# TE PARI

# Racewell DR3 Auto Drafter

**Installation and Operation Manual**

**Scale indicator quick setup guides**

**Racewell DR3 Troubleshooter**

# Racewell DR3

AUTO DRAFTER

## Contents

## Standard features

The entry gates are controlled by an electrical reed switch which will detect if a sheep is caught in the entry gate and automatically open to release the partially caught sheep.

The end of the weigh cycle is controlled by a weight gone signal which lets the exit gate close and the entry gate open to start the next weigh cycle, this minimises double ups.

- Twin ajustable magic eyes for optimum speed and flow

- Self contained frame for easy positioning on uneven ground

- Auto weigh capable of approx. 600+ sheep per hour

- Manual drafting by sight with remote control

- Remote override of indicators draft range

- 3 way manual or auto drafting

- Ultra quiet pneumatic operation

- Integrated Loadcells

- Hot dipped galvanised steel construction

- Low entry height rubber lined floor

## Options

- Integrated ePanel EID system

- Trailer system pictured here

- Reducer panel for small lambs

# Racewell DR3  AUTO DRAFTER

## DR3 auto drafter - Front view



Draft Gates
Left in front with right gate behind

Lid

Serial number

Indicator on Dock

Control Dashboard - See page 10

Rings for lifting or tie down

Magic Eyes on Eye Rail

Weigh Crate

Exit Leg

Centre Leg

Entry Leg
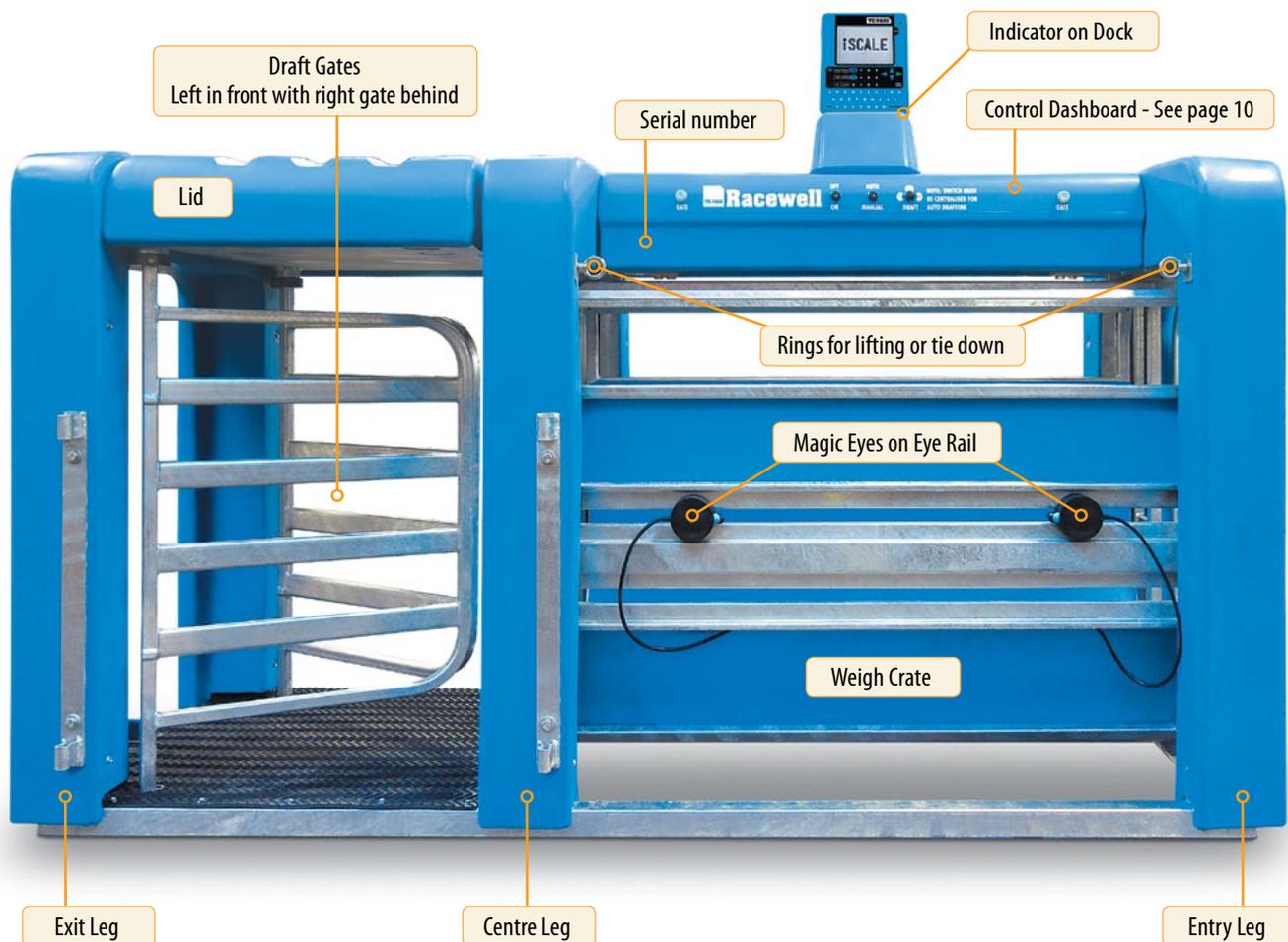
## Notes

# DR3 auto drafter - Back view

Indicator on Dock

Draft Gates
Right in front with left gate behind

Lid

Rings for lifting or tie down

Air supply inlet

Air filter section

AC Power supply

Entry Leg

Centre Leg

Exit Leg
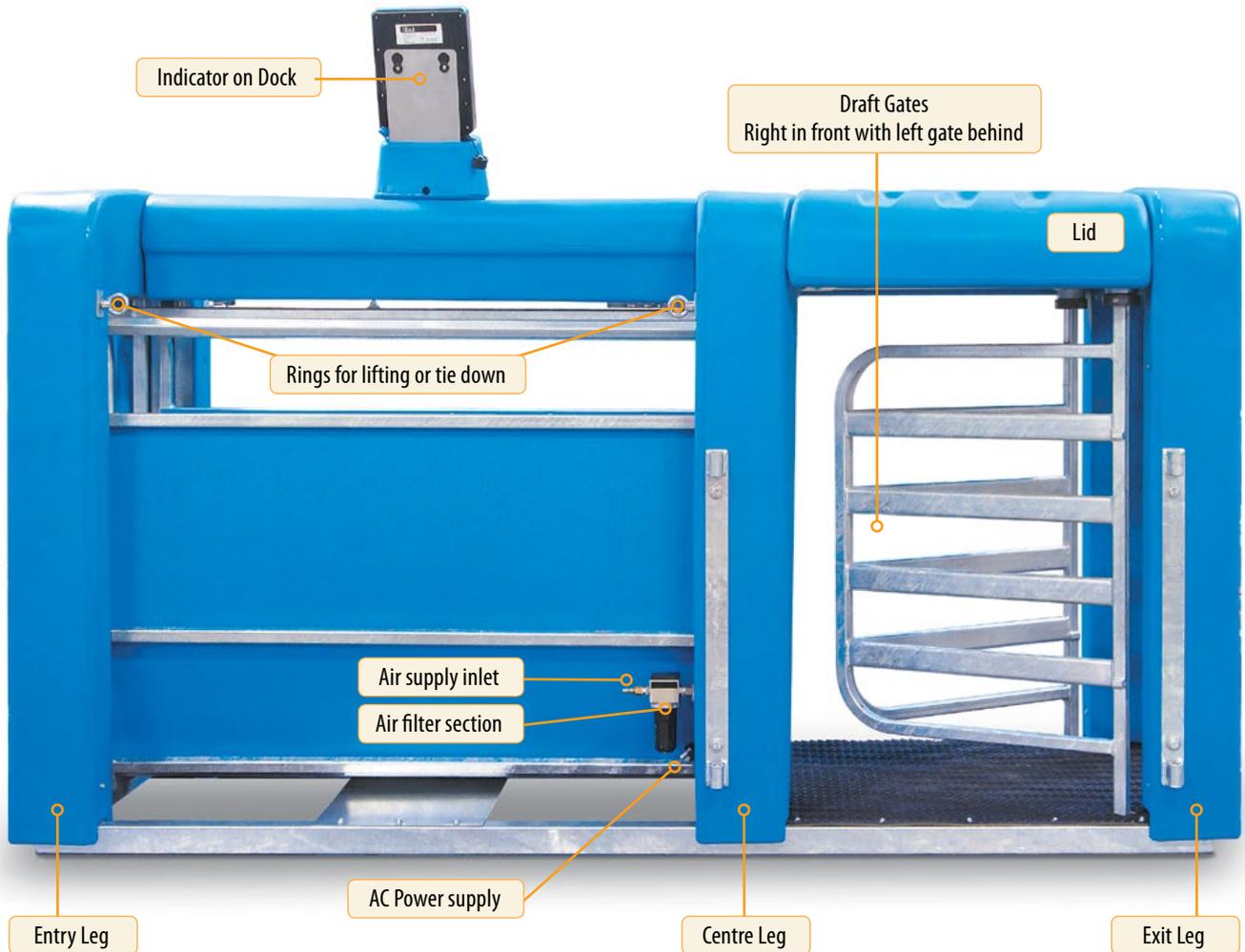
## Notes

## Setting up the DR3 auto drafter

Your auto drafter requires a 240v power supply and compressed air supply.

Please read and understand the instructions before operating your auto drafter.

Your auto drafter arrives completely assembled.  Simply set it up on a flat area in your yards and connect your indicator onto the bracket on the indicator dock. Connect the load bar plugs and Comms cable to your indicator and plug in your scale charger.

## Important - please read

- Your Racewell Sheep Handler is designed to make handling sheep easier.
  If you require any assistance with the assembly of your Sheep Handler,
  please ask us, we are here to help.

  Freephone 0800 837 274

- If you encounter problems during operation please check through the
  Te Pari Racewell Trouble Shooting Guide on pages 18-21 of this manual before
  calling for service.

## The compressor

We recommend a 12cfm belt driven compressor, if the compressor is too small the Racewell will run slowly and may not operate properly.

The compressor does not need to be close to the Racewell in fact having it at some distance reduces noise levels in the working area. It is important to run compressors in a well ventilated area as close as possible to a main supply near a switchboard - this avoids the use of leads which can affect the power input. From time to time the oil level on the dipstick should be checked and the water drained from the air reservoir.

*Please Note: When turning the compressor on or off use the switch on the compressor.*
*Do not turn on or off at the power source switch.*

This applies to all compressors, because air is not discharged, the compressor is being asked to start under load and this can burn out its capacitor.

## Attaching the air fittings and compressor hook up



From your Compressor

1 metre (approx)

To your Racewell

Ball or tap valve
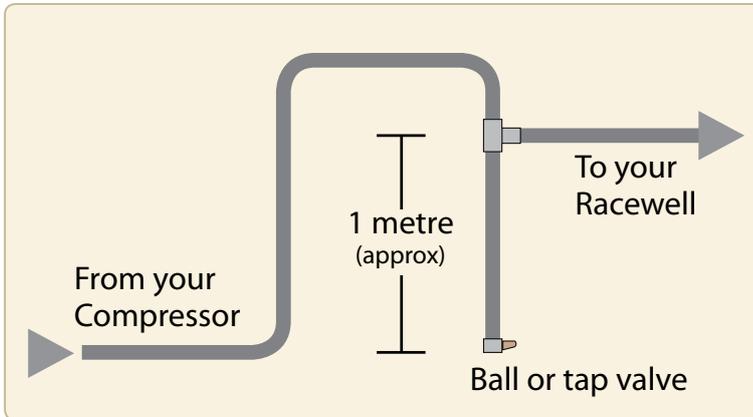
Pipe the air to the compressor to the unit via standard 15mm (1/2 inch) alkathene water line.
We have some units working with the compressor up to 2kms from the work site.

If your compressor is situated some distance from your Racewell we recommend the airline configuration shown here.

This provides a purge tap or ball valve so that condensation can be periodically removed from the air system. Assemble the airline and connect to the compressor. Plug the compressor into a power source and turn the power source on, then using the switch on the compressor turn the compressor on. Always turn the compressor on or off at the compressor, not the wall.

## 4 function remote control

**Button 1**
- Alternates the **entry** gate between open and closed

**Button 2**
- Alternates the **exit** gate between open and closed

**Button 3**
- Alternates the **left hand draft gate** between open and closed

**Button 4**
- Alternates the **right hand draft gate** between open and closed



REMOTE CONTROL

## Dashboard controls and their use

There are several operating options on this unit. Starting from the right on the dash.

## Right hand button - Entry gate button

Push this button to open the entry gate, push it again to close entry gate and so on alternating between open and closed. The gate button works this way when in either manual or automatic operation. The sensor eye will also trigger the gate to close when in auto mode.

## Draft switch

This switch manually opens and closes either the left hand or right hand draft gates.
Note: In auto draft mode this switch must be in the centre position.

## Auto manual switch

This switch selects either manual or auto operation

## On Off switch

This is the master power switch that turns the machine on or off.
We recommend turning this switch off when the unit is not in use

## Left hand button - Exit gate button

The left hand exit gate button operates the exit gate.
It works in the same fashion as the entry gate
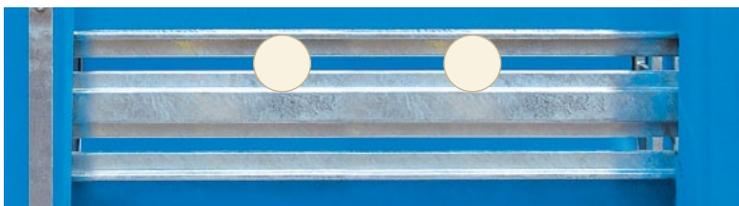
## Positioning the sensor eyes - guidelines

This is a general guide because the difference between mature and young animals is great. You will soon get used to way the eyes operate and learn the best positions for them that suits the varying sizes of animals in your operation.
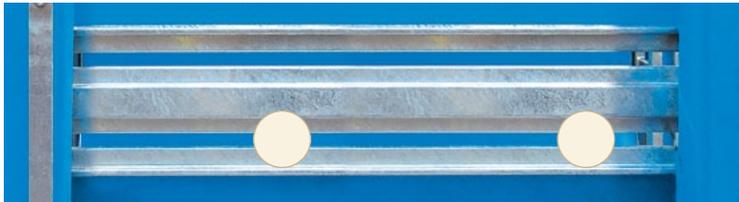


Smaller animals

- Use the lower Rail
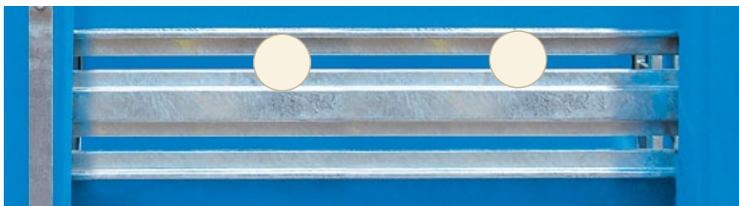


Medium animals

- Use the upper rail



Larger animals

- Use the upper rail

*Please Note:*
*The speed of the animals entering the DR3 will also affect the required eye position.*
*Wool, dust and the like covering any of the eyes can affect their operation.*
*Make sure that the lenses of the eyes are clear at all times.*

Eye position notes

# TE PARI Racewell DR3 — AUTO DRAFTER

## Setting up a Te Pari iS-5 or iS-7 for the DR3

### General notes on navigation.

The up and down arrows scroll up or down through a page's items, pressing and holding the up or down arrow jumps up or down through the setup pages.

CURRENT FAVORITE: and NAME/SAVE FAVORITE:. **Once you have completed the set up,** select the SAVE/NAME FAVORITE: item and save the settings with a name of your choosing. In future you can load that item from CURRENT FAVORITE: and the settings will be restored.

You can also make changes to weight ranges etc. from a loaded favourite item and save this revised set up as a new favourite item for recall later.

Prompts for required actions and options are provided at the bottom of every screen.

Some settings may already be set correctly, there is no need to change them.

### Setup procedure

Press the power button. Then press the [SETUP WEIGH] button to enter setup.

Arrow down, to highlight and set the following settings, by either pressing [RECORD/SELECT] to select from available options or keying it in using the keypad.

```
SETUP PAGE  1  OF  4
CURRENT FAVORITE:      SHEEP
SAVE/NAME FAVORITE:    SHEEP
BACKLIGHT MODE:        AUTO
SET DRAFT TYPE:        WEIGHT
  DRAFTING SETUP:      PRESS SELECT
HEALTH MODE:           OFF
SET HEALTH 1 TYPE:
  CALCULATED DOSE:
SET HEALTH 2 TYPE:
  CALCULATED DOSE:
WEIGHT RECORD:         AUTO FAST
AUTO ZERO:             ON
WEIGHT GAIN:           GAIN/DAY
TARE WEIGHT:           0000.0KG

Press Select to set Favorite Setup
```

Press [RECORD/SELECT] to enter SETUP DRAFT ZONES and set the following. (Ensure the draft type is set to WEIGHT first)

When done press [SETUP WEIGH] to accept the settings and return to SETUP PAGE 1

```
SETUP DRAFT ZONES
GATE   FROM           TO          HOLD
 1     0000.0 KG      0050 KG     OFF
 2     0050.1 KG      0100 KG     OFF
 3     0100.1 KG      0200 KG     OFF
 4     0200.1 KG      0300 KG     OFF
 5     0300.1 KG      0500 KG     OFF
 6     0500.1 KG      1000 KG     OFF
 7     1000.1 KG      2000 KG     OFF
 8     2000.1 KG      2500 KG     OFF
 9     2500.1 KG      3000 KG     OFF
 0        NO  EID                 OFF
ENABLE  AUTO  EID  IN  DRAFTING   10s
ALLOW  DUPLICATE  EIDS:           YES
PRESS  SETUP  TO  ACCEPT  SETTINGS
```

Note: Check the NO EID gate is set to 0

## SETUP PAGE 2 OF 4

| | |
|---|---|
| WIFI/COM 1 MODE: | AUTO DRAFTING |
| WIFI/C1 BAUDRATE: | 9600 |
| COM 1 POWER: | OFF |
| COM PORT 2 MODE: | EID READ/PC CONNECT |
| COM 2 BAUDRATE: | 9600 |
| WIFI/C2 POWER: | ON |
| SYSTEM SETUP: | PRESS SELECT |

FLASH MEMORY: 4M OK
VER G FLASH
FIRMWARE VERSION: B2.13.59 MAY 14 2013

Press Select to setup System Settings

Press **RECORD/SELECT** to enter
SYSTEM SETUP and set the following.

When done press **SETUP WEIGH** to accept
the settings and return to SETUP PAGE 2

## SYSTEM SETUP

| | |
|---|---|
| WEIGHING MODE: | LOCK-ON 1S |
| ALGORITHM MODE: | START 10LB |
| LOADBAR MODEL: | IS1000 |
| mV/V SETTING: | 1.325 |
| LOADBAR FULLSCALE: | 1000 KG |
| LOADBAR m/V | - - - - |
| AUTO CALIBRATION: | 0200.0 KG |
| REWEIGH THRESHOLD | 10% |
| LANGUAGE: | ENGLISH |
| WEIGHING UNITS: | KG |
| SET DATE FORMAT: | DD/MM/YY |
| SET DATE TIME: | 19/04/12    11: 00: 11 |

PRESS WEIGH OR STATS TO ACCEPT SETTINGS

Select Lock-On, Fast Lock-On or Static

## SETUP PAGE 3 OF 4

| | |
|---|---|
| ID MODE: | NO ID QUICK WEIGH |
| ENABLE AUTO VID: | OFF |
| AUTO VID START: | VID001 |
| ENABLE PID: | NO |
| PID DEFAULT: | |
| ENABLE CODE 1: | NO |
| CODE 1 TITLE: | CODE1 |
| CODE 1 DEFAULT: | |
| ENABLE CODE 2: | NO |
| CODE 2 TITLE: | CODE2 |
| CODE 2 DEFAULT: | |
| ENABLE CODE 3: | NO |
| CODE 3 TITLE: | CODE3 |
| CODE 3 DEFAULT: | |
| LOAD CODES WITH PREV WEIGHT: | NO |

Select what ID modes are enabled

Note: Loadbar settings auto-populate once you have set the correct model.

**!** Done. Remember to return to favourites on setup page 1 and save your settings for easy recall later.

## Setting up an Tru-Test ID or XR300 for the DR3

- The primary buttons used during setup



ARROW keys

ENTER key

The blue soft keys select the item shown above them on the lower screen

POWER key   ESCAPE key   SETUP key   BACK key
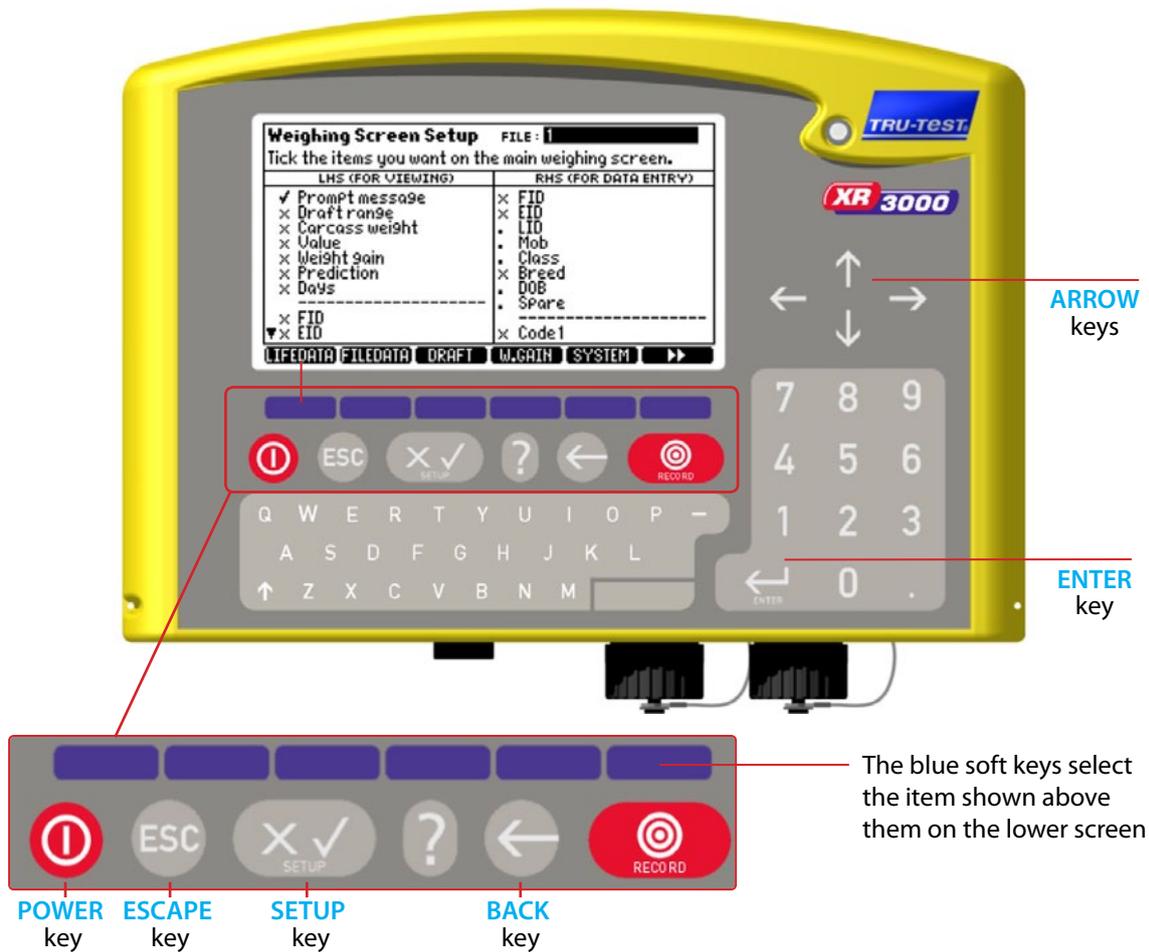
## Selecting and setting items - Read this first

To change an item you enter its screen by pressing the blue soft key below its title in the lower screen area
Changing an items setting is either a keyed in entry or a selection from a list.

### 1) Selecting and changing a setting from a list of options:

Use the Arrow keys to highlight the entry on screen
Press the ENTER key to display the list of available options for the entry
Arrow to highlight the required option
Press the ENTER key to select the option and close the list

### 2) Select and change the setting with keypad input:

You still arrow to the entry you wish to change but then you key in the data using the keypad
Once keyed in press the ENTER key to accept your entry and move on.

# Racewell DR3    AUTO DRAFTER

## Physical Connections

Before using your weigh scale please read the owner's manual and completely charge up your weigh scale system.
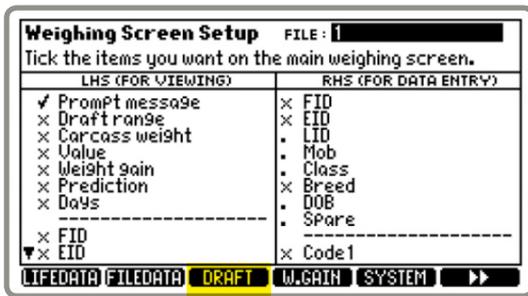
Connect the comms lead connection between your Tru-Test scale and the Racewell Super Drafter.

For further support contact your local Tru-test area representative,
visit the website at www.tru-test.com
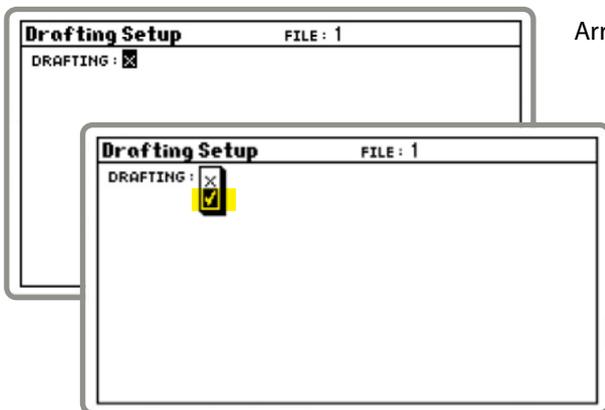or call technical assistance on 0800 2632 787

## Activate drafting and setting your drafting weight ranges

Press the **SETUP** key



Press the blue soft key below
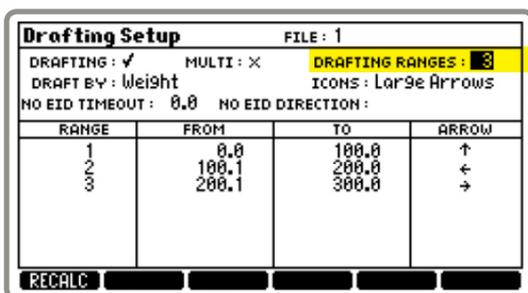**DRAFT** on the screen



Arrow down to **DRAFTING**

Press the **ENTER** key
and arrow to the tick

Press the **ENTER** key
to set it



Arrow to **DRAFTING RANGES**
and press **3** on the Keypad

Arrow to and enter the weight ranges for your 3 drafts in the **FROM** and **TO** columns

Also select the draft direction for each draft in the **ARROW** column.



The other entries should already contain the correct values, if not, Arrow to them and set them as follows:

**ICONS:** set to **Large Arrows**

**DRAFT BY:** set to **Weight**

**NO EID TIMEOUT:** set to **0.0**

**NO EID DIRECTION:** set to **0**

**Note - these values may differ depending on your current drafting preferences.**

When the entries are set, press the escape key to return to the main screen.



## System settings

  Press the **SETUP** key



Press the blue soft key below **SYSTEM** on the screen



Arrow to **DAMP SYSTEM:** and press the **ENTER** key

Arrow to the **Superdamp III (Sheep)** entry in the list

Press the **ENTER** key to select it



The other entries should already contain the correct values, if not, Arrow to them and set them as follows:

**WEIGHT RECORDING:** set to **Auto**

**RESOLUTION:** set to **.5**

**AUTO ZERO TRACK:** set to **On Net**

Press the back arrow to return to the **Weighing Screen Setup**

## Check the serial communication settings
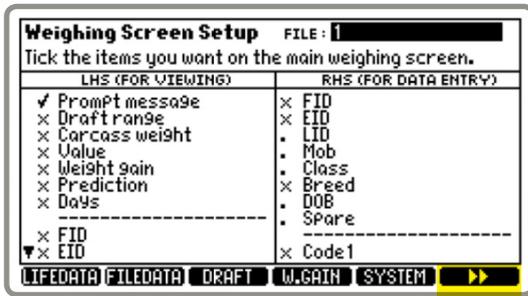


From the **Weighing Screen Setup**

Press the blue soft key below the page right arrows to scroll across



Press the blue soft key below **SERIAL** on the screen
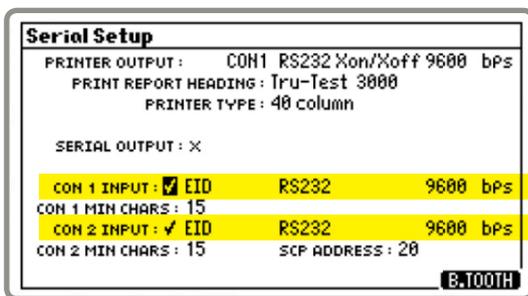


Check the values for the entries alongside **CON 1 INPUT:** and **CON 2 INPUT:**



If not set correctly select and change each of the entries as follows:

**CON 1 INPUT:** – ✓ – **EID** – **RS232** – **9600 bps**

**CON 2 INPUT:** – ✓ – **EID** – **RS232** – **9600 bps**

When the entries are set, press the escape key to return to the main screen.



## Specialised setup



Press the **SETUP** and the **ESCAPE** key together
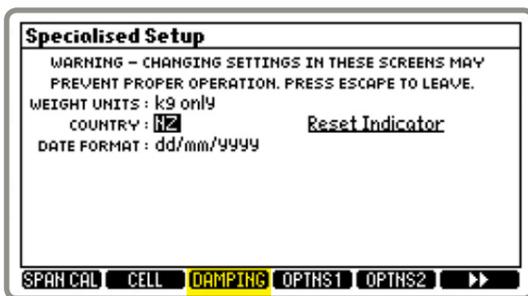


This displays the **Specialised Setup** screen

Press the blue soft key below **DAMPING** on the screen
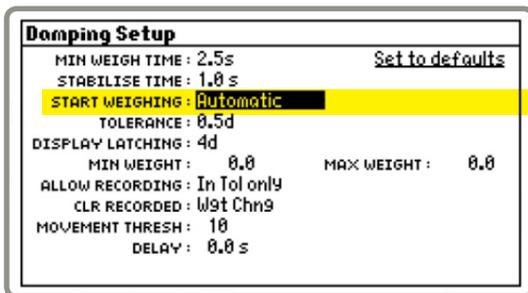


Arrow to **START WEIGHING:** and press the **ENTER** key
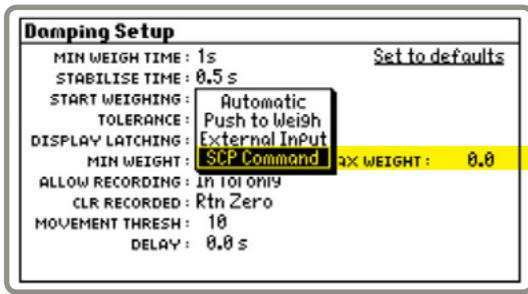
Arrow to the **SCP Command** entry in the list

Press the **ENTER** key to select it

If you wish to use your indicator in another situation without the Racewell, you need to set this back to **Automatic**.

Check and set the following options: **MIN WEIGH TIME:** is set to **1.5 s**. And the **DELAY:** is set to **0.0 s**.

The other entries should already contain the correct values.

When the entries are set, press the escape key to return to the main screen.

---

## Loadbar Settings

Your Racewell Super Drafter has the loadbars built in.

The following settings need to be applied to make them work correctly:

**CAPACITY:** set to **1000.0 kg**          **SENSITIVITY:** set to **3.0000** mV/V    to set these values:

Press the **SETUP** and the **ESCAPE** key together
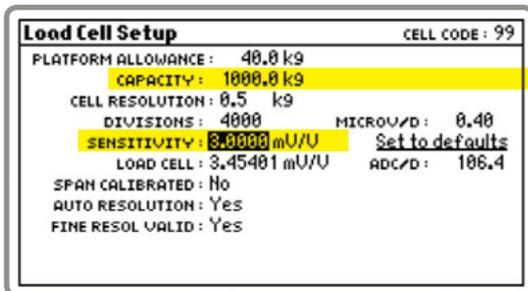


Press the blue soft key below **CELL** on the screen to enter the **Load Cell Setup** screen

Ensure the **CAPACITY:** and **SENSITIVITY:** entries have the correct values as shown above, and change as required.

When the entries are set, press the escape key to return to the main screen.

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## To start automatic drafting

Select auto on the Racewell Drafter to start operation.

## Scale setup notes

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**Warranty reply card**

**Te Pari Racewell DR3 Auto Drafter Sheep Handling System**

Please complete all details on the reverse and post to Te Pari Products office:

**Te Pari Products Ltd**
**New Zealand Head Office:**

PO Box 25, 67 Humber St
Oamaru, 9400
New Zealand.

## Te Pari Products Warranty

Subject to the Warranty Conditions below, this Te Pari Racewell DR3 Auto Drafter (hereinafter called 'the Product') to be free from defects in material or workmanship for a period of 24 months from the date of original purchase covering both parts and labour. Under the Terms of this Warranty, the repair or replacement of any part shall be the option of the Company. Should service become necessary during the Warranty period, the Owner should contact Te Pari Products and present the sales docket.

**Warranty Conditions**

This Warranty only applies provided that the Product has been used in accordance with the manufacturer's recommendations under normal use and reasonable care (in the opinion of the Company) and such Warranty does not cover damage, malfunction or failure resulting from the misuse, neglect, abuse or used for a purpose for which it was not designed or is not suited, and no repairs, alterations or modifications have been attempted. This guarantee will no longer apply if the machine is damaged by accident or if repairs arise from normal wear and tear.

The Company accepts no additional liability pursuant to this Warranty for the costs of travelling or transportation of the Product or parts to and from the service dealer or agent - which costs are not included in this Warranty.

Certain legislation, including the Trade Practices Act 1974 (as amended) and other laws give rights to the buyer and impose liability on the seller in certain circumstances. Nothing herein shall have the effect of excluding, restricting or modifying and Condition, Warranty, Right or Liability imposed, to the extent only that such exclusion, restriction or modification would render any term herein void.

## Warranty reply card

### Te Pari Racewell DR3 Auto Drafter Sheep Handling System

Model

Serial No | Purchase Date

Name

Farm or trading name

Address

Post code

Telephone | Fax

Email

## Service record

Model:

Serial number:                                Date manufactured:      /      /

| Date Serviced: | / / |
| Serviced By: | |
| Next Service Due: | / / |

| Date Serviced: | / / |
| Serviced By: | |
| Next Service Due: | / / |

| Date Serviced: | / / |
| Serviced By: | |
| Next Service Due: | / / |

| Date Serviced: | / / |
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| Date Serviced: | / / |
| Serviced By: | |
| Next Service Due: | / / |

| Date Serviced: | / / |
| Serviced By: | |
| Next Service Due: | / / |

## Service notes

## Racewell DR3 Sheep handler trouble shooting guide

▬ Please check this trouble shooting guide before ringing service, often something quite simple will be the problem. Service freephone 0800 837 274

▬ A service charge will be made for call outs if the fault is not covered by your warranty.

▬ For your safety, and that of others, never leave the unit operational when not attended.

| SYMPTOM No power at unit and it won't go | |
| --- | --- |
| **Possible causes** | **Possible solutions** |
| 12v adaptor not getting power | Check the12v adaptor "jug" cord is firmly connected |
| Faulty extension cords to 12V adaptor | Check all extension cords |
| Wire loose/off in autobox | Check wiring generally for breaks or chew marks |
| No air to unit | Check the air lines and compressor |

| SYMPTOM Sheep unit doing unusual things | |
| --- | --- |
| **Possible causes** | **Possible solutions** |
| Fluctuating power supply | Check power and compressor and for stable weight |
| Faulty compressor | Check compressor is operating correctly |

| SYMPTOM Entry gate shutting before sheep enters | |
| --- | --- |
| **Possible causes** | **Possible solutions** |
| Magic eye/s obscured by dust or wool | Check the magic eyes for dust on the lenses |
| | Also check they have no loose wool in front of them |

| SYMPTOM Drafting the wrong way for preset weights or Drafting gates hit and stick together when on auto | |
| --- | --- |
| **Possible causes** | **Possible solutions** |
| Draft switch | Ensure the manual draft switch is in the central position |

| SYMPTOM Everything works apart from the drafter | |
| --- | --- |
| **Possible causes** | **Possible solutions** |
| Indicator not communicating with drafter | Check coms cable for damage |
| | Ensure auto drafting option on your indicator is active |

| SYMPTOM Remote control is not working properly or at all | |
| --- | --- |
| **Possible causes** | **Possible solutions** |
| Flat remote control battery | Check and replace as required |
| Remote is not programmed to your unit | Program remote to your unit by turning on the unit then: **For a 4 button remote:** press down  buttons 1 and 2 for 10 seconds. |

| SYMPTOM | Parts of the unit are working slowly |
|---|---|
| **Possible causes** | **Possible solutions** |
| Constricted, broken or punctured air lines | Check the airlines<br>Ensure no part of the unit is resting upon the airlines |

| SYMPTOM | Reduction in air pressure |
|---|---|
| **Possible causes** | **Possible solutions** |
| Water trap filters | Check visually every 3 months and replaced as required |

| SYMPTOM | Eyes are not working |
|---|---|
| **Possible causes** | **Possible solutions** |
| Dirty or broken eye<br>Eye cables broken or frayed | Clean and re-check, replace if required<br>Replace cable from autobox to eyes |

| SYMPTOM | The indicator displays ------------ |
|---|---|
| **Possible causes** | **Possible solutions** |
| There is a problem with the loadbars | Contact the manufacturer |

| SYMPTOM | Indicator read out is fluctuating or not zeroing |
|---|---|
| **Possible causes** | **Possible solutions** |
| Plugs not completely connected<br>Plugs are damp<br>Battery is not adequately charged<br>Unit is damp<br>Electrical interference | Check the plug that goes over the loadbar collar is not preventing the pins from engaging properly<br>Check loadbar cables are firmly in place, don't over tighten<br>Check for moisture - clean with methylated spirits<br>Ensure dust caps are screwed together<br>Check battery charge state<br>Check indicator to unit cord<br>Electrical interference from a short on a electric fence can affect your indicator<br>Battery and unit charges must be kept dry |

| SYMPTOM | Not automatically drafting or releasing |
|---|---|
| **Possible causes** | **Possible solutions** |
| Comms cable fault<br>Incorrect indicator settings | Communication cable from indicator to unit is damaged or has dirty terminals - clean terminals with CRC<br>Communications cable is in the wrong port<br>Check your indicator settings are correct |

| SYMPTOM | Tru-Test indicator displays "Wait for Trigger" |
|---|---|
| **Possible causes** | **Possible solutions** |
| Dirty eyes<br>Faulty "Y" or Comms cable | Clean eyes<br>Check the "Y" and Communications cables and the cables pins for damage, replace if required |

# TE PARI

**New Zealand Head Office:**

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NZ: sales.nz@tepari.com
Rest of World: admin@tepari.com

# Racewell HD6

## 6 WAY DRAFTING HANDLER

*"Thank you for your purchase, enjoy your new
Te Pari Racewell DR3 Auto Drafter " from the Te Pari team.*