



# Beef Monitor

Model – BM3000

**Instruction Manual  
& Operating Guide**

Rev 0 – 26/04/2019

Rev A – 07/08/2019

Rev B – 07/01/2021



**Contents:**

**Beef Monitor – Model BM3000**

	<b><u>Page/s</u></b>
<b>Safety Notes and Warnings</b>	<b>4</b>
<b>Introduction and Intended Use</b>	<b>5</b>
<b>Overview</b>	<b>6</b>
<b>Preparation for Use</b>	<b>7 - 12</b>
<b>Accessing Data</b>	<b>13 - 17</b>
<b>Housekeeping / Maintenance</b>	<b>18</b>
<b>Spare Parts</b>	<b>19</b>
<b>Environmental Conditions</b>	<b>20</b>
<b>Recycling and Disposal</b>	<b>20</b>



## **Safety Notes and Warnings**

- Ensure the operator in charge of the Beef Monitor is an experienced stock person who can maintain a high standard of animal welfare.
- Ensure that there is sufficient space in the area designated to allow the operator to work safely and efficiently.
- The unit weighs 350kgs, ensure the handler has sufficient capacity to handle this weight.
- If slinging the unit, use the fork pockets as sling points.
- Position the unit on level and firm ground.
- Ensure there are no trap points between the unit and the pen sides.
- This equipment must be connected to a supply with a protective earth.
- Ensure there is adequate access to the electrical supply for ease of disconnection.

## **Training**

Do not attempt to carry out any procedure on the equipment 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**

The Ritchie Beef Monitor is designed for and is intended to be used by the agricultural industry purely for the weighing of cattle. The unit has been designed to give maximum safety and minimise stress to both the animal and operator.

**The Beef Monitor should only be used by an experienced stock person who can maintain a high standard of animal welfare.**

## **General Notes**

- The Beef Monitor needs to be the **only supply of water in the pen.**
- Designed to service up to 50 animals, with a good water supply.
- Hot dipped galvanised finish.
- Water feed can be set up for either side.
- Ensure the operator can access the front mounted control system.
- Monitor stock when the Beef Monitor unit is first introduced, to ensure all animals are drinking. This can also be checked using the online data.
- To read data, contact the administrator to register the unit, and to set access to the Beef Monitor Application.

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

## **Overall Dimensions & Weight**

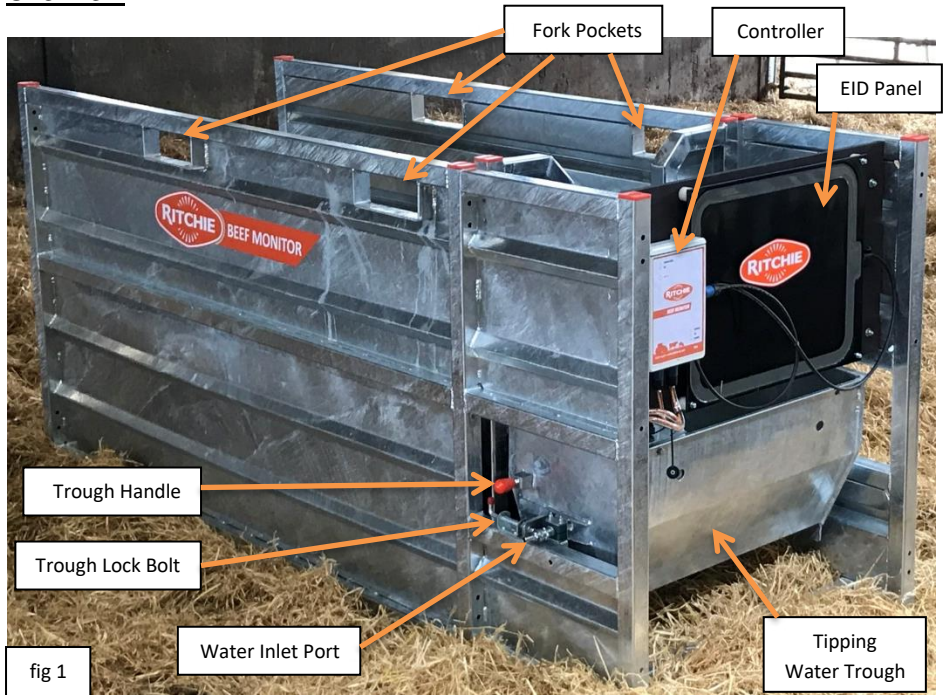
- Width - 1.012m to 1.168m (depending on orientation of hurdle brackets)
- Length - 2.640m to 2.808m (with hurdle brackets fitted at each end)
- Height - 1.252m
- Weight - 463Kgs

## **Equipment Rating**

- 100 – 240V ac.
- 50 / 60Hz.
- 0.6A



## Overview

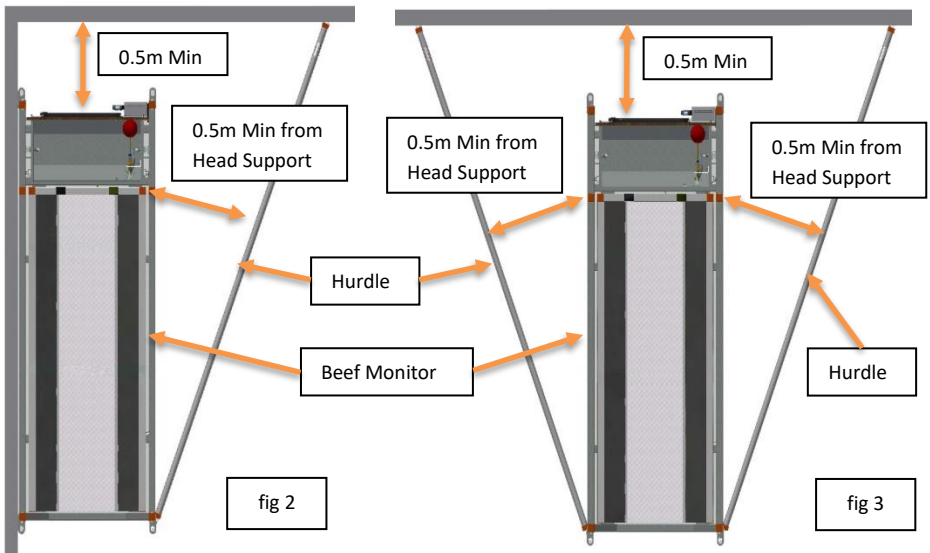


## Preparation for Use

### Siting the unit

Set the Beef Monitor unit adjacent to, or in front of the existing water trough, on a firm, clean and level surface.

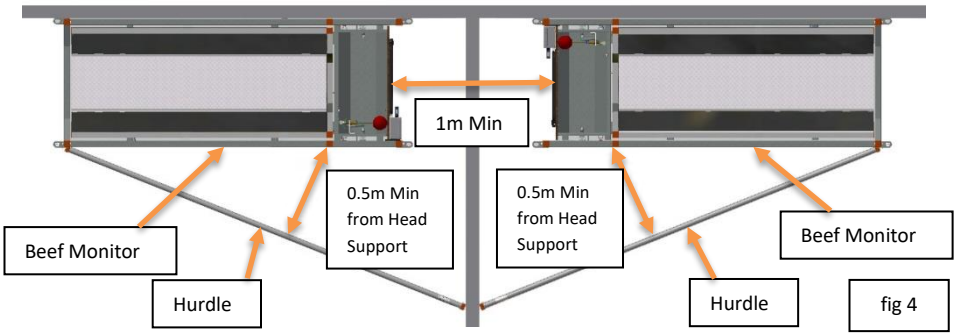
If required. Attach cattle hurdles to keep cattle away from the water trough end, to ensure that the EID reader is unable to read tags from animals outside the Beef Monitor unit.



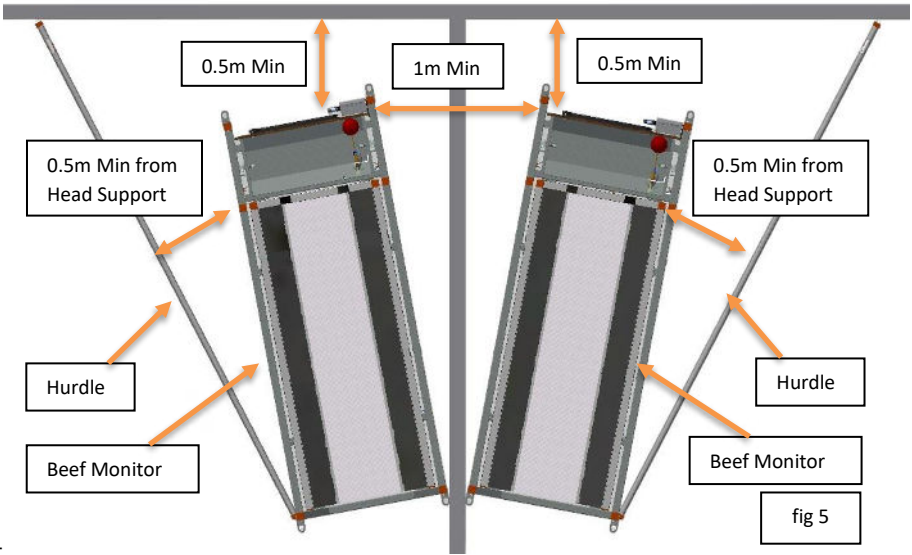
Single unit in a corner

Single unit against a wall





Two units in adjacent pens (orientation 1)

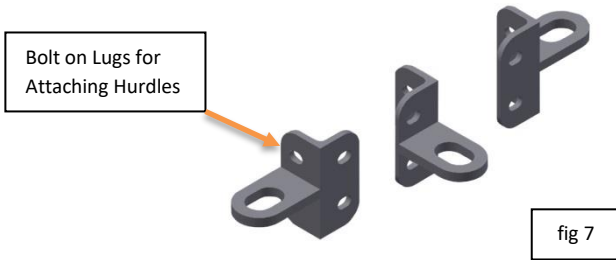


+

Two units in adjacent pens (orientation 2)



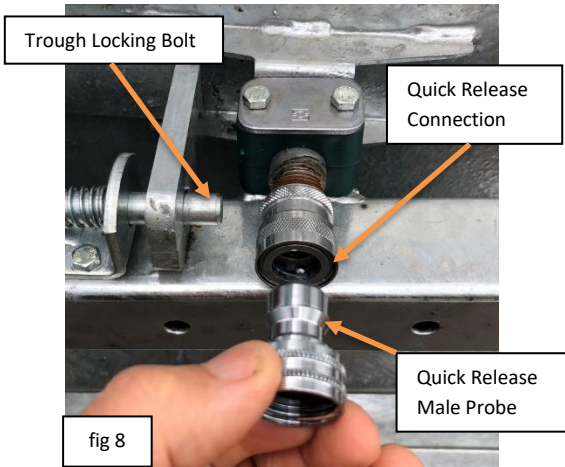
The bolt on lugs can be positioned as shown, fig 6, to suit hurdle sizes and layout. They can also be oriented as shown to best suit hurdle length, fig 7 (mirrored for opposite side).



## WATER SUPPLY

Decide which side of the Beef Monitor you wish to have service to the trough, and change accordingly of required.

Use the male probe for servicing the water inlet to the rotating water trough.



This arrangement allows the trough to tip easily, once both locking bolts have been released (one each side of the trough), for cleaning and also for a fast disconnection from the water supply.

Male probe connector supplied is ½" BSP (female connection).

Attach your own coupling to suit the supply pipe servicing the trough. The coupling ideally should be a 90° elbow type as shown in fig 9.

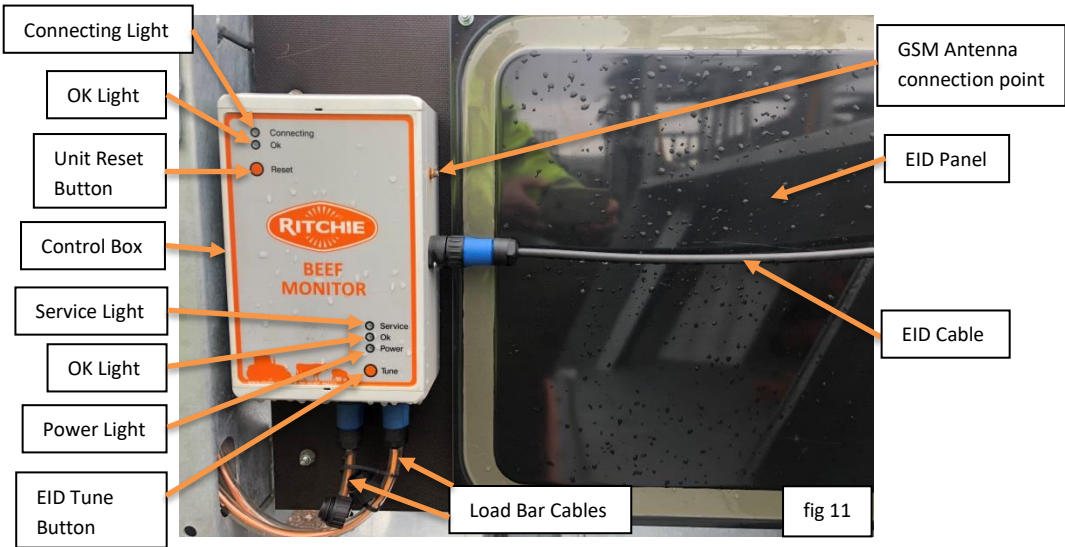
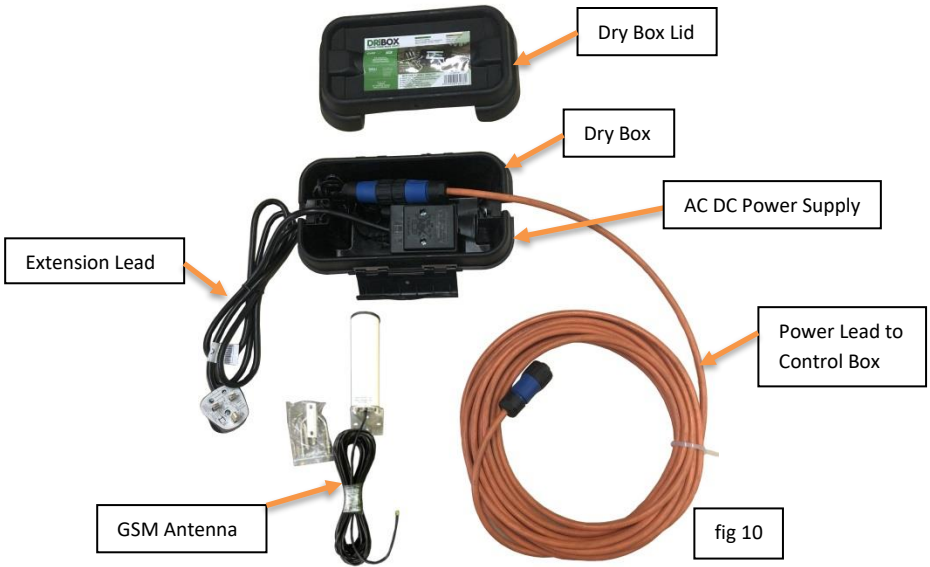
Ensure that the water supply pipe does not create a hazard to livestock.

Regularly clean out the water trough.



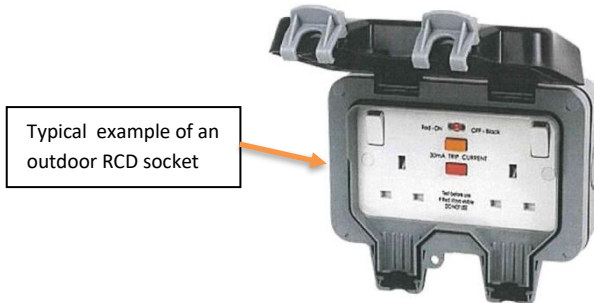
## Electrical

### Electrical Components Kit



## Safety

- Always use and maintain the Dry Box for housing the AC DC Power Supply, between the mains and the beef monitor unit.
- When siting, ensure sufficient space at the controller for the operator to view the controller status and access the reset button.
- Use an Outdoor Socket, 13A, RCD Protected, Type G connection when connecting to your mains supply.



## Installation

1. Plug in the 2 load bar cables to the controller. Either cable can be located in either port of the controller.
2. Plug in the power lead to the controller.
3. Attach the communications aerial lead to the controller and locate the aerial as high as possible to gain signal. Ensure the cable is as far away as possible from livestock to avoid chewing or damage to the cable.
4. Attach the power lead to your mains supply turn power on.
5. Wait for the connect light to extinguish and the green light to begin flashing (every 2 seconds). This confirms that the connection has been made and that the unit is now ready to use.

## Trouble Shooting

- Connection failure – In the event of a connection failure, reposition the GSM Antenna to improve the signal and repeat the process.
- There are no user serviceable parts in the controller or the EID Panel.

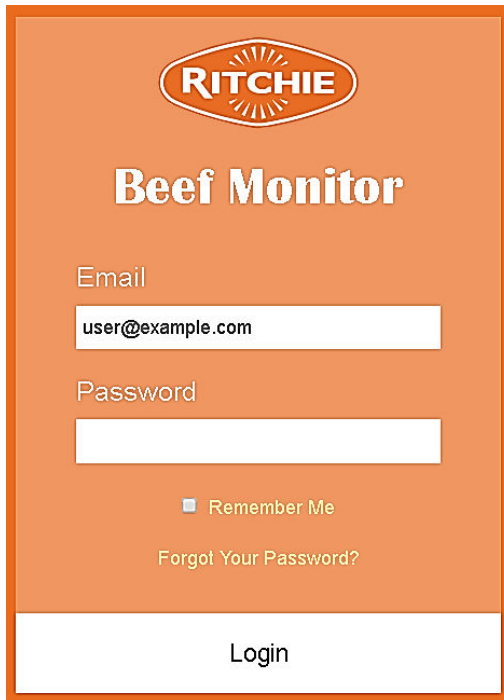


## Accessing Data

- When connected, contact the administrator for data location and password. Contact via telephone (01307) 462271 or alternatively by email [XXXX@ritchie-uk.com](mailto:XXXX@ritchie-uk.com).
- Go to [www.beefmonitor.com](http://www.beefmonitor.com) and click 'Login'.



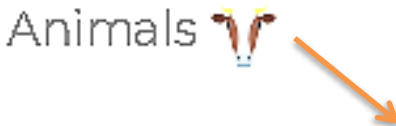
- Enter email and password. Then click 'Login'.

A screenshot of the Ritchie Beef Monitor login page. The background is orange. At the top center is the Ritchie logo. Below the logo, the words "Beef Monitor" are written in a large, bold, white sans-serif font. Underneath, there are two white input fields. The first is labeled "Email" and contains the text "user@example.com". The second is labeled "Password" and is empty. Below the password field, there is a checkbox with the text "Remember Me". Further down, there is a link that says "Forgot Your Password?". At the bottom of the page, there is a large white rectangular button with the text "Login" in black.

- This will bring you to the Home Screen.

The screenshot shows the Beef Monitor interface. At the top, there is a navigation bar with the following items: Home, Weight Monitor, Animals, Settings, Support, Register Users, and a user profile for 'Derro'. The main content area is titled 'Cattle Overview' and shows a table for the date '17th Apr 2019'. The table has columns for EID, MID, Start Weight, Live Weight\*, Profile, and three 'Average Live Weight Gain' columns (3 Weeks Ago\*, 2 Weeks Ago\*, 1 Weeks Ago\*), plus a Status column. Below the table, there are search boxes for EID and MID, and a dropdown menu. The table is currently empty, displaying 'No Data Found'. A note at the bottom states: '\* Note: Weight is the current weight.'

- Live data will take 48 hours from the first time each animal presents itself to the unit (first weighing only).
- Once all animals in the pen have presented themselves. Click the 'Animals' tab at the top of the page.



The screenshot shows the Beef Monitor interface with the 'Animals' tab selected. The navigation bar now highlights 'Animals'. The main content area is titled 'Cattle Overview' and shows a table for the date '18th Apr 2019'. The table has columns for EID, MID, Start Weight, Live Weight\*, Profile, and three 'Average Live Weight Gain' columns (3 Weeks Ago\*, 2 Weeks Ago\*, 1 Weeks Ago\*), plus a Status column. The table contains data for four animals. Below the table, there are search boxes for EID and MID, and a dropdown menu. A note at the bottom states: '\* Note: Weight is the current weight.'

18th Apr 2019		Average Live Weight Gain							
EID	MID	Start Weight	Live Weight*		Profile	3 Weeks Ago*	2 Weeks Ago*	1 Weeks Ago*	Status
870000175604182	Jirrmmy	564	632		Ritchie1	0.35	1.00	1.51	Active
870000175604200	Jeffy	463	577		Ritchie1	1.18	1.73	2.18	Active
870000175604221	Jeff	418	553		Ritchie1	0.76	2.29	2.53	Active
870000175768867	Cal	393	545		Ritchie1	1.35	1.37	2.49	Active



- Click the 'Export Data' button (data saves as an Excel format).

- Empty fields in Excel can be filled in.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	EID	MID	UKID	Live Weight	Start Weight	Status	Breed	Profile	Sex	DOB	BoughtOn	KilledOn	Notes
2	123456789			25kg	25kg	Inactive		Ritchie1		02-19-2019	02-19-2019		
3	870000175604182			564kg	564kg	Active		Ritchie1		04-01-2019	04-01-2019		
4	870000175604200			463kg	463kg	Active		Ritchie1		04-01-2019	04-01-2019		
5	870000175604221			418kg	418kg	Active		Ritchie1		04-01-2019	04-01-2019		
6	870000175788867			393kg	393kg	Active		Ritchie1		01-01-2019	01-01-2019		

- Save file under same name.
- In the 'Animals' tab click the 'Import Data' button and select the correct Excel document, from the 'Choose File' button. Then click 'Import' to import the data back into the website.

- All data should now show the inputted data in with the live data.



- To look at an individual animals data. Click on the animal you wish to look at. That animals details will then be shown. Scroll down on the screen for more details. The left and right arrows at the top corners allow you to move back and forth through the animals one by one.

The screenshot displays the 'Animal Details' interface. At the top, there are navigation arrows (left and right) and an 'Edit Button' (pencil icon). The main content is a line graph titled 'Weight (Kg)' showing the animal's weight over time from 28-Mar-19 to 17-Apr-19. Below the graph is a date selector with a 'Reset' button and a note: '\* Maximum 21 days data will be shown from the selected date.' At the bottom, there are four rows of metadata: Ear tag ID, Management ID, UKID, and Start Weight.

Date	Weight (Kg)
28-Mar-19	522
29-Mar-19	524
30-Mar-19	526
31-Mar-19	527
01-Apr-19	529
02-Apr-19	530
03-Apr-19	527
04-Apr-19	524
05-Apr-19	536
06-Apr-19	537
07-Apr-19	539
08-Apr-19	531
09-Apr-19	541
10-Apr-19	546
11-Apr-19	547
12-Apr-19	560
13-Apr-19	555
14-Apr-19	553
15-Apr-19	554
16-Apr-19	556
17-Apr-19	553

Metadata:

- Ear tag ID: 870000175604221
- Management ID: Jeff
- UKID: [Blank]
- Start Weight: 418kg

Callouts:

- Left Arrow (top left)
- Edit Button (top center)
- Right Arrow (top right)
- Scroll Down for more Data (bottom center)



- By clicking the 'Edit Button' towards the top right of the individual animal screen. You can then edit the details for that animal. Click 'Update Information' to save changes.

Edit animal information \*Denotes required field

\*Ear Tag ID

Management ID

UKID

Profile ID

Breed

Sex

\*Date of Birth

\*Bought on

Notes



## Housekeeping / Maintenance



- 1 - The floor of the Beef Monitor unit should be regularly cleaned to ensure that muck and straw is kept clear of the entrance. The unit should be wiped down with a clean cloth, moistened with water containing a small amount of washing up liquid or proprietary detergent.
- 2 - Regularly clean out the water trough. The trough rotates to facilitate easier cleaning.

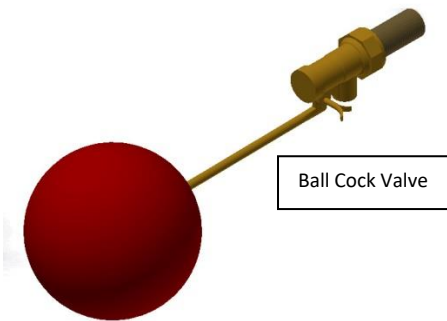


## Spare Parts

<u>Part</u>	<u>Ritchie Part No.</u>
Controller (Service Exchange)	BM3000 Controller SE (See Note 1)
EID Panel	AGD5614
EID Cable	CABLEASSY9374G-86
Power Lead	CABLEASSY9374G-87
AC DC Power Supply	POWERSUPPLY9374G-89
Extension Lead	CABLEEXTENSIONM2M
Dry Box	POWERCORDBOX
GSM Antenna	ANTENNAEXT-LNG
Handle	HANDLE121062
Quick Release Male Probe	COUPLING1/2NIPPLEFEM
Quick Release Coupling	COUPLING1/2"NIPPLE
Trough Locking Bolt	SPRBOLT12-41x27.5
Blanking Cap	G1/2"BLANKINGCUP
Bolt On Lug	9374G-A10
Ballcock Valve	9374G-81

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

Note 1. – A service exchange unit may not be a new unit, but one that has been returned and refurbished. The cost will be less than a new unit, but will be invoiced as a new unit until the faulty/damaged unit has been returned, inspected and approved for the service exchange.



## **Environmental Conditions**

- 1) For indoor and outdoor use.
- 2) Maximum altitude: 2000m.
- 3) Operating temperature range: -20°C to +40°C.
- 4) Relative humidity 95% non-condensing.
- 5) Mains 100v – 240v AC, ±10%.
- 6) Overvoltage category: OVC II.
- 7) Suitable for wet locations.
- 8) Pollution degree: PD3.
- 9) Degree of protection: IEC 60529, IP55.

## **Recycling and Disposal**



Waste electrical products should not be disposed of with household waste.

Please contact Ritchie Ltd. (Tel. 01307 462271 or Email [info@ritchie-uk.com](mailto:info@ritchie-uk.com)) for advice on disposal.











*the perfect partner*

David Ritchie Implements) Ltd,  
Carseview Road, Forfar, Scotland, DD8 3BT  
Tel: 01307 462271 Fax: 01307 464081  
e-mail: [agrisales@ritchie-uk.com](mailto:agrisales@ritchie-uk.com)  
[WWW.ritchie-uk.com](http://WWW.ritchie-uk.com)