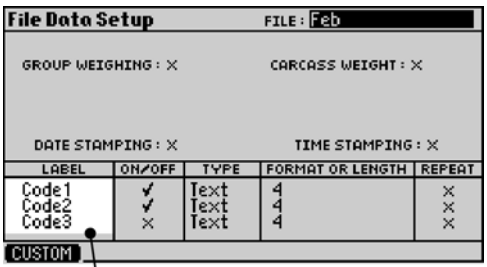
Default fields

The factory default file data fields are:

- Code 1
- Code 2
- Code 3

Customising the fields

You can change the names of the three fields and the types of data stored in each.



Default File Data field names

The columns at the bottom of the screen are described below.

Label

Specifies the name of the field.

On / Off

Use to enable or disable fields for the current file data file.

Enabling a file data field here means that the field:

- Can be used to record data in the current file.
- Appears on the File Data screen for this file.
- Appears in statistics.

Notes

- If you enable a field on the Weighing Screen Setup, the indicator automatically enables it here and elsewhere (if not already enabled). This is the quickest method to use.
- The more fields you enable in the File Data Setup screen, the more memory will be used.
- When you disable a file data field, all data in that field in any records is deleted and the memory recovered. However, if there is data present, the indicator displays a warning before disabling the field.
- Because you can set up different fields for different files, the Weighing Screen may change when you select a different file.

Type

File data fields must be of type:

- Text
- Number
- Custom

For further information on these field types, see “Types of Fields“ on page 20.

Notes

- If you change the type of a field that already contains data, the indicator will attempt to convert the data. If this is not possible without some loss of information, a warning message appears.
- Number fields use about half the amount of memory as text fields. Custom fields use very little memory.

Format or Length

For text fields, specifies the number of characters stored in the field. 12 characters is the maximum allowed for text fields.

For number fields, specifies the format and number of digits stored in the field. 9 digits is the maximum allowed for number fields.

The longer the fields, the more memory that is used.

For instructions on specifying formats, see "Format or Length" on page 172.

Repeat fields

You can set up a field to automatically repeat the last value you entered for it on the Weighing screen.

Number of fields

Because you can set up the file data fields for each weighing session independently, you can store different fields of file data from one session to the next.

When you review an animal's entire history on the Animal History screen, the indicator can display up to 10 different columns, depending on the field labels it finds in different files.

Drafting Setup Screen

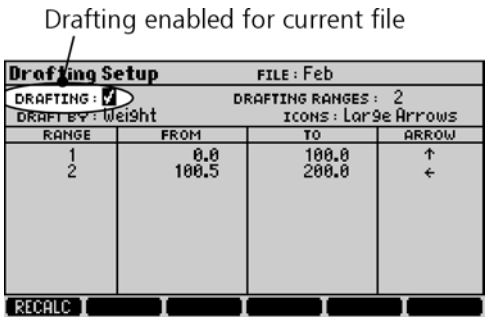
The Drafting Setup screen is where you enter the draft ranges and display options for drafting.

The settings used will become the defaults for new files. The settings do not affect data recorded in previous files unless you choose to recalculate the stored draft data using the new settings.

For general information about the drafting features, see "Drafting" on page 108.

Drafting setup

1. Press (✕✓) then DRAFT to display the Drafting Setup screen.



2. Enable the DRAFTING option.
3. Enter the number of drafting ranges (maximum ten).
4. Select an option in the DRAFT BY field.
5. Select the icons you want to appear on screen to indicate the draft range. The arrows can point to five different directions. Alternatively, you can select pen number.
6. In each row, fill in the actual range of weights to be drafted in a particular direction. If it is non-numeric drafting, enter different data in each row.
7. In each row, specify the direction or pen number the animal is to be sent to.

For more information, see "Drafting Setup Fields" below.

Example

Here is an example of the Drafting Setup screen set up for drafting by a custom field.

Note If you are drafting by custom fields and there are more options than the number of drafting ranges you want to define, set the same draft direction in more than one row. For the options which you want to disregard for the purposes of drafting, use these drafting icons :

- Enter '0' if using pen numbers
- Enter the blank icon if using arrows

Recorded draft data

Even though you may change the drafting setup for future sessions / files, the data remains as it was when recorded. To change the recorded drafting information using new Drafting Setup settings, use the RECALC softkey. See "Recalc softkey" on page 184.

Drafting Setup Fields

Drafting ranges

Enter the number of different drafting ranges (rows) you want to use. The maximum is 10. The number of drafting ranges can be less, because you can send different ranges in the same direction.

XR AND SR ONLY

Draft by

Put the cursor on the field and press ↵ to see the list of fields that you can draft by.

If the data is available, you can draft by:

- Weight.
- Weight gain.
- Carcass weight.
- Value.
- Predictions.
- Any of the three file data fields.
- Any of the eight life data fields.

If the option you want does not appear in the list, you need to enable it in the appropriate setup screen: Life Data, File Data, Weight Gain, or Schedules (for Value).

Icons

This field allows you to select a way to display the drafting direction on the Weighing screen:

- Small arrows
- Large arrows
- Small pen number
- Large pen number
- Small L, M, H (low, middle, high)
- Large L, M, H (low, middle, high)
- Small range number
- Large range number.

Notes

- The arrows can point in five different directions, so you can only draft up to 5 ways if using arrows.
- Pen numbers can be 0..99, so you can draft up to 99 ways if using pen number.
- The L, M, H is for compatibility with older systems. It allows up to 3 way drafting. Two or three rows must be specified. The assignment of L, M, H to the rows is automatic, unlike arrows or pen numbers.
- Range numbers are similar to L, M, H but allow more ways. Range 1 is the 1st row, 2 is the 2nd row etc.

XR AND SR ONLY

From, To, Match Text, Match Option

- For drafting by a numeric field, you enter the required ranges of weights, weight gains, values etc.
- For drafting by a text field, such as Code, you enter the word or sequence of characters you want the indicator to match on each row.
- For option fields such as Breed, the range of options are fixed.

Arrow directions

You can alter the directions of the arrows for the ranges as follows:

1. Put the cursor on the arrow at the end of the row for a particular range.
2. Press ↵.

   The indicator displays a list of possible directions.
3. Put the cursor on the required direction and press ↵.

Note You can use the same arrow more than once.

Pen numbers

Pen numbers can be from 0 to 99.

Note You can use the same pen number more than once.

Recalc softkey

If the draft setups are changed, drafting information in the File Data screen does not automatically change. This is so that if some animals have been physically drafted into different pens, the stored draft information reflects how they were actually drafted, even if the draft setups are changed part way through a weighing session, for example, to balance up the draft groups. The RECALC softkey can be used to force recalculation of the draft field in the current file based on new draft setups, after a weighing session. The draft statistics are also recalculated using the new draft setups.

XR AND SR ONLY

Weight Gain and Predictions Setup Screen

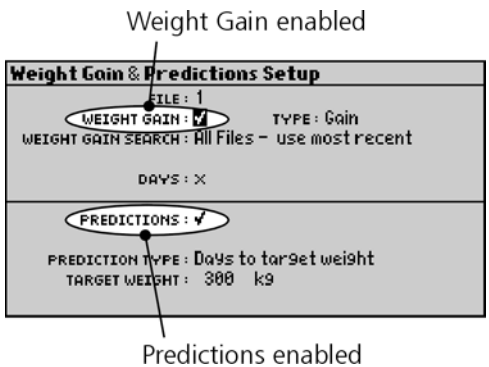
The Weight Gain & Predictions Setup screen is where you enable weight gain and predictions, and set up the type of calculations required.

Weight gain is enabled on a file by file (file data) basis, so that some files display weight gain and others do not.

For an overview on weight gain features, see “Weight Gain” on page 107.

Accessing the Weight Gain & Predictions Setup Screen

- Press (×✓) then W.GAIN.



- When you enable the WEIGHT GAIN option, the weight gain setup fields appear.
- When you enable the PREDICTIONS option, the predictions setup fields appear.

Note When you enable Weight Gain in the Weighing Screen Setup, it automatically enables WEIGHT GAIN in this screen too.

Weight Gain Setup Fields

Types of weight gain

There are options for choosing the type of calculation to be performed (for example, simple weight difference or daily weight gain).

The indicator can calculate six different types of weight gain:

Type	Description
Gain	Weight gain since specified file.
Daily Gain	Weight gain per day since original file.
Monthly Gain	Weight gain per month since original file.
Gain %	Weight gain as a percentage of original.
Daily gain %	Weight gain per day as percentage of original.
Monthly Gain %	Weight gain per month as percentage.

The two most commonly used types of weight gain calculations are Gain and Daily Gain.

Weight Gain Search

Use this field to specify the previous file that will be used in conjunction with the current file to calculate weight gain. The options are as follows:

- All Files = Use most recent (default setting)

  Compares the current weight with the most recent weighing for that animal stored in previous files.

- All Files = next after date

  Compares the current weight with the weight stored in the next file (with a record for that animal) after a date you specify.

  If the date is left blank, the indicator will use the earliest file it finds with the animal in it.

- Specified file only

  Compares the current weight with the weight stored in a file that you specify by name.

Once you select which of the above methods is to be used for finding the previous weight data, the indicator displays a field for you to specify the date or file name as appropriate.

Note If the specified file or files do not have a record for the animal, no weight gain will be calculated.

Related setups

You can put the weight gain Type field on the Weighing screen. This allows you to view and change this setting without having to access the setup screen.

For further information on adding extra fields to the Weighing screen, see "Adding Other Fields" on page 165.

XR ONLY Feed Days Setup Fields

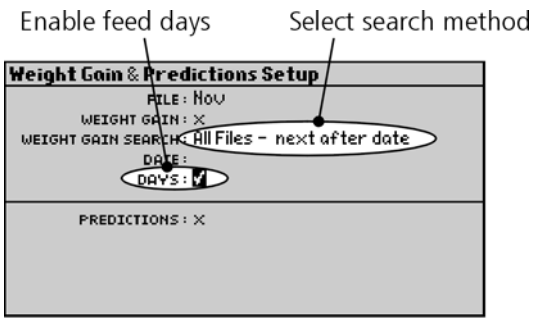
Feed days are calculated according to the weight gain search method selected.

- To see the number of feed days since the animal's most recent weighing session, select 'All Files – use most recent'. The indicator will search all files from newest to oldest and use the first animal record it finds.
- To see the number of feed days since the animal was first weighed, select 'All Files – next after date'. Specify a date that is earlier than any of your files or leave the date field blank.

Setting up days

To set up feed days for the current file:

1. Press (✕✓) then W.GAIN to display the Weight Gain & Predictions Setup screen.



2. Enable the DAYS option.

   If Weight Gain is not already enabled, the WEIGHT GAIN SEARCH field appears.

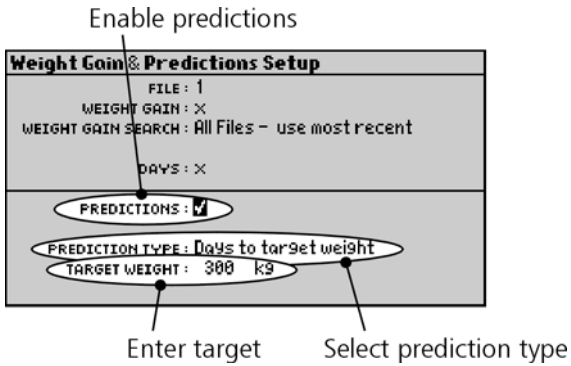
3. Set WEIGHT GAIN SEARCH to 'All Files – next after date' or 'All Files – use most recent'. Enter a date, if required.

XR ONLY Predictions Setup Fields

Setting up predictions

To set up predictions for the current file:

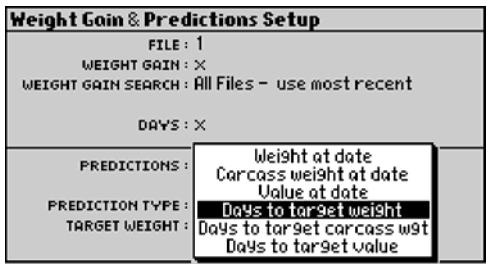
1. Press (✓) then W.GAIN to display the Weight Gain & Predictions Setup screen.



2. Enable the PREDICTIONS option.

   The predictions setup fields then appear.

3. In the PREDICTION TYPE field, select the type of prediction required.



4. Enter the target date or other target as required.
5. When finished, press (ESC) to exit the screen.

Note Predictions are calculated by extrapolating the weight gain.

Type of prediction

The indicator provides the following prediction calculations:

- Predicted weight at date
- Predicted carcass weight at date
- Predicted value at date
- Days to target weight
- Days to target carcass weight
- Days to target value.

Once you select which of the above calculations is to be used, the indicator displays a field for you to specify the date or target weight required.

Related setups

Predictions rely on the Weight Gain setups which must also be set up as required.

You can put the following predictions setup fields on the Weighing screen:

- Prediction type
- Predict weight on date
- Target weight
- Target value

This allows you to view and change some settings without having to access the setup screen.

For further information on adding extra fields to the Weighing screen, see "Adding Other Fields" on page 165.

Notes

- Predictions only work with data less than one year old. So if, for example, you weigh your animals twice a year, you can use predictions. However, if you only weigh every 13 months or so, you cannot use predictions.
- If an animal has a negative weight gain, the indicator shows a row of dashes.
- If an animal has already reached the target weight, the indicator displays 0 days to reach target.

XR AND SR ONLY

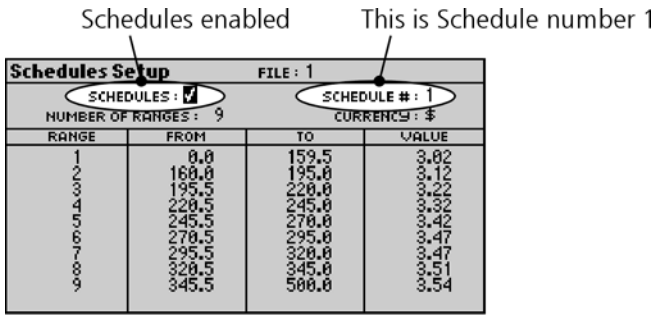
Schedule Setup Screen

The Schedule Setup screen allows you to enter up to three schedules of monetary values for different weight ranges. Once schedules are set up, you can display the values of your animals.

For information on using schedules to display animal values, see "Animal Values" on page 112.

Setting up a schedule

1. Press (✕✓ SETUP) then SCHEDULE.



2. Enable the SCHEDULES option.
3. In the SCHEDULE # field, enter the number (1 to 3) of the schedule you want to change.
4. Enter the number of ranges you require.
5. Enter the weight ranges and corresponding monetary values.

Schedule Setup Screen Fields

Schedule #

Specifies which of the three available schedules you are editing.

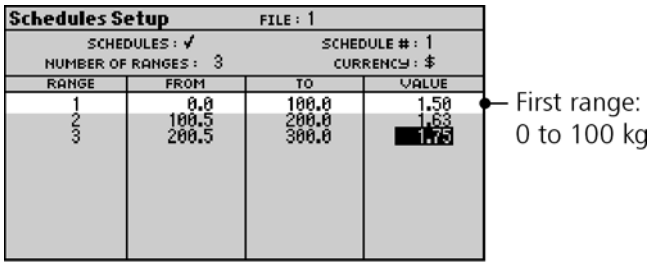
The schedule specified here remains the current schedule until changed, and is used for calculating animal values in other screens.

The only other place that the current schedule can be changed is in the Statistics screen, unless the Schedule # field has been added to the Weighing screen.

Number of ranges

When you enter the number of ranges here, the indicator displays the corresponding number of rows below so that you can enter the weight ranges and value rate to be used within each range.

Example



The first range means that the value for a weight of 75.0 kg would be calculated at a rate of $1.50 per kg, resulting in $112.50.

Currency

This field shows the currency symbol that will be used. The currency is preset, according to the region you live in. The currency cannot be changed here, unless the region you live in routinely uses more than one currency.

Related setups

You can put the Schedule Number field on the Weighing screen.

This allows you to view and change the setting without having to access the Schedule Setup screen.

For further information on adding extra fields to the Weighing screen, see “Adding Other Fields” on page 165.

XR ONLY

Custom Fields Setup Screen

Custom fields allow you to select from a list of pre-defined options when entering data. Instead of having to type names using the keypad, you select from the list.

For instructions on using custom fields, see “Using Custom Fields“ on page 91.

Breed field

A good example of a custom field is the factory default Breed field, which provides a list of breeds:

Angus
Charolais
Crossbreed
Fresian
Hereford.

Customising

You can change the name of the Breed field to something else, and you can edit the items in the list.

You can create completely new custom fields.

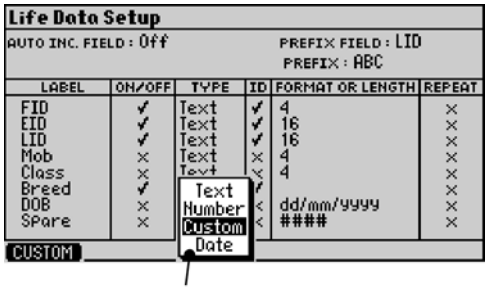
Note Once set up, you can use custom fields in life data or file data. They are not file specific.

Setting up a Custom Field

Introduction

Before you enter the list of options, you select the field that is going to be the custom field. This is done in the Life Data or File Data Setup screen as follows:

1. In the Life Data or File Data Setup screen, move the cursor to the Type column for the field you want to use.
2. Press ↵ and select Custom from the list of field types.



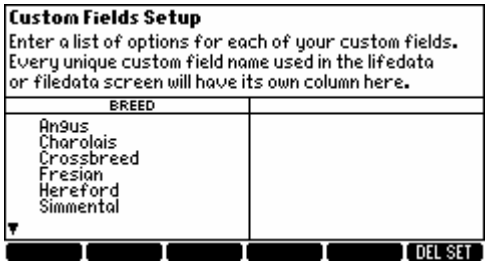
3. If required, move the cursor to the Label column and change the name of the field.
4. Press ⊖ to return to the Weighing Screen Setup.

Editing the List of Options

Introduction

Once you have nominated a field as a custom field, you need to set up the options you want to be available.

1. Press (×✓) then CUSTOM to display the Custom Setup screen.



The indicator displays a column for each custom field enabled on the Life Data or File Data Setup screens.

2. Scroll right until you see the label of your new custom field.
3. Under the label, enter a list of names, numbers, comments or codes that you want in the list of options.

You can have up to 15 characters in each item.

4. When finished press ESC to exit the screen.

Notes

- The first option is always blank so that there is an option for 'no data'. This blank option is not shown in the Custom Fields Setup screen, but will appear in the menu of options when the field is used to enter data.
- Press 0 to enter a blank option using the shortcut method.
- The indicator ignores blank options when calculating statistics.

Clearing a custom field

If you change a custom field to another type (for example a text field) in File Data Setup or Life Data Setup screen, the list of options you entered remains on the Custom Setup screen until deleted.

DEL SET soft key

Deletes the entire set of options. This action is only available if no files have a field using the set of options.

The indicator displays a prompt message if this is not the case.

Related Setups

Life Data Setup
File Data Setup

As described above, custom fields are enabled in the Life Data or File Data Setup screens.

Weighing screen setup

Once set up, you can enable the custom field in the Weighing Screen Setup in order to collect or display data.

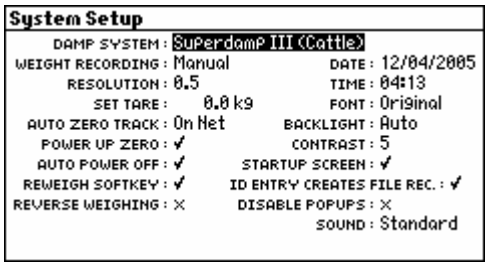
See "Weighing Screen Setup" on page 160.

System Setup Screen

The System Setup screen allows you to you change settings that affect the general operation of the indicator.

Accessing the System Setup Screen

▸ From the Weighing screen, press (×/✓), then SYSTEM.



System Setup Fields

Damp System

You can select a system of damping:

Mode	Effect	Application	Characteristics
Superdamp III (Cattle)	For general weighing.	Cattle. Suitable for all other applications.	• Default mode. • Accurate with large, agitated animals. • Weighing time is 3.5 s +. • Extends weighing time intelligently when movement is present. • Weighs dead weights in 1 second. • Weight display is not frozen, it's live, but highly stable. • Red light comes on when weight is within tolerance.

Mode	Effect	Application	Characteristics
Superdamp III (Sheep)	For faster weighing.	Sheep and small animals.	• Weighing time is 1.5 s +. • Extends weighing time intelligently when movement is present. • Automatic Weight Recording goes even faster. • Weighing time is quite regular for rhythmical throughput. • Weight display is not frozen, it's live, but highly stable. • Red light comes on when within tolerance.
Fixed weighing time	Even faster weighing. No accuracy tolerance.	Mob average.	• Weighing time is a fixed 1.0 seconds (can be adjusted). • Weighing time perfectly regular (not extended when movement present). • Automatic Weight Recording goes even faster. • Weight display is frozen. • Red light comes on after the fixed time.
Smart drafting	Fast, but slows right down when weight is near the draft limits.	Drafting sheep.	• Extends weighing time intelligently when close to the draft limits. • Extends weighing time intelligently when movement is present. • When close to a draft limit, weighs more accurately even than the default mode. • Weight display is not frozen, it's live, but highly stable. • Red light comes on when draft range is confidently known.

Mode	Effect	Application	Characteristics
Averaging	Fastest possible weighing.	For produce, dead weights and filling a container or bag.	• Fastest weighing mode available. • Display and red light are always live. • Red light illuminates whenever display is within tolerance. • Weight display is highly responsive, not damped.

For further information on damp system options, see "Damp System Options" on page 97.

Weight recording

You can select the method of weight recording:

Off	Disables the record key.
Manual	Weight recording is done manually by pressing the record key.
Auto	A hands-off, automatic method of weight recording.

Notes

- When Weight Recording is Off, the File Data screen will not show a weights column unless weights are already present in the file.
- If you have fields on the right hand side of the main Weighing screen, Automatic Weight Recording will wait for you to enter data into them.

For further information on weight recording options, see "Manual and Automatic Weight Recording Options" on page 98.

Resolution

Specifies the minimum resolution that the scale will use. Resolution is not the same as accuracy. Accuracy depends on the system as a whole, and is more affected by the mechanical platform and loadbars than by the indicator. Therefore a resolution that matches the system accuracy is the most appropriate.

The range of values available depends on the load sensors connected to the indicator.

The indicator automatically applies coarser resolutions at higher weight ranges. See "Auto Resolution Information Screen" on page 210.

Note If you specify a fine resolution, the scale may take longer to obtain a stable reading.

Example 1

If you specify a resolution of 0.1, the indicator attempts to weigh to the nearest tenth of a kilogram. This gives smaller increments, but it will take longer for the scale to stabilise.

Example 2

If you specify a resolution of 5, the indicator weighs to the nearest 5 kilograms. This gives larger display increments, but the scale will stabilise more quickly.

Set tare

This field allows you to set a tare weight.

For example, if you have a container that weighs 30 kg, you can set the tare to 30.0 kg. Then, when the empty container is on the platform, the indicator reads 0.0 kg. When the container is not on the platform, the indicator reads -30 kg.

When a Set Tare is in effect, the two Auto Zero Track options 'On Net' and 'On Gross' behave as follows:

Auto zero option	Description
On Net	The indicator automatically zeroes when the display is near zero when the empty container is on the platform. This option is used to zero out material that may accumulate in the container.

On Gross	The indicator automatically zeroes when the container is off the platform and the display is reading near the negative of the Set Tare. This option is used to zero out material that may accumulate on the platform. In the example given in "Set Tare" above, if the weight is reading -29.5 kg, the auto zero tracking will operate and the display will read exactly -30.0 kg again.

Auto zero track

Enables or disables the auto zero feature as follows:

Auto zero option	Description
Off	The scale does not auto zero.
On Net (default setting)	The indicator automatically zeroes when the display is near zero. This option is used to zero out material that may accumulate on the weighing platform.
On Gross	This option is used with Set Tare. See "Set tare" on page 199..

Note When Set Tare is not used, the options 'On Net' and 'On Gross' behave the same.

Power up zero

When enabled, the scale automatically zeroes when switched on.

For further information, see "Power up Zero" on page 76.

Auto power off

When not connected to an external 12 V supply, and if this option is enabled, the indicator automatically switches off after 15 minutes of inactivity, in order to conserve the battery.

Reweigh soft key

This option enables the REWEIGH soft key on the Weighing screen.

For further information, see "Reweigh Key" on page 94.

Reverse weighing

Reverse weighing allows you to measure and record a reduction in weight.

For further information, see “Reverse Weighing“ on page 85.

Date

The indicator keeps track of the current date, including leap years. Use this field to set the date if necessary.

The system date is used to date stamp files when you first and last recorded data in them.

Time

The indicator keeps track of time. Use this field to set the time if necessary.

The system time is used to time stamp the start and end of recording data in a file.

Font

The indicator offers a choice of different fonts for the main weight display.

Tip

To make it easy to see the effect of changing the font, you can temporarily put a Font field on the Weighing screen. Then, if you change the font, you can immediately see the effect.

For further information, see “Adding Other Fields” on page 165.

Backlight

You can set the backlight for the LCD to:

- On
- Off
- Auto (default setting)

The Auto setting means that the backlight automatically comes on in low light conditions.

Contrast

You can select a number to alter the contrast of the LCD display.

Startup screen

This option enables or disables the Welcome screen that appears when you switch on the indicator. See page 15.

ID entry creates file record

'ID entry creates file record' allows you to create a file data record as soon as an ID is entered. Normally, a file data record is not created until data is stored, for example recording a weight or entering file data into a file data field. This feature can be useful if, for example you are loading animals onto a truck and you want to record a file of all animals by scanning their EIDs.

Typically, 'ID entry creates file record' should be disabled in order to avoid unwanted zero-weight file data records being created or records being created each time an ID is entered in order to look up information.

Disable popups

This option suppresses most of the popup messages that appear during weighing. Often, these may not be desirable during weighing if they cause the indicator to pause while it waits for a response to a particular question or prompt.

When Disable Popups is enabled, the indicator uses the default response when attempting to resolve a situation.

Examples

When an unknown ID is entered, the indicator will create a new life data record.

When the same ID is entered more than once in a weighing session, the indicator creates multiple files with the same ID.

When the auto increment feature reaches an ID that already exists, the indicator will continue making new life data records.

Some popup messages such as battery low and memory full warnings will still appear, even if Disable Popups is enabled. However, these warnings will only appear briefly so that the operation of the indicator is not affected.

Instead of disabling popups altogether, many popups offer the option 'Don't show message again'. If this is selected, the indicator remembers and uses the most recently selected option. The popup is then suppressed for the rest of the weighing session.

To disable prompt messages on the Weighing screen, such as 'Load Platform', see page 162.

Sound

Select from

- Standard (default setting)
- Loud
- Original

Related Setups

You can put any of the fields from the System Setup screen directly onto the Weighing screen.

This allows you to view and change some settings without having to access the setup screen.

For further information on adding extra fields to the Weighing screen, see “Adding Other Fields“ on page 165.

Serial Setup Screen

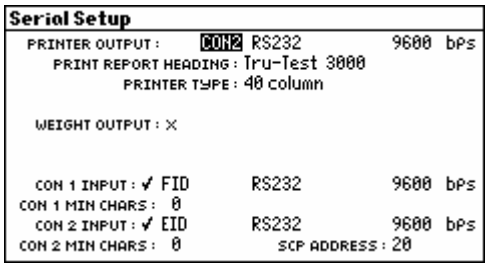
The Serial Setup screen allows you to configure the serial communications settings for compatibility with a printer or other serial device.

As well as output to a printer, you can connect an input device such as an electronic tag reader.

The factory default output settings are suitable for most serial printer connections.

Accessing the Serial Setup screen

- From the Weighing screen, press (✕✓), ▶▶ then SERIAL.



Serial Setup Fields

Introduction

The serial communications fields must be set to be compatible with the printer or other device you are connecting. Refer to the printer's manual for details.

Printer Output

Select which connector on the indicator the printer cable will be connected to: CON 1 or CON 2.

RS232 setting (Handshaking)

Select XON/XOFF or DTR/DSR depending on the requirements of the printer. For a Tru-Test 40 column printer, select XON/XOFF.

Notes

- DTR/DSR is only available on CON 2.
- If in doubt, try using XON/XOFF.
- An incorrect handshaking setting will result in a long printout with sections missing, or the printer not printing at all.

Bps

Select the bps (bits per second) to match printer specifications.

This may be referred to as Baud rate in your printer's manual.

For a Tru-Test printer use 9600 bps. If in doubt, try 9600 bps first.

Note An incorrect bps setting will result in the printer printing out nonsense, or not printing at all.

Print Report Heading

Enter a report heading if required. For example, "Spratts Farm." The heading will be printed at the top of statistics reports.

Printer Type

Select the printer type:

40 column	For Tru-Test printer (Indicator outputs a maximum of 40 characters per line).
80 column	For wide paper printers (Indicator outputs a maximum of 80 characters per line)..
Laser / Inkjet	For PC printers (printer must have a serial port). This setting causes the indicator to output a form feed at the end of the print out.

Weight output

Enable this option if you intend to output the weight to a remote device, such as a large display or a ticket printer during weighing. The output weight can be sent by the indicator whenever the data changes or is recorded. Other information such as IDs and weighing units can be included.

Set the serial parameters to match the remote device.

CON 1 input **CON 2 input**	Enable this option if using a device to input data, such as an EID reader. Select the field you want to direct the data to. Set the serial parameters to match the remote device. Change the minimum number of characters allowed in the field, if required. This reduces the chance of erroneous characters coming in through the input.
SCP address	Sets the indicator address if used with multiple devices on an RS485 bus.

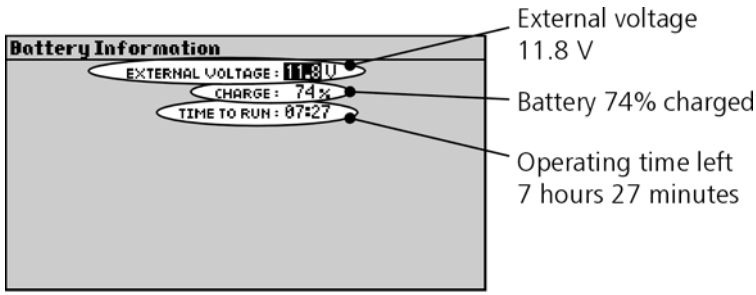
Battery Information Screen

The Battery Information screen provides continuously updated diagnostic information about the status of the battery. All the fields are view only.

For information about charging the battery, see "Battery Management" on page 220.

Accessing the Battery Information Screen

- From the Weighing screen, press (×√), then **BATTERY**.



Battery Information Fields

External voltage

Indicates the voltage of the approved external power supply that is connected to the indicator to charge the battery.

Charge

Indicates the charge status of the battery.

Note If the battery gets low, the indicator automatically displays warning messages on the Weighing screen.

Time to run

Gives an estimate of the run time left in the battery at the current rate of power consumption. It will change when load bars are connected or disconnected, or when the back light goes on or off.

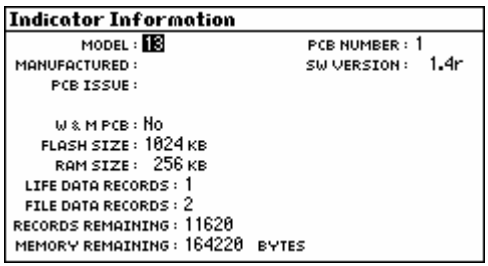
Indicator Information Screen

The Indicator Information screen provides information about the indicator such as the model number and software version number. All the fields are view only.

You will only need to refer to this screen if directed by a Tru-Test Service Centre.

Accessing the Indicator Information Screen

- From the Weighing screen, press (✕✓), then ABOUT.



File data records Shows the total number of file data records in all files.

Life data records Shows the total number of life data records in the indicator.

Records remaining Read only field. Gives an indication of the remaining memory available for storing file data records. The indicator bases the calculation on the record size for the current file.

Memory remaining Read only field.

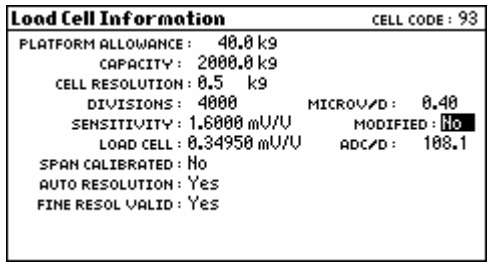
Load Cell Information Screen

The Load Cell Information screen provides diagnostic information about the load cells connected to the indicator. All the fields are view only.

You will only need to refer to this screen if directed by a Tru-Test Service Centre for the purposes of checking the weighing system.

Accessing the Load Cell Information Screen

- From the Weighing screen, press (×✓), then **CELL**.



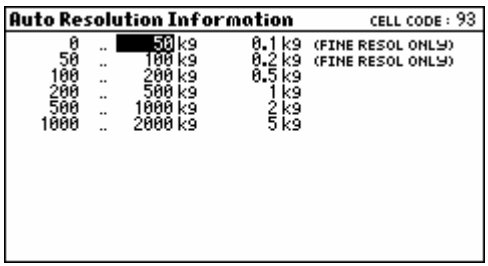
Auto Resolution Information Screen

The Auto Resolution Information screen shows the resolutions that the indicator uses for different weight ranges for load cells currently connected.

The information is for viewing only; you cannot change the settings.

Accessing the Auto Resolution Information Screen

- From the Weighing screen, press (×/✓), then AUTO RES.



Operation

The indicator uses the Auto Resolution table in conjunction with the minimum resolution, which is set in the System Setup screen.

For example, if the minimum Resolution is set to 0.5 kg, no resolution lower than 0.5 will be used. As a result, all weights up to 200 kg in the table above will be weighed at 0.5 kg resolution.

Above 200 kg, the resolutions shown in the table for the different weight ranges will be used.

See also

"System Setup Screen" on page 196.

TRU-TEST®

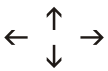
PART 6

Reference Information

This section contains information that you may need to refer to from time to time.

Keys Reference

Keypad Keys

	Power	Switches the indicator on and off.
	Escape	Reverts field to previous value, or goes back to previous group of screens.
	Setup	Accesses the Setup screens.
	Record Weight	Records the displayed weight.
	Help	Accesses the help screens.
	Back	Goes back to previous screen. Goes back one character.
	Enter	Displays options or enters data.
	Space	Inserts a space in text fields.
↑	Shift	Switches between upper and lower case letters.
0 to 9	Numbers	Used to enter numeric data.
A to Z	Letters	Used to enter text.
	Arrows	Used to move the cursor to select a field.

Soft Keys

	Displays more softkeys
	Displays the Indicator Information screen
	Displays the Auto Resolution information screen
	Displays the Battery Information screen
	Goes to the last item of a scrolling data screen
	Displays the Load Cell Information screen

CLEAN UP	Deletes any life data records that are not referenced in any file.
CUSTOM	Displays the Custom Fields Setup screen
DEL ALL	Deletes all the rows in the respective screen
DELETE	Deletes one row in the respective screen
DRAFT	Displays the Draft Statistics screen or the Drafting Setup screen
FILEDATA	Displays the File Data screen or the File Data Setup screen
FILES	Displays the List of Files screen
FIND	Finds data within a column
GRAPH	Displays a line graph of weights recorded for a particular animal.
HISTGRM	Displays a histogram (bar graph) of the all animal weights in a file.
HISTORY	Displays the Animal History screen
INSERT	Inserts a record in the respective screen
LIFEDATA	Displays the Life Data Form screen or the Life Data Setup screen
NEXT	Displays the next record
PREV	Displays the previous record
RECALC	Recalculates draft values using new draft settings
PRINT	Prints a report that looks the same as the screen
REWEIGH	Re-weighs the animal on the scale
SCHEDULE	Displays the Schedules Setup screen
SERIAL	Displays the Serial Setup screen
SETUP	In the User Statistics screen, displays the User Statistics Setup screen In a Help screen, goes directly to the relevant setup screen
SORT	Sorts the data in a column
STATS	Displays the Statistics screen
SYSTEM	Displays the System Setup screen
TABLE	Displays Life Data Table screen
TOP	Goes to the first item of a scrolling data screen
USER 1	Displays the first User Defined Statistics screen
ZERO	Zeroes the scales.

Link3000

Link3000 is a software application designed as the interface between your indicator and your computer. It is available as a free download on the Tru-Test website.

Link3000 allows you to:

- download files from your indicator to your computer.
- download the lifetime animal database from your indicator to your computer
- upload files from your computer back to your indicator.
- upload the Lifetime Animal Database back to your indicator.
- receive printed reports of data from the indicator.

Link3000 has an extensive on-screen help system inbuilt. Refer to it for details about using Link3000.

You can connect your indicator to your computer using the serial cable supplied with your XR3000. If your computer has no serial ports, you can order a USB serial adaptor. This can be ordered through your Tru-Test dealer.

Downloading Link3000

To download Link3000:

1. Visit the Tru-Test website www.trutest.com.
2. Click on 'Electronic Weighing Systems', 'Animal Management Software', then 'Link3000'.
3. Register, if you haven't logged in previously.
4. Click on 'Link3000 – free download'.
5. Save Link3000 to disc or to your computer hard drive.

Installing Link3000

To install Link3000:

1. Double-click on the folder 'Link3000' on the disc or the computer hard drive.
2. Double-click on Link3000.exe to install.

Downloading data using Link3000

Downloading data from your indicator to your computer allows you to:

- free space on your indicator
- back up data
- use data with third-party software that may be installed on your computer, for example, Microsoft Excel or an animal database management program.

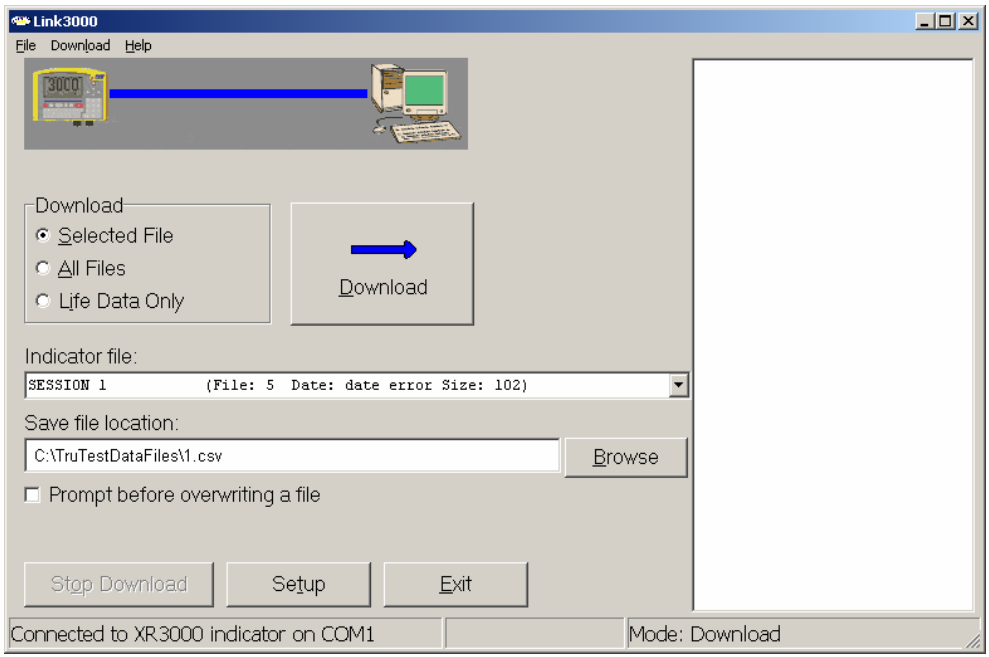
Uploading data using Link3000

Uploading data from your computer to your indicator allows you to:

- revisit historical data, for example, to perform calculations or see statistics over a long period of time
- restore lost or deleted data.

Receiving print reports using Link3000

Print reports can be received and formatted. These can be printed directly from Link3000. This is useful, for example, for printing out Statistics reports.



Troubleshooting

For up-to-date information about Tru-Test products and downloads of latest software versions visit out web site at www.tru-test.com.

Troubleshooting Weighing

Symptoms	Remedies
Reading doesn't return to zero between animals Or Difference in readings at each end of the platform Or Readings less than expected	Check for binding. If you use chains to prevent crate movement, they must remain slack while the animal is being weighed. Ensure that the platform or crate does not touch any other part of the race or concrete pad. This could be caused by movement of the loadbars or a build up of dung, dirt, or stones. Check that the loadbar feet are sitting evenly on the pad and the ground is level. There should be no stones or dung under the rubber feet. All four loadbar feet should be firmly in contact with the ground. Check pinning / anchoring. Misaligned bolt holes put a residual load on the loadbars. It may be necessary to enlarge the mounting holes in the platform or crate to improve the alignment. Ensure that the animal does not touch unweighed sides or gates of the enclosure. Even touching a vertical surface affects the weight reading.
Indicator re-zeroes sporadically	Return the indicator and loadbars / loadcell with a description of the problem.
Date and time lost	Re-set them in the System Setup screen.
Indicator Information screen data lost	Contact Tru-Test Service Centre for instructions on how to fix.

Symptoms	Remedies
Reading unstable Or Zeroing takes a long time Or Overload Or Underload	Check for moisture in the loadcell connectors in either the indicator or loadbars. Moisture can be removed from the plugs or caps using methylated spirits, ethyl alcohol or a suitable electrical contact cleaner. Stronger solvents must not be used as they react with the plastic. Check the cable for damage. If the cable is damaged, return it for service. Otherwise, the problem could be caused by moisture in the loadbars or indicator. If available, check the indicator with another set of loadbars. Try each loadbar separately to see if the problem is with one bar. If moisture is the possible cause of failure, return the indicator for service.

Indicator Error Messages

Error Message	Remedies
Bad cell code	The indicator does not recognise the load cell connected. The indicator may have lost its span calibration. If so, span calibrate again. Otherwise, return the indicator for service quoting this section of the manual in the problem description.
Cell data or specialised setups lost	The indicator has returned to default settings. Unless you had a span calibration or other special adjustments in effect, no action is required.
Factory calibration lost	Return the indicator to Tru-Test for re-calibration.
Model number lost	Contact Tru-Test Service Centre for instructions on how to fix.
Voltage or Battery current calibration required	The indicator will usually operate fine on its default calibration. No action required.

Internal error	If the problem persists, return the indicator to Tru-Test for service. It is very important to return the details exactly as shown in the error message, and if there is some operation required to make the error happen describe the procedure carefully.
Battery unexpectedly low	Recharge for 24 hours to reset the battery modeling.
Out of memory	If possible, download then delete the recorded animal data files. Set up file data and life data to use the minimum number and shortest format for fields. This allows more animal records to be stored.
Overload	The loadbars are overloaded or the cable damaged. It may be necessary to return the loadbars for service.

Troubleshooting Printing

General checks

If you are having trouble printing make sure that:

- The cable is plugged into the CON port on the indicator specified in the Serial Setup screen.
- The other end of the cable is plugged into the printer properly and the printer is on.
- The printer is a serial printer.
- The settings in the Serial Setup screen on the printer output line match those of the printer.
- The cable is the correct type (straight through for male to female connections, crossover for male to male).
- The cable is not damaged.
- If you are using a Tru-Test printer, you must have an external 12 Volt supply connected to the indicator.

Further points

- If you are using a printer that has its own power supply, such as a mains printer, you may be able to test the printer and cable by connecting it to a computer.

- The indicator serial port is the same as a computer's serial port. It is therefore possible to test a printer using a computer, rather than the indicator.
- If the printer prints nonsense, it suggests a problem with incompatible bits per second (baud rate).
- If the printer prints only the first part of a report, there could be a problem with incompatible RS232 hand shaking settings.

Battery Management

Battery

The XR3000 comes with an internal rechargeable battery, which allows the indicator to be conveniently independent of any external power supply.

Charger

The indicator contains an internal battery charger that operates from either the recommended Tru-Test power adaptor or a 12 volt vehicle battery. The internal charger is intelligent, so it provides the fastest rate of charge while protecting from overcharge and ensuring long battery life.

Damage to the indicator caused by using an unsuitable charging supply will void the warranty.

Automotive battery chargers are NOT suitable. The voltage and current they supply may be outside the required range.

Charging

The indicator starts charging when you plug in the approved 12 V power supply.

The indicator can be charged while in use, or when switched off.

Charge the indicator for 12 hours before using it for the first time.

Charging a flat battery takes 8 hours at a temperatures of 10 °C to 35 °C (50 °F to 95 °F).

Charging at low or high temperatures could extend the charging time to 12 hours. At extreme temperatures, the indicator will not charge.

You can safely leave the indicator on charge all the time.

Battery information

You can see continuously updated diagnostic information about the status of the battery on the Battery Information screen.

For further information, see “Battery Information Screen” on page 207.

Low battery warning

The indicator automatically displays messages to let you know the status of the battery. The messages appear at 1 hour, 15 minutes, and 1 minute before the battery is flat.

Guidelines

To maximise battery life, observe the following simple guidelines:

- Preferably recharge the battery overnight.
- Never charge the battery with the indicator in direct sunlight.
- Store the indicator in a cool, dry place when not in use.

Storage

Charge the indicator overnight before long-term storage, and every three months during storage.

Fully charge the indicator after prolonged storage.

Legal Information

FCC Notice

The Tru-Test model XR3000 has been tested and found to comply with the limits for a Class A digital device pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is used in a commercial environment. 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. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to correct the interference at their own expense.

Contact Information

Latest information	For up-to-date information about Tru-Test products, visit our web site at: www.tru-test.com.
Software downloads	Downloads of latest software versions for your indicator are available from our web site at: www.tru-test.com.
Service information	For repair or service information, contact the supplier of your XR3000.
Feedback	Tru-Test welcomes feedback from customers. You can send any feedback about this manual or Tru-Test products via the Feedback link from the Scales page at www.tru-test.com.

XR ONLY

Technical Specifications

Total capacity	2000 kg or 3000 kg (4400 lb or 6600 lb) depending on load bars.
Resolution	Selectable: 0.1 kg to 5 kg.
Accuracy	± 1% or 2 resolutions (whichever is greater) with Tru-Test load bars.
Power supply	12 V DC (approved power adaptor or vehicle battery).
Operating temperature	-10 °C to +40 °C (+14 °F to +104 °F).
Storage temperature	-20 °C to +35 °C (-4 °F to +95 °F).
Memory	Up to 50,000 file data records * Up to 20,000 life data records * * Depending on fields enabled.
Internal battery run time	15 hours with two load bars connected (8 hours with back light on).
Communications	Two RS232 connectors, or one RS232 and one RS485 connector.
Environmental conditions	IP67 (immersion in 1 metre of water).

Note Product specifications may change without prior notice.

Index

B

C

D

E

F

G

H

M

N

O

P

R

S

T

U

WORLD LEADERS IN WEIGHING

www.tru-test.com