



Calf Weighing Crate

Model - 345G & 345GE

**Instruction Manual
& Operating Guide**

Rev A – 19/10/2018

Rev 0 – 26/01/2012



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Calf Weighing Crate – Model 345G & 345GE

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Safety Notes and Warnings

- Ensure the operator in charge of the Calf weighing crate is an experienced stock person who can maintain a high standard of animal welfare.
- Ensure that there is sufficient space in the area designated for the crate to allow the operator to work safely and efficiently.
- The adjoining race and penning to the crate should be of sufficient build for the safety of both animals and operators.

Training

Do not attempt to carry out any procedure on a machine unless you have received the appropriate training or read the instruction manual.

Retain all instructions in a safe place for future reference.



Introduction and Intended use

Ritchie model 345G & 345GE have been designed for, and are intended to be used by the agricultural industry purely for the weighing of calves. The cage is designed to give maximum safety and to minimise stress in both animal and the operator.

Features:

- Strong tubular frame with fully sheeted sides.
- Entry and exit gates can be hinged from the left and right.
- Mesh type cage floor.
- Stable cage floor during animal entry and exit.
- Fitted with handles and wheels for easy movement.
- 345G - Fitted with a Ritchie digital scale.
- 345GE - A choice of Tru-test indicators, ezi-weigh 5i / ezi-weigh 7i / ID5000 & XR5000 is available (supplied separately).
- Hot dipped galvanised finish.
- 345G - 300Kg (660Lb) capacity. 345GE - 250Kg (550Lb) capacity.
- Easily operated by one operator.

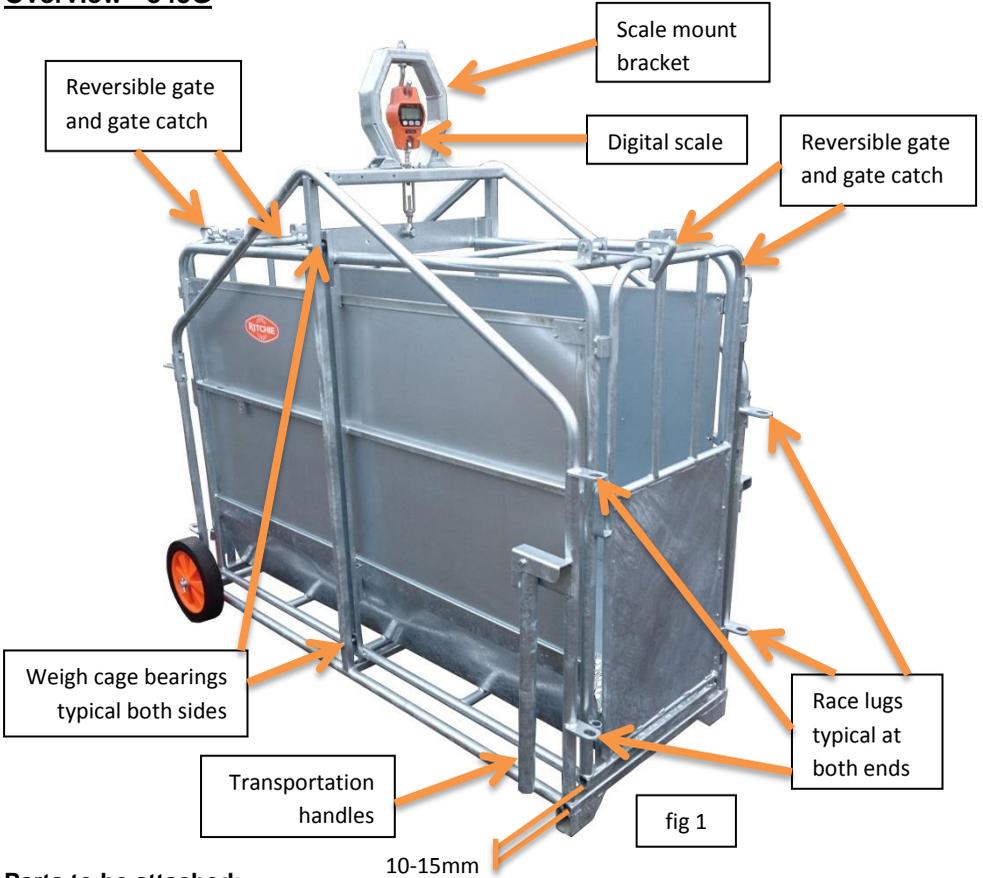
Deviations from the intended use should not take place without the notice and approval of David Ritchie (Implements) Ltd.

Specifications:

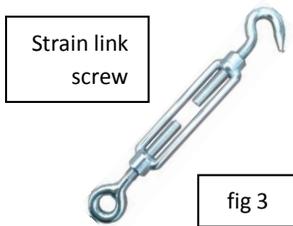
Overall Length	- 1678mm
Overall Width	- 793mm
Overall Height	- 1610mm (345G) / 1508mm (345GE)
Internal Length	- 1540mm
Internal Width	- 450mm
Internal Height	- 1000mm
Weight	- 125Kg



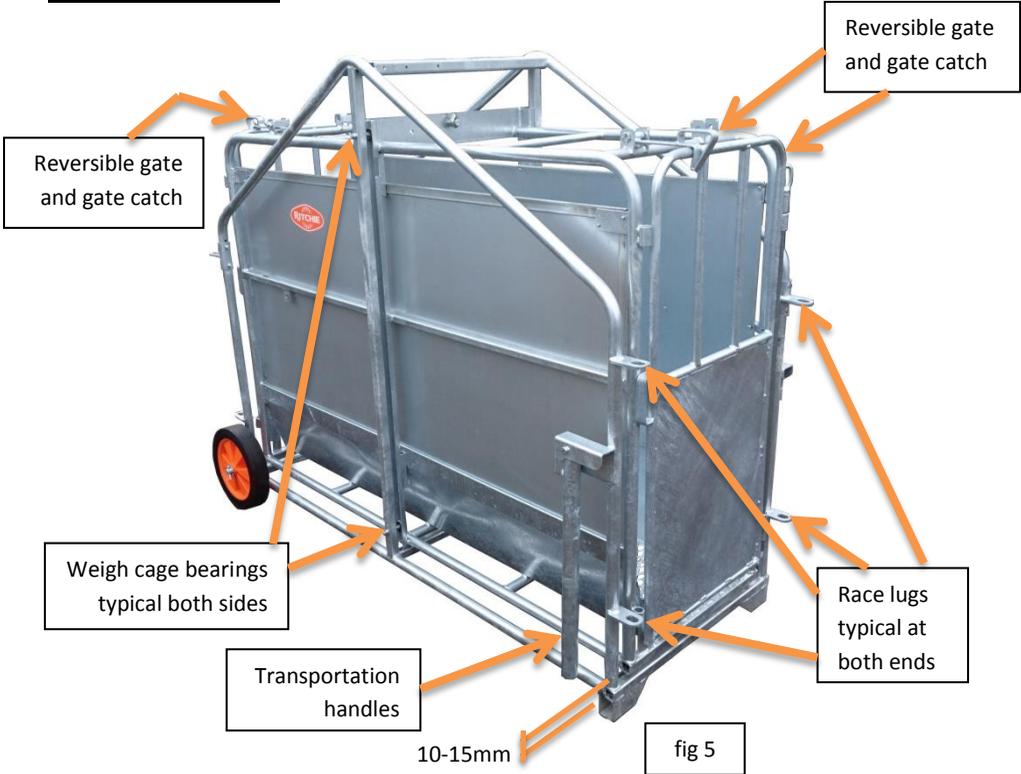
Overview - 345G



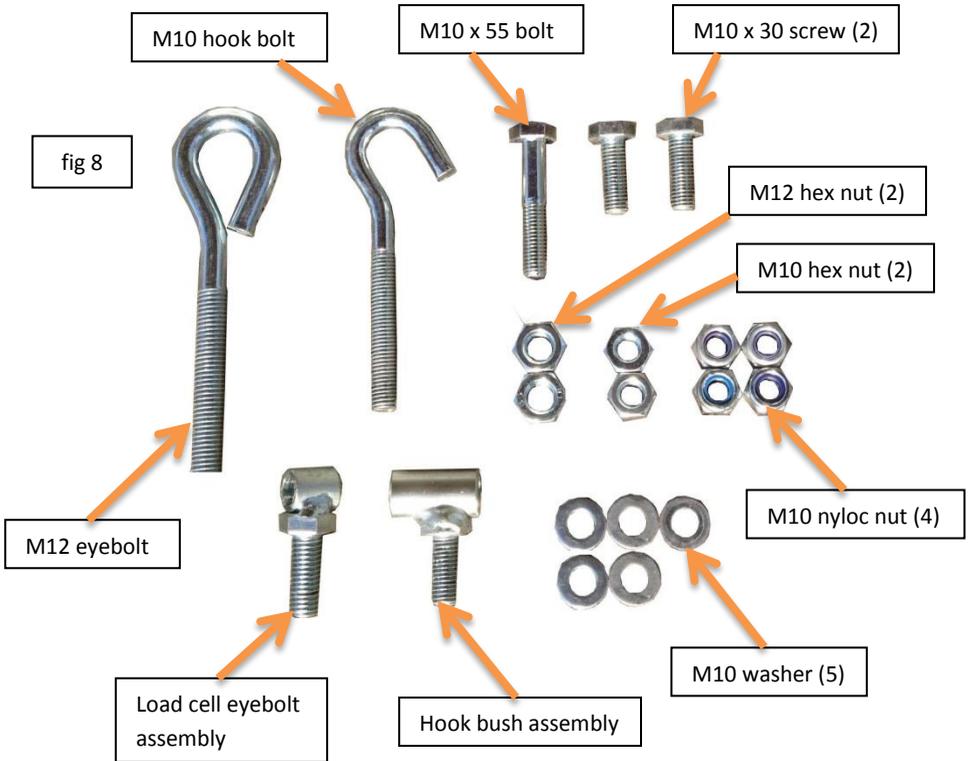
Parts to be attached:



Overview – 345GE



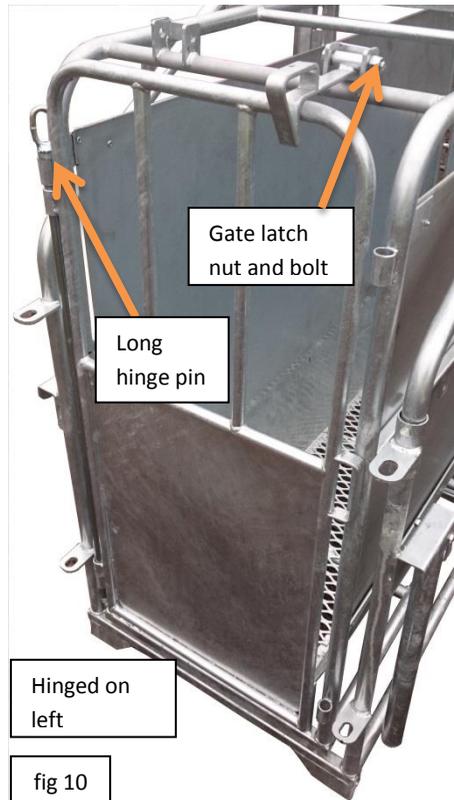
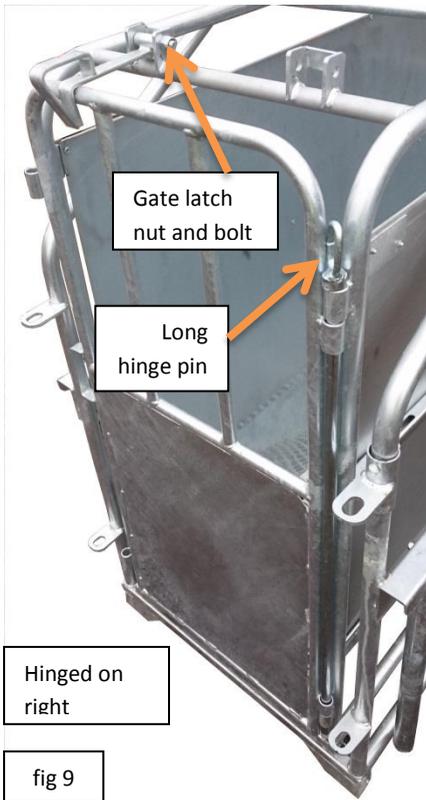
Overview – 345GE continued



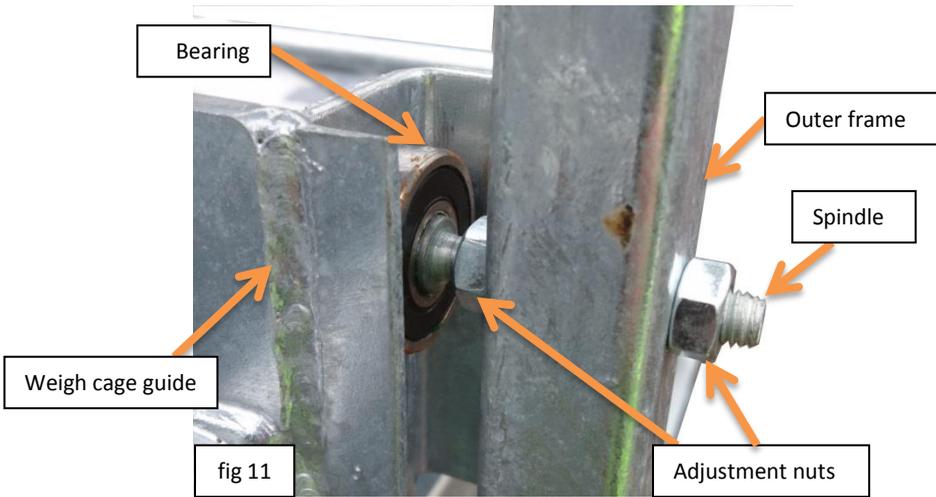
Preparation for Use

The weigher should be positioned on an even level site, and may be joined to a race or pen system if required. Lugs are provided at both the entry and exit gates for this purpose (fig 1). Fold away transport handles are provided for manoeuvrability (fig 1).

The entry and exit gates can be hinged from either side of the weigher. To change the hinge side of the gate, Undo the nut and bolt from the gate latch on top of the frame and remove the long hinge pin from the gate and outer frame (fig 9). Turn the gate around so that hinges line up with the other hinges on the opposite side. Replace the long hinge pin in its new location. Re attach the nut and bolt thru the frame and gate catch on the opposite side that it was on originally (fig 10).



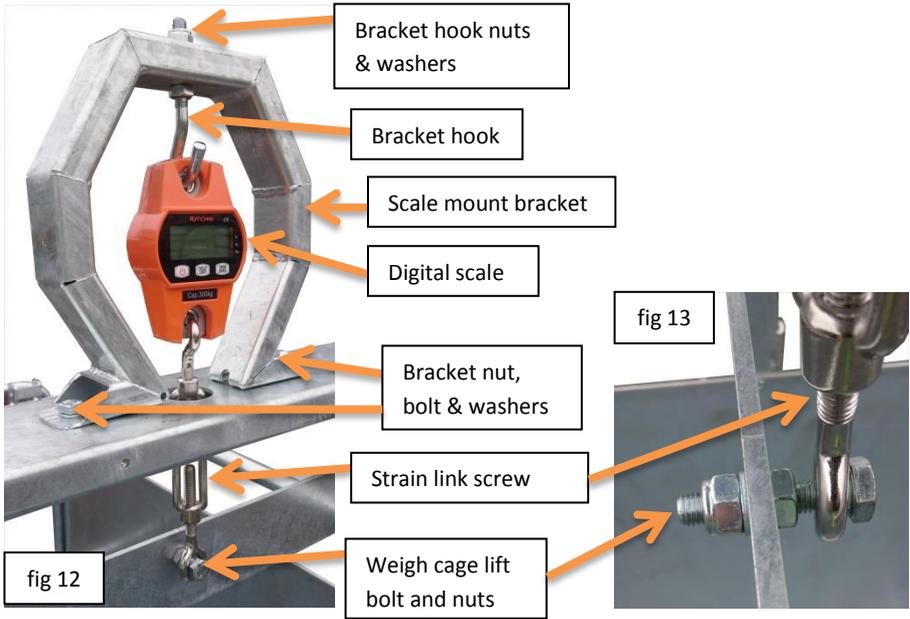
The vertical guide / runners that hold the 4 bearings (2 per side, fig 1) can be adjusted, by tightening / slackening the nuts to take out any excessive play between the inner and outer frame (fig 11).



345G setup:

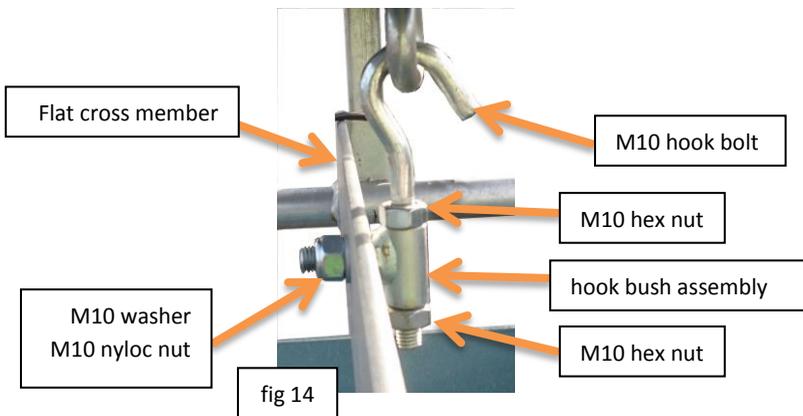
Attach the scale mount bracket (fig 2) to the top middle cross member using the nuts and bolts provided. Undo the hook at the top of the bracket and also the weigh cage lift bolt and nuts. Thread the weigh cage bolt through the eye bolt on the strain link screw. Pass the strain link screw thru the hole in the top cross member and reattach the lift bolt to the weigh cage. Then attach the strain link screw to the digital scale via the hook. Finally pass the scale mount hook thru the scale and then thru the top part of the bracket and affix the nut and washer (fig 12). There should be a gap of approximately 10 – 15mm between the weigh cage and the outer frame at the bottom at each end of the weigher (fig 1). To achieve this, the nut on top of the scale mount bracket can be adjusted to achieve this. Should there not be enough adjustment available then the strain link screw can be adjusted (by twisting the cage around the threaded parts to tighten or loosen) to remedy this.





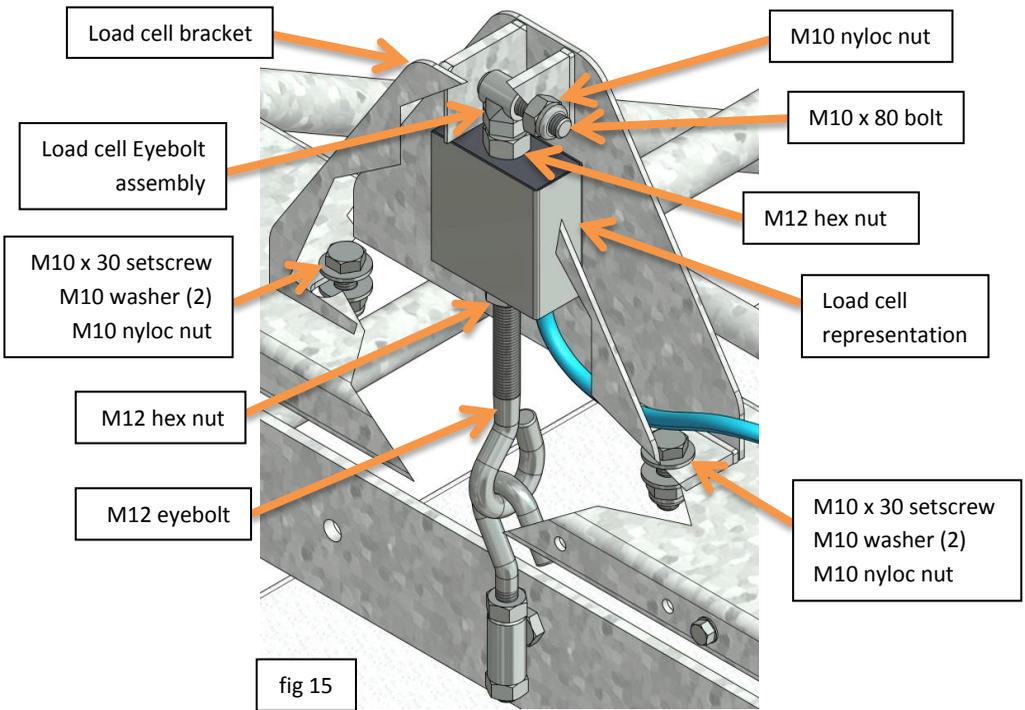
345GE setup:

Locate the hook bush assembly thru the horizontal flat cross member and secure with an M10 washer and M10 Nyloc nut (longer end pointing down). Screw an M10 hex nut all the way to the top of the thread on the M10 hook bolt. Pass this thru the hook bush assembly and attach an M10 hex nut to the bottom of hook bolt, do not tighten (fig 14).



Screw on an M12 hex nut to both the M12 eyebolt and the load cell eyebolt assembly. Then screw each of those components into the load cell, one each side. Ensure that the thread has passed thru the load cell. Tighten the M12 hex nuts against the load cell making sure that the load cell eyebolt assembly is oriented correctly to fit into the load cell bracket. Pass this assembly thru the bottom of the load cell bracket and locate the load cell eyebolt assembly at the top of the load cell bracket. Secure using the M10 x 80 bolt and M10 nyloc nut.

Lower the load cell bracket, load cell eyebolt assembly, load cell & M12 eyebolt thru the hole in the top of the frame. Hook the M12 eyebolt and the M10 hook bolt together. Secure the load cell bracket to the cross member using the M10 x 30 setscrew (2), M10 washer (4) & M10 nyloc nut (2) (fig 15).



There should be a gap of approximately 10 – 15mm between the weigh cage and the outer frame at the bottom at each end of the weigher (fig 5). To achieve this, the M10 nut at the bottom of the hook bush assembly should be wound up until this gap is achieved. Once done tighten the M10 nut (above) down onto the hook bush (fig 14).



Operating Instructions

To admit an animal:

Lift the entry gate catch and swing the gate open. Allow the animal to enter and close the gate behind it. Lower the gate catch to lock the gate (fig 16 & 17).

To weigh an animal:

Use the digital scales / Tru-test indicator to weigh the animal. Complete any other operations required.

To release an animal:

Lift the exit gate catch and swing the gate open. Allow the animal to exit and close the gate behind it. Lower the gate catch to lock the gate (fig 16 & 17).



fig 16



fig 17



Quick Start Guide: ezi-weigh5i

Before you start:

Charging the internal battery

Note: before using the indicator, ensure that the internal battery is fully charged.

3

When the ezi-weigh5i is plugged into the mains supply, the battery indicator scrolls, indicating that the battery is charging.

Note: When the indicator is unplugged from the power supply, the battery indicator displays the battery charge level.

2

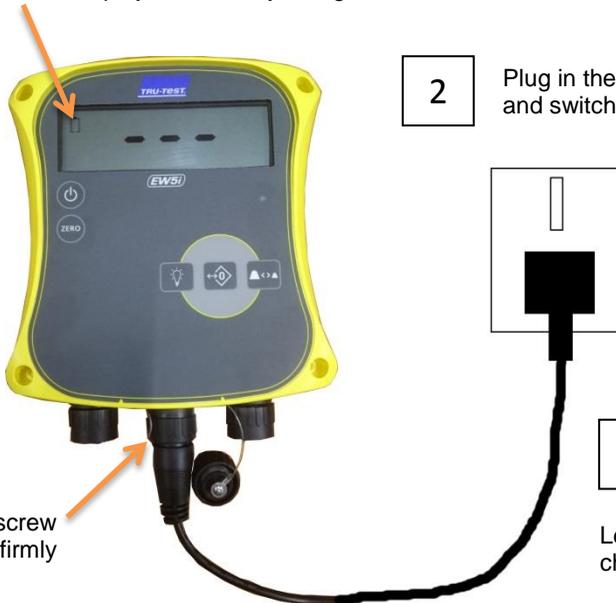
Plug in the power adapter and switch on

1

Tighten the screw collar firmly

4

Leave the indicator on charge for 8-10 hours

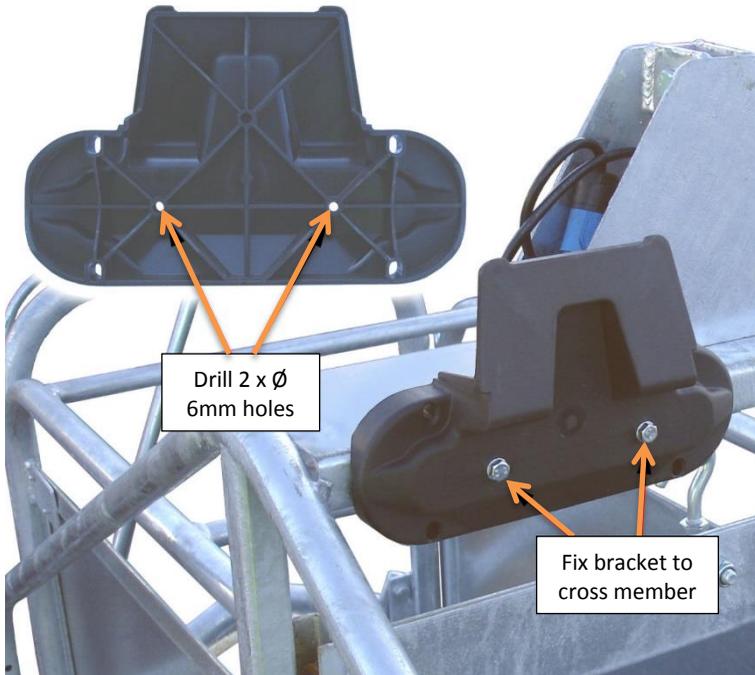


Note: The battery indicator may not be entirely accurate when used in very cold conditions (below 5°C / 40°F)



Installation

Note: Mount the indicator using the included bracket, first by drilling 2 holes $\text{\O}6$, using the back as a guide. Then secure using the included fixings and holes on to the side of the top cross member. The bracket can be mounted on either side of the cross member, depending on operator preference. Secure the cables so they cannot be damaged by stock.



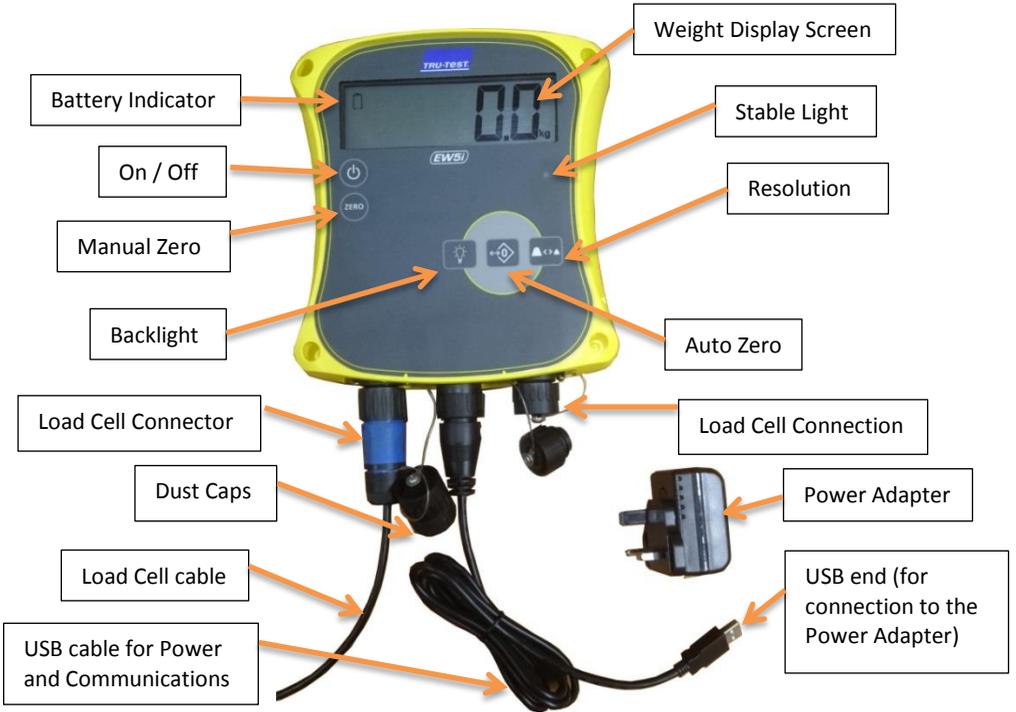
Remove the dust cap on the load cell connector and connect to either one of the two load cell sockets on the indicator.

If required, connect the indicator to the mains power using the power / communication cable and the power adapter.

Tip: connect the dust caps together to keep out dirt and moisture. Dust caps should remain in place at all times when the indicator is not in use.



Parts of the Indicator



Weighing the Animals

1. Press  to turn on the indicator. Ensure indicator is showing zero.
2. Move the animal into the weigher.
3. Wait for the stable light to illuminate.
4. Note the animals ID and weight.

When the animal is released from the weigh cage, the indicator automatically returns to zero.

Tip. Ensure that the underside of the cage is kept clear of dirt and stones.



Zeroing the Scale Manually

By default the scale automatically zeroes itself when a load is removed from the weigh cage or when the indicator first powers up. Occasionally, you may need to use the manual zero to force the scale to return to zero. For example if there is a build-up of dirt or stones in the cage.

To zero the scale manually

Press 

The scale displays zero.

Modifying the indicator settings

There are several settings which may be customised to suit the weighing application or the environmental conditions:

To view an indicator setting:-

Press Auto Zero =  Resolution =  or Backlight = 

The current setting is displayed on the weighing display screen.

To modify an indicator setting, press the required button repeatedly to scroll through the options. Once the desired option is displayed, wait momentarily for the indicator to return to the weighing display.

Auto Zero

By default, the scale automatically zeroes when a load is removed from the weigh cage or when the indicator first powers up.

Auto Zero should be **ON** when used with the 3661G Lamb Weigher.

If for any reason you want to disable Auto Zero - consult the Tru-test manual or go to www.tru-test.com.

Modifying the Resolution

You can select from 0.1Kg, 0.2Kg, 0.5Kg, 1Kg, 2Kg or 5Kg weighing resolutions.

By setting the resolution to 1kg, the indicator will weigh to the nearest kilogram and arrive at a weight more quickly. If you are weighing light loads, for example small



animals, you may require more accurate measurements. By setting the resolution to 0.1kg, the indicator will weigh to the nearest tenth of a kilogram, although it may take longer for the scale to stabilise.

Press  repeatedly to set the resolution.

Adjusting the Backlight

You can adjust the backlight to suit the lighting conditions. Use of the backlight will affect battery consumption – the run time will double if the backlight is set to Low instead of High.

Press  repeatedly to set the backlight to Low, High or Off.

Specifications

Total Capacity	2000Kg
Resolution	Set to 0.5Kg (fine mode 0.1Kg) or 1Lb (fine mode 0.2Lb)
Accuracy	+/- 1% or 2 resolutions (whichever is greater)
Power Supply	5v DC (Power Adaptor)
Operating Temperature	-10°C to +40°C (+14°F to +104°F)
Storage Temperature	-20°C to +35°C (-4°F to +95°F)
Internal Battery Life	Up to 20 Hours
Environmental	IP67 (Immersion in up to 1m (3') of water)



Quick Start Guide: ezi-weigh7i

The quick start guide provides basic instructions for installing and using your ezi-weigh7i indicator. For more detailed instructions, see the included instructions, or visit www.Tru-test.com.

Before you start:

Charging the internal battery

Note: before using the indicator, ensure that the internal battery is fully charged.

3

When the ezi-weigh7i is plugged into the mains supply, the battery Indicator scrolls, indicating that The battery is charging.

Note: When the indicator is unplugged from the power supply, the battery indicator displays the battery charge level.

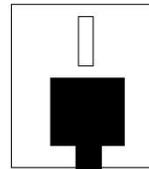
1

Tighten the screw collar firmly



2

Plug in the power adapter and switch on



4

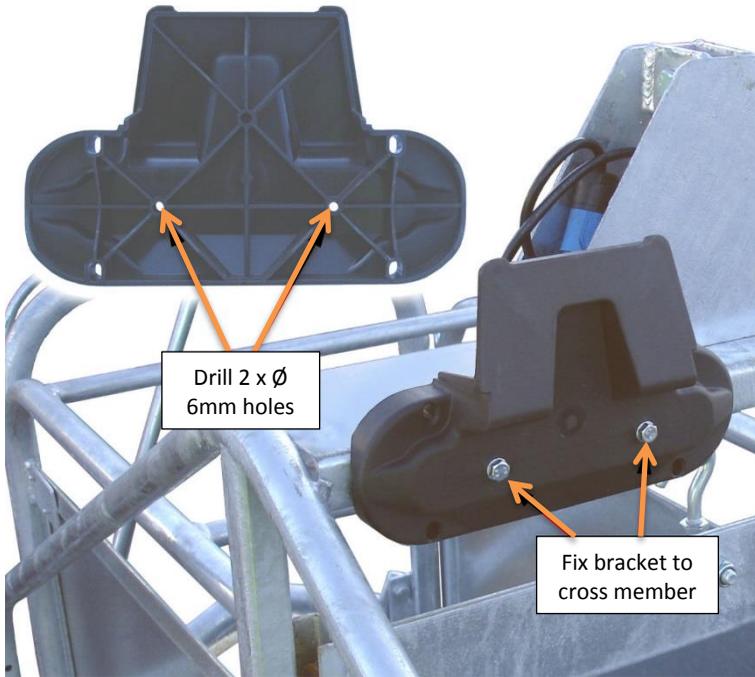
Leave the indicator on charge for 8-10 hours

Note: The battery indicator may not be entirely accurate when used in very cold conditions (below 5°C / 40°F).



Installation

Note: Mount the indicator using the included bracket, first by drilling 2 holes $\text{\O}6$, using the back as a guide. Then secure using the included fixings and holes on to the side of the top cross member. The bracket can be mounted on either side of the cross member, depending on operator preference. Secure the cables so they cannot be damaged by stock.



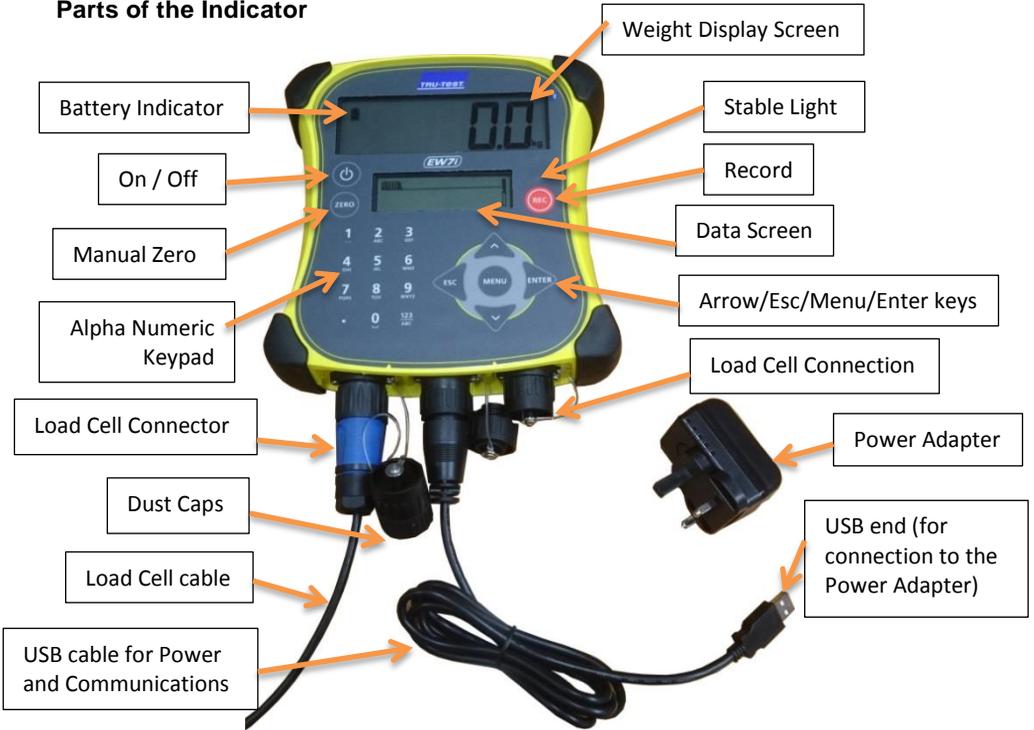
Remove the dust cap on the load cell connector and connect to either one of the two load cell sockets on the indicator.

If required, connect the indicator to the mains power using the power / communication cable and the power adapter.

Tip: connect the dust caps together to keep out dirt and moisture. Dust caps should remain in place at all times when the indicator is not in use.



Parts of the Indicator



Weighing Animals

1. Press  to turn on the indicator.
2. Move the animal into the weigh cage.
3. Enter the animals VID using the alpha numeric keypad, or scan the animals EID tag using an EID reader.
4. Wait for the stable light to illuminate.
5. Press .
6. Release the animal.

Notes:

- When the animal is released from the weigh cage the indicator automatically returns to zero.



- Entering the animals ID is optional.
- The animals VID or EID may be entered before the animal enters the weigher.
- When inducting new animals, both the VID and EID can be entered.

Tips:

- *Ensure that the animal is fully on the weigh cage floor before pressing*
- *Ensure that the underside of the cage is kept clear of dirt and stones.*



Using the Indicator Interface



Press  to view the menu items. The top level of menus includes:

Statistics	View statistics for the current session, or for the previously recorded sessions.
Clear last record	Delete the last record in the current session.
Sessions	Start a new session, view statistics for the current or for previously recorded sessions, delete a session or delete all sessions.
Setups	Change indicator settings and enable extra features.



Press  to go deeper into a sub-menu or to select an option.



Press  or  to scroll through a list of options.



Press  to escape out of a sub-menu back to the next tier up.

Use the alpha numeric keypad to enter text or numbers.



Press  to toggle between alphabet characters and numbers.



Press  to type a decimal point or a full stop.



With the alphabet characters set, press  once to type a colon (:), or twice for a hyphen (-).

With the alphabet characters set, press  to type a space.

Zeroing the Scale Manually

By default, the scale automatically zeroes itself when a load is removed from the weighing platform or when the indicator first powers up. Occasionally, you may need to use the manual zero to force the scale to return to zero, for example if there is a build-up of dirt or stones on the platform.

To zero the scale manually:

Press 

The scale displays zero.

Sessions

To create a new session:

1. Press 
2. Press  ,  to display **Sessions**.
3. Press  to display **Start New**.
4. Press 

A message **Started** is displayed.

To view statistics for a particular session:

1. Press 
2. Press  ,  to display **Sessions**.



3. Press  to display **statistics**.
4. Press  to display **statistics**.
5. Press 

A session date is displayed, followed by the count (number of records in the session).

Press  to view the statistics for that session, or press  to view statistics for a different session.

Viewing Statistics for a Session

Statistics can be viewed for a particular session:

Count	Number of records in the session
Average	Average weigh recorded in this session <i>Note: Records with no weighs are ignored in the average.</i>
Total	Total of all weighs recorded in the session.
Min	Minimum of all weighs recorded in the session.
Max	Maximum of all weighs recorded in the session.
Low Count	Count of animals in low range (only if Drafting is enabled)
Medium Count	Count of animals in Medium range (only if Drafting is enabled)
High Count	Count of animals in High range (only if Drafting is enabled)

Note: Draft statistics can only be viewed for the current file.

To view statistics for the current session:

1. Press  to display **Statistics**.
2. Press 
3. Press  to scroll through the list of statistics.



To view statistics for another session:

1. Press  to display **Statistics**.
2. Press .
3. Press  repeatedly until **Other Sessions** is displayed.
4. Press .

A session date is displayed.

5. Press  to view the statistics for that session, or press  to view statistics for a different session.

Deleting Data

To delete the last record in the session:

1. Press .
2. Press  to display **Clear Last Record**.
3. Press .

To delete the oldest session on the indicator:

1. Press .
2. Press  ,  to display **Sessions**.
3. Press .
4. Press  ,  to display **Clear Oldest Session**.
5. Press .

Note: ID information remains in the indicator.



To delete all the sessions on the indicator:

1. Press 
2. Press  ,  to display **Sessions**.
3. Press 
4. Press  repeatedly until **Clear All Sessions** is displayed.
5. Press 

Note: ID information remains in the indicator.

To delete all information on the indicator:

1. Press 
2. Press  ,  to display **Sessions**.
3. Press 
4. Press  repeatedly until **Clear All Sessions & VID-EID Links** is displayed.
5. Press 

Note: All data, including ID information is deleted.



Setups

The indicator can be customised to suit the weighing application or environmental conditions. The settings are accessed through the Setups menu.

Drafting

Drafting allows you to sort animals into two or three groups according to their weights. During weighing, the indicator displays the weight range the animal belongs in : <LOW>, <MEDIUM>, <HIGH>.

There are two draft limit settings: a low limit and a high limit. The draft limits are the 'splitting points' for the groups.

For two-way drafting, enter a weight for one of the draft limits (leaving the other set to zero). For example, to draft animals below 75Kg into one pen and heavier animals into another, set the low limit to 75Kg and set the high limit to 0Kg.

For three-way drafting, enter a weight for both the low limit and high limit. For example to draft animals into three pens 0 - 50Kg, 50 – 100Kg & 100Kg +, set the low limit to 50Kg and the high limit to 100Kg.

To enable drafting:

1. Press 
2. Press  repeatedly to display **Setups**.
3. Press  to display **Draft**.
4. Press 
5. Press  to enable drafting.

To enter a range for the low and high limits:

1. Press 
2. Press  repeatedly to display **Setups**.
3. Press  to display **Draft**.



4. Press 
5. Press  to display **Low Limit**.
6. Type a value for the low limit range using the alpha numeric keypad.
7. Press 
8. Press  to display **High Limit**.
9. Type a value for the high limit range using the alpha numeric keypad.
10. Press 

Backlight

The backlight is set to Off by default, however you can set it to Low or High to suit poor lighting conditions. Use of the backlight will affect battery consumption – the run time will double if the backlight is set to Low instead of High.

To modify the backlight setting:

1. Press 
2. Press  repeatedly to display **Setups**.
3. Press 
4. Press  repeatedly to display **Backlight**.
5. Press  once to change the Backlight to Low or twice for High.

Resolution

You can select from 0.1Kg, 0.25Kg, 0.5Kg, 1Kg, 2Kg or 5Kg weighing resolutions. By setting the resolution to 1Kg the indicator will weigh to the nearest kilogram and arrive at a weight more quickly. If you are weighing light loads, for example small animals, you may require more accurate measurements. By setting the resolution to 0.1Kg the indicator will weigh to the nearest tenth of a kilogram, although it may take longer for the scale to stabilise.

Note: The Resolution can only be set if a load cell / bar is connected. The resolution options depend on the type of load cell / bar being used.



To set the minimum weighing resolution:

1. Press 
2. Press  repeat to display **Setups**.
3. Press 
4. Press  repeatedly to display **Resolutions**.
5. Press  repeatedly to cycle through the resolution options.

Auto Zero

By default the scale automatically zeroes when a load is removed from the weigh cage or when the indicator first powers up.

Auto Zero should be on when used with the 3661G lamb weigher.

If for any reason you want to disable Auto Zero – consult the Tru-Test manual or go to www.Tru-test.com.

Damp System

Damping is the length of time it takes in order for the indicator to settle on a weight. The damping system will depend on what you are weighing (sheep, produce, feed etc.).

Superdamp III Cattle	Ideal weighing system for weighing cattle
Superdamp III Sheep	Ideal weighing system for weighing sheep
Fixed weighing time	You can specify the weighing time
Averaging	The average weight for a specific number of seconds is continually displayed. Used for non-moving weights such as produce and feed. You can specify the weighing time.

To modify the damp system setting and set the weigh time:

1. Press 
2. Press  repeatedly to display **Setups**.



3. Press  repeatedly to display **Damp System**.
4. Press  repeatedly to cycle through the damp system setting.
5. Press  repeatedly to display **Weigh Time**.
6. Press  repeatedly as required to modify the weighing time.
7. Press  repeatedly as required to modify the weighing time.

Note: The Weigh Time option is only available if Fixed Weighing Time or Averaging has been selected as the Damp System setting.

Specifications

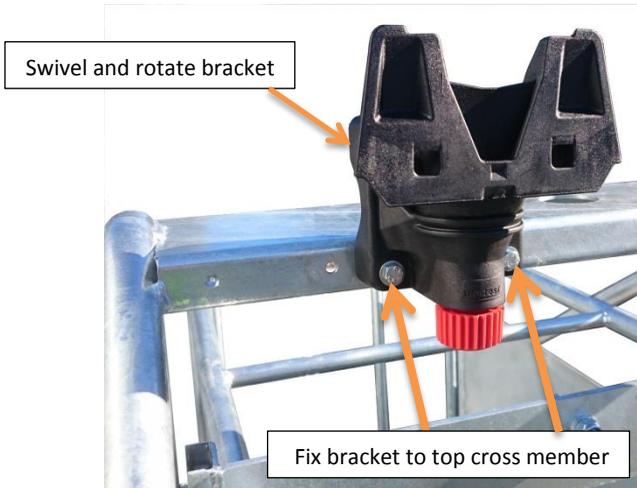
Total Capacity	2000Kg
Resolution	Set to 0.5Kg (fine mode 0.1Kg) or 1Lb (fine mode 0.2Lb)
Accuracy	+ / - 1% or 2 resolutions (whichever is greater)
Power Supply	5V DC (power adapter)
Operating Temperature	-10°C to +40°C (+14°F to 104°F)
Storage Temperature	-20°C to +35°C (-4°F to +95°F)
Internal Battery Life	Up to 20 hours
Environmental	IP67 (Immersion in up to 1m (3') of water)



Quick Start Guide: ID5000 & XR5000

Before you start:

- The included swivel and rotate bracket will need to be mounted onto the side of the top cross member using the provided fixings and holes. The bracket can be attached at either side, depending on operator preference.



- Some of the information and features noted in the following pages may be applicable to the XR5000 model only.
- You will need to install the Tru-test Data Link software on your PC which has been supplied with the indicator on a USB flash drive. It is also available from the Tru-test web site. www.Tru-test.com.
- Remove the dust cap on the load cell connector and connect to either one of the two load cell sockets on the indicator.
- If required, connect the indicator to the mains power using the power / communication cable and the power adapter.

Tip: connect the dust caps together to keep out dirt and moisture. Dust caps should remain in place at all times when the indicator is not in use.



Connections and Charging

Note: before using the indicator, ensure that the internal battery is fully charged.

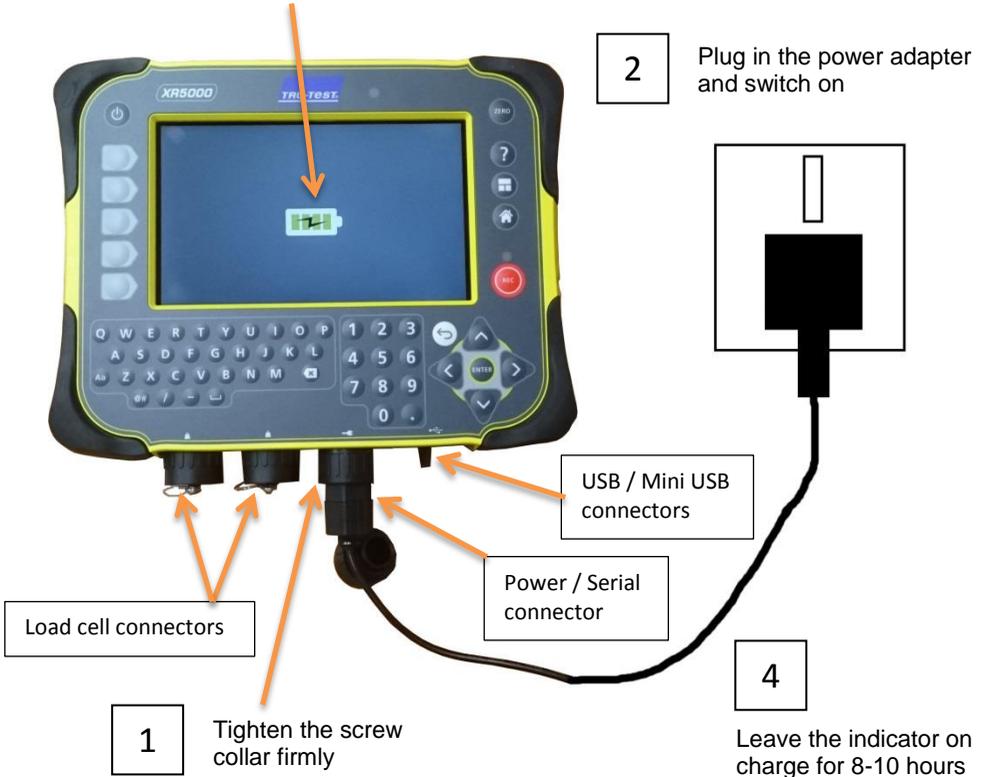
3

When the ID5000 / XR5000 is plugged into the mains supply, the battery Indicator scrolls, indicating that The battery is charging.

Note: When the indicator is unplugged from the power supply, the battery indicator displays the battery charge level.

2

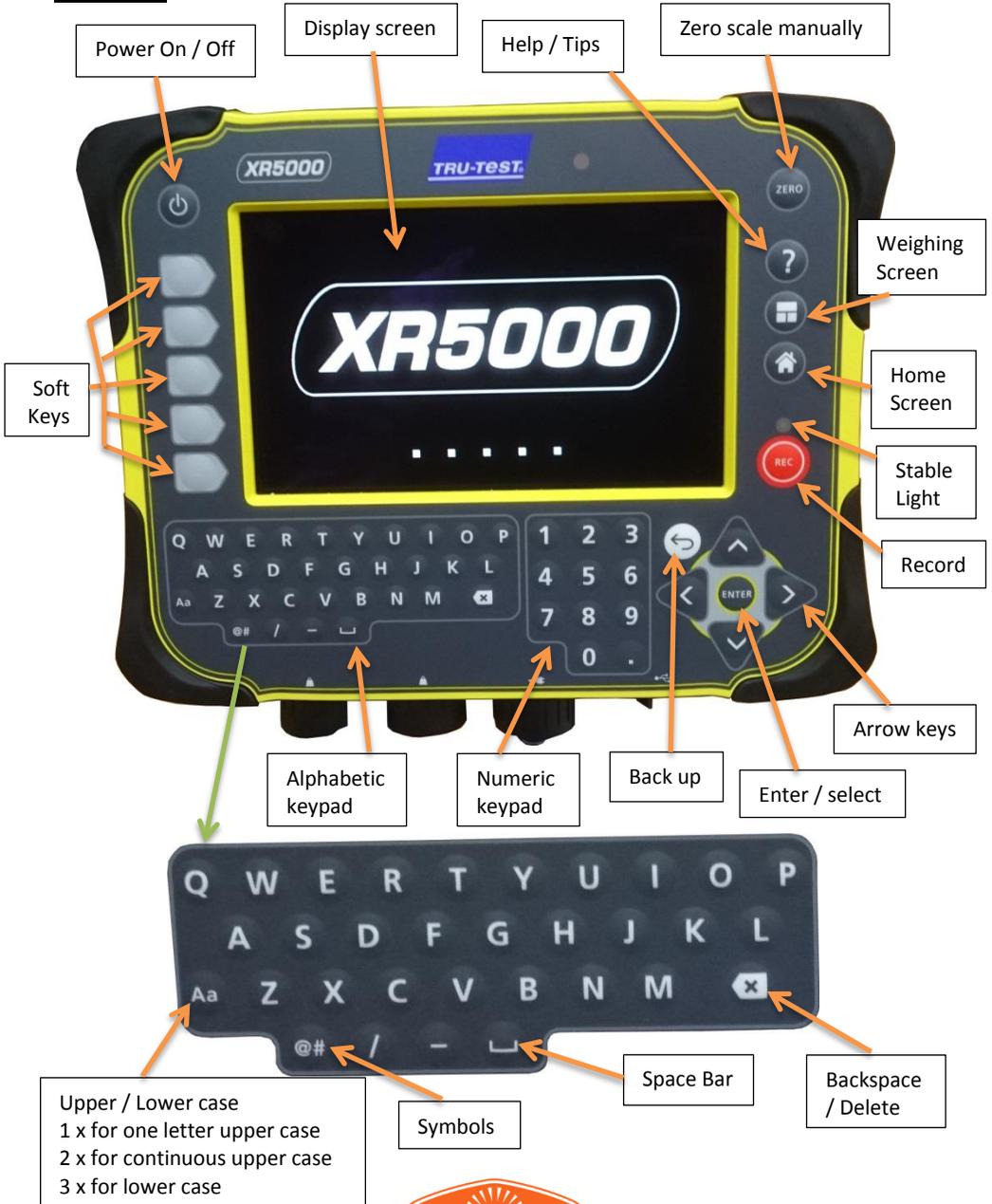
Plug in the power adapter and switch on



Note: The battery indicator may not be entirely accurate when used in very cold conditions (below 5°C / 40°F).



Overview



Using the Indicator Interface

From the home screen you can select the top level of menus (below table), Weighing Screen and the Help screen.

New Session	Creates a new session. Allows you to name the session, add notes, cancel and return, use favourite setup and start session
View Animals	Allows you to look up an animal/s and view Summary, History and Lifetime
View Sessions	Allows you to look up a session/s and view Summary, Statistics, Session Animals and All Sessions
Settings	Brings up pages of options that can be setup and altered to suit operator preferences
Wi-Fi Data Link	Allows you to upload sessions and information to MiHub or a smartphone via the data link app

Press  to go deeper into a sub-menu or to select an option.

Press  or  to scroll through a list of options.

Press  to escape out of a sub-menu back to the next tier up.

Use the alphabetic and numeric keypads to enter information.



Getting Started

To start a new weighing session:

1. Press soft key  **New Session**
Set up a new session
2. Enter the name of session. Press  to add a note if required.
Or press the soft key to **Cancel** and return to the previous session.
Or press the soft key to **Use favourite setup**.
3. Press the soft key to **Start Session**.
4. **New Session Started** will be displayed for a few seconds, and you will be transferred to the weighing screen.

To record an animal ID and weight:

1. Press  to zero scales, if required.
2. Move the animal into the cage.
3. Using a scanner or the alphabetic and numeric key pads, enter the VID / EID, then press . Use the  and  to go between them. If the animal has not been weighed before, a dialogue box appears. If no other data is required then continue to weigh the animal and press  when the stable light appears.
4. Press the soft key **Animal** and enter data required using the keypads, soft keys and arrow keys on the pages that follow.
5. Press  to return the weighing screen to continue weighing.

Tip: If you set the **Weight Recording** to **Auto**, you won't need to press  for each animal.



To view all recorded data from the weighing session:

1. Press the soft key  **View Sessions**
View session information
2. press  to open all the sessions.
3. Use the  and  to select the session you want.
4. press  to confirm.
5. Use the soft keys to select **Summary, Statistic, Session Animals & All Sessions**. Use the keypads, soft keys and arrow keys to look and edit as required.

To enable an option on the weighing screen:

1. Press the soft key **Options**.
2. Press the  repeatedly until **Information to display...** is highlighted.
3. Press .
4. Use the ,  and  to select and de-select the options.
5. The soft keys can also be used to **Hide** or **Show**, as well as **Modify** existing options. There is also a soft key to create **New** options.



Deleting data

To delete the last record in the session:

1. Press the soft key  **View Sessions**
View session information
2. Press the soft key **Session Animals**.
3. Press  or 
4. Press  to highlight **Delete record**.
5. Press  to delete the record.

To delete the oldest session on the indicator:

1. Press the soft key  **View Sessions**
View session information
2. Press the soft key **All Session**.
3. Arrow  and  to select **Start date** and press 
4. Select **Sort by "Start date" (ascending)** and press 
5. The oldest session will now be the first one on the list.
6. Arrow  to it and press  or  on the alphabetic keypad.
7. Use the  to select either **Delete "session name"** or **Delete "session name" and animals**.



8. Press  to delete the record.
9. A warning page will appear asking are you sure you want to delete the session and animals. Press the appropriate soft key.

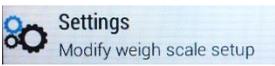
To delete all sessions on the indicator:

1. Press the soft key  **View Sessions**
View session information
2. Press the soft key **All Session**.
3. Press the soft key **Options**.
4. Press  to **Delete all sessions**.
5. A warning page will appear asking are you sure you want to delete the session and animals. Press the appropriate soft key.

Drafting

Drafting allows you to sort animals into groups of between 2 and 10, according to their weights. During weighing the indicator displays the weight range the animal belongs in

To enable drafting:

1. Press the soft key  **Settings**
Modify weigh scale setup
2. Press the soft key **Drafting**.
3. Press the soft key **Turn drafting ON and set drafting configuration**.
4. Press the soft Key **Next>**.
5. Select the properties you want, in this case **Weight**, press the soft key **Next>**



6. Press  and arrow  and  to select how way ways to split the animals. Press  to confirm and then press the soft key **Next>**.

7. Use  and  to select **Pens** or **Arrows**. Press  to confirm and then press the soft key **Next>**.

8. Use  and  to select **Rec key** or **Automatic**. Press  to confirm and then press the soft key **Next>**.

9. A display box appears telling you the options you have selected. Press the soft key **Finish**.

10. In the **Change drafting rules:** box.

- For 2 way drafting press  then  to delete the existing value.

Use the numeric key pad to enter the required value and press . The value below will also change. You may then want to change the direction and the name of the pen. Use the arrow keys, Enter button and Delete key to do this.

- For 3 way drafting press  then  to delete the existing value.

Use the numeric key pad to enter the required value and press .

Arrow  and press  then  to delete that value. Use the

numeric key pad to enter the required value and press . The values on the left will change automatically with the corresponding weights diagonally up and right from them. You may then want to change the direction and the name of the pen. Use the arrow keys, Enter button and Delete key to do this.



- 11 Once all values are complete, press the  button to **Recalculate draft**>. This will take you to a **View Session > Statistics** screen.

- 12 Press the  button to go to the weighing screen.

Damp System

Damping is the length of time it takes in order for the indicator to settle on a weight. The damping system will depend on what you are weighing (sheep, produce, feed etc.).

Superdamp III Cattle	Standard Ideal weighing system for weighing cattle
Superdamp III Sheep	Ideal weighing system for weighing sheep
Superdamp 4 Cattle	Faster locking on even with the liveliest animals
Superdamp 4 Sheep	Faster locking on even with the liveliest animals
Fixed weighing time	You can specify the weighing time
Averaging	The average weight for a specific number of seconds is continually displayed. Used for non-moving weights such as produce and feed. You can specify the weighing time.

To modify the damp system setting and set the weigh time:

1. Press the soft key  **Settings**
Modify weigh scale setup
2. Press the soft key **Next page**.
3. Press the soft key **Weighing Settings**.

4. Press  and then  and  to select the **Damp System** required. Press  to confirm.

Note: The Weigh Time option is only available if Fixed Weighing Time or Averaging has been selected as the Damp System setting.



Backlight

The backlight can be set to Auto, On or Off to suit the working conditions. Use of the backlight will affect battery consumption, the run time will be less when the backlight is on.

1. Press the soft key  **Settings**
Modify weigh scale setup
2. Press the soft key **Next page**.
3. Press the soft key **General Setup**.

4. Arrow  to display **Display Backlight:**

5. Press  and arrow  and  to select **On, Off, or Auto**.

6. Press  to confirm.

Resolution

You can select from 0.1Kg, 0.2Kg, 0.5Kg or 1Kg weighing resolutions. By setting the resolution to 1Kg the indicator will weigh to the nearest kilogram and arrive at a weight more quickly. If you are weighing light loads, for example small animals, you may require more accurate measurements. By setting the resolution to 0.1Kg the indicator will weigh to the nearest tenth of a kilogram, although it may take longer for the scale to stabilise.

1. Press the soft key  **Settings**
Modify weigh scale setup
2. Press the soft key **Next page**.
3. Press the soft key **Weighing Settings**.

4. Arrow  to select **Resolution**, and press .

5. Use  and  to select required resolution and press .



Auto Zero

By default the scale automatically zeroes when a load is removed from the weigh cage or when the indicator first powers up.

Auto Zero should be on when used with the 3661G lamb weigher.

If for any reason you want to disable Auto Zero – consult the Tru-Test manual or go to www.Tru-test.com.

To view on screen help

1. Navigate to the field you want to find information about.

2. Press  and a help box is displayed about the field you're on.

3. If you press  again, this brings up a **Help** menu. With a list of options to choose.

4. Use the  and  to select an area of interest and press 

5. Use the ,  and  to continue to work your way through the options until you get to the description / help field you are requiring information about.



Maintenance and Storage

- Make sure the underside of the cage is free from dung, stones and dirt.
- Store the indicator in a clean, dry place out of direct sunlight and cover the load cell when not in use.
- Charge the indicator overnight before and after long term storage, and every 3 months during storage.
- For up to date information about Tru-test products and downloads of latest software versions for you indicator, visit the Tru-test website at www.tru-test.com.
- For repair and service information, contact David Ritchie (Implements) Ltd at the address on the back cover of this manual.

Specifications

Dimensions	260mm x 225mm x 65mm
Weight	1.75Kg (3.85Lb)
Accuracy	+ / - 1% or 2 resolutions (whichever is greater)
Resolution	Set to 0.5Kg (fine mode 0.1Kg) or 1Lb (fine mode 0.2Lb)
Battery	Up to 13 hours, 10 hours with backlight
Power Supply	5V DC (power adapter)
Display	7" high brightness display automatically switches between outdoor and indoor mode making it viewable even in the harshest light conditions
Operating Temperature	-10°C to +40°C (+14°F to 104°F)
Storage Temperature	-20°C to +35°C (-4°F to +95°F)
Environmental	IP67 (Immersion in up to 1m (3') of water)
Communication	1 x serial connection 1 x USB connection 1 x Mini USB connection Bluetooth Wi-Fi



Warnings



Safe installation – Safety

For your protection all mains (110V or 230V) equipment used out of doors or in wet or damp conditions should be supplied from a correctly fused source and protected by an approved RCD to BS7071 or BS7288 or IEC1008-2-2 BS EN 61008: 1995.

The mains lead must be connected to a supply outlet with a **protective earth contact**. The electrical supply at the socket outlet must provide over current protection of an appropriate rating.

If in doubt seek the advice of a qualified electrician.

Pluggable equipment must be installed near and easily accessible socket outlet. Permanently connected equipment must have a readily accessible disconnect device incorporated in the fixed wiring.



To avoid the possibility of electric shock or damage to the equipment, always switch off and isolate from the power supply before carrying out any routine maintenance.

Note: The instructions given in this manual are intended to allow the operator to install and start using the indicator. More detailed instructions are available in the included instruction manual or online at WWW.Tru-test.com.

Cleaning the Indicator



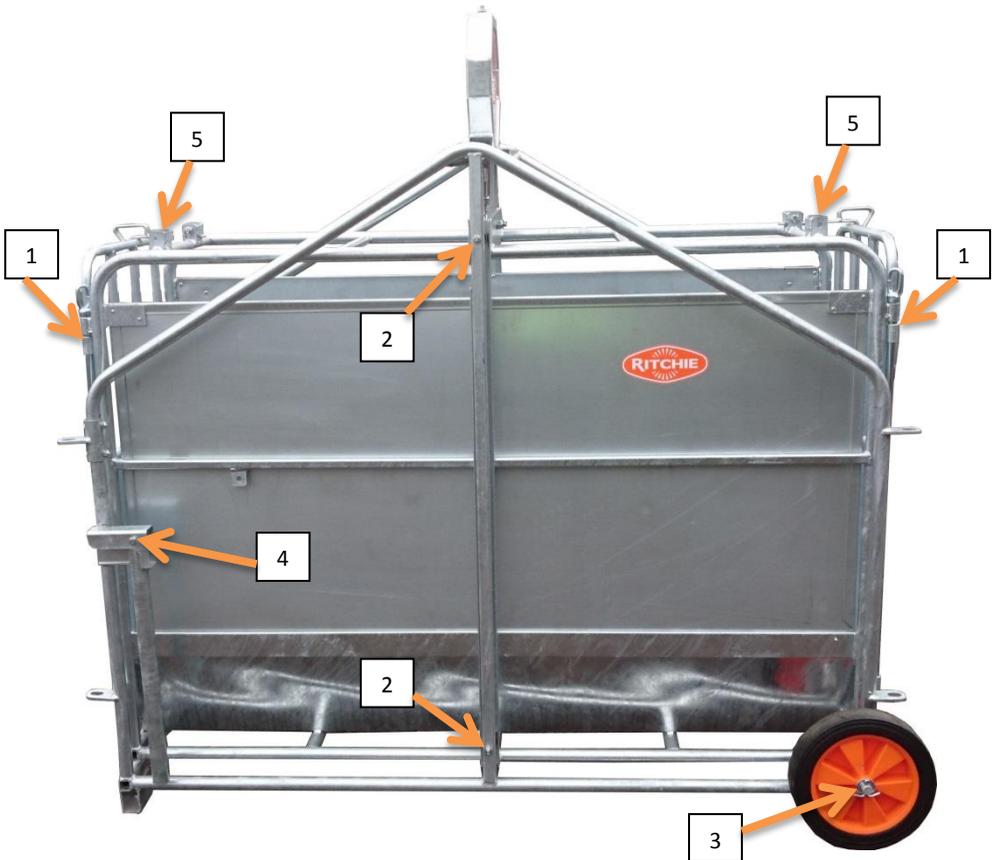
Cleaning the Indicator

Harsh abrasives, solvents, scouring cleaners and alkaline cleaning solutions such as washing soda, should not be used especially on the display window. Under no circumstances should you attempt to wipe the inside of the weigh head.

The outside of the product is waterproofed to IP67 and should be wiped down with a clean cloth, moistened with water containing a small amount of washing up liquid or proprietary detergent.



Maintenance and Lubrication



The weigher should be wiped down with a clean cloth, moistened with water containing a small amount of washing up liquid or proprietary detergent.

Oil and / or Grease regularly during operation

- 1 - Entry / exit gate pivot points
- 2 - Inner cage guides and bearings
- 3 - Wheel spindles
- 4 - Transport handles pivot points
- 5 - Gate catch hinge



Spare Parts / Optional extra equipment

<u>Part</u>	<u>Ritchie Part No.</u>
Wheel	WHPL275
Bearing & Bearing Spindle	BEAR162012RS & DSPIN663/38
Digital Scales	LOADCELL-OCS-03-L
Dehorning Yoke Gate	345G-100

If any other parts are required please contact your local David Ritchie supplier or David Ritchie Implements directly.





the perfect partner

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