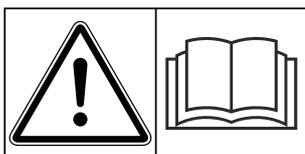


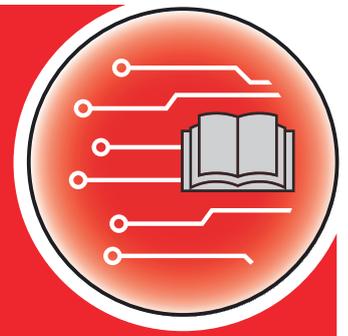
Complementary instructions



**Please read carefully
before using the
machine!**

Keep for future use

This operator's and assembly manual is an integral part of the machine. Suppliers of new and second-hand machines are required to document in writing that the operator's and assembly manual was delivered with the machine and handed over to the customer.



AERO GT 60.1 ISOBUS

from version 3.10.00

5903001-e-en-1225

Original instructions

Dear customer,

By purchasing the machine control unit AERO GT 60.1 ISOBUS for the AERO GT 60.1 mineral fertilizer spreader, you have shown confidence in our product. Thank you very much! We want to justify this confidence. You have purchased a powerful and reliable machine control unit.

However, in case unexpected problems arise, our customer service department is always there for you.



Please read this operator's manual as well as the operator's manual for the machine carefully before using the machine, and follow the advice given.

This manual may also describe equipment that is not included in your machine control unit.



Note the serial number of the machine control unit and of the machine

The machine control unit AERO GT 60.1 ISOBUS has been calibrated at the factory for the fertilizer spreader with which it was supplied. It cannot be connected to another machine without new calibration.

Please enter the serial number of the machine control unit and of the machine here. When connecting the machine control unit to the machine, these numbers must be checked.

Serial number of electronic machine control unit:

Machine serial number:

Machine year of manufacture:

Technical improvements

We continuously strive to improve our products. For this reason, we reserve the right to make any improvements and changes to our machine that we consider necessary without notice. We do not accept any obligation to make such improvements or changes on machines that have already been sold.

We will be pleased to answer any other questions that you might have.

Yours sincerely

RAUCH Landmaschinenfabrik GmbH

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1 User instructions

1.1 About this operator's manual

This operator's manual is an **integral part** of the machine control unit.

The operator's manual contains important instructions for **safe, proper**, and economic **use** and **maintenance** of the machine control unit. Compliance with its stipulations helps to **avoid risks**, reduce repair costs and downtime, and to increase the reliability and service life of the machine controlled with it.

The operator's manual must be kept in an easily accessible location close to where the control unit is operated (such as in the tractor).

The operator's manual does not replace your **own responsibility** as operator and operational staff of the machine control unit.

1.2 Meaning of warnings

The warnings in the operator's manual are classified according to the severity of the risk and the probability of its occurrence.

The warning symbols draw attention to the residual risks to which users of the machine are exposed. The warnings used are structured as follows:

Symbol + **signal word**

Explanation

Level of danger of warnings

The level of danger is indicated in the signal word. The levels of danger are classified as follows:

DANGER!

Type and source of danger

This warning warns of a danger posing an immediate threat to the health and life of people.

Ignoring these warnings will result in severe injury or death.

- ▶ Always observe the measures described to prevent this danger.

WARNING!

Type and source of danger

This warning warns of a potentially dangerous situation for personal health.

Ignoring these warnings leads to severe injury.

- ▶ Always observe the measures described to prevent this danger.

⚠ CAUTION!

Type and source of danger

This warning warns of a potentially dangerous situation for personal health.

Ignoring these warnings leads to injury.

- ▶ Always observe the measures described to prevent this danger.

NOTICE!

Type and source of danger

This warning warns of material and environmental damage.

Ignoring these warnings will result in damage to the machine and to the environment.

- ▶ Always observe the measures described to prevent this danger.



This is an instruction:

General instructions contain tips for the operation and information that is particularly useful, but no warnings about hazards.

1.3 Notes on text descriptions

1.3.1 Instructions and procedures

Steps that must be performed by operating staff are displayed as follows

- ▶ Instructions step 1
- ▶ Instructions step 2

1.3.2 Lists

Lists without a specific sequence are shown as lists with bullet points:

- Property A
- Property B

1.3.3 References

References to other sections in the document are shown with paragraph number, header text and/or page number:

- **Example:** Please also note 2 *Layout and function*

References to other documents are shown as information or instructions without the exact chapter or page number:

- **Example:** Follow the instructions in the operator's manual of the universal drive shaft manufacturer.

1.3.4 Menu hierarchy, keys and navigation

Menus are the entries listed in the **main menu** window.

The menus list **submenus and/or menu items** where settings can be made (selection lists, text or number entries, starting a function).

The various menus and buttons of the machine control unit are illustrated **in bold letters**.

The hierarchy and the path to the requested menu item are marked with an > (arrow) between menu and/or menu item(s):

- System / Test > System / Test > Test/diagnosis means that you can reach the menu item Voltage via the menu item System / Test and the menu item Test/diagnosis.
 - The arrow > corresponds to the operation of the **scroll wheel** and/or the button at the screen (touchscreen).

2 Layout and function



This chapter is limited to the description of the functionality of the electronic machine controller; it does not specify any particular ISOBUS terminal.

- The instructions for the operation of the ISOBUS terminal can be found in the relevant operator's manual.

2.1 Display

The display shows the current status information as well as the selection and input options for the electronic machine control unit.

The most important information concerning the operation of the machine is displayed in the **working screen**.

2.1.1 Description of the working screen



The exact representation of the working screen depends on the actual settings selected and on the machine type.

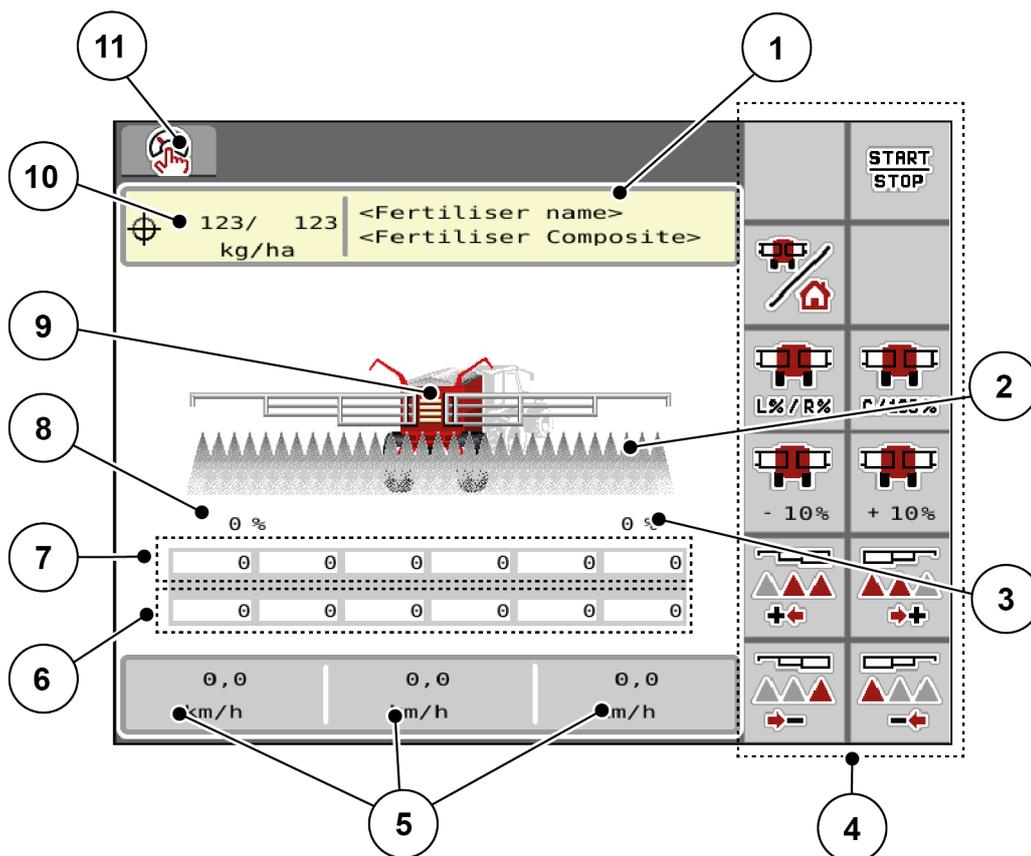


Fig. 1: Machine control unit display

- | | |
|--|---|
| [1] Display of fertilizer information (fertilizer designation and composition)
Button: Adjustment in the fertilizer chart | [7] Target speed of metering units |
| [2] Display of sections and individual fertilizer output | [8] Application rate adjustment for the left boom section |
| [3] Rate change for the right boom section | [9] Display of boom-type mineral fertilizer spreader |
| [4] Function keys | [10] Current application rate from the fertilizer settings or the task controller
Button: direct entry of the application rate |
| [5] Freely definable display fields | [11] Selected operating mode |
| [6] Actual speed of metering units | |

2.1.2 Display fields

The display fields in the working screen can be individually adjusted and optionally assigned the following values as desired:

- Forward speed
- Turns/kg
- ha trip
- kg trip
- m trip
- kg left
- m left
- ha left
- Oil temperature

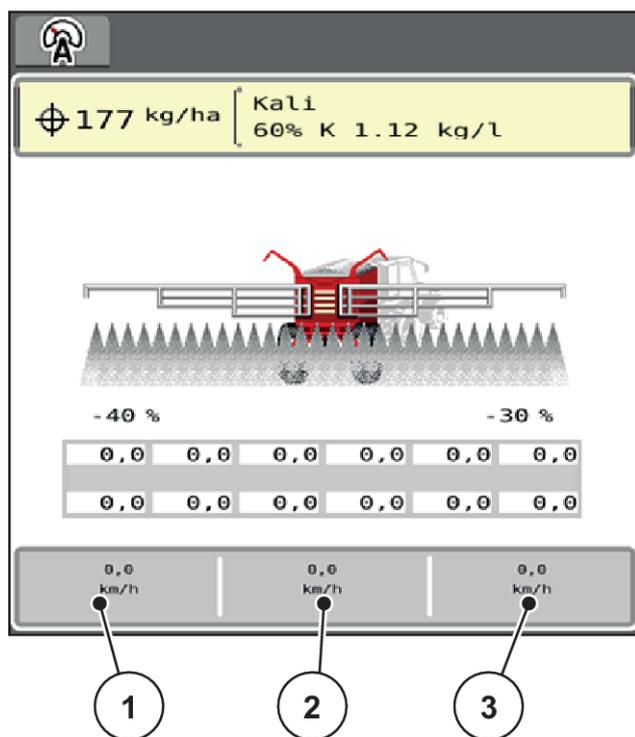


Fig. 2: Display fields

[1] Display field 1

[3] Display field 3

[2] Display field 2

Select display

- ▶ Press the corresponding display field in the touch screen.

The available options are displayed in a list.

- ▶ Select the new value to be assigned to the display field.

- ▶ Press the OK button.

The working screen is displayed.

The respective display field now displays the new values.

2.1.3 Spreading operation status display

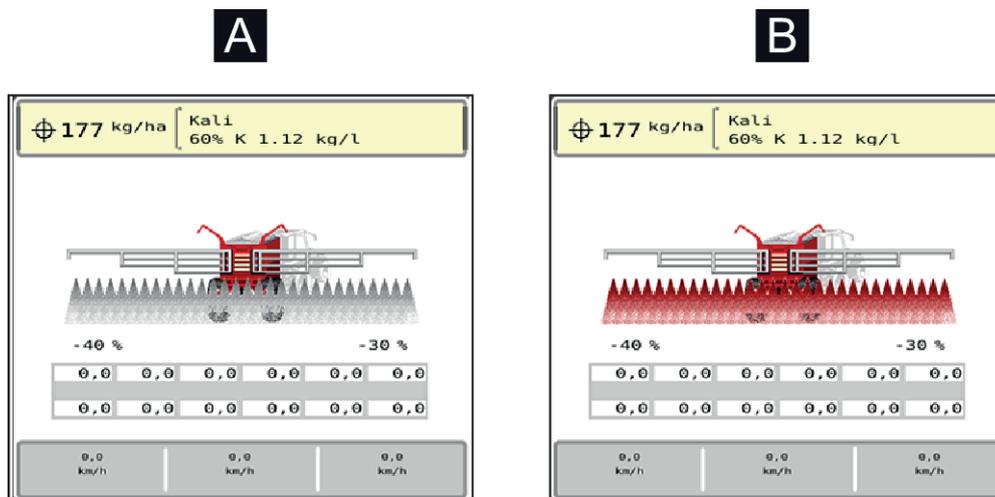


Fig. 3: Display of the spreading operation states

[A] Spreading operation inactive (STOP)

[B] Machine in spreading operation (START)

2.1.4 Display of sections

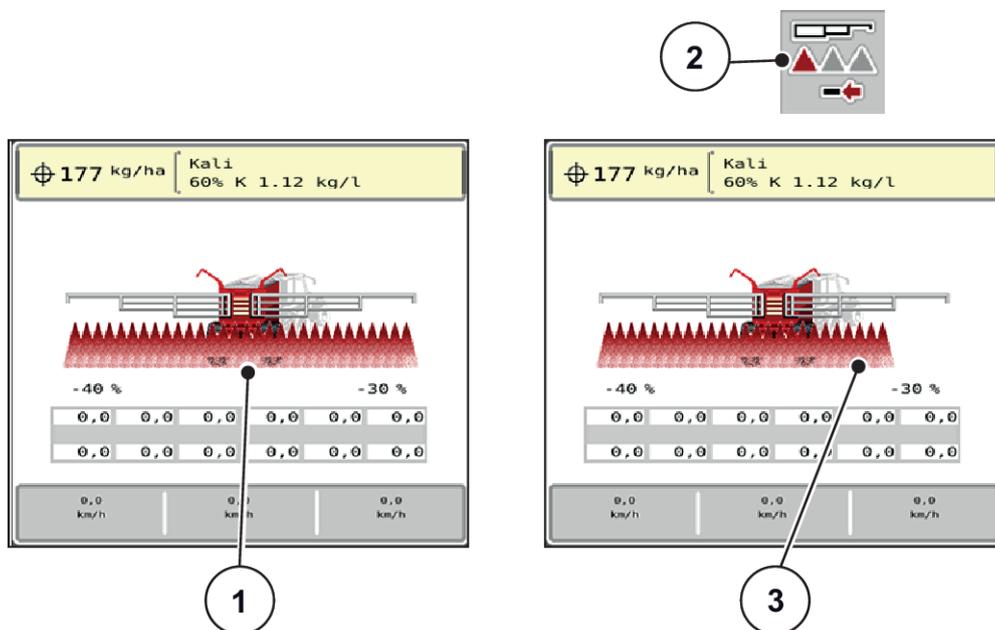


Fig. 4: Display of the section states

[1] Activated sections on entire working width

[2] Reduce right section button

[3] Right section is reduced by several partial sections

Further display and setting options are explained in chapter 4 *Operation*.

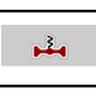
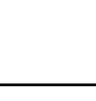
2.2 Library of icons used

The AERO GT 60.1 ISOBUS machine control unit displays icons for the individual menus and functions on the screen.

2.2.1 Navigation

Symbol	Meaning
	Go to the left; previous page
	Go to the right; next page
	Back to the previous menu
	Switch from a menu window directly to the main menu
	Switch between working screen and menu window
	Cancellation, closing the dialog window

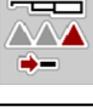
2.2.2 Menus

Icon	Meaning
	Switch from a menu window directly to the main menu
	Switch between working screen and menu window
	SpreadLight operating lights
	Working screen
	Hydraulic axle

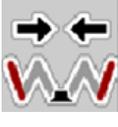
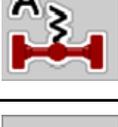
Icon	Meaning
	Fertilizer settings
	Machine settings
	System/Test
	Information
	Weighing/Trip counter

2.2.3 Working screen icons

Icon	Meaning
	Start spreading and control of application rate
	The spreading operation has started; stop the application rate regulation
	Activate Distance Control (option)
	Distance Control (option) is active
	Reset the quantity adjustment to the pre-set application rate
	Switch between working screen and menu window
	Selection of the surplus/shortage quantity on the left, right or both spreading sides (%)
	Quantity adjustment + (plus)

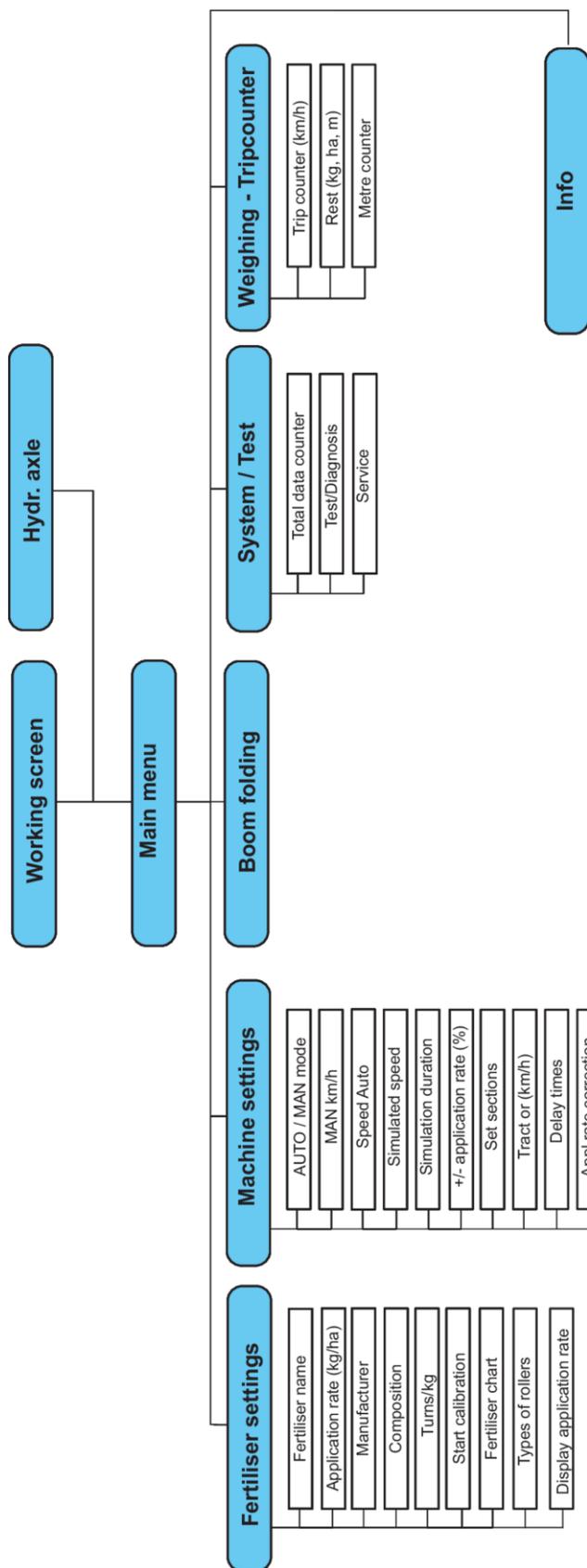
Icon	Meaning
	Quantity adjustment - (minus)
	Quantity adjustment, left + (plus)
	Quantity adjustment, left - (minus)
	Quantity adjustment, right + (plus)
	Quantity adjustment, right - (minus)
	Increase left sections (plus)
	Reduce left sections (minus)
	Increase right sections (plus)
	Reduce right sections (minus)
	If the speed drops below, the symbol flashes.
	If the speed is exceeded, the symbol flashes.
	The current rotational speed is saved.

2.2.4 Other icons

Symbol	Meaning
	Fold in start sections and central sections of the boom
	Fold out start sections and central sections of the boom
	Fold in end sections of the boom
	Fold out end sections of the boom
	Lock boom
	Unlock boom
	Automatic axle suspension active
	Automatic axle suspension switched off
	Lift boom
	Lower boom
	Inclination of boom, lift left

Symbol	Meaning
	Inclination of boom, lift right
	Automatic retensioning of the boom during spreading operation

2.3 Structural menu overview



en AERO GT ISOBUS 3.10 .00

3 Attachment and installation

3.1 Tractor requirements

Before installing the machine control unit, ensure that the tractor satisfies the following requirements:

- A minimum voltage of **11 V** must **always** be guaranteed, even when several consumers are connected concurrently (e.g. air conditioning system, lights)
- Oil supply to the metering units: at least 30 l/min per p = 180 bar, single-acting or double-acting valve (depending on equipment),
- The PTO speed must be set to 1,000 rpm and be maintained (basic requirement for a correct metering and transverse distribution).



On tractors without load-switchable transmission, the forward speed must be selected by using the correct gear ratio in such a way that it corresponds to a PTO speed of **1,000 rpm**.

- 9-pin socket (ISO 11783) located at the rear of the tractor, for connecting the machine control unit to the ISOBUS
- 9-pin terminal plug (ISO 11783) for connecting an ISOBUS terminal to the ISOBUS

The power supply of the machine control unit is implemented via the 9-pin ISOBUS socket at the rear of the tractor.



If the tractor is not equipped with a 9-pin socket at the rear, a tractor assembly set including a 9-pin socket for the tractor (ISO 11783) and a forward speed sensor may be purchased additionally as special equipment.

- The tractor has to provide the speed signal to the ISOBUS.



Check that the tractor has the necessary plugs and sockets available.

- Due to the many different configurations of tractor/machine/terminal, please contact the dealer when selecting the correct connection.

3.2 Connections, sockets

3.2.1 Power supply

The power supply of the machine control unit is implemented via the 9-pin socket at the rear of the tractor.

4 Operation

⚠ CAUTION!

Risk of injury due to discharged fertilizer

In the case of a fault, it is possible that the metering slide unexpectedly opens during road transport to the spreading location. There is a risk of slipping and personal injury due to ejected fertilizer.

- ▶ **Before leaving for the spreading location**, always switch off the electronic machine control unit.

4.1 Switching on the machine control unit

Requirements:

- The machine control unit is correctly connected to the machine and the tractor.
- The minimum voltage of **11 V** is guaranteed.



- ▶ Start the machine control unit.
- ▶ The **Start screen** of the machine control unit appears.
- ▶ Note any warning message and acknowledge it with the Enter key.
- ▶ Subsequently, the machine control unit displays the **activation menu** for a few seconds.

The working screen then appears.

4.2 Navigation within the menus



Refer to chapter 1.3.4 *Menu hierarchy, keys and navigation* for important notes regarding the display and navigation between menus.

The techniques for accessing menus and menu entries **by touching the touch screen or pressing the function keys** by touching the touch screen or pressing the function keys are described below.

- Refer to the operator's manual of the terminal that is used.

■ **Accessing the main menu**

- ▶ Press the **Working screen/main menu** function key. See 2.2.2 *Menus*.

The main menu is displayed.



■ **Accessing the sub-menu via the touch screen**

- ▶ Press the button of the desired sub-menu.

Windows appear with prompts for various actions.

- Text input
- Value input
- Settings made in further sub-menus



Not all parameters are displayed simultaneously on one screen. Use the **left/right arrow** keys to skip to the next or previous menu windows (tabs).

■ **Exiting the menu**



- ▶ Confirm settings by pressing the **Return** key.

Back to the preceding menu .



- ▶ Press the **working screen/main menu** key.

Back to the working screen.



- ▶ Press **ESC**.

The previous settings are retained.

Back to the preceding menu .

4.3 Main menu

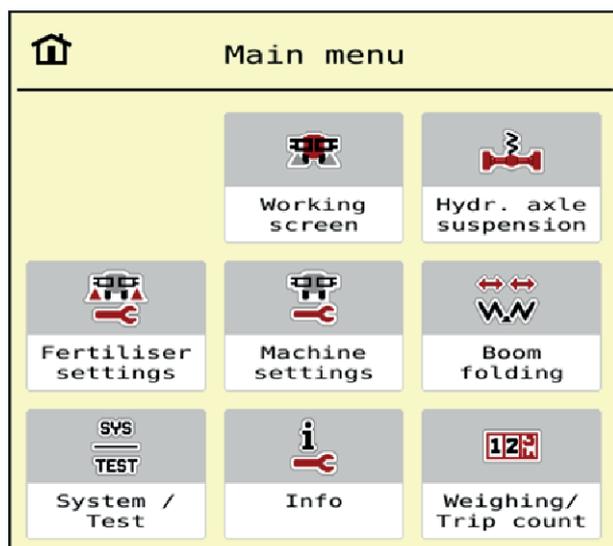
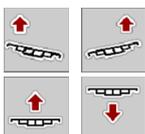


Fig. 5: Main menu with sub-menus

Sub-menu	Meaning	Description
Working screen Working screen	Switches to the working screen	
Hydr. axle suspension	Calibration of automatic axle suspension	<i>4.4 Hydraulic axle</i>
Fertiliser settings Fertiliser settings	Fertilizer and spreading operation settings	<i>4.5 Fertilizer settings</i>
Machine settings Machine settings	Tractor and machine settings	<i>4.6 Machine settings</i>
Boom folding	Folding the boom in/out	<i>4.7 Folding the boom in/out</i>
System/Test System / Test	Settings and diagnosis of the machine control unit	<i>4.9 System/Test</i>
Info Info	Machine configuration display	<i>4.10 Info</i>
Weighing / Trip count Weighing/Trip count.	Values regarding spreading work performed and functions for weighing operation	<i>4.11 Weighing/Trip counter</i>

In addition to the sub-menus, the **Lift/lower** and **Inclination to the left/right** function keys in the main menu are also available.



- The function keys are visible only if the pendulum frame is unlocked.
- See *4.8 Manual adjustment of the boom*

4.4 Hydraulic axle

The automatic suspension is activated in this menu.

NOTICE!

Damage to the machine

If the suspension is not operated in automatic mode, there is a danger of damage to the machine.

- ▶ Make sure that the tractor unit's hydraulic system and the control unit are switched on.



- ▶ Call up the Main menu > Hydr. axle suspension menu.

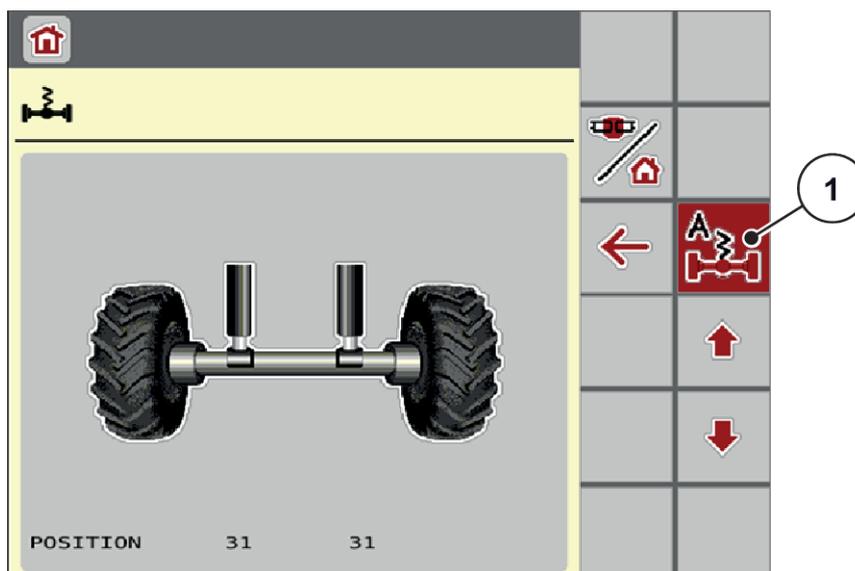


Fig. 6: Automatic suspension menu

- [1] Display of symbol of automatic suspension



- ▶ Press the **automatic suspension** function key.

The automatic suspension symbol appears in the Hydr. axle suspension menu and on the working screen.

The system moves to the cylinder height.

The automatic suspension of the boom-type mineral fertilizer spreader is activated.



To calibrate or maintain the hydropneumatic suspension, its height can be adjusted manually.

- Please observe the operator's manual for your machine.

⚠ CAUTION!

Risk of injury from adjusting the hydro-pneumatic suspension

Once the function keys have been pressed, the hydraulic cylinders will be retracted or extended. This may cause injury.

- ▶ Before adjusting the suspension manually, ensure that nobody is present in the danger zone of the machine.



- ▶ Press the **Retract cylinder** function key.
or
- ▶ Press the **Extend cylinder** function key.

4.5 Fertilizer settings



In this menu, the fertilizer and spreading settings can be changed.

- Call up the Main menu > Fertiliser settings menu.



Not all parameters are displayed simultaneously on the one screen. Use the **left/right arrow** keys to skip to the next or previous menu window (tab).

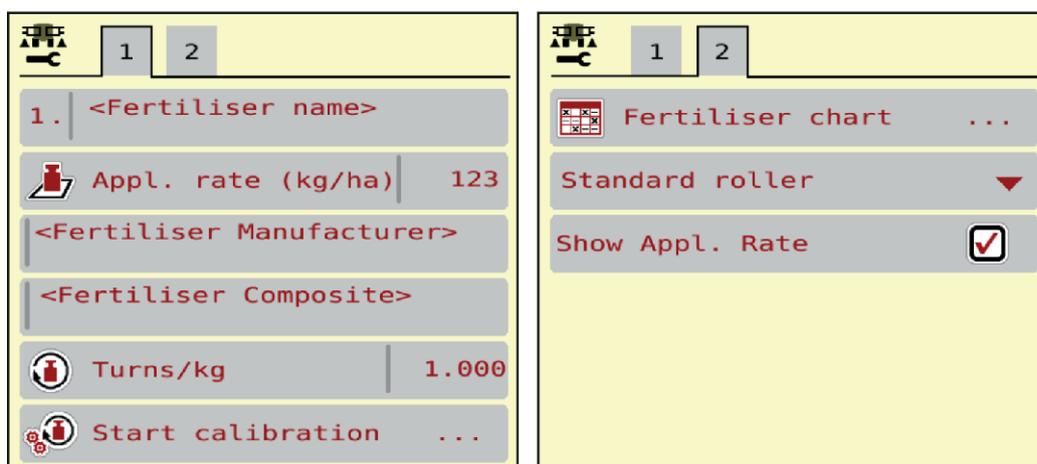


Fig. 7: Fertiliser settings menu, tab 1 and 2

Sub-menu	Meaning	Description
Fertiliser name Fertiliser name	Fertilizer selected from the fertilizer chart	4.5.4 Fertilizer charts
Application rate Appl. rate (kg/ha)	Inputting the set application rate in kg/ha	4.5.1 Application rate
Manufacturer Manufacturer	Fertilizer manufacturer input	
Composition Composition	Percentage of the chemical composition	
Turns/kg	Calibration factor for the revolutions of the metering rollers per kilogram. Is determined by means of a calibration.	4.5.2 Turns pro kg
Start calibration Start calibration	Accessing the sub-menu for executing the calibration	4.5.3 Calibration test
Fertiliser chart Fertiliser chart	Management of fertilizer charts	4.5.4 Fertilizer charts

Sub-menu	Meaning	Description
Roller type	Changing the roller type	4.5.5 Roller types
Application rate display	Switchover display operating screen.	4.5.6 Displace of the application rate

4.5.1 Application rate



In this menu, the target value for the desired application rate can be set.

Enter the application rate:

- ▶ Call up the Fertiliser settings > Appl. rate (kg/ha) menu.
The currently applied application rate is displayed.
- ▶ Enter the new value in the input field.
- ▶ Press **OK**.

The new value is saved in the machine control unit.

The application rate can also be input or adjusted directly at the control unit.

- ▶ Press the Appl. rate (kg/ha) [1] button on the touch screen.
The number input window is displayed.
- ▶ Enter the new value in the input field.
- ▶ Press **OK**.

The new value is saved in the machine control unit.

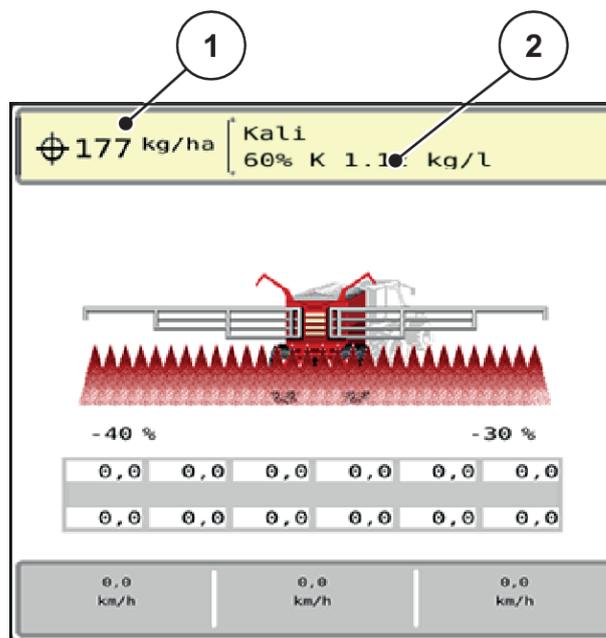


Fig. 8: Entering the application rate on the touch screen

- [1] Button Application rate [2] Button Fertiliser chart

4.5.2 Turns pro kg



The calibration factor for the material to be spread can be entered in this menu.

If the value is already known from previous calibrations, input the selection **manually**.

- ▶ Call up the Fertiliser settings > Turns/kg menu.
*The **current setting** of the calibration factor is displayed as "revolutions/kg".*
- ▶ Enter the value in the input field.
- ▶ Press **OK**.
The new value is saved in the machine control unit.

If you do not know the calibration factor:

- ▶ Enter the value **1.5** revolutions/kg.
- ▶ **Make sure** to execute a calibration.
The calibration factor for this fertilizer is determined precisely.

4.5.3 Calibration test

Perform the calibration test to calibrate the exact amount of fertilizer. Fertilizer must be filled into the hopper. Calibrations for up to 30 types of fertilizers can be stored.

Requirements:

- The metering unit is disconnected.
- The machine control (ISOBUS terminal) is ready for operation.
- An adequately sized tray for collecting the fertilizer is located under the metering unit (minimum capacity 25 kg).
- The hydraulic system of the tractor is switched on (minimum oil flow rate 60 l/min).

Run the calibration test:

- before spreading for the first time
- If the fertilizer quality has changed significantly (moisture, high dust content, granulate damage)
- If a new fertilizer type is used

The calibration must be performed on the stand with the PTO running.



- ▶ Call up the Fertiliser settings > Start calibration menu.
- ▶ Enter the average working speed.

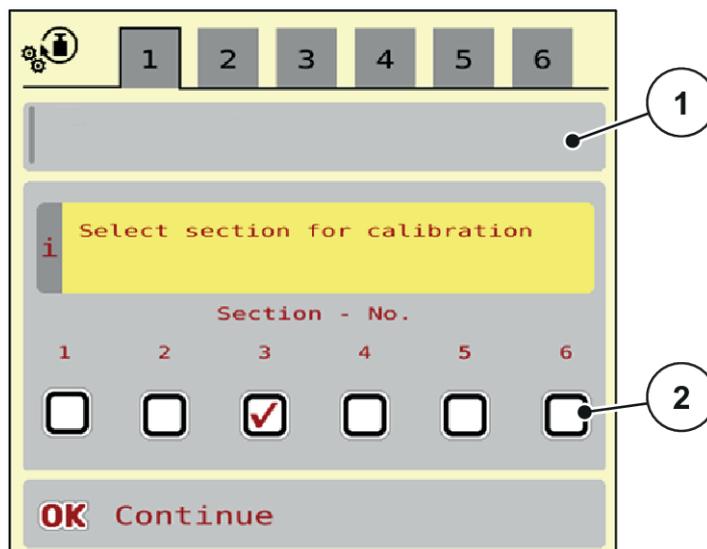


Fig. 9: Calibration menu, page 1

- [1] Fertilizer designation
- [2] Selecting the section over which the calibration test is to be performed. You can select more than one unit at the same time.

- ▶ Enter the new designation in the input field Fertiliser name.
- ▶ Select the desired section for the calibration test.



Depending on the machine configuration you can replace the cam discs with solid discs. Always perform the calibration test over a section for which the cam discs are installed.

- ▷ To do so, check the box under the section number.
The default procedure is to select the 3rd section.
- ▶ Press the **OK** button.

Page 2 appears.

During the course of the process the calibration time can if necessary be configured to suit and the step of pre-filling the metering trays can be skipped (OK Continue without filling)

- ▶ Enter the average working speed.

! WARNING!

Risk of injury during calibration test

Rotating machine parts and discharged fertilizer could cause injury.

- ▶ Before starting the calibration, ensure that all requirements have been met.
- ▶ Observe the calibration chapter in the operator's manual for the machine.

- ▶ Press the **OK** button.

The new value is saved in the machine control unit.

The display switches to page 3.

The metering roller now fills the spreader tank and automatically stops after 5 s.

The display switches to page 4.

- ▶ Empty the fertilizer collection tray and then place it back under the metering unit.

- ▶ Press the **OK** button.

Page 5 is displayed and the calibration test is started automatically.

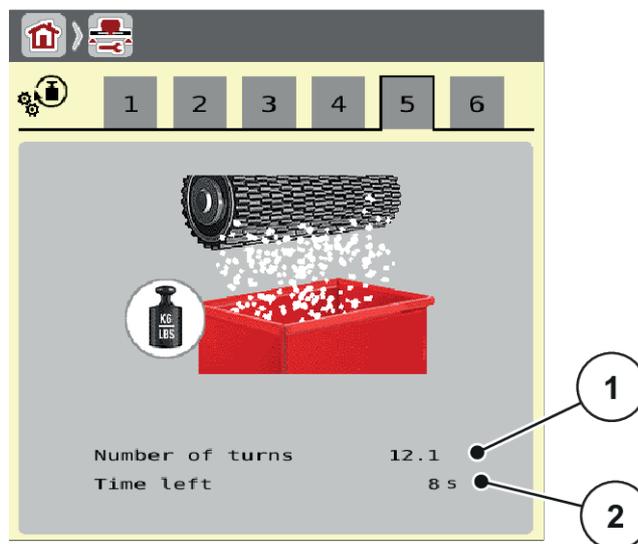


Fig. 10: Calibration menu, page 5

- ▶ The calibration procedure now runs automatically until metering switches off independently after 60 s.
- ▶ The display switches to page 6.
 - ▷ The calibration quantity can be entered in the fields for the calibrated quantity.

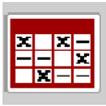
- ▶ Weigh the collected fertilizer quantity again.
- ▶ Enter the collected fertilizer quantity.
The machine control unit uses the data to calculate the new value of revolutions/kg.
- ▶ Press the **OK** button.

The newly calculated revolutions/kg have been adopted.

Revert back to the Fertiliser settings menu.

The calibration test has been performed and is therefore complete.

4.5.4 Fertilizer charts



The fertilizer charts are created and managed in this menu.



Selecting a fertilizer chart affects the machine, fertilizer settings and the machine control unit. The set application rate is overwritten by the stored value from the fertilizer chart.

Creating a new fertilizer chart

Up to 30 fertilizer charts can be created in the electronic machine control unit.

- ▶ Call up the Fertiliser settings > Fertiliser charts menu.
- ▶ Select an empty fertilizer chart.
The name field consists of the fertilizer name and composition, amongst other things.
The display shows the selection window.
- ▶ Press the option Open and back to fertiliser settings.
The Fertiliser settings menu is displayed and the selected element is loaded into the fertilizer settings as the active fertilizer chart.
- ▶ Call up the Fertiliser name menu item.
- ▶ Enter a name for the fertilizer chart.
- ▶ Edit the parameters of the fertilizer chart. See 4.5 Fertilizer settings.

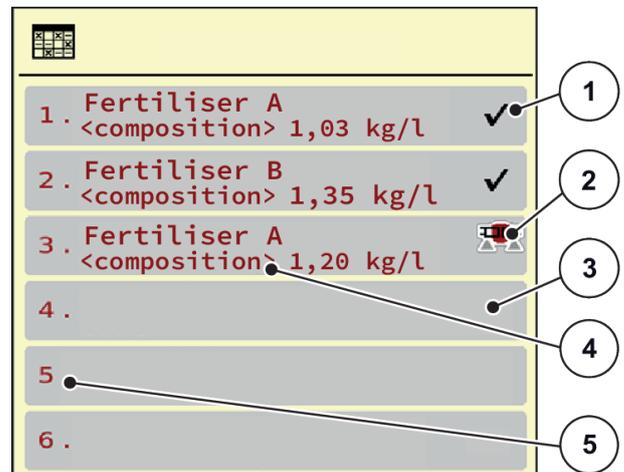


Fig. 11: Menu Fertiliser charts

- | | |
|---|---------------------------------|
| [1] Indicates a fertilizer chart filled with values | [3] Empty fertilizer chart |
| [2] Indicates an active fertilizer chart | [4] Fertilizer chart name field |
| | [5] Chart number |



We recommend naming the fertilizer chart after the fertilizer. A specific fertilizer can thus more easily be assigned to a fertilizer chart.

■ **Selecting a fertilizer chart**

- ▶ Access the menu Fertiliser settings > Open and back to fertiliser settings.
- ▶ Select the desired fertilizer chart.
The display shows the selection window.
- ▶ Select the option Open and back to spreading mat. settings.

The Fertiliser settings menu is displayed and the selected element is loaded into the fertilizer settings as the active fertilizer chart.



When selecting an existing fertilizer chart, all values in the Fertiliser settings menu will be overwritten with the stored values obtained from the selected fertilizer chart, including the drop point and the normal disc speed.

- The machine control unit will move the drop point to the value stored in the fertilizer chart.

■ **Copying an existing fertilizer chart**

- ▶ Select the desired fertilizer chart.
The display shows the selection window.
- ▶ Select the option Copy element.

A copy of the fertilizer chart is now in the first free position on the list.

■ **Deleting an existing fertilizer chart**

- ▶ Select the desired fertilizer chart.
The display shows the selection window.



The active fertilizer chart cannot be deleted.

- ▶ Select the option Delete element.

The fertilizer chart is deleted from the list.

■ **Managing the selected fertilizer chart via the working screen**

The fertilizer chart can also be managed directly on the working screen.

- ▶ Press the fertilizer chart button [2] on the touch screen.

The active fertilizer chart is displayed.

- ▶ Enter the new value in the input field.

- ▶ Press OK.

The new value is saved in the machine control unit.

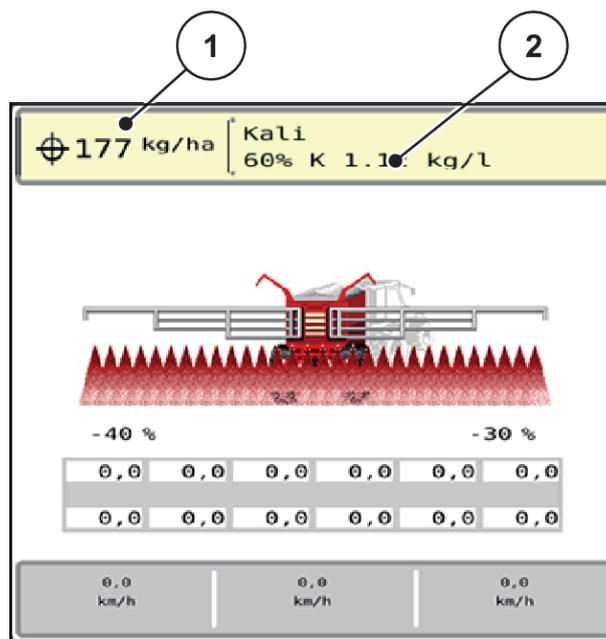


Fig. 12: Managing the fertilizer chart via the touch screen

- [1] Button Application rate
- [2] Button Fertiliser chart

4.5.5 Roller types

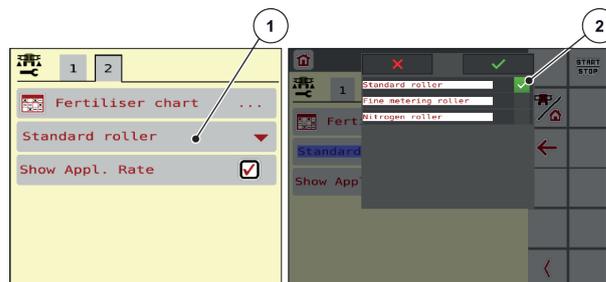
In this menu, you can select the metering rollers.



The selection of the metering roller affects the minimum and maximum application rate.

Selecting the metering roller

- ▶ On the touchscreen, select the second menu item [1] (here: standard roller).
- ▶ Select the installed roller [2].



Depending on the roller type fitted, the calibration test value for AERO 32.1 is now set to the following start values when the roller type is changed in the fertilizer settings:

Roller type	Hydraulic	Electric
Standard	1 rev./kg	6 rev./kg
Fine	15 rev./kg	90 rev./kg

Roller type	Hydraulic	Electric
Nitrogen	5 rev./kg	30 rev./kg

Tab. 1: Starting values when changing the roller type



The current calibration test value is overwritten!

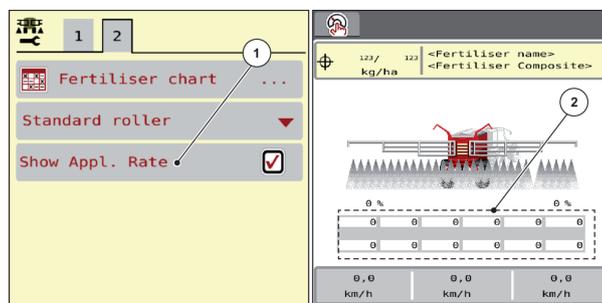
4.5.6 Displace of the application rate

Setting the “Display application rate” check mark causes the operating screen to display the application rates rather than the speeds.

Displaying the application rate

- ▶ On the touchscreen, set checkmark on the “Display application rate” button [1].

The field [2] changes in the operating screen.



4.6 Machine settings



The settings for the tractor and the machine can performed in this menu.

- ▶ Call up the menu Machine settings.

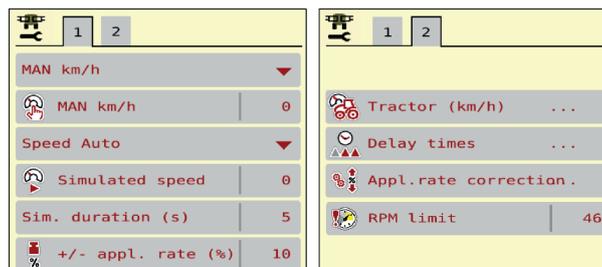


Fig. 13: Menu Machine settings



Not all parameters are displayed simultaneously on the one screen. Use the **left/right arrow** keys to skip to the next or previous menu window (tab).

Sub-menu	Meaning	Description
AUTO/MAN mode AUTO/MAN mode	Specifying automatic or manual operating mode	4.6.1 AUTO/MAN mode

Sub-menu	Meaning	Description
MAN km/h MAN km/h	Setting the manual speed. (only influences the respective operating mode)	To be entered in a separate input window.
Speed signal source Speed/signal source	Selection/limitation of the speed signal <ul style="list-style-type: none"> • Speed AUTO (automated selection of either transmission or radar/GPS¹⁾) • GPS J1939¹ • NMEA 2000 	
Simulated speed Simulated speed	Pre-configuration for spreading with simulated speed in order to spread directly from the edge of the field The simulated speed is active until the actual driving speed has been reached or after the simulation time that has been entered has elapsed.	To be entered in a separate input window
Simulation duration Sim. duration (s)	Input of the maximum duration of the simulated speed in seconds	To be entered in a separate input window
+/- appl. rate (%) +/- appl. rate (%)	Presetting for the change of quantity	To be entered in a separate input window
Set sections	No function	
Tractor (km/h) Tractor (km/h)	Determining or calibrating the speed signal	<i>4.6.3 Forward speed calibration</i>
Delay times Delay times	Optimizing the delay times for the sections	To be entered in a separate input window.
Appl. rate correction Application rate correction	Efficiency	Quantity differences between the metering units can be compensated.
kg level sensor kg level sensor	Input of the remaining quantity to trigger an alarm message via the weigh cells	

¹⁾ The manufacturer does not assume any liability in the event of a loss of the GPS signal.

4.6.1 AUTO/MAN mode

The machine control unit automatically adjusts the metering quantity according to the speed signal. This adjustment is influenced by the application rate, working width, and flow factor.

By default, the unit is operated in the **automatic** mode.

You only work in **manual** mode in the following cases:

- If there is no speed signal (radar or wheel sensor not available or defective)
- Application of slug pellets or seeds (fine seeds)



For uniform spreading of the material to be spread, a **constant forward speed** must be selected in manual working mode.



Spreading in the different working modes is described in *5 Spreading operation*.

Menu	Meaning	Description
AUTO km/h	Selecting automatic mode	Page 55
MAN km/h	Adjustment of forward speed for manual mode	Page 56

Selecting the operating mode

- ▶ Start the machine control unit.
- ▶ Call up the Machine settings > AUTO/MAN mode menu.
- ▶ Select the desired menu item from the list.
- ▶ Press OK.
- ▶ Follow the instructions on the screen.



We recommend that the flow factor is displayed on the working screen. This allows monitoring of the mass flow control whilst spreading. See *2.1.2 Display fields*.



Important information on the use of operating modes for spreading operations is provided in chapter *5 Spreading operation*.

4.6.2 +/- quantity



In this menu, you can set the percentage increment of the **application rate change** for normal spreading.

The preset value of the metering rollers serves as a basis (100%).



During operation, the Quantity +/- Quantity - function keys can be used to adjust the application rate by the +/- Quantity factor at any time. The pre-configuration can be reset with the C 100 % key.

Specifying the application rate reduction:

- ▶ Call up the Machine settings > +/- appl. rate (%) menu.
- ▶ Enter the percentage by which the application rate is to be changed.
- ▶ Press OK.

4.6.3 Forward speed calibration

The speed calibration is the basic requirement for a precise spreading result. Factors such as tire size, a different tractor, all-wheel drive, slippage between tires and ground, ground characteristics, and tire pressure influence the speed measurement and therefore the spreading result.

Exact calculation of the number of speed pulses over 100 m is very important for the precise discharge of the fertilizer quantity.

Preparing the speed calibration

- ▶ Conduct the calibration on the field. That will reduce the influence of the ground conditions on the calibration results.
- ▶ Determine a 100 m long reference track as precisely as possible.
- ▶ Switch on all-wheel drive.
- ▶ Fill only half of the machine, if possible.

■ *Accessing the speed settings*

Up to 4 different profiles for the type and number of pulses can be saved and names (such as the names of tractors) assigned to them.

Before performing spreading, check that the correct profile has been called up in the control unit.

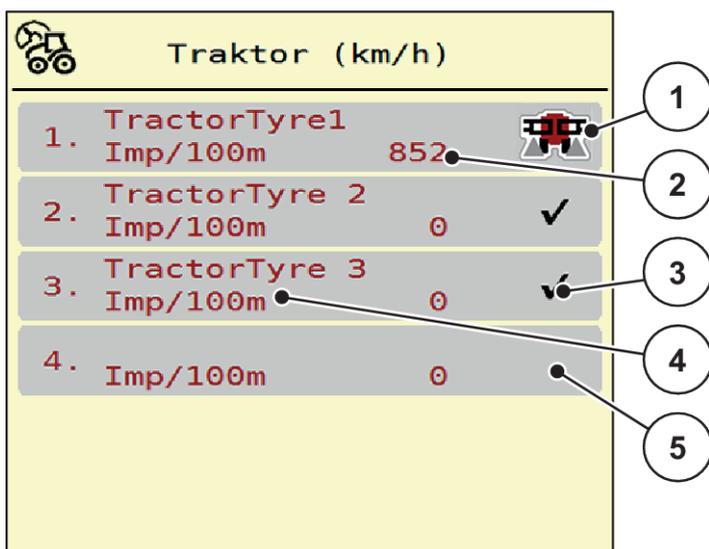


Fig. 14: Menu Tractor (km/h)

- | | |
|--|---------------------------|
| [1] Active tractor profile | [4] Tractor type |
| [2] Display of the number of pulses over 100 m | [5] Empty tractor profile |
| [3] Profile is created, currently not used | |

- ▶ Access the menu Machine settings > Tractor (km/h).

■ Recalibrating the speed signal

Either overwrite an existing profile or create a profile in an empty memory location.

- ▶ In the Tractor (km/h) menu, select the desired profile.
- ▶ Press the **Enter key**.
- ▶ Open **Name field [1]**.
- ▶ Enter the name of the profile.

The profile is active.

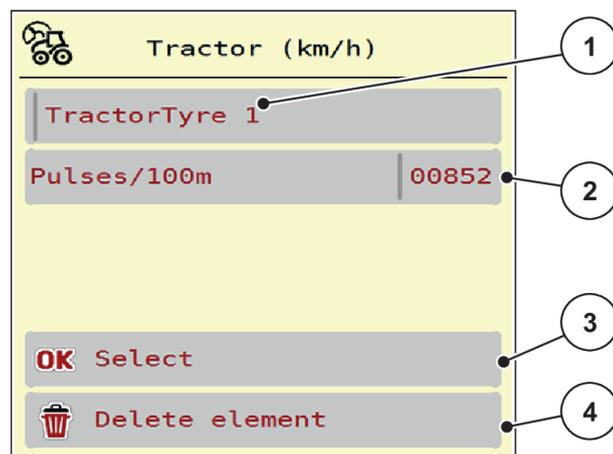


Fig. 15: Tractor profile

- | | |
|--|-----------------------------------|
| [1] Tractor name field | [3] Confirm the profile selection |
| [2] Display of the number of pulses over 100 m | [4] Delete profile |



The name is restricted to 16 characters.

We recommend using the name of the tractor for ease of understanding.

The number of pulses of the speed signal must still be specified below. If the exact pulse count is known, input it directly:

- ▶ From the selected tractor profile, select the Pulses/100m menu entry.

The Pulses menu is displayed for manual entry of the pulse count.

If the exact pulse count is **unknown**, start a **calibration**.



- ▶ Press the calibration key in the tractor profile.

The calibration run working screen is displayed.



- ▶ Press Start at the starting position of the reference distance.

The pulse display is now zero.

The machine control unit is ready for counting pulses.

- ▶ Drive along the 100 m long reference distance.
- ▶ Stop the tractor at the end of the reference distance.



- ▶ Press Stop.

The display shows the number of received pulses.

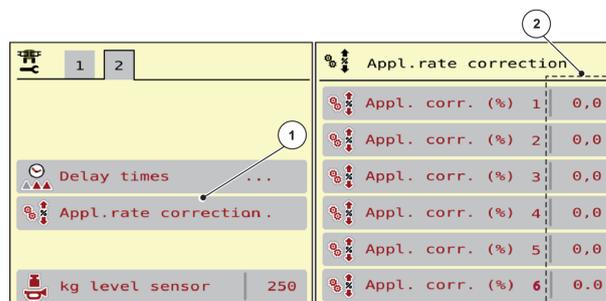
The new pulse count is saved.

Revert to the profile menu.

4.6.4 Efficiency

In this menu, tolerance-related and wear-related quantity differences between the metering units can be compensated. The setting can be found in the “Machine settings” under the menu item “Appl. Correction (%)” [1].

- The metering rollers then rotate slower or faster according to the set value [2].



4.7 Folding the boom in/out

4.7.1 Folding out the boom

⚠ DANGER!

Risk of death while the boom packages are folded in and out

The boom packages can injure people while they are folded in and out. Keep in mind especially that the boom packages also require space behind the machine.

- ▶ Only operate boom if there is enough free space around the spreader.
- ▶ Only fold the booms in or out when the attached spreader is at a standstill.
- ▶ Ensure that nobody is present in the hazard zone.



- ▶ Access the menu Main menu > Boom folding.

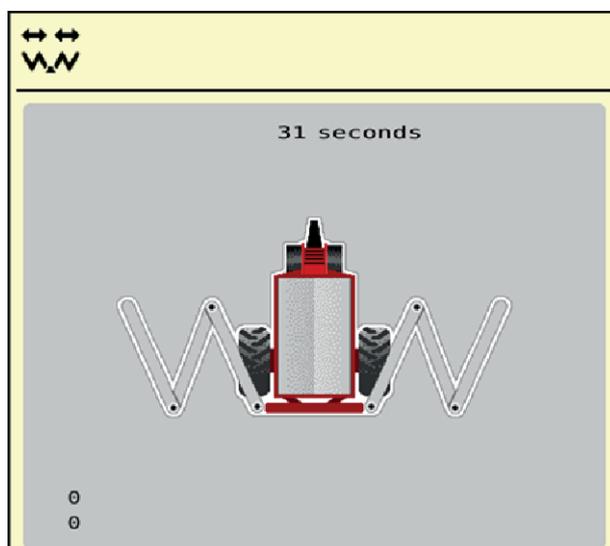


Fig. 16: Menu Boom folding



Always keep an eye on the boom while folding it.



- ▶ Press the **Lift boom** function key until the time has elapsed.

Open the transport lock.

The boom is in the highest position.



You can interrupt the long-press at any time.

- If necessary, press the **Lower boom** function key.
 - The boom is lowered.
 - Close the transport locks.
- If there is no obstacle in the folding area of the boom, press the **Lift boom** key again.
 - The folding procedure resumes.



- ▶ Press the **Fold out main sections** function key until the time has elapsed.

The central sections 2 are fully folded out on both sides.



- ▶ Long-press the unlock function key.

*The **Lock** symbol appears on the menu screen.*

The pendulum frame locking mechanism is unlocked.

The boom is ready for spreading.

NOTICE!

Damage due to closed locking mechanism

If the pendulum frame locking mechanism is closed, vibrations caused by driving are transmitted to the frame without suspension. This will take a heavy toll especially on the boom.

- ▶ Open the pendulum frame locking mechanism before driving with the spreader.



As soon as the pendulum frame is unlocked, spreading can start even if the end sections are folded in.



- ▶ Press the **Fold out end sections** function key until the time has elapsed and the boom end sections are fully folded out on both sides.

The end sections are folded out.

4.7.2

Folding in the boom

⚠ DANGER!

Risk of death while the boom packages are folded in and out

The boom packages can injure people while they are folded in and out. Keep in mind especially that the boom packages also require space behind the machine.

- ▶ Only operate boom if there is enough free space around the spreader.
- ▶ Only fold the booms in or out when the attached spreader is at a standstill.
- ▶ Ensure that nobody is present in the hazard zone.



The machine control unit can no longer determine the position of the boom and the height of the pendulum frame once you have left the folding menu.

- Before locking the boom, make sure to move it to the highest position.



Always keep an eye on the boom while folding it.



- ▶ Press the **Lift boom** function key until the time has elapsed.

The boom is in the highest position.



- ▶ Press the **Lock** function key for at least 3 seconds.

*The **Fold in end sections** symbol appears on the menu screen.*



- ▶ Press the **Fold in end sections** function key until the time has elapsed and the boom end sections are fully folded in on both sides.

The pendulum frame is locked.



- ▶ Press the **Fold in main sections** function key until the boom start sections and boom central sections are fully folded in on both sides.

The pendulum frame is locked.



- ▶ Press the **Lower boom** function key for at least 5 seconds:

The boom rests on the supports on the side of the hopper.

The transport locks are closed.

4.8 Manual adjustment of the boom

The **DistanceControl** function (special equipment) automatically adjusts the height and the inclination. Manual adjustments are also possible if the **DistanceControl** function is deactivated or not available.

The corresponding keys are available in the main menu.



Adjusting the height of the boom

- ▶ Switch from the working screen to the **main menu**.
- ▶ Lift or lower the boom with the function keys [1].

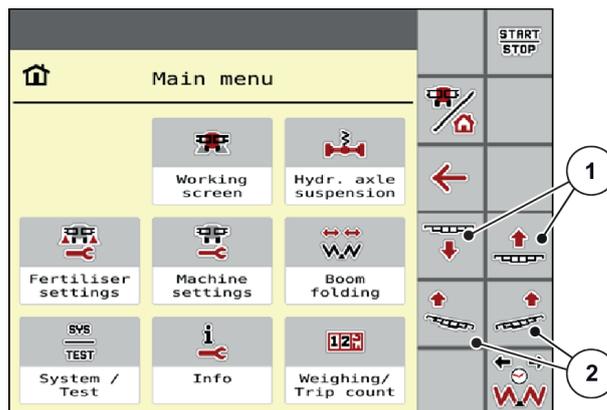


Fig. 17: Function keys for adjusting the boom inclination/height



Adjusting the inclination of the boom

- ▶ Switch from the working screen to the **main menu**.
- ▶ Use the function keys [2] on the left or right side to increase the inclination of the boom for the slope.

4.9 System/Test



In this menu, the system and test settings for the machine control unit can be configured.

- ▶ Call up the Main menu > System / Test menu.

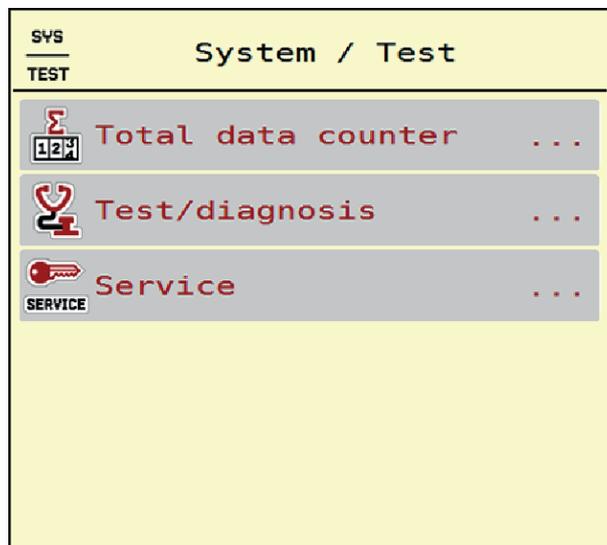


Fig. 18: System / Test - System / Test menu

Sub-menu	Meaning	Description
Total data counter Total data counter	Display list <ul style="list-style-type: none"> • spread quantity in kg • spread area in ha • spread time in h • distance traveled in km 	4.9.1 <i>Total data counter</i>
Test/diagnosis Test/diagnosis	Checking of actuators and sensors	4.9.2 <i>Test/diagnosis</i>
Service Service	Service settings	Password-protected; only accessible for service personnel

4.9.1 Total data counter



In this menu, all of the spreader's counter readings are displayed.



This menu is for information purposes only.

- kg calculated - kg calculated: spread quantity in kg
- ha - ha: spread area in ha
- hours - hours: spread time in h
- km - km: distance traveled in km

Σ Total data counter	
1 2 3 4	
kg calculated	712168
ha	1902.4
hours	93
km	673

Fig. 19: Total data counter - Total data counter menu

4.9.2 Test/diagnosis



The Test/diagnosis menu allows the functions of all actuators and sensors to be checked.



This menu is for information purposes only.
The list of sensors depends on the equipment of the machine.

⚠ CAUTION!

Risk of injury due to moving machine parts

During the tests, machine parts may move automatically.

- ▶ Check that there are no personnel anywhere near the machine.

Sub-menu	Meaning	Description
Voltage Voltage	Checking the operating voltage	
Metering RPM		Page 45
Distance Control		
Level sensors Level sensor	Checking the level sensors	
Wheel speed		
Blower		
Hydr.axle suspension		
Boom folding		
Ultrasonic sensors	Checking the sensors	
Oil tank	Checking the fill level and the oil temperature via sensors	Page 42
LIN bus LIN bus	Checking the assemblies registered via LIN bus	<i>Example: LIN bus</i>
MultiRate	MultiRate	

■ **Example of an oil reservoir**

- [1] Signal display
- [2] Bar graph: Fill level of oil reservoir
- [3] Status display
- [4] Signal display
- [5] Bar graph: Oil temperature and maximum temperature value
- [6] Status display
- [7] Temperature value

► Call up the Test/diagnosis > Oil tank menu.

The display shows the status of the sensors.

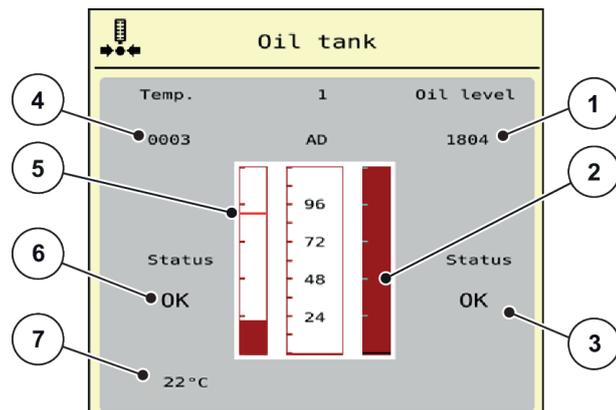


Fig. 20: Test/diagnosis; Example: Oil tank

The Signal display shows the status of the electrical signal for the fill level sensor and the temperature sensor.

■ Example: LIN bus

- [1] Status display
- [2] Start self-test
- [3] Connected LIN participants

► Call up the System / Test > Test/diagnosis menu.

► Call up the LIN bus menu item.

The display shows the status of the actuators/sensors.

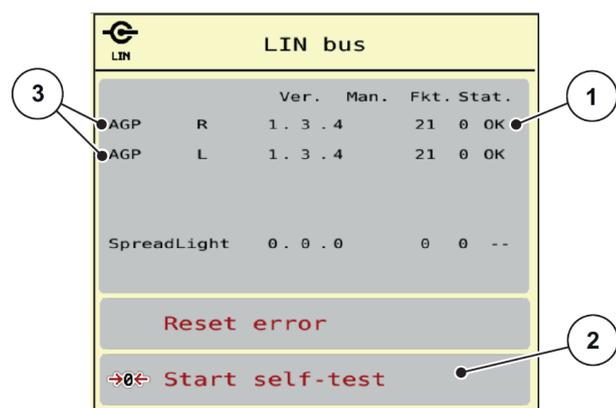


Fig. 21: System / Test; Example: Test/diagnosis

Linbus participant status notification

The LIN participants indicate various conditions:

- 0 = OK; no equipment fault
- 2 = blockage
- 4 = overload

⚠ CAUTION!

Risk of injury due to moving machine parts

During the tests, machine parts may move automatically.

- Check that there are no personnel anywhere near the machine.



When the system is restarted, the status is checked and typically reset. Since the status is not always reset automatically in certain cases, it is now also possible to perform a manual RESET.

- Press the Reset error button.

■ **Example of a level sensor**

- [1] Display of the status information of the level sensor in the right hopper
- [2] Bar with status of hopper filling level: Hopper is full (values in percent)
- [3] Status of level sensor
- [4] Status voltage level on signal input
- [5] Status information of the level sensor in the left hopper

- ▶ Call up the Test/diagnosis > Level sensor menu.

The status of the sensors/actuators is displayed.

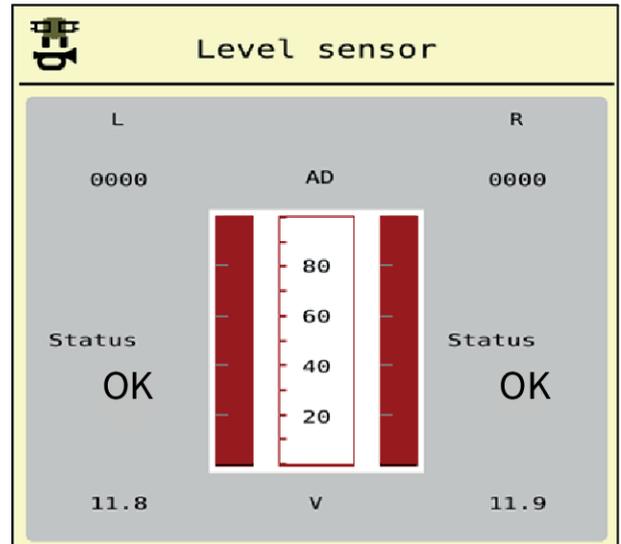


Fig. 22: Test/diagnosis; example: Level sensor

■ **Example Distance Control**

- ▶ Call up the Test/diagnosis > Distance Control menu.

The display shows some information and possible errors for the Distance Control function.

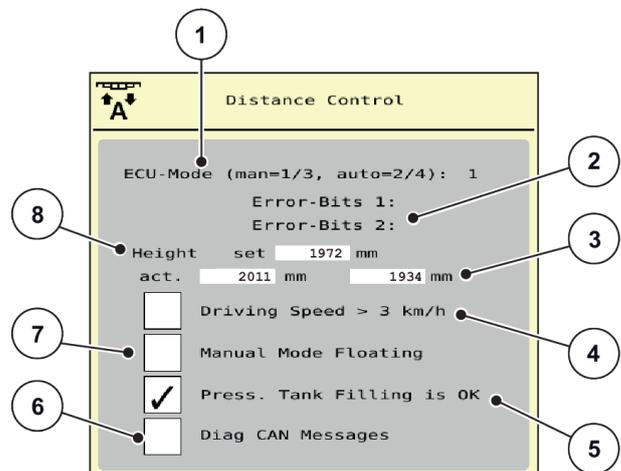


Fig. 23: Test/diagnosis; Example: Distance Control

No.	Designation	Description
1	Status of the Distance Controller	<ul style="list-style-type: none"> • 1/3: Manual mode • 2/4: Automatic mode • 255 / 0: Controller is still starting up and initializing. • 120: Controller cannot be reached/does not respond.
2	Error bits 1 and 2 of the Distance Controller	<ul style="list-style-type: none"> • Bit 1: Distance Control error • Bit 2: Distance Control status <p>▶ Check to make sure that all cables and other lines (hydraulic system, sensors, etc.) are connected correctly and in proper condition.</p> <p>▶ For all other sources of error, register with the customer service department and provide the error code.</p>
3	Current height of the left/right boom end section	If the value 65535 is displayed, there is no communication to the controller (ECU-Mode 120)
4	Test during standstill with simulated driving speed	<p>At speeds below 3 km/h, the Distance Control function is deactivated.</p> <p>▶ Check the box to test the Distance Control function.</p> <p>▶ Make sure to uncheck the box before exiting the menu.</p>
5	Tank filling activated	
6	The controller sends diagnostic messages on the machine bus.	
7	Bring the shutoff valves for the slope inclination cylinder into the floating position.	
8	Current working height of the boom	Mean value of the two ultrasonic sensors



Before exiting the menu, reset all check marks as shown in figure *Fig. 23 Test/diagnosis*; Example: Distance Control.

■ **Example Metering RPM**



The number of sections depends on the machine type.

- If the machine only has 4 sections/metering units, sections 5 and 6 are irrelevant.

- [1] Number of sections/metering units
- [2] Display of the target speed that has been entered
- [3] Display of the actual speed
- [4] Revolution counter
- [5] Resetting the revolution counter
- [6] Metering module version
- [7] Error display via status bits

► Call up the Test/diagnosis > Metering RPM menu.

The display shows the status of the metering units.

► The metering module version [6] must display at least 20308. This corresponds to version 2.03.08.

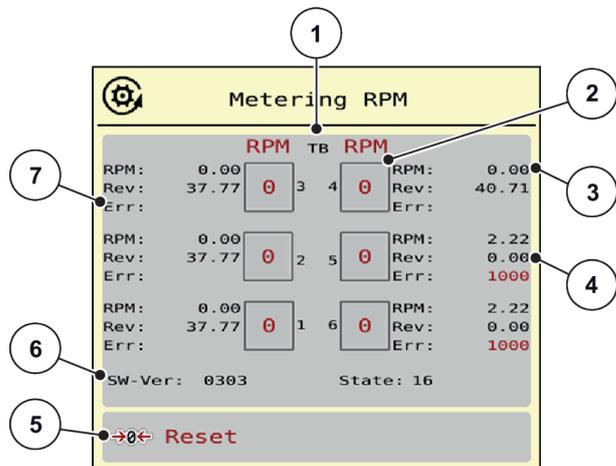


Fig. 24: Test/diagnosis; Example: Metering RPM



If the version is not correct, contact the dealer or the specialist workshop.

The error/status bits are displayed for each metering unit in line Err [7]. If no error is present and no calibration is executed, the line is blank. Several errors can be displayed at the same time. The various states are described in the table below.

Status bit	Description	Possible cause
1	No speed signal	<ul style="list-style-type: none"> • Hydraulics off • Motor is not rotating. • Speed sensor not connected or defective • Broken cable or short circuit
2	Defect on an proportional valve	<ul style="list-style-type: none"> • Proportional magnet coil not connected • Cable breakage • Coil defective

Status bit	Description	Possible cause
3	Speed cannot be adjusted	<ul style="list-style-type: none"> • Problem on hydraulics • Constant current/PowerBeyond mixed up • Incorrect setting on LS pressure regulation switching valve • Oil too cold • Pump not enough output, ...
4	Metering valve rotates without being actuated.	<ul style="list-style-type: none"> • Problem on hydraulics/electrical system • Back-pressure in the system • Short circuit
5	Maximum speed not reached during calibration	<p>Metering valve did not reach 100 rpm.</p> <ul style="list-style-type: none"> • Mostly in conjunction with bit 3
6	reserved	Contact your Customer Service department or specialist workshop.
7	Metering unit not calibrated	Contact your Customer Service department or specialist workshop to execute the calibration.
8	Calibration in progress	The system is currently being calibrated.



Check to make sure all the cables and other lines (sensors, etc.) are connected correctly and are in good condition. Report any other sources of error to Customer Services and provide the error code.

Resetting the revolutions:

- ▶ Press the Reset button.

The speed of the metering valves is now set to 0 rpm.

4.9.3 Service



An input code is required to configure the settings in the Service menu. These settings can only be modified by authorized service personnel.

4.10 Info



The Info menu provides information on the machine control unit.



This menu provides information on the configuration of the machine.

The information list depends on the equipment of the machine.

4.11 Weighing/Trip counter



This menu provides the values for the spreading work being performed and the functions for the weighing operation.

- Call up the Main menu > Weighing/Trip count. menu.

The Weighing/Trip count. menu appears.

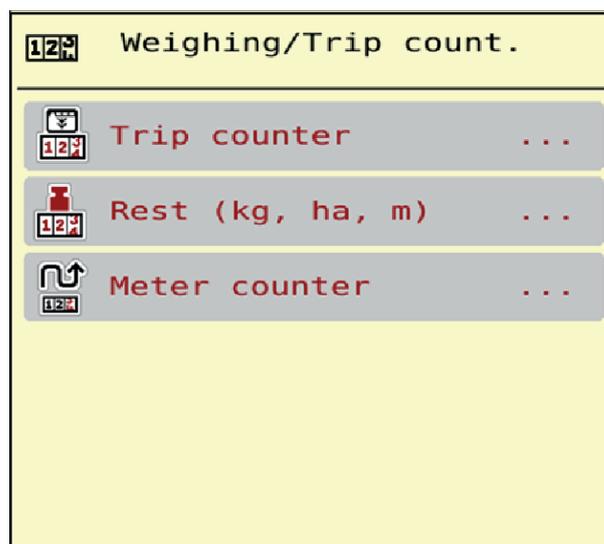


Fig. 25: Menu Weighing/Trip count.

Sub-menu	Meaning	Description
Trip counter Trip counter	Display of the fertilizer quantity spread, area spread, and spread distance	4.11.1 Trip counter
Rest (kg, ha, m) Rest (kg, ha, m)	For weighing spreaders only: Display of the quantity remaining in the machine hopper	4.11.2 Rest (kg, ha, m)
Meter counter Meter counter	Display of the distance traveled since the last reset of the meter counter	Reset (zeroing) by pressing the C 100% key

4.11.1 Trip counter



In this menu, the values of the spreading work performed can be interrogated, the remaining spreading quantity can be monitored and the trip counter can be reset by deleting the value.

- Call up the Weighing/ Trip count > Trip counter menu.

The Trip counter menu appears.

During spreading, i.e. with the metering slides open, the display can be switched to the Trip counter menu, where the current values can be viewed.



For continuous monitoring of the values during spreading, the values kg trip, ha trip or m trip can be assigned to the freely selectable display fields in the working screen, see 2.1.2 *Display fields*.

Clear down the trip counter

- ▶ Access the sub-menu Weighing/Trip count.
> Trip counter.

The values for spread quantity, area, and distance calculated since the last deletion are displayed.

- ▶ Press the Delete trip counter - Delete trip counter button.

All values of the trip counter are reset to 0.

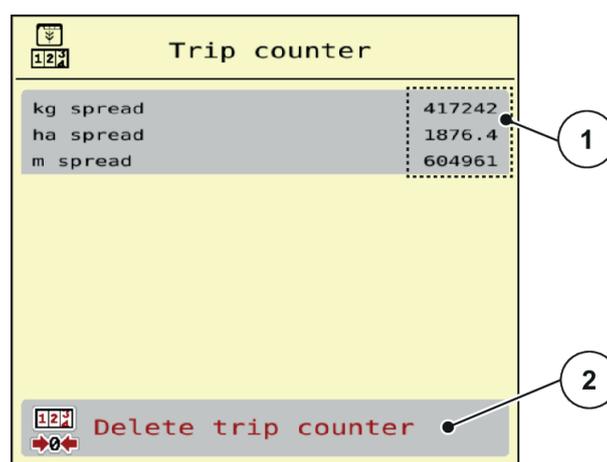


Fig. 26: Trip counter - Trip counter menu

- [1] Spread quantity, [2] Delete trip counter
area and distance - Delete trip
display fields counter

4.11.2 Rest (kg, ha, m)



The Rest (kg, ha, m) menu can be interrogated to check the quantity remaining in the hopper. The menu indicates the possible area (ha) and distance (m) which can still be spread with the remaining fertilizer quantity.



The current fill weight **in the weighing spreader can only be determined by weigh cells (W)**. In all other spreaders, the remaining fertilizer quantity is calculated from the fertilizer and machine settings as well as from the drive signal, and the filling quantity must be entered manually (see below). The Application rate and Working width values cannot be changed in this menu. They are for information purposes only.

- ▶ Call up the Weighing/Trip count. > Rest (kg, ha, m) menu.

The Rest (kg, ha, m) menu appears.

- [1] kg rest - kg left input field
- [2] Appl. rate (kg/ha) - Application rate, Working width (m) - Working width display fields, and the available spread area and distance

Rest (kg, ha, m)	
kg rest	0
Appl. rate (kg/ha)	200
Working width (m)	24.00
ha possible	0.0
m possible	0

Fig. 27: Rest (kg, ha, m) - Rest (kg, ha, m) menu

For machines without weigh cells

- ▶ Fill the hopper.
- ▶ In the Rest (kg) area, enter the total weight of the fertilizer left in the hopper.

The unit calculates the values for the possible spread area and distance.

4.12 Using the joystick

A joystick may also be used as an alternative to the settings in the working screen of the ISOBUS terminal.



Contact your dealer if you wish to set up the use of a joystick.

- Please refer to the instructions in the operator's manual of the ISOBUS terminal.

4.12.1 CCI A3 joystick

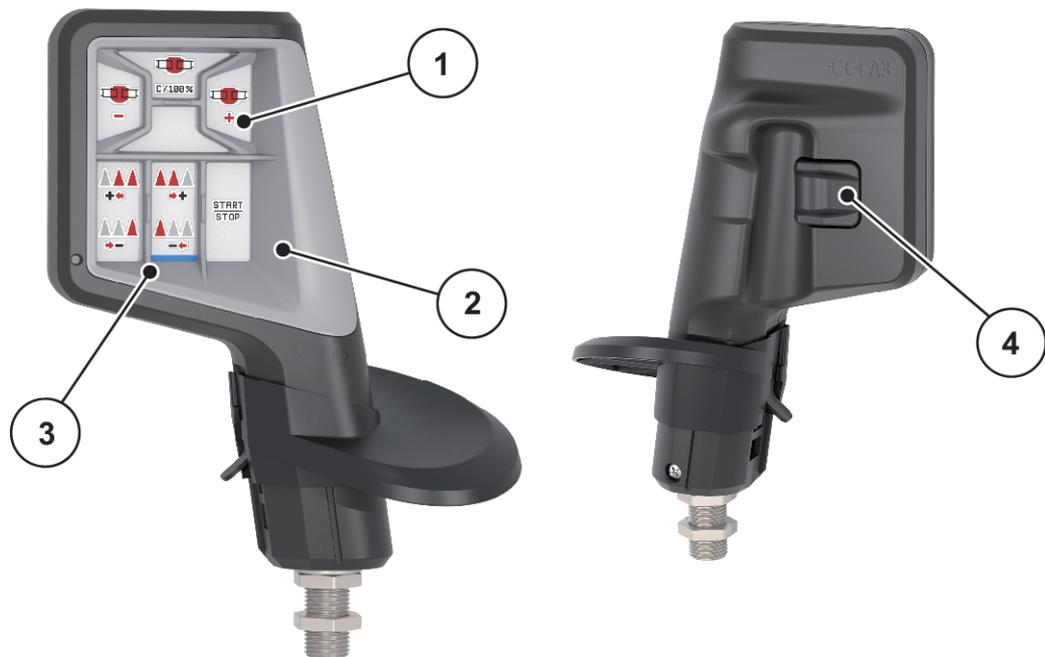


Fig. 28: CCI A3 Joystick, front and rear

- | | |
|-------------------------|--------------------------------|
| [1] Light sensor | [3] Plastic grid (replaceable) |
| [2] Display/touch panel | [4] Shift key |

4.12.2 CCI A3 Joysticks operating levels

You can switch between three operating levels with the shift key. The plane that is active in each case is indicated by the position of an illuminated bar at the lower edge of the display.

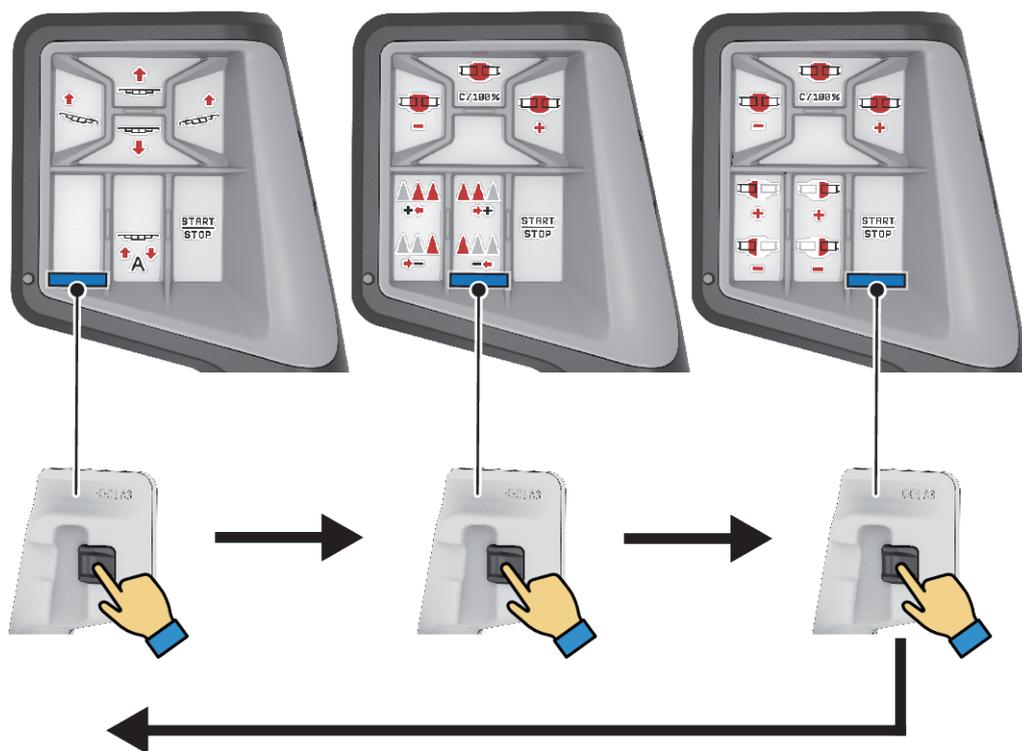


Fig. 29: CCI A3 joystick, operating level display

- [1] Level 1 active
- [2] Level 2 active
- [3] Level 3 active

4.12.3 CCI A3 joystick button functions

The joystick offered is pre-programmed with specific functions at the factory.



The meaning and function of the icons can be found in Chapter 2.2 *Library of icons used*.
Please note that the functions of the buttons vary depending on machine type.

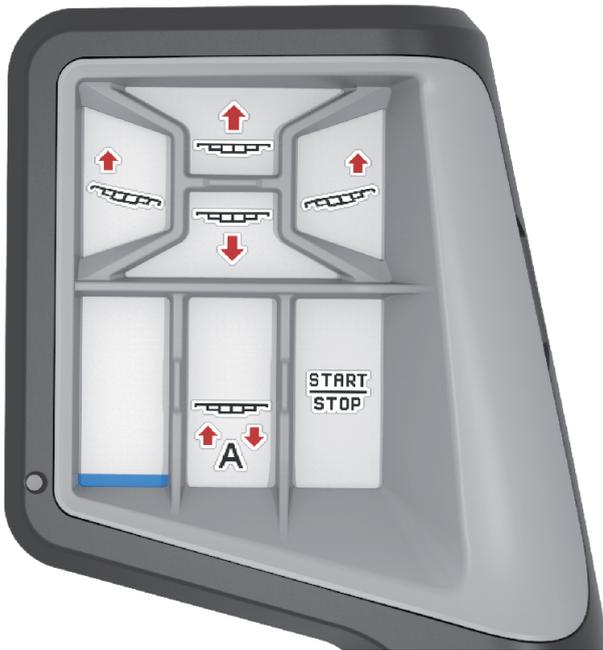


Fig. 30: Button functions Level 1

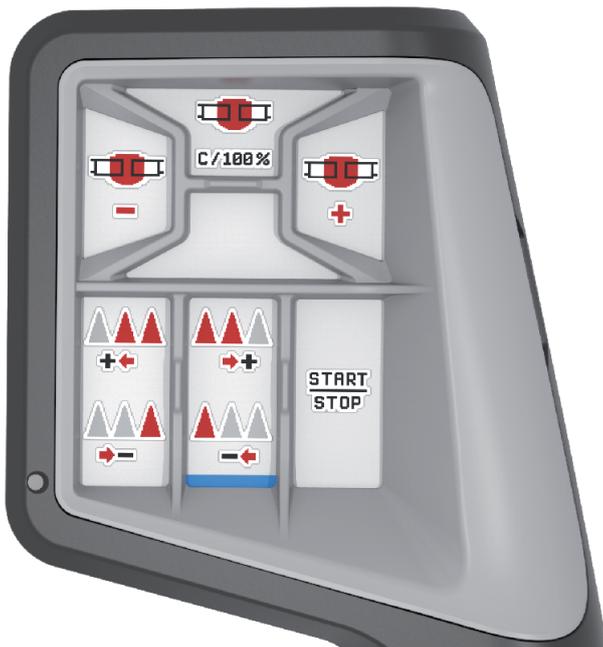


Fig. 31: Button functions Level 2

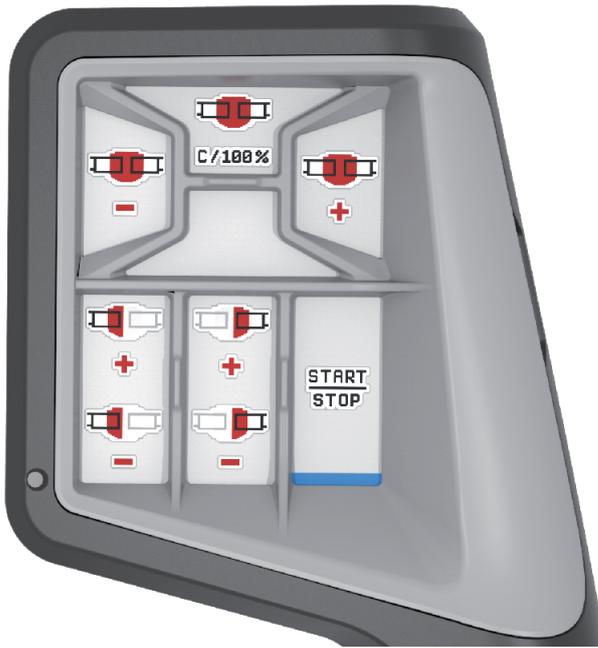


Fig. 32: Button functions Level 3

5 Spreading operation

The machine control unit helps you to enter the machine settings before starting work. During spreading, functions of the machine control unit are also active in the background. This allows you to monitor the quality of the fertilizer spreading.

5.1 Working with sections

You can adjust the working width when activating or deactivating the sections. These settings can be configured directly in the working screen. You can use these to optimally adapt them to the field requirements during spreading operation.

Button	Spreading type
	Switching off the section from the left to the center
	Activating the section from the center to the left
	Switching off the section from the right to the center
	Activating the section from the center to the right

- ▶ Press the function key several times until the desired working width is displayed.

5.2 Spreading with the AUTO km/h operating mode



This working mode is applied by default for machines that lack a weighing system.

Requirements for spreading:

- The AUTO km/h working mode is active (see 4.6.1 *AUTO/MAN mode*).
- The fertilizer settings are defined:
 - Application rate (kg/ha),
 - Turns/kg

- ▶ Fill the hopper with fertilizer.



In order to achieve an optimum spreading result in the AUTO km/h working mode, a calibration should be carried out before starting spreading.

- ▶ Execute a calibration in order to determine the revolutions/kg of the metering rollers or enter the value manually.

- ▶ Press Start/Stop.



The spreading starts.

5.3 Spreading with the MAN km/h operating mode



If there is no speed signal, the MAN km/h operating mode is active.

- ▶ Access the menu Machine settings > AUTO/MAN mode.

- ▶ Select the MAN km/h menu item.

The display shows the input window Forward speed.

- ▶ Enter the value for the forward speed during spreading.

- ▶ Press OK.

- ▶ Configure the fertilizer settings:

- ▷ Application rate (kg/ha)

- ▷ Turns/kg

- ▶ Fill the hopper with fertilizer.



In order to achieve an optimum spreading result in the MAN km/h operating mode, a calibration is to be carried out before starting the spreading.

- ▶ Carry out a calibration in order to determine the revolutions/kg of the metering rollers or enter the value manually.

- ▶ Pressing Start/Stop



The spreading starts.



Always observe the set forward speed during spreading.

5.4 Automatic re-tensioning of the boom



During spreading, the tension of the boom cylinders decreases due to the vibrations. This is why regular re-tensioning is required. This is done automatically via the **AUTO re-tensioning** function.

Requirement:

- The boom is folded out. See *Chapter 4.7.1 - Folding out the boom - Page 37*

▶ Press the AUTO re-tensioning function key in the main menu.

Re-tensioning is active.

All boom cylinders are re-tensioned every 120 seconds for 5 seconds.

5.5 DistanceControl

■ *Optional equipment*



Contact your dealer to activate the function.

6 Alarm messages and possible causes

6.1 Meaning of the alarm messages

Various alarm messages can be displayed on the ISOBUS terminal display.

No.	Message in display	Meaning and possible cause
4	Hopper left empty!	The filling level sensor on the left reports "empty." <ul style="list-style-type: none"> The left hopper is empty.
5	Hopper right empty!	The filling level sensor on the right reports "empty." <ul style="list-style-type: none"> The right hopper is empty.
32	Externally controlled parts can be moved. Risk of injury through squeezing and shearing! - Direct ALL persons out of the danger zone - Read the instruction manual Confirm with ENTER	If the machine control unit is activated, components may move unexpectedly. <ul style="list-style-type: none"> Follow the displayed instructions only if all risks have been eliminated.
81	Low oil level!	Insufficient oil level in the hydraulic circuit. <ul style="list-style-type: none"> Stop the machine and refill oil.
83	Reduce oil temp.	The oil temperature of the blower drive has reached the alarm limit that has been set and the radiator does not start. <ul style="list-style-type: none"> Does the radiator have power? Check the power supply and plug connections and replace them, if necessary.
97	Set metering RPM not reached at Section(s)	<ul style="list-style-type: none"> Blockage Target speed too high. Enter a value lower than 120 rpm. Not enough oil in the oil reservoir Oil too cold

6.2 Fault/alarm

An alarm message is displayed with a red frame and with a warning symbol.

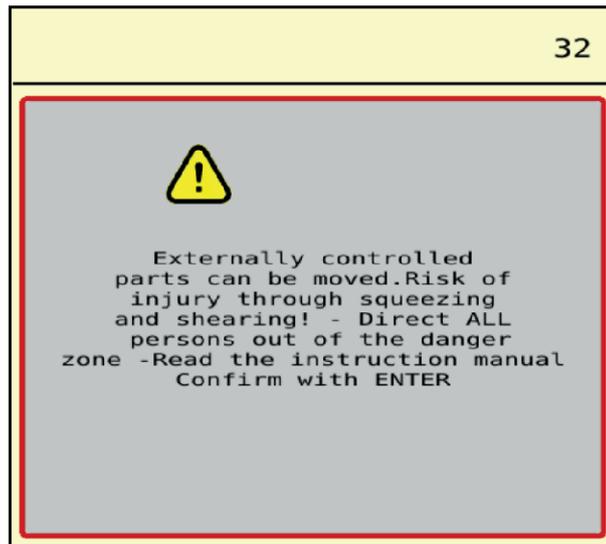


Fig. 33: Alarm message (example)

6.2.1 Acknowledging an alarm message

Acknowledging an alarm message:

- ▶ Rectify the cause of the alarm message.
Refer to the operator's manual for your mineral fertilizer spreader.
See also 6.1 *Meaning of the alarm messages*.
- ▶ Acknowledge the alarm message by selecting the green check icon.
- ▶ Use various keys to acknowledge the other messages with a yellow frame:
 - ▷ Enter
 - ▷ Start/Stop
- ▶ Follow the instructions on the screen.



The acknowledgment of alarm messages may differ on different ISOBUS terminals.

7 Special equipment

Illustration	Designation
	Level sensor
	CCI A3 joystick
	DistanceControl

8 Guarantee and warranty

RAUCH devices are manufactured using modern production methods and with the greatest of professional care, and are subjected to numerous inspections.

This is why RAUCH is offering a 12 month warranty if the following conditions are met:

- The warranty starts on the date of purchase.
- The warranty covers material or manufacturing defects. We are liable for third-party products (hydraulics, electronics) only to the extent of the relevant manufacturer. During the warranty period, manufacturing and material defects will be rectified free of charge with the replacement or repair of the affected parts. Other rights extending beyond the above, such as claims for conversion, reduction, or replacement for reasons of damage not suffered by the supplied product are explicitly excluded. Warranty services are provided by authorized workshops, by RAUCH factory representatives or the factory itself.
- Consequences of natural wear, dirt, corrosion, and all defects caused by improper use as well as external influences shall be excluded from the warranty. Any unauthorized repairs or changes to the original condition will void the warranty. The warranty is voided if any spare parts other than genuine RAUCH spare parts were used. Therefore, the directions in the operating manual must be observed. Please contact our company representatives of the parent company if you have any questions or doubts. Warranty claims must be submitted to the company within 30 days at the latest after the damage has occurred. The date of purchase and the machine number must be indicated. If repairs under the warranty are required, they must be carried out by the authorized workshop only after consultation with RAUCH or the company's appointed representatives. The warranty period will not be extended by warranty work. Transport damage is not a factory defect and is therefore not covered by the manufacturer's warranty manufacturer.
- Claims for damage other than to the RAUCH devices will not be accepted. This also means that no liability will be accepted for damage resulting from spreading errors. Unauthorized modifications of the RAUCH devices may result in consequential damage, for which the manufacturer will not accept any liability. The manufacturer's exclusion from liability will not apply in the case of willful intent or gross negligence by the owner or a senior employee, and in cases where – according to the product liability law – there is liability for personal injury or material damage to privately used objects in the event of defects in the supplied product. The exclusion from liability will also not apply if characteristics are missing that are explicitly guaranteed, if the purpose of their guarantee was to protect the purchaser against damage not suffered by the supplied product itself.

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