



Intelligent spreading

100% Ground Speed Relation

Since 1991, CALIBRATOR has been the solution for intelligent spreading by using a computer to automatically control application rate relative to forward speed. In this way daily spreading capacity is significantly increased because the driving speed can be optimized to field conditions.

1994 - a Landmark

Development of simple and logical software with integrated specialized functions has always been a priority. In this year, BOGBALLE introduced the world's first fertiliser spreader with an integrated weigh cell (W) for automatic calibration operated from the tractor seat. Since 1994 direct linking to GPS systems has also been possible.

Today „W“-spreaders are delivered with the latest development - Non-Stop Calibration - which means that the spreader is constantly calibrated “on-the-move” without any action being made taken by the driver.

Computer control for M-line and L-line is offered in two variants:

CALIBRATOR UNIQ - the super intelligent

CALIBRATOR ICON - the intelligent





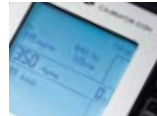
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Common Functions

Recording of Field Work

Field data for different fields can be downloaded to a PC and imported to Excel. Average rate (Kg/ha), total spread area (ha) and total kg applied for each field is recorded.

Variable rate

The application rate can be adjusted on-the-move using the +/- keys. In this way it is possible to adjust the fertiliser rate to match the requirements of individual parts of each field.

Calibration

A single 30 second calibration test is carried out using the calibration kit, which measures the fertiliser's calibration value. The value is keyed in and the system automatically sets to the correct application rate at the spread width required, independent of the forward speed. For quick setting, the calibration value can be entered directly from the spread chart.

- ➔ **Rapid setting** simply by using the calibration value from the spread chart.
- ➔ **Test kit** for checking the fertiliser specification is delivered as standard.
- ➔ **30 seconds test** with the calibration kit for identifying exact calibration value.





Common Functions

Speed Input

Speed monitoring is achieved by a speed signal from a standard speed sensor on a wheel hub or a drive shaft, or as shown from the tractor transmission or radar via an ISO 11786 plug.



Test Kit

A test kit for checking the fertiliser specification is supplied as standard. The kit consists of a particle strength tester (F-Indicator) and a sieve unit for identifying the particle size range (D-Indicator). This key data can then be used for finding a suitable spread chart for any unknown type of fertiliser via BOGBALLE's website (www.bogballe.com).



Update via Internet

It is possible to download the very latest version of the operating software. The update can be made from the Internet at home using a serial RS232 cable.



CALIBRATOR ICON

Intelligent Control

CALIBRATOR ICON is the intelligent solution for controlling M3, M2, L2 and L1 spreaders without the weigh cell system.

Logical Operation

Operation is by easy to understand icons. CALIBRATOR ICON contains all necessary functions required for a professional spreading result including:

- Easy calibration
- Variable rate spreading in steps of 5 %
- Calculation of total spread quantity

8 items of Information Displayed

The display contains all the key information required by the operator including forward speed and target application rate, but also field number, area spread, kg spread, average application rate etc.

Headland Spreading To/From Border

Electric shift for headland spreading „To Border“, is possible directly from the driver's seat. The headland spreading mode is shown in display for optimum safety. „FROM Border“ headland spread is operated manually e.g. by a cable.





CALIBRATOR UNIQ

Super Intelligent Control

CALIBRATOR UNIQ which is standard on M3W and M2W, meets the demands for professional needs and can also be used with M3, M2, L2.

The logical layout and function is supported by a help function and operating instructions in the display.

14 items of Information Displayed

In addition to standard information, data is shown such as spread width, remaining quantity in hopper and the remaining area which can be covered with hopper contents.

Headland Spreading TO/FROM Border

When fitted with the electrical shifting system, headland spreading can be operated directly from the driver's seat. CALIBRATOR UNIQ can operate the shift „TO Border“ and also „FROM Border“. The headland spreading mode is shown in the display for optimum safety (TO Border, standard with „W“).

Extra High Outputs

To meet the demand for spreading at extra high or low forward speeds or for extra large or small quantities of fertiliser, the outlet opening can be increased or reduced with 40% using a special interchange lever system (M-line).

Measurement of Tramline Distance

A distance trip counter can be used to measure tramline distance when spreading on fields without designated tramlines or for measuring the correct starting point of spreader from headland tramline.

Register of Hopper Contents

During filling the quantity filled in is automatically registered on spreaders with the weigh cell system (W). On other spreader models this is entered in manually e.g. the number of Big Bags loaded.

Fixed Scale/Reduction Outlet

Is used for spreading e.g. oil seeds, slug pellets in quantities down to 3 kg/ha. (Integrated micro outlet is standard on M-line)

Non-Stop Weighing Technique

CALIBRATOR UNIQ is the professional solution for combination with the weigh cell system. Constant calculations monitoring the relation between the fertiliser flow, forward speed and working width enables the system to calibrate itself automatically and continuously during work, for ultimate accuracy.

| Specifications | CALIBRATOR UNIQ | CALIBRATOR ICON |
|--|-----------------|-----------------|
| No. of fields which can be recorded | 199 | 99 |
| No. of information in display | 14 | 8 |
| No. of possible speed input | 7 | 4 |
| No. of possible languages in display | 15 | - |
| %-step setting at variable rate spreading | ± 1-25% | ± 5% |
| High/Low Output quantities ± 40% | ✓ | - |
| Integrated help function | ✓ | - |
| Fully Automatic Calibration with weighing technique | ✓ | - |
| Fill in recording (when using big bags/spreaders without weight) | ✓ | - |
| Alarm when the hopper contains less than 200 kg | ✓ | - |
| Trip counter for distance | ✓ | - |
| Illuminated display | ✓ | ✓ |
| Possibility for GPS (RS 232) | ✓ | ✓ |
| Possibility for update with new software via internet | ✓ | ✓ |
| Download of field data to PC | ✓ | ✓ |
| PTO sensor (rpm shown in display) | +* | + |
| Headland spreading, electric „TO Border“ incl. PTO sensor | +* | + |
| Headland spreading, electric „FROM Border“ | + | - |

* = Standard with „W“-spreaders - = not available

✓ = Standard equipment

+ = Option

All BOGALLE products are subject to continuous development.

www.bogballe.com

Dealer:



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