TE PARI

Racewell HD3, HD4 & HD6 Sheep Handlers

Operators Manual

Racewell HD3/HD4/HD6

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Contents

Main components of your Racewell handler

Compressor

The following specification is required for your Racewell Handler:

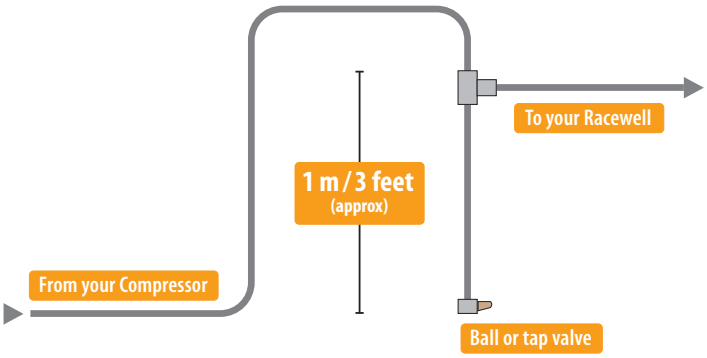
- 12 CFM capacity
- Minimum pressure of 90 psi

If your compressor lower capacity than these specification then the Racewell may work slowly.

Manufacturer installation and maintenance guidlines for the compressor should be followed. This includes checking the oil and draining water from the tank.

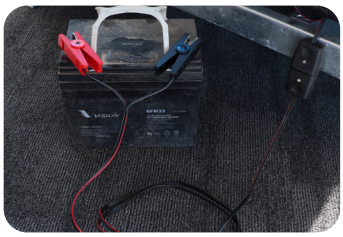
Please note: when turning the compressor on or off use the switch on the compressor and not the switch at the power source.

Attaching the air fittings and connecting the compressor



Connect the air line to the Racewell handler. The connection is located underneath the Clamp and Weigh Area. If the compressor is located some distance away from the racewell handler it is recommended that you include a water trap on the line to avoid condensation getting to the handler pneumatics. The image above shows a design for a simple water trap.

Power Supply



Power can be supplied via mains (110V AC to 240V AC) or via the 12 Volt battery leads supplied with the handler. The internal system is all 12 Volt AC power supply.

Remote Control

All remotes have the following buttons:

- Tilt: Up / Down
- Clamp: Clamp/Release
- Draft gates

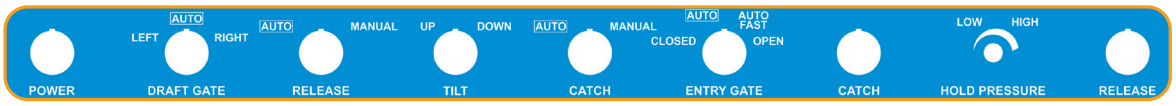
The remote is powered by x2 AA batteries.

HD3

HD4

HD6

Dashboard controls

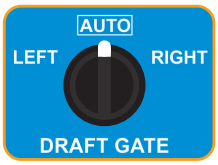


Your Racewell handler has a number of different operating modes. These are explained below. (Starting from the Left button on the dashboard)

Power

When power is connected to the Racewell Handler it can then be powered on via the dashboard power button. When the Racewell Handler is ON the button will glow green. It is strongly recommended to turn the racewell Handler off when you have finished working.

Draft gates

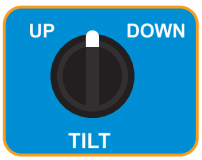


The draft gate switch will move the postion of the Drafting gates to the left or right. When Auto drafting the switch must be set to AUTO. The draft gate direction can be changed at any time during weighing and drafting should you wish to change the direction manually.

Release button

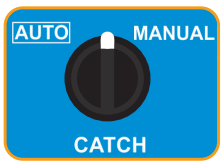
When set to AUTO the sheep will be automaticlly released from the Clamp and weigh area when it has been weighed. If set to MANUAL then the operator will have to press the release button for the sheep to be released.

Tilt



The tilt switch will move the Clamp and Weigh area up or down for access to the sheep.

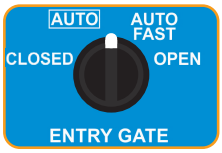
Catch (Auto/Manual)



The Catch switch is used if the operator wants to catch a sheep manually rather than using the eyes on the side of the machine. For general use the switch should be set to AUTO.

Safety Note: *Please ensure the machine is turned off or this switch is set to manual before adjusting the clamp wall width. Failure to do could result in the clamp being activated and personal injury*

Entry



The entry gate has 4 modes:

Closed: The entry gate will remain closed regardless of the sensors on the side of the Handler. This option is used when you may have sheep in the race and do not want them to come through the handler.

Auto: The Entry gate will be closed when one of the Blue eyes on the side of the handler are activated. It will open again when eye is cleared

Auto fast: The Entry gate will be closed when one of the Blue eyes on the side of the handler are activated however it will open at the same time as the clamp releases allowing for faster flow into the machine

Open: The entry gate will remain open regardless of the sensors on the side of the Handler. This option is very useful when doing tasks such as treatments and the animals are not being weighed as it provides continuous flow

Recommended postion is AUTO

Catch

The catch button will activate the clamp. This button is used for catching a sheep manually. If a sheep is caught in the clamp and the button is pressed again, more air will flow to the cylinder and increase the pressure on the sheep. If the catch switch is set to AUTO and you press the CATCH button. It will overide the auto function and the sheep will not be released automatically.

Hold pressure

The Hold pressure knob increases or decreases the pressure of the clamp wall. The recommended setting is at about ⅓ if your compressor is running at reommended pressure of 90–100 psi. If set to the lowest pressure the clamp wall will not move at all. It is important not to have the pressure to high for animal welfare.

Release

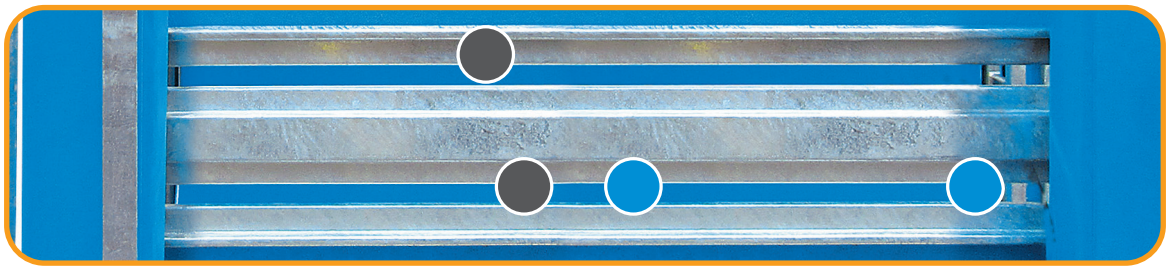
The release button will release the clamp. This button is used for releasing a sheep manually.

Positioning the sensors (eyes)

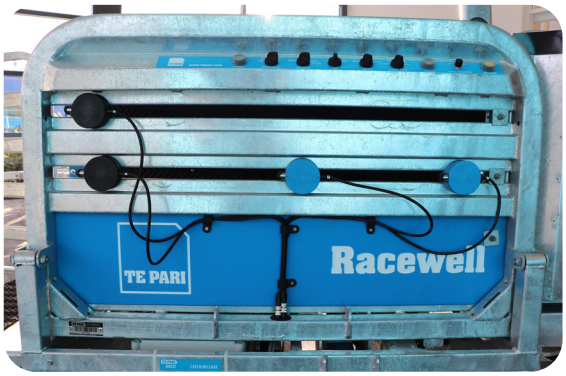
Blue Eyes These activate the closing of the entry gate to stop the next sheep coming in while there is one being weighed. The backing hook in the lead up race is also activated by these eyes.

Black eyes When one of the blue eyes is covered and one of the black eyes is covered the clamp will activate and a sheep will be caught and weighed. It is important that the eyes are positioned correct and that a sheep can not get inbetween the Blue and black eyes.

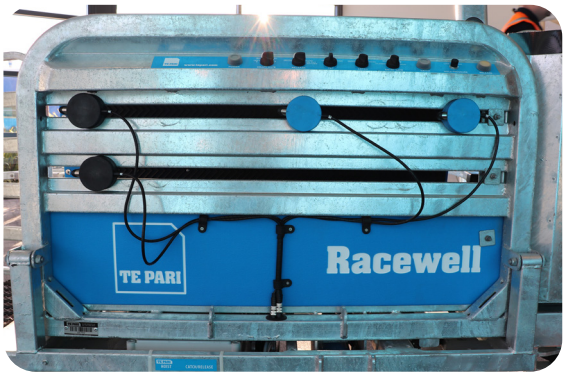
The eyes are on magnets to allow ease of adjustment to suit the size of animals you are working with or the task your wanting to achieve in the handler.



SENSOR EYE POSITION GUIDE FOR DAGGING SMALLER SHEEP



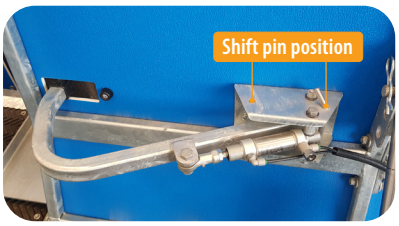
SENSOR EYE POSITION GUIDE FOR WEIGHING SMALLER LAMBS



SENSOR EYE POSITION GUIDE FOR WEIGHING LARGER LAMBS OR SHEEP

Please Note: Wool dust or debris covering any of the four eyes can affect operation. Make sure that the lenses of the eyes are clean at all times.

Anti backing hook



This works with the auto gate, and ensures that the animal can't walk backwards the handler.

The anti backing hook is activated by the blue eyes and prevents the sheep moving backwards when it is released. It is recommended the hook is disabled when doing tasks such as crutching where the sheep is caught towards the back of the clamp and weigh area. The hook can be deactivated by shifting the pin position.

Adjusting the clamp and weigh area width

At the bottom of the clamp wall, there are adjustment holes.

Safety Note: *Please ensure the machine is turned off or this switch is set to manual before adjusting the clamp wall width. Failure to do so could result in the clamp being activated and personal injury. It is also possible to remove the air hoses on the cylinder to make adjustment easier*

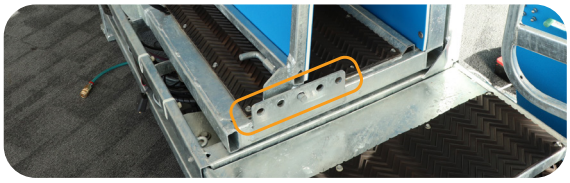
The width of the clamp and weigh area can be adjusted to suit different size animals. Ideal adjustment will catch the sheep with the clamp wall parellel with the other side and minimise movment of the clamp wall to catch a sheep.

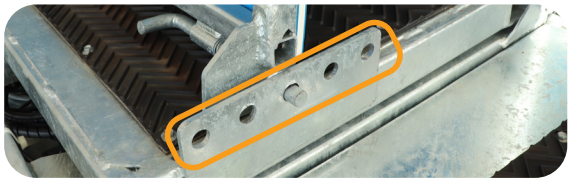
Size can also be adjusted differently from front to back if required.

The length of the squeeze clamp wall ram can also be adjusted. In the middle of the moving wall there are four adjustments for ram length. Adjust the ram so that the clamp wall movement is minimal to catch a sheep. Ideally the wall is vertical when a sheep is clamped

Adjust this pin so the wall cannot touch the opposite side. This is a safety feature so that hands and fingers cannot be caught in the empty unit accidentally.

Safety Note: *when adjusting for large sheep the wall may be able to touch the opposite side. Be careful not to activate the clamp without a sheep in the clamp area*





Adjusting the lead up race

The lead up race can be adjusted for width at the top and bottom. A slight V configuration is best to prevent smaller animals turning around.

Trouble shooting guide

- Please check this trouble shooting guide before contacting customer support, as often something quite simple could be the problem.
- A service charge will be made for call outs if the fault is not covered by your warranty.
- When testing the unit without sheep ensure at least one blue an one black eye are covered, covering either of the blue eyes on their own will only close the auto gate.
- For your safety, and that of others, never leave the unit operational when not attended.

SYMPTOM	
POSSIBLE CAUSES	POSSIBLE SOLUTIONS
NO POWER AT UNIT AND IT WON'T GO	
12v adaptor not getting power	Check the12v adaptor cord is firmly connected
Faulty extension cords to 12V adaptor	Check all extension cords
Faultly 12v Adaptor	Check for external damage to the adaptor and using a multimeter check the adaptor output is at least 11 volts
Faulty On/Off switch	Check the On/Off switch and wiring to it
Wire loose/off in autobox	Check wiring generally for breaks or chew marks
No air to unit	Check the air lines and compressor
SHEEP UNIT DOING UNUSUAL THINGS	
Fluctuating power supply	Check power, compressor and test unit for a stable weight
Faulty Catch/Release switch	Check air lines and wiring
Faulty compressor	Check compressor is operating correctly
AUTO GATE MOVING UNEXPECTEDLY	
Sensors (eyes) obscured by dust or wool	Check the sensors (eyes) for dust on the lenses Also check they have no loose wool in front of them
SHEEP ARE NOT BEING DRAFTED/SORTED	
Draft switch	Communication cable may not be connected or scale configured correctly Check cable for damage

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DRAFTING THE WRONG WAY FOR PRESET WEIGHTS	
	Ensure the manual draft switch is in the auto position Turn power off and on again on the Handler. This will force a communication handshake between the scales and handler
EVERYTHING WORKS APART FROM THE DRAFTER	
Indicator not talking to drafter	Check comms cable between indicator and autobox for damage Turn power off and on again on the Handler. This will force a communication handshake between the scales and handler Ensure autodrafting option on your indicator is selected
PARTS OF THE UNIT ARE WORKING SLOWLY	
Constricted, broken or punctured air lines	Check the airlines for cracks & leaks Remove hoses from the cylinder and test. This will help identify if the issue is a air issue or a cylinder issue Ensure the compressor is resting upon the airlines
CRUSH WALL IS NOT OPERATING QUICKLY ENOUGH	
Low air pressure	Check the compressor–require 90--120 psi
TILT GOING BACK OR CREEPING OVER	
Faulty switch Faulty solenoid Air leak	Repair or replace the switch Replace solenoid Check joints and lines and remedy as required Remove air line and see if there is air flow leaking through the valve. If so contact support
UNIT IS NOT CATCHING PROPERLY	
Low air pressure Eye not working Dirty Sensor (eye) Incorrect eye positions	Check compressor output is above 90 psi at all times Check sensor (eye) and cables for damage Remove wool and/or dust from the sensor (eye) lenses Adjust positions so 1x blue and 1x black eye get covered Remove air line and see if there is air flow leaking through the valve. If so contact support
WALL PRESSURE IS HIGH ALL THE TIME	
Faulty potentiometer	Check and adjust or replace as required Remove hoses from ram and activate catch and see if air keeps coming out should only do a short burst, possible the valve needs service as its stuck open

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UNIT SLOWLY RELEASES AFTER SHEEP ARE CLAMPED	
Air may be leaking	Check for air leaks
Catch solenoid may be faulty	Check solenoid
Damage to cylinder piston	Check piston
	Remove air line and see if there is air flow leaking through the valve. If so contact support
THE UNIT IS NOT HOLDING THE SHEEP	
The unit is designed to operate at 90-120 psi	Check the ram adjustment on the moving walls allows the ram to apply pressure to the wall
	Check the potentiometer (increase/decrease knob) on the dashboard is turned up enough
	Ensure any regulator on the compressor is set to correct pressure
SHEEP SLIPPING OUT OF CLAMP	
Potentiometer (increase/decrease knob)	Adjust upwards to increase pressure
Wall position	Ensure position is correct for animal size, when a sheep is held the top flat of the crush wall should be about vertical
Air leak	Check for air leaks to ram and replace hosing
SHEEP ARE GETTING TOO FAR THROUGH THE UNIT	
Wall not adjusted for animal size	Adjust the wall
Eye lengths are too short	Adjust the black eyes closer to the blue ones so the sheep is caught further back
Potentiometer (increase/decrease knob)	Adjust upwards to increase pressure
Compressor	Check pressure is 90 psi cut in and 120-130psi cut out
Air leak	Check if crush cylinder needs lubricating
MACHINE IS CLOSING WITHOUT ANY SHEEP	
Dirty eyes	Clean eyes and ensure they are free from dust, wool etc.
Eye length is too long	Use allen key to remove grub screw so the sensor can be removed from the plastic eye holder, on the back of the sensor is a small flat head screw which can be adjusted to increase or decrease the read range
REDUCTION IN AIR PRESSURE	
Water trap filters	Should be checked visually every 3 months and replaced as required
	Please ensure there is no air pressure from compressor into the handler

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REMOTE CONTROL IS NOT WORKING PROPERLY OR AT ALL	
Flat remote control battery Remote is not programmed to your unit	Check and replace as required Program remote to your unit by turning on the unit then: Remote
EYES ARE NOT WORKING	
Faulty eye switch Dirty or broken eye Eye cables broken or frayed	Check power supply. low power will affect eye performance Swap the eyes from each cable to elimate cable or eye issues Check eye cables are not damaged
INDICATOR READOUT IS FLUCTUATING OR NOT ZEROING	
Plugs not completely connected Plugs are damp Battery is not adequately charged Unit is damp Electrical interference	Check loadbar cables are firmly in place, don't over tighten Check for moisture Check there is nothing touching the clamp and weigh area including build up of dirt or muck underneath Check battery is in a charged state Check indicator to unit cord Electrical interference from a short can affect your indicator Battery and unit charges must be kept dry
NOT AUTOMATICALLY DRAFTING OR RELEASING	
Comms cable fault Incorrect indicator settings	Communication cable from indicator to unit is damaged or has dirty terminals – clean terminals with CRC Communications cable is in the wrong comm port Check your indicator settings are correct
TRU-TEST INDICATOR DISPLAYS WAIT FOR TRIGGER	
	Clean eyes Ensure communication cable connected turn handler off and on, ensure the scale does not require information like a trait before it will record Check the *Y* and Communications cables and the cables pins for damage, replace if required
INDICATOR NOT ZEROING	
Tension in loadbars	Refer to the scale manual Loosen 4 top bolts on loadbars, if they settle they may require a washer in one corner Loadbars may require servicing

Hazard Identification

The Racewell Drafter has moving gates positioned at both the front and rear of the unit. Keep hands clear to avoid the risk of a crush injury when the machine is operational.

⚠ WARNING ⚠

Crush hazard

Entry gate The entry gate will move when switch position is changed on the dashboard or the blue sensor is covered. Be sure to keep your limbs, head and body out of the area of movement area

All above hazards can be activated be the double foot pedals. unplug when not in use

Clamp wall The clamp wall will move quickly and with force when the catch or release button on dashboard or button on remote is pressed. It is also activated when one of the blue and one of the black eyes are covered. It can also be activated if the foot pedal is connected to the clamp / release plug on the underside of the handler. Depending o the adjustment of the wall it is possible for the wall to come in contact with the opposite side of the clamp and weigh area. This is a potential crush hazard. Be sure to keep your limbs, head and body out of the area of movement area. Please ensure the machine is turned off or this switch is set to manual before adjusting the clamp wall width. Failure to do so could result in the clamp being activated and personal injury. It is also possible to remove the air hoses on the cylinder to make adjustment easier

Tilt ***If the handler is fitted with a tilt option*** – The tilt will move when the tilt switch position is changed on the dashboard or button on remote is pressed. It can also be activated if the foot pedal is connected to the Hoist Up/Down plug on the underside of the handler. Ensure the entry gate is closed before tilting. This is a potential crush hazard. Be sure to keep your limbs, head and body out of the area of movement area

Tilt ***Service position***. If the tilt is up to allow access to the control box under the floor be sure that the power is disconnected to the machine and that a chock is put in place to prevent the tilt from coming down while working on the handler. This is a potential crush hazard. Be sure to keep your limbs, head and body out of the area of movement area

Draft gates The draft gates will move when the switch position is changed on the dashboard or gate buttons pressed on the remote. Be sure to keep your limbs, head and body out of the area of movement area. Draft gates may activate from signals received from the scale causing unexpected movement

NOTE: If a stock prodder is used to work stock with the machine, the warranty is void as the current can damage electrical componentry.

All the above hazards are applicable during manual or automatic operation.

EC DECLARATION OF CONFORMITY MACHINERY

(according to Annex II.1.A of the Machinery Directive)

Te Pari Products Ltd hereby declares as manufacturer that the Racewell Sheep Handler with specifications:

Machine	:	
Type	:	
Serial	:	
Year	:	

Meets the provisions of the following Directives:

Machinery Directive (2006/42/EG)

And furthermore declares that (parts of) the following harmonized standards have been applied:

ISO 14120: Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards
IEC 60204-1: 2006 Safety of machinery - Electrical equipment of machines Part 1: General requirements
ISO 13849-1: Safety of machinery - Safety-related parts of control systems Part 1: General principles for design
IEC 61310-1: 2008 Safety of machinery. Indication, marking and actuation. Part 1: Requirements for visual, auditory and tactile signals
IEC 61310-2: 2008 Safety of machinery. Indication, marking and actuation. Part 2: Requirements for marking
ISO 4414: 2010 Pneumatic fluid power - General rules and safety requirements for systems and their components

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Country	:	New Zealand
Responsible	:	Patrick Blampied

Thank you for your purchase.

OUR PROMISE

Our promise is simple...
It works for you (or we will take it back).

For peace of mind we offer a manufacturers warranty on all our products. See our website for more information:

www.tepari.com/owners-hub/warranty

www.tepari.com

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