

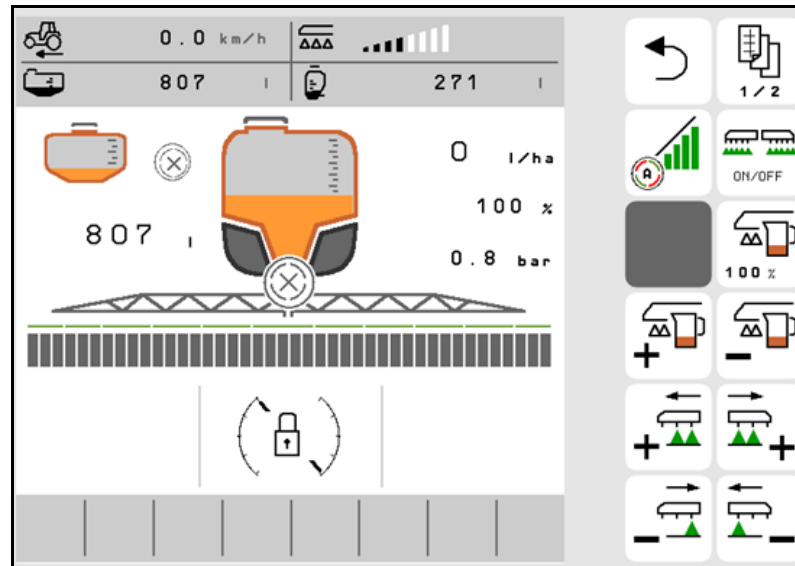
# Operating Instructions

## **AMAZONE**

### ISOBUS software

#### Field sprayer

#### UF 02 / UX01 / Pantera / FT-P



MG6004  
BAG0171.14 11.23  
Printed in Germany

SmartLearning



**Please read this operating manual before initial operation. Keep it in a safe place for future use!**

**en**



# READING THE INSTRUCTION

*manual and to adhere to it should not appear to be inconvenient and superfluous as it is not enough to hear from others and to realise that a machine is good, to buy it and to believe that now everything would work by itself. The person concerned would not only harm himself but also make the mistake of blaming the machine for the reason of a possible failure instead of himself. In order to ensure a good success one should go into the mind of a thing or make himself familiar with every part of the machine and to get acquainted with its handling. Only this way, you would be satisfied both with the machine as also with yourself. To achieve this is the purpose of this instruction manual.*

---

*Leipzig-Plagwitz 1872. Rud. Sark.*

**Manufacturer's address**

---

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E-mail: amazone@amazone.de

**Spare part orders**

---

Spare parts lists are freely accessible in the spare parts portal at  
[www.amazone.de](http://www.amazone.de).  
Please send orders to your AMAZONE dealer.

**Formalities of the operating manual**

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## Foreword

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## Foreword

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Dear Customer,

You have chosen one of the quality products from the wide product range of AMAZONEN-WERKE, H. DREYER SE & Co. KG. We thank you for your trust in our products

On receiving the implement, check to see if it has been damaged during transport or if parts are missing. Using the delivery note, check that the implement has been delivered in full, including any special equipment ordered. Damage can only be rectified if problems are claimed immediately.

Before initial operation, read and observe this operating manual, and particularly the safety information. Only after careful reading will you be able to benefit from the full scope of your newly purchased implement.

Please ensure that all the implement operators have read this operating manual before they put the implement into operation.

Should you have any questions or problems, please consult this operating manual or contact your local service partner.

Regular maintenance and timely replacement of worn or damaged parts increases the lifespan of your implement.

## User evaluation

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Dear Reader,

We update our operating manuals regularly. Your suggestions for improvement help us to create ever more user-friendly operating manuals.

AMAZONEN-WERKE





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# 1 User information

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The User Information section provides information on use of the operating manual.

## 1.1 Purpose of the document

---

This operating manual

- describes the operation and maintenance of the implement.
- provides important information on safe and efficient handling of the implement.
- is a component part of the implement and should always be kept with the implement or the towing vehicle.
- must be kept in a safe place for future use.

## 1.2 Locations in the operating manual

---

All the directions specified in the operating manual are always seen in the direction of travel.

## 1.3 Diagrams

---

### Instructions and responses

---

Activities to be carried out by the user are given as numbered instructions. Always keep to the order of the instructions. The reaction to the handling instructions is given by an arrow.

Example:

1. Instruction 1
- Implement response to instruction 1
2. Instruction 2

### Lists

---

Lists without an essential order are shown as a list with bullets.

Example:

- Point 1
- Point 2

### Item numbers in diagrams

---

Numbers in round brackets refer to the item numbers in the diagrams.  
Example:

- (1) Position 1

## 2 General safety instructions

Knowledge of the basic safety information and safety regulations is a basic requirement for safe handling and fault-free implement operation.



The operating manual

- must always be kept at the place at which the implement is operated.
- must always be easily accessible for the user and maintenance personnel.

### 2.1 Representation of safety symbols

Safety instructions are indicated by the triangular safety symbol and the highlighted signal word. The signal word (DANGER, WARNING, CAUTION) describes the severity of the risk, and carries the following meaning:



#### **DANGER**

Indicates a direct threat at high risk which will result in death or most serious bodily harm (loss of limbs or long-term harm), should it not be prevented.

If the instructions are not followed, then this will result in immediate death or serious physical injury.



#### **WARNING**

Indicates a medium risk, which could result in death or (serious) physical injury if not avoided.

If the instructions are not followed, then this may result in death or serious physical injury.



#### **CAUTION**

Indicates a low risk which could cause minor or medium level physical injury or damage to property if not avoided.



#### **IMPORTANT**

Indicates an obligation to special behaviour or an activity required for proper implement handling.

Non-compliance with these instructions can cause faults on the implement or disturbance to the environment.



#### **NOTE**

Indicates handling tips and particularly useful information.

These instructions will help you to use all the functions of your implement in the best way possible.

- FT-P



### 3 Product description

---

The ISOBUS software and an ISOBUS terminal make it easy to control, operate and monitor the AMAZONE implements.

The ISOBUS software works with the following AMAZONE implements:

- UX 4201, UX 5201, UX 6201, UX11201
- UF 1002, UF 1302, UF 1602, UF 2002
- Pantera 4503, Pantera 4504
- FT-P

During operation

- the work menu shows all work data,
- the implement is operated through the work menu,
- the ISOBUS software controls the spread rate according to forward speed.

#### 3.1 Software version

---

This operating manual is valid from software version:

ISOBUS job computer  
(AEL652)

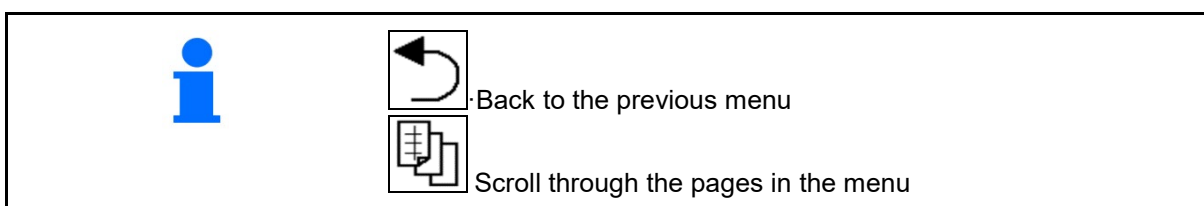
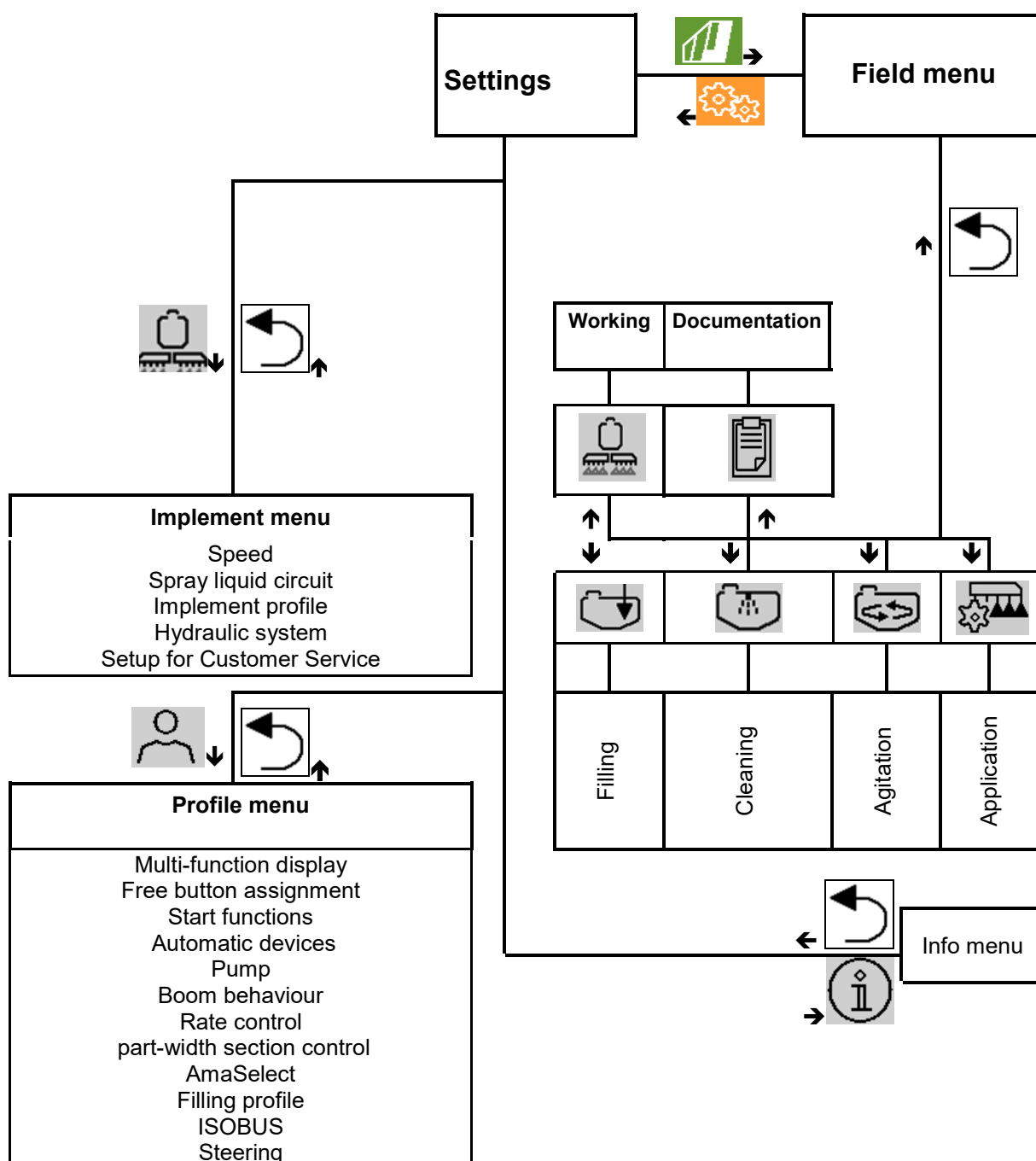
**NW242-I**

#### 3.2 New features with software version I

---

- Comfort Package and Comfort Plus Package: flushing water tank fill level as bar graph
- Tank size 7004 can be set
- Pantera cruise control can be automatically switched with the spraying function.

### 3.3 Hierarchy of the ISOBUS software



### 3.4 Field menu / Settings menu

The Field menu is active after switching on the terminal.



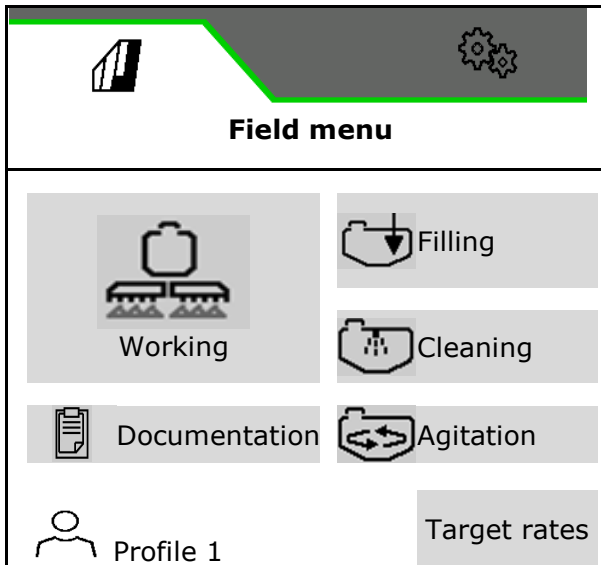
Switch to the Field menu.



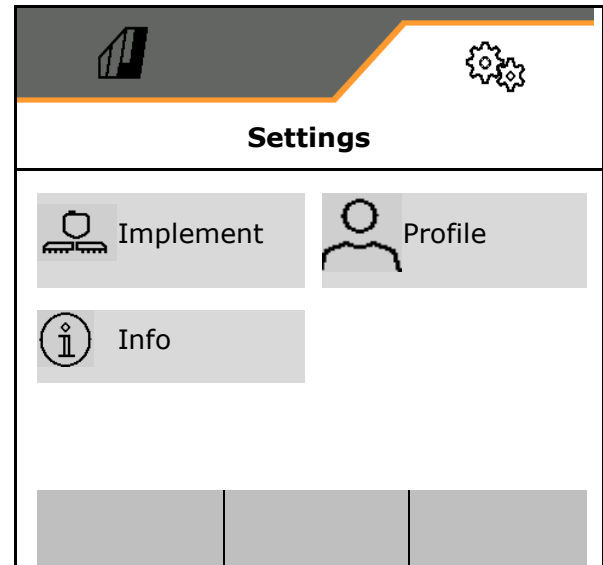
Switch to the Settings menu.

→ The selected symbol is displayed in colour.

Field menu for operating the implement:




Setting menu for settings and management:

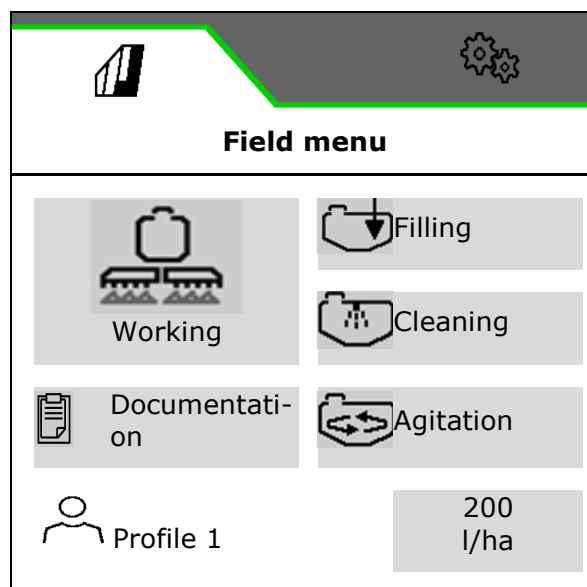


## 4 Field menu and target rate entry

- Work menu  
Operating the implement on the field
- Filling menu
- Documentation of jobs menu
- Cleaning menu
- Documentation menu
- Agitation menu

 The currently selected profile is displayed.

- Target rate entry



- Target rate for band spraying menu

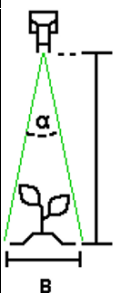


## Band spraying menu

- Target rate for area spraying
- Target rate for band spraying
- This results in the target rate at xx cm band spacing
- Calculation for band spraying

Target rates	
Target rate for area spreading	<input type="text"/> l/ha
Target rate for band spraying	<input type="text"/> l/ha
Reduced target rate at xx cm	XXX l/ha
Calculation for band spraying	<input type="button" value="&gt;"/>

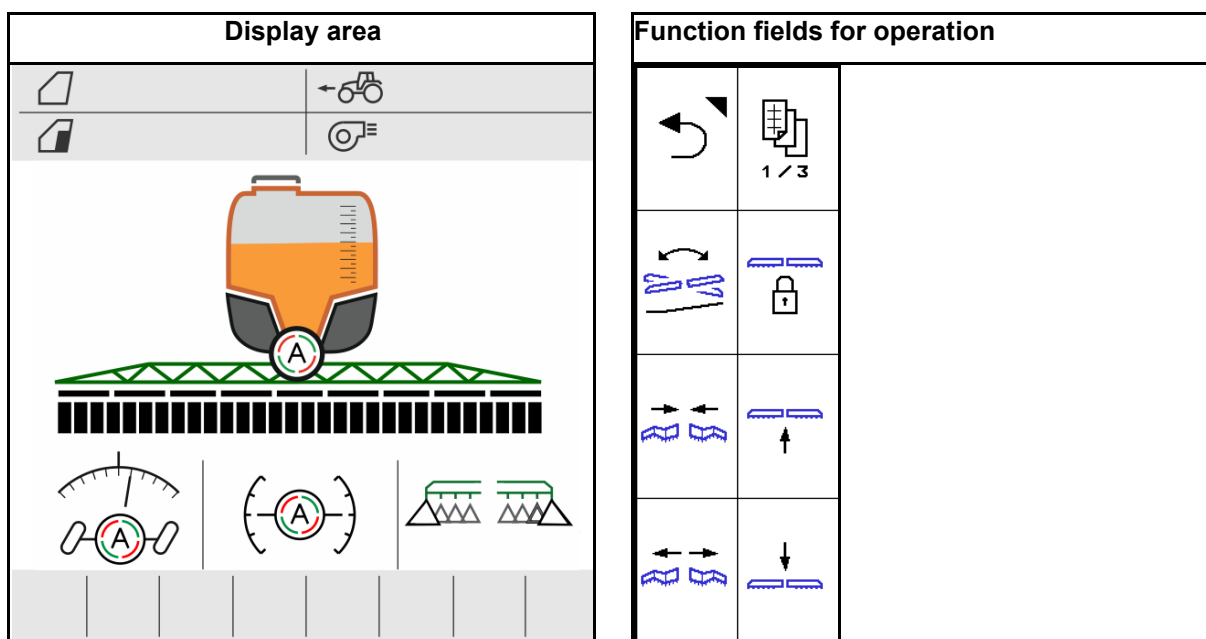
Calculation for band spraying	
Enter the desired band width!	
	Band width (B) <input type="text"/> cm
	H Stored nozzle angle 40°
	Spray height to be set (H) 41 cm

- Enter desired band width
- The stored nozzle angle will be displayed.
- The spray height to be set is calculated

## 4.1 Work menu



The implement is operated in the Work menu using the sub-menus.  
The sub-menus are divided into function groups. Depending on the type and equipment of the machine, functions of the Work menu and sub-menus may not be available.



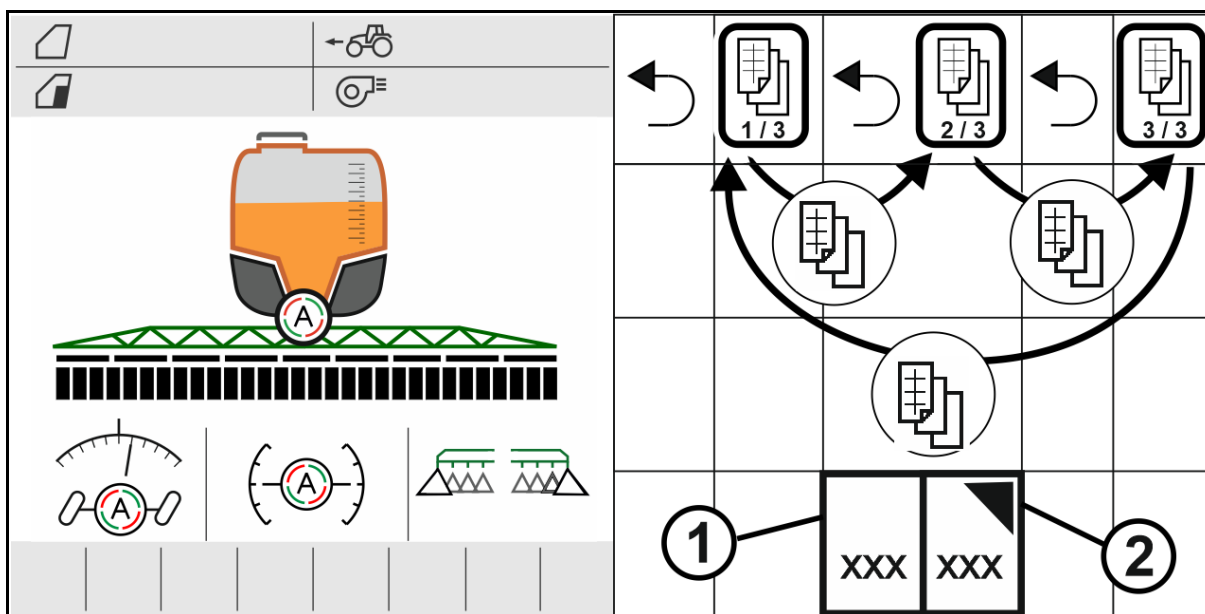
### 4.1.1 Function fields

The function fields are spread across several pages in the Work menu.

Each function field can be assigned with any desired function by changing the key assignment.





Scroll to find the function fields



There are 2 types of function fields:




#### (1) Calling up the functions directly

For example:

- o  Spraying on/off
- o  Section Control automatic / manual

#### (2) Calling up function groups.



Function groups are marked by a triangle at the top right.

- o  Boom kinematics
- o  Spraying
- o  Axle

- Under the function groups, there are other function fields to call up functions directly.
- The functions of the function groups can also be placed outside of the function group by changing the key assignment.
- The functions of the function groups are also spread across several pages.

## Field menu and target rate entry

---

-  Scroll if necessary
-  Exit the function group.

## Executing functions via function fields

---

### **Maintained actuation of functions.**

Pressing the button executes the function.

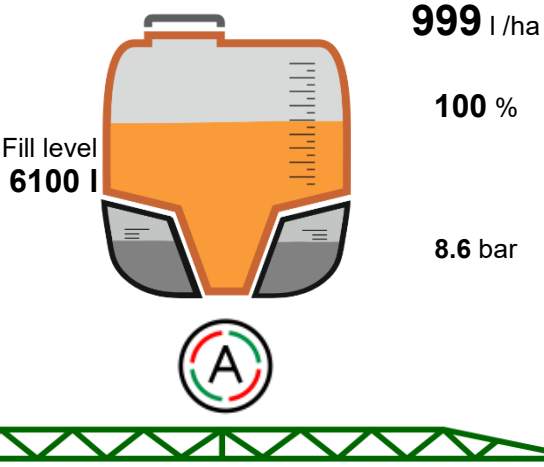
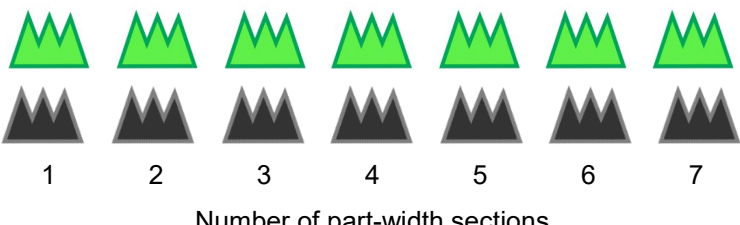



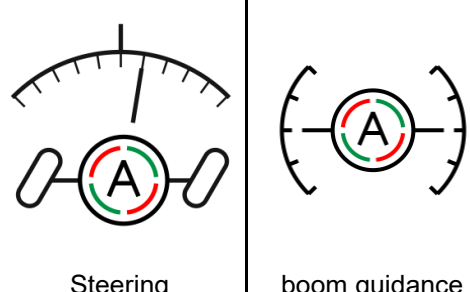
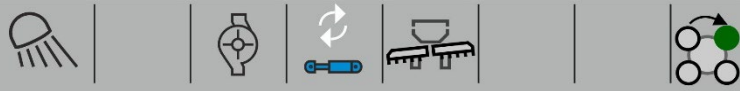
- Switching on and off
- Selecting alternatives
- Navigation

### **Momentary actuation of functions.**

Press and hold the function field until the desired end position is reached.



## 4.1.2 Displays on the terminal

		4 fields for selectable multi-function displays
		Actual quantity
		Actual rate in %
		Spray pressure
		Section Control mode
Part-width section control:  Number of part-width sections		Spraying: part-width sections switched on (green)
		Spraying: part-width sections switched off
Single nozzle control: 		Spraying: Nozzles switched on (green)
		Spraying: Nozzles switched off
		Spraying with CurveControl (rate adjustment when driving in curves)
		AmaSelect Row band spraying
 Steering      boom guidance		Area spraying
		Edge nozzles
		Band spraying
 (1)      (2)      (3)      (4)      (5)		Operating variables:
		(1) Lighting
		(2) Spraying pump
		(3) Hydraulic pre-select folding
		(4) Active function of the hydraulic pre-selection folding
		(5) AmaSelect: active nozzle and auto / manual mode

## Field menu and target rate entry

Automatic mode for various functions



Automatic mode on



Automatic mode off / manual operation



Scrolling through the operating areas in the work menu.



♦ The exclamation mark shows a special situation or a malfunction!

### 4.1.3 Procedure during operation

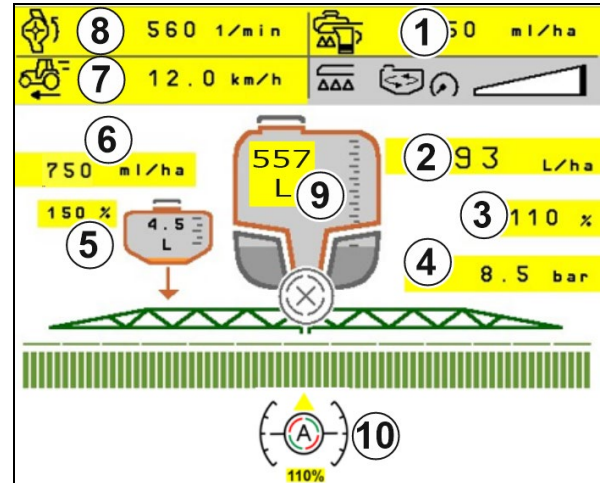
1. Select the Work menu on the control terminal.
2. Oil circulation: Supply the hydraulic block with oil via the *red* tractor control unit.
3. Fold out the sprayer boom.
4. Adjust the boom height and align the booms.
5. UX with steering axle: AutoTrail to automatic mode.
6. Boom ride to automatic mode.
7. Switch on Section Control if necessary.
8. Switch on the sprayer, run with the tractor and spray the area.
9. Switch off the spraying.
10. Clean the sprayer (Comfort Package: Use the cleaning program)
11. Fold in the sprayer boom.
12. Lock the steering axle in the centre position.
13. Oil circulation: interrupt oil supply.

#### 4.1.4 Marked deviations from the target status

Values with a yellow background indicate a deviation from the target status or indication of the implement status.

This can occur through manual override by the operator or due to a system-related deviation.

- (1) DirectInject application rate deviates from the setpoint by more than 10%
- (2) Application rate in l/ha deviates from the setpoint by more than 10%
- (3) Application rate is overridden
- (4) Spray pressure outside of the alarm limits
- (5) DirectInject application rate is overridden
- (6) DirectInject application rate deviates by more than 10% from the setpoint.
- (7) Simulated speed and driving in reverse
- (8) Pump speed outside of alarm limits
- (9) Fill level of the spray liquid tank drops below the alarm limits
- (10) Boom height is overridden (%)

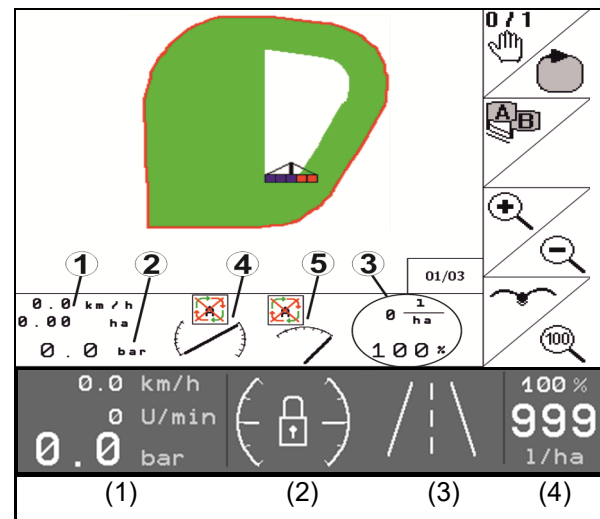


#### 4.1.5 Mini-view in Section Control

Mini-view is a section of the work menu that is shown in the Section Control menu.


- (1) The first two lines of the multi-function display and spray pressure
- (2) Boom ride
- (3) AutoTrail
- (4) Actual value and nominal value adaptation

Notes are also shown in the miniviews.



## 4.2 Functions in the Work menu

### 4.2.1 Switch spraying on / off

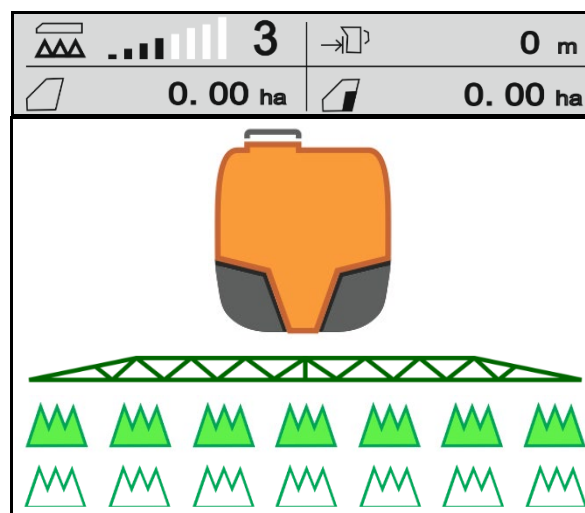
	Switch spraying on / Switch spraying off
---	--

- Switch spraying on: spray fluid is applied via the spraying nozzles.
- Switch spraying off: no spray fluid is applied.

Display in the Work menu:

Spraying switched on

Spraying switched off

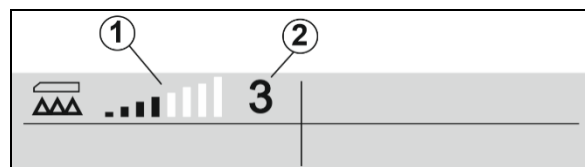


### Display of the implement capacity

- (1) The display of the rate control valve position as a bar diagram provides information as to whether the forward speed / application rate can be increased or the agitator capacity must be reduced.

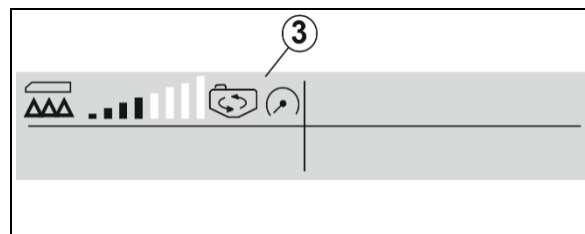
→ The more bars are marked, the greater the quantity that is delivered to the boom.

- (2) The digit (value 1-6) for HighFlow shows the portion that is used by the agitator pump for spraying.




- (3) At high application rates, the secondary agitator (UX, Pantera) or the main agitator (UF) is switched off.

For higher agitator capacity, reduce the forward speed or increase the pump speed.

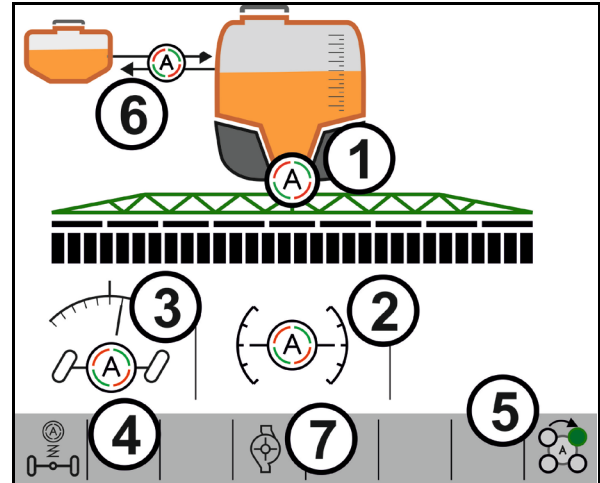


## 4.2.2 Switching on automatic functions

	<b>Switching start functions on together</b>
---	--

Depending on the selected configuration, the following automatic functions can be switched on together:

- (1) Section Control
- (2) Unlock the boom, boom ride
- (3) AutoTrail
- (4) Hydropneumatic spring suspension
- (5) AmaSelect
- (6) FlowControl
- (7) Hydraulic pump drive



It is not possible to switch off the automatic devices off together.

Not all of the automatic functions are shown in the Work menu.


## 4.2.3 Section control



### Switching Section Control on and off on the implement



The terminal must be equipped with Section Control. Section Control must be switched on through the terminal application.

→  Section Control can then be switched using the ISOBUS software.



Conditions for Section Control:

- Section Control switched on through the terminal.
- Implement in working position (only with Profi-folding)



1. Switch on Section Control.



2. Switch on the implement.

→ Spaying starts when driving off, if the implement is in working position and is switched on.

Section Control active:

→ All conditions for Section Control have been met.

No Section Control:

→ Section Control is signed onto the terminal, but it is not switched on.

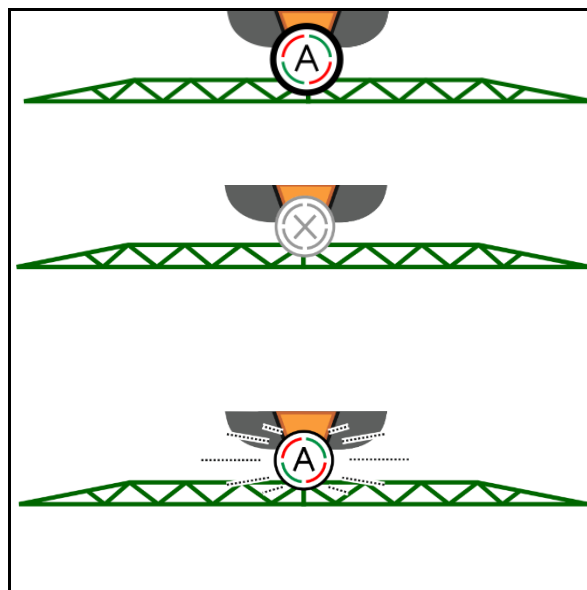
→ The conditions for Section Control have not been met.

No Section Control:

→ Section Control is signed onto the terminal.



→ The conditions for Section Control have been met.

→ Section Control has not been started through the implement software.



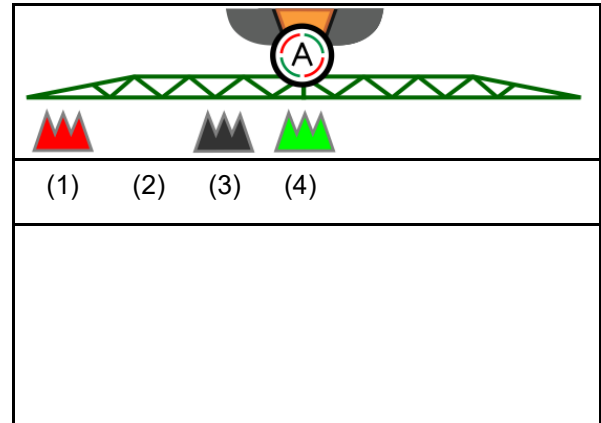
Section Control must be switched on.

## Spraying off:

- (1)  Part width section switched off manually (red)
- (2) Part-width section has already been worked
- (3)  Spraying is not switched on (grey)


## Spraying on:

- (4) Spraying (green)



If automatic part width section control is not possible, a message appears with the necessary requirements.

- ☐ Condition not fulfilled
- ☒ Condition fulfilled



Section Control cannot be activated!

The following conditions must be fulfilled:

- ☐ Section Control of the terminal (Task Controller) activated
- ☐ Implement error free
- ☐ Booms in working position

Please confirm



## Environmental contamination due to undesired application of spray agents.

Use of Section Control is only permitted inside the defined field boundaries.

## 4.2.4 Work lights

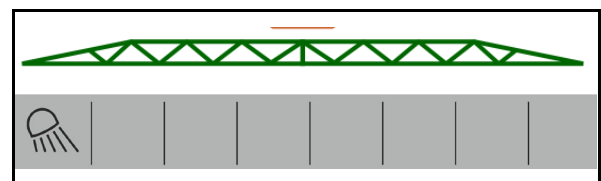


### Switching the work lights on / off

Alternatively, switch the work lights via TECU (depending on the configuration).


The work lights switch off automatically via the forward speed when driving on roads

Display when work lights are switched on →



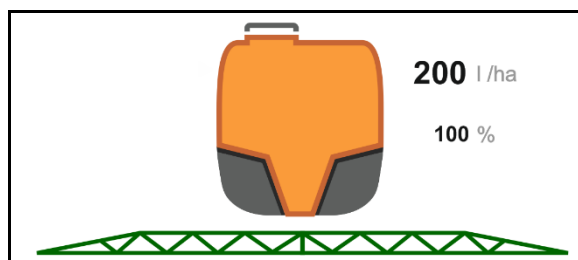
## 4.3 Spray liquid circuit function group

### 4.3.1 Spray quantity control

	Automatic / Manual operation
---	------------------------------

#### Automatic

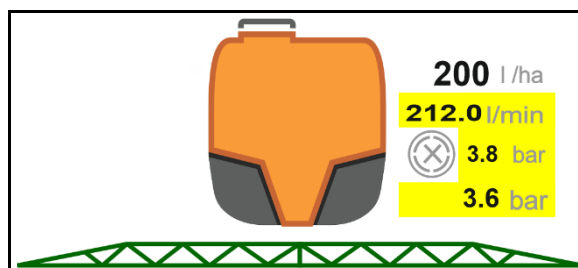
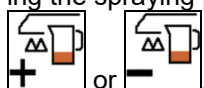
The machine computer takes over the control of the spray rate depending on the current operational speed.



#### Manual mode


**The manual operation is not suitable for the spraying operation, it is only suitable for maintenance and cleaning work.**

The spray rate is controlled manually by changing the spraying pressure using the buttons



In addition, the entered target pressure and the application rate in litres per minute are shown..

### 4.3.2 Changing the target quantity

	Increase / reduce the target quantity
---	---------------------------------------

The target quantity can be changed as required during operation.

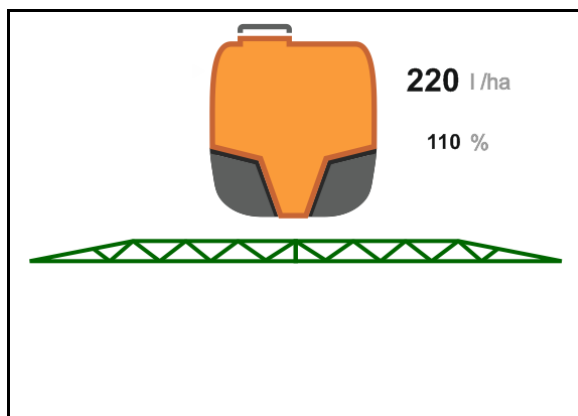
The changed target quantity is shown in the work menu:

Automatic:




- Rate in l/ha, in percent
- Increment 10%

Manual mode:

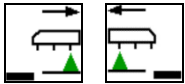

- Rate in l/min, pressure in bar
- Increment 0.1 bar





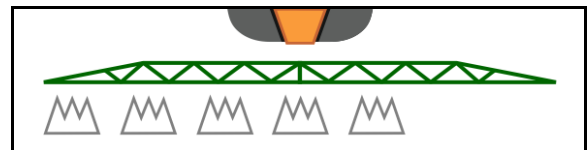
- 
 Each time the button is pressed, the application rate is increased by the quantity increment.
- 
 Automatic: Reset the application rate to 100%.
- 
 Each time the button is pressed, the application rate is reduced by the quantity increment.

## 4.3.3 Switching off the outer part-width sections

	Switch off the part width sections from the left / from the right.
	Switch the part width sections, to the left / to the right.

Part width sections can be switched off and on

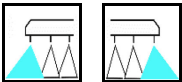
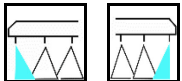

- during spraying,
- when the spraying is switched off



Switching off the outer part width sections is a particular aid when spraying wedges on the field

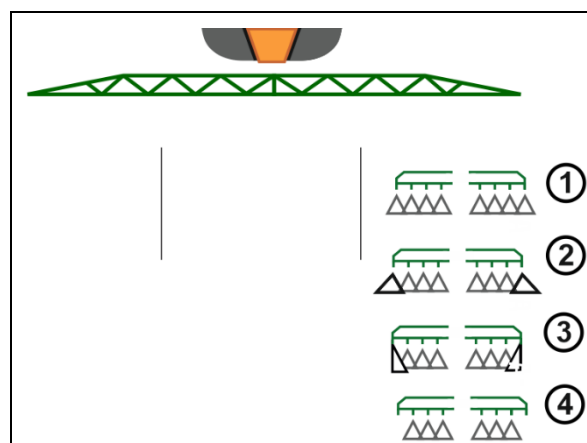
Display in the Work menu: part width section from the right switched off.

#### 4.3.4 Border nozzle, end nozzle or auxiliary nozzle

	Switch left / right extra nozzle on / off
	Switch left / right boundary nozzle on / off
	Switch left / right end nozzles on / off

Display in the Work menu:

- (1) Standard nozzles active
- (2) Auxiliary nozzles active
- (3) Boundary nozzles active
- (4) End nozzles not active



#### 4.3.5 AmaSelect Row

	Select band spraying or area spraying
---	---------------------------------------

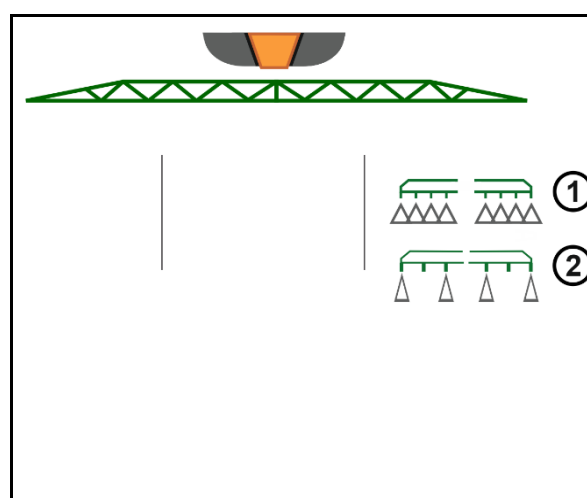
Display in the Work menu:

- (1) Area spraying selected
- (2) Band spraying selected

With band spraying, the area-specific application rate (l/ha) is based on the theoretical band width (see Settings - AmaSelect Row).

There must not be a row in the middle of the implement.

Use suitable spraying nozzles.



### 4.3.6 AmaSelect

The sprayer boom is fitted with 4-way nozzle bodies. Each of them is operated by an electric motor.

Nozzles can be switched on or off as desired (depending on Section Control).

Through the 4-way nozzle bodies, multiple nozzles can be simultaneously active in a nozzle body.

Alternatively, the nozzles can be manually selected.

For boundary treatment, an extra nozzle body can be separately configured.

LED single nozzle illumination integrated into the nozzle body.

Nozzle distance of 25 cm possible (optional)

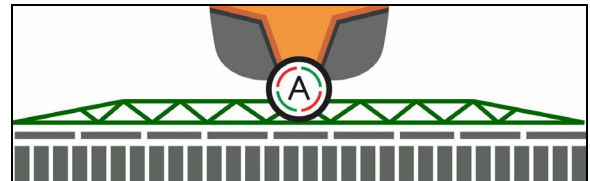
#### Manual nozzle selection:

The control terminal can be used to select the nozzle or the nozzle combination.

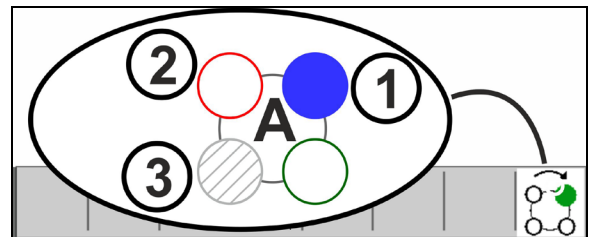
#### Automatic nozzle selection:

The nozzle or nozzle combination is automatically selected during spraying in accordance with the entered boundary conditions.

- Representation of the nozzles with 0.5 m nozzle spacing.



- Representation of quadruple nozzle body
- (A) Automatic nozzle selection
- (1) Nozzle active
- (2) Nozzle not active
- (3) Nozzle not configured



## Field menu and target rate entry

	<b>Automatic or manual nozzle selection</b>
---	---

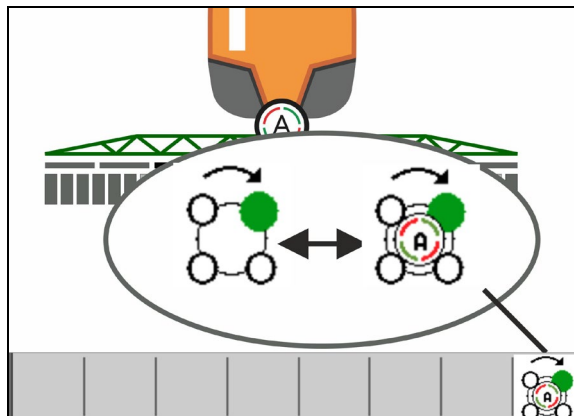
Depending on the selection, the nozzles are switched automatically or manually.

### Automatic nozzle selection

Automatic nozzle selection is displayed with an A in the AmaSelect symbol.

When the spray pressure is exceeded or not reached, the automatic nozzle selection switches to another nozzle or nozzle selection that is preferred for the current spray pressure.

Each nozzle/nozzle selection must be configured beforehand.

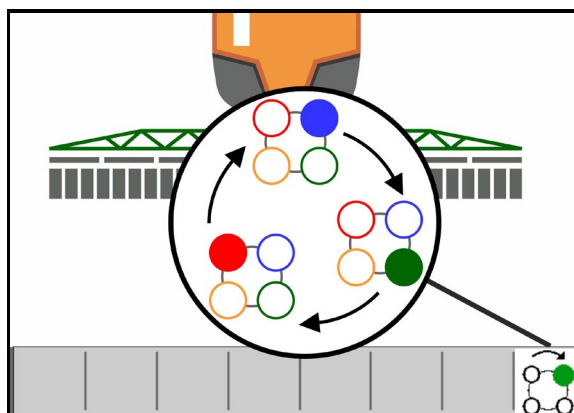


### Manual nozzle selection

With manual nozzle selection, the nozzle selection can be changed by pressing the buttons.

	<b>Manually select nozzles</b>
---	--------------------------------

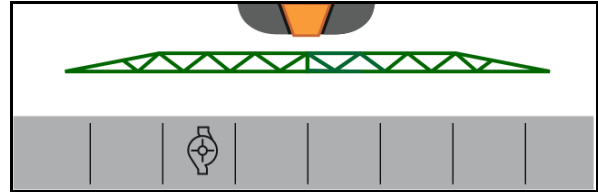
The nozzle selection changes according to the positions selected in the profile each time the button is pressed.




### 4.3.7 Hydraulic pump drive

	Hydraulic pump drive on / off
---	-------------------------------

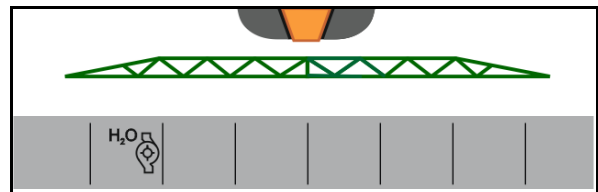
Display when the hydraulic pump drive is switched on→






### 4.3.8 Flushing water pump

	UF02: Flushing water pump on / off
---	------------------------------------

Display when the flushing water pump is switched on→




## 4.3.9 Front tank with FlowControl

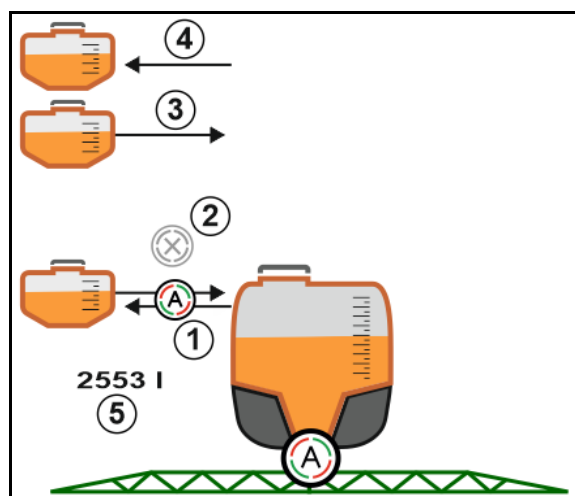
	<b>Modus Automatic / Manual</b>
	<b>Switch the pump to the front on / off</b>
	<b>Switch the pump to the rear on / off</b>

Display in the Work menu:

- (1) Automatic mode switched off.
- (2) Manual mode switched on
- (3) Pumps switched on from FT to UF
- (4) Pumps switched on from UF to FT
- (5) Total filling level (UF+FT)



The fill level of the front tank can be shown on the multi-function display.



### Automatic mode:

During use / transport of the field sprayer / front tank combination, operate in **Automatic** mode.

Function of the **Automatic** mode:


- Permanent circulation of the spraying agent with agitator effect in the front tank.
- Control of the filling level of both tanks in spraying operation.

### Manual mode:


- In **Manual** mode, the distribution of the spraying agent is controlled by the operator on both tanks.

The following functions are used for this:

- Pumping to the front.
- Pumping to the rear.



Pumping to the front and pumping to the rear can be switched at the same time.



For using the field sprayer without front tank, switch off the front tank in the Implement menu.

## Filling



The front tank is filled via the field sprayer UF.

- Before filling the front tank and field sprayer together, adjust the indicator limit for the fill level.
- To avoid overfilling of the front tank, the respective valve closes automatically when the maximum volume is reached.

## Internal cleaning

The front tank is equipped with an internal cleaning that is operated parallel to the field sprayer.

→ See the operating manual UF.

During / after internal cleaning:



- **Pumping to the rear** must be switched on until the front tank is empty.
- Is carried out automatically on machines with Comfort Package!
- After internal cleaning: perform residual drainage.

## Failure of a fill level sensor

In case of failure of a fill level sensor

- an alarm signal appears,
- switches from **Automatic** mode to **Manual** mode,
- closes both valves of the Flow Control.

## 4.4 Boom kinematics function group (Profi-folding / Flex-folding)

### 4.4.1 Automatic boom ride



The automatic boom ride is available in the ContourControl and DistanceControl versions



**Automatic boom ride: Distance regulation on/off**



#### WARNING

**Risk of injury due to accidental movement of the sprayer boom in automatic mode when entering the radiation area of the ultrasound sensor.**



Switch the automatic boom ride off

- Before leaving the tractor.
- If unauthorised persons are standing in the area of the sprayer boom.



#### WARNING

**Danger due to electric current when the boom comes into contact with a high voltage line!**

Switch off the boom ride at least one metre from a high voltage pylon.

Approaching obstacles are detected by the ultrasound sensors and can raise the boom in an uncontrolled manner.



Intervening in the automatic boom ride is possible with the manual boom ride functions by pressing and holding the button.

Afterwards, the boom ride will still be regulated.




Reduced working width:


→ Distance sensors can detect the boom.


Deactivate these sensors before switching on the automatic boom guidance in the Profile menu.

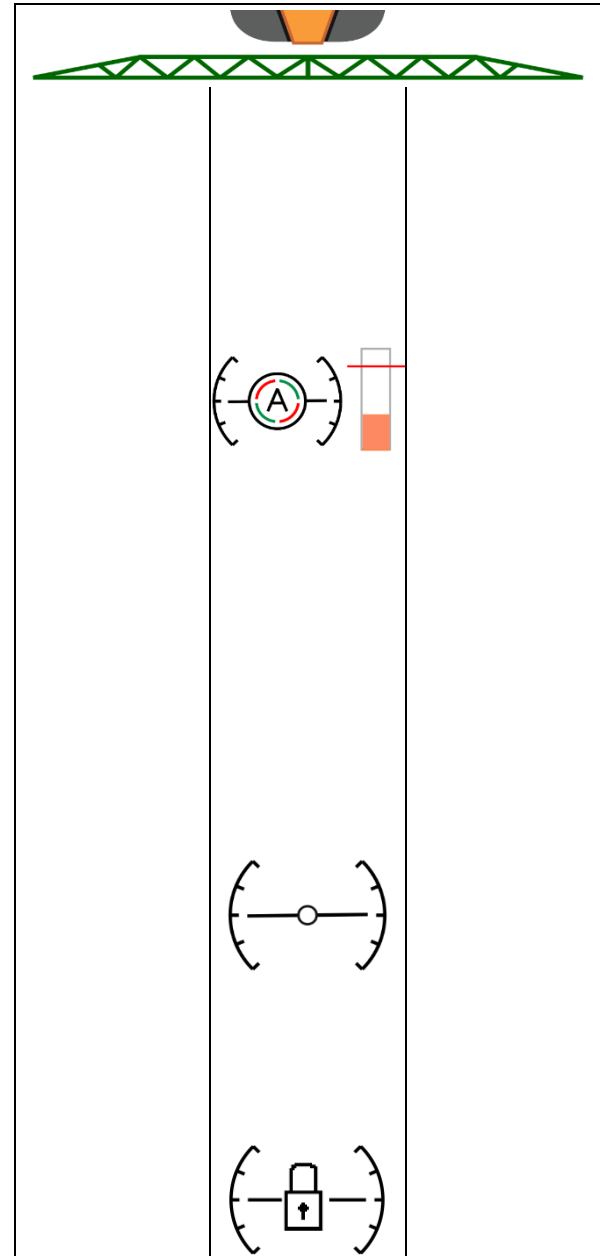


### ContourControl in the Work menu:

-  Automatic boom ride is switched on
  - Boom load display appears.
  - The height and tilt of the sprayer boom is regulated automatically via the boom ride.
    - When spraying with the full working width
    - When spraying with the boom sections folded on both sides
    - When spraying on one side with half the working width

 The automatic symbol flashes when the implement is standing still. The height guidance is not active.

-  Automatic boom guidance is switched off:
  - Height regulation is not active, tilt regulation is active.
    - When the crop height is uneven
    - Ditch, water hole
    - The sensors are influenced by the boom at reduced working width
- The sprayer boom is locked horizontally
  - Automatically when the boom is folded into transport position



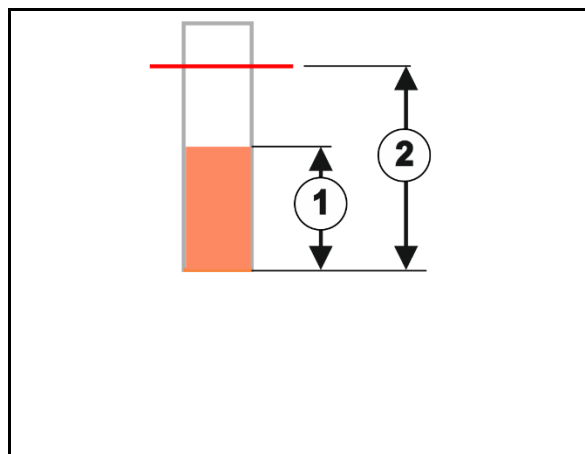
### Boom load display

The boom load when driving in curves is shown by a bar diagram.

The display allows the driver to achieve a driving style that enables maximum service life of the boom.

The load caused by changing the direction of travel and by folding procedures cannot be shown.

- (1) Current boom load
- (2) Maximum permitted boom load.




The permitted boom load may not be exceeded, as it can cause damage to the boom. The number of times when it is exceeded will be documented.


For low-stress driving, please observe the following instructions:


- Reduce the forward speed significantly before the headlands and drive in the curve at a constant speed.
- Drive tight curves at slow speeds (below 6 km/h)
- Avoid jerky steering or changes in directions when steering (e.g. track correction)
- Do not fold the boom while driving
- Always put the individual boom elements in the completely folded end position (folded or unfolded). Do not drive with a partially folded boom.
- Avoid rapid and abrupt changes in direction

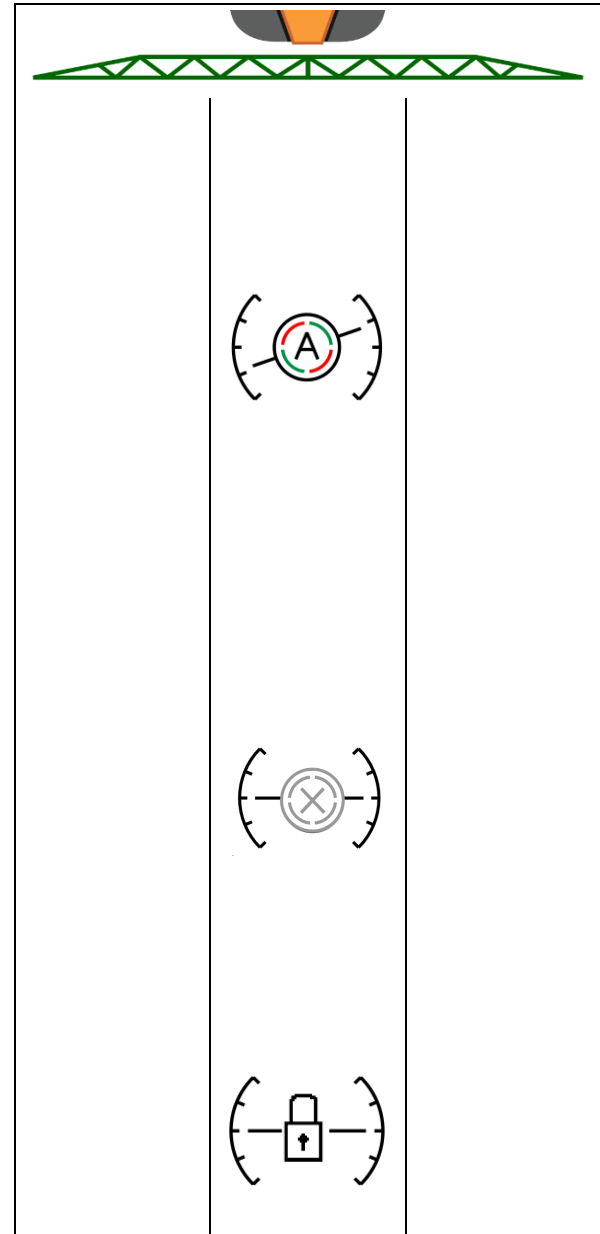
Please note that if there are any claims for goodwill, depending on the damage pattern, the counter values can be consulted.

### DistanceControl in the Work menu:

-  Automatic boom ride is switched on
  - The height and tilt of the sprayer boom is regulated automatically via the boom ride.
    - When spraying with the full working width
    - When spraying with the working width reduced on both sides

 The automatic symbol flashes when the implement is standing still. The height guidance is not active.

-  Automatic boom guidance is switched off:
  - Height regulation is not active, tilt regulation is active.
    - When the crop height is uneven
    - Ditch, water hole
    - The sensors are influenced by the boom at reduced working width
- The sprayer boom is locked horizontally
  - Before folding the boom
  - When spraying on one side
  - When spraying with the boom sections folded on one side




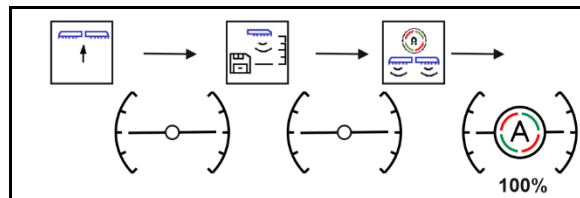
## Set the working height for the automatic boom ride


	<b>Saving the working height (distance spraying nozzle - crop)</b>
---	--


- Before starting operation, set the working height for the automatic boom ride.

1.   Adjust the working height.



2.  Save the working height.

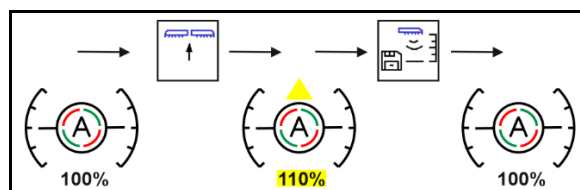



 Set the height of the sprayer boom on the headlands in the Profile menu.

 AmaSelect: The working height is only saved for the active nozzle!


- In automatic mode, the working height can be changed.

1.   **Short pressing of the button!** Each time the button is pressed, the height of the boom ride is increased by 10%.



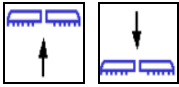
 **Long pressing of the button! To temporarily raise the boom.**  
The boom is then lowered again automatically.

- Continue operation with changed working height (as long as automatic mode is active).

3.  Save the changed working height if necessary.


#### 4.4.2 Manual boom ride

##### Setting the boom height

	<b>Lift / Lower the boom</b>
---	------------------------------

- To set the distance from the spraying nozzle to the crops.
- For folding the boom.

- Lifting module:**
- To use the lifting module, press and hold the button.
  - Lower the lifting module again before folding.
  - Manual boom guidance:

- o  Raise lifting module

- o  Lower lifting module

##### Vibration compensation

	<b>Vibration compensations lock / unlock</b>
---	--

##### Vibration compensation unlocked:

→ When spraying

##### Vibration compensation locked

→ When folding the boom.

##### Vibration compensation locked

→ When spraying with the boom folded on one side.

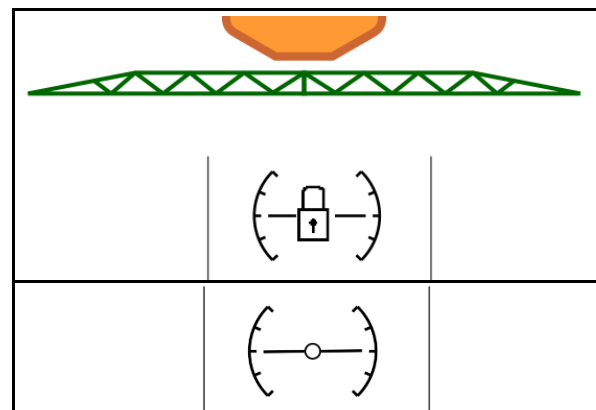
With the automatic locking mechanism, the vibration compensation is automatically locked before folding the boom (setting: Profile / Boom behaviour).

Display in the Work menu:

- Vibration compensation locked.

- Vibration compensation is unlocked.

ContourControl:

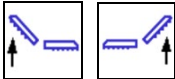
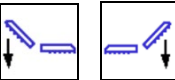



## Field menu and target rate entry

DistanceControl:



## Angle up the side boom section (Profi-folding 2/Flex-folding 2 only)

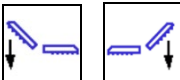
	<b>Angle-in the boom on one side, left / right</b>
	<b>Angle-out the boom on one side, left / right</b>
	<b>Angle the boom in and out on both sides</b>

Angling the sides the sprayer boom up and down is intended to allow the boom to be angled up and down during unfavourable terrain conditions, when the adjustment options for the height and tilt adjustment is no longer sufficient for aligning the sprayer boom with respect to the target surface.





Never angle the unfolded sprayer boom side up by more than 20°!



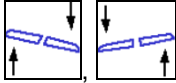
- 
 To align the boom in the horizontal position, angle out the sprayer boom as far as it will go (move to the end position).
- Angling down below the horizontal position is only possible with ContourControl.
- Align the sprayer boom horizontally before folding the sprayer boom into the transport position.

## Tilt adjustment

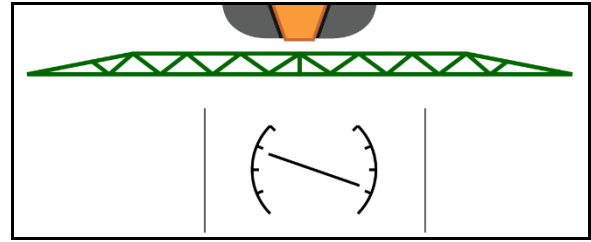
	<b>Tilt adjustment, left up</b>
	<b>Tilt adjustment, right up</b>

In unfavourable terrain conditions, e.g. when there are track marks of variable depth or when driving with one side of the vehicle in a furrow, the sprayer boom can be aligned parallel to the ground or to the target surface.

## Aligning the sprayer boom using the tilt adjustment

Press and hold  until the sprayer boom is aligned parallel to the target surface.


→ On the display, the tilt adjustment symbol shows the selected sprayer boom tilt. Here, the left side of the sprayer boom is raised.



## Mirroring the tilt adjustment - mirroring the slope (align horizontally)


The selected sprayer boom tilt can simply be mirrored when turning at the headlands, e.g. when spraying transverse to the slope.

Initial position: the left sprayer boom side is raised.

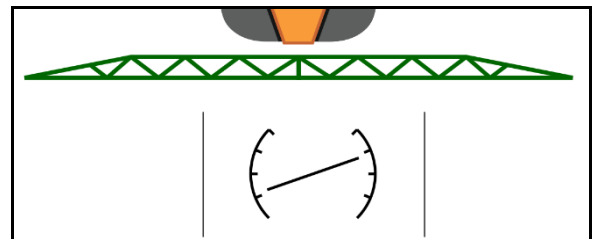
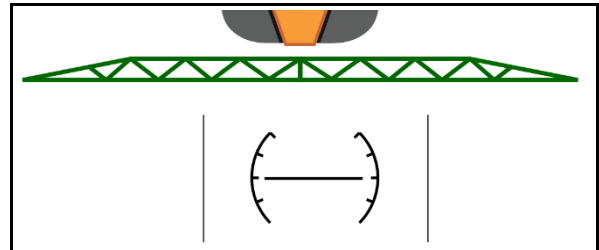
1.  is actuated once and the hydraulic tilt adjustment aligns the sprayer boom horizontally (0-position).

→ On the display, the tilt adjustment symbol shows the horizontal alignment of the sprayer boom.

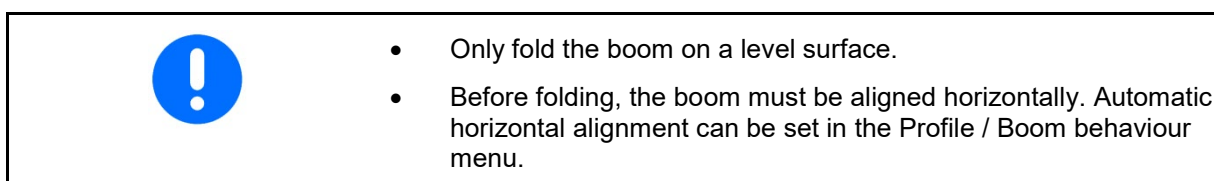
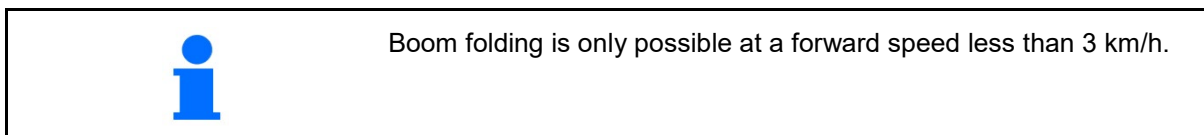
2. Carry out the turning manoeuvre at the headlands.

3.  is actuated again and the hydraulic tilt adjustment mirrors the previously used sprayer boom tilt.


→ On the display, the tilt adjustment symbol shows the mirrored sprayer boom tilt.




### 4.4.3 Boom folding (Flex-folding)



### Unfolding the Super L-boom (Flex-folding)

- 
 1. Raise boom as far as it goes.

- 
 2. Unfold the boom on both sides.

→ Unfold the boom completely.




Only the boom sections that are required for the set working width will be unfolded.

Single nozzle control: configure the working width in the profile / part-width section control.

Part-width section control: active part-width sections are taken into account. See Profi / part-width section control.

- 
 3. Lower the boom.

- 
 4. Switch on the automatic boom ride.

→ The set height for the headland will be adjusted.

→ The boom will be adjusted to the working width when beginning spraying operation.



Save the working width beforehand if necessary.



## Folding the Super-L boom (Flex-folding)

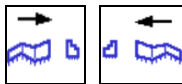


Fold outer booms and swing them completely into transport position.

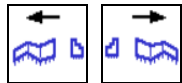
→ Automatic boom guidance will be deactivated.



Before travelling on public roads, check the correct transport position of the sprayer boom on the control terminal!



**Fold the boom on one side**



**Unfold the boom on one side**



Outer boom sections folded on both sides (working width reduction)

- Unrestricted operation is possible.
- It is possible to fold the outer boom sections while driving.

Sprayer boom folded on one side

- Possible up to a forward speed of 6 km/h



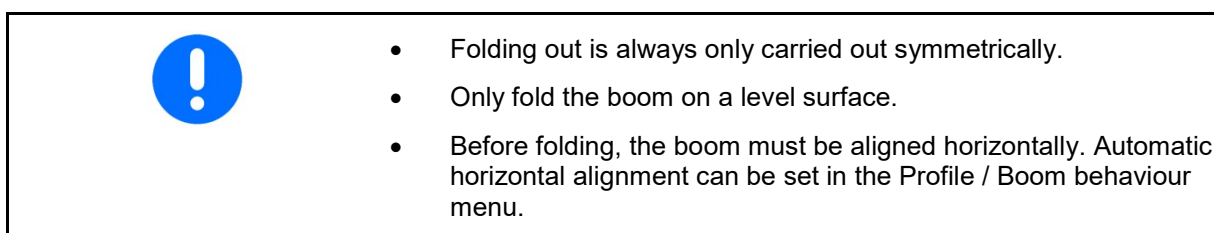
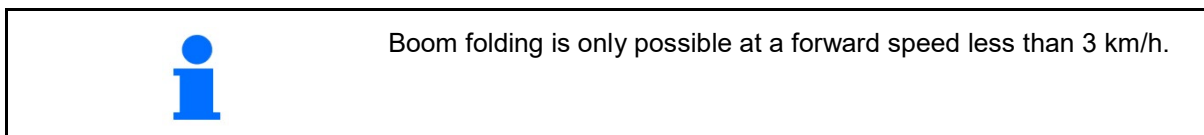
- Raise the sprayer boom to a mid-height position.
- Only possible if the other boom side is folded to the rear, transverse to the driving direction, as a package out of the transport position.

→ If necessary, change the settings for part-width section control in the Profile menu.










If the distance sensors of the automatic boom guidance are disturbed by folded boom sections, they must be deactivated (Profile menu).

#### 4.4.4 Folding the boom (Profi-folding)









#### Unfolding the boom (Profi-folding)

1.  Raise the boom (Super-L – maximum / Super-S – at least 30 cm).  
→ The transport lock unlocks automatically.
2. Super-S Profi 2:  Angle down both boom packages in the horizontal position.
3.  Unfold the boom on both sides.  
→ Unfold the boom completely.
4.  Unlock the vibration compensation.
5.  lower the boom.
6.  Switch on the **automatic** boom ride.
  - The set height for the headland will be adjusted.
  - The boom will be adjusted to the working width when beginning spraying operation.


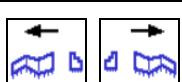
-  Save the working width beforehand if necessary.
- **Manual** boom ride: Set the height and tilt of the boom manually.

## Folding the boom (Profi-folding)

1.  Switch off the automatic boom ride.
2.  Lift boom all the way up.
3. If necessary, align the boom horizontally!
4. **Super-S Profi 2:**  Angle down the boom to the end position.
5.  Lock the vibration compensation (automatic locking can be set in the Profile menu).
6.  Fold the boom in to transport position in both sides.
7. **Super-S Profi 2:**  Angle up the boom package in the vertical position.



Before travelling on public roads, check the correct transport position of the sprayer boom on the control terminal!

	<b>Fold the boom on one side</b>
	<b>Unfold the boom on one side</b>




Outer boom sections folded on both sides (working width reduction):


- Unrestricted operation is possible.
- It is not permitted to fold the outer boom sections while driving.




If the boom guidance sensors are covered, they must be installed rotated by 180°.

Sprayer boom folded on one side:

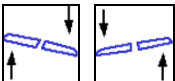
- Only with the vibration compensation locked.
  - Possible up to a forward speed of 6 km/h
  - 
 Raise the sprayer boom to a mid-height position.
  - Only possible if the other boom side is folded to the rear, transverse to the driving direction, as a package out of the transport position.
- If necessary, change the settings for part-width section control in the Profile menu.
- briefly for passing obstacles (trees, electricity pylons, etc.).


- 
 Lock the swing compensation.

- 
 Raise the sprayer boom to a mid-height position.

- 
 or

The desired boom folds together or apart.


- 
 Align the sprayer boom parallel to the target surface.

- 
 Set the spraying height such that the sprayer boom has a minimum distance of 1 m to the ground surface.

## 4.5



### Function group boom kinematics (pre-select folding)

	<p><b>Pre-select</b></p> <ul style="list-style-type: none"> <li>• Tilt adjustment or</li> <li>• Fold boom.</li> </ul>
---	---

The pre-selection is displayed in the Work menu!

The functions are executed using the tractor control unit!

**Folding procedure: see field sprayer operating manual!**

Display in the Work menu:



Pre-selection fold boom.



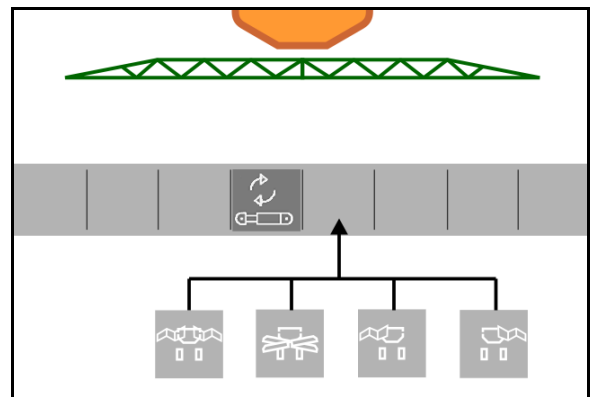
Pre-selection tilt adjustment.



Pre-selection fold left boom.



Pre-selection fold right boom.



1. Select function.

→ Observe the display.

2. Actuate the tractor control unit.


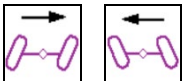



→ The selected function will be executed.

## 4.6



## Axle function group

## 4.6.1 AutoTrail steering axle

	Automatic / Manual operation
	Steer against the slope
	Take to centre position
	Lock the axle in transport position
	Unlock the axle


**DANGER**
**Risk of accident!**

Automatic mode, manual mode and error state (error message existing) are forbidden when driving on roads.

→ The axle must always be aligned straight and locked when driving on roads.

Automatic mode is forbidden when manoeuvring.

→ Manoeuvre in manual mode.


**DANGER**
**Risk of the implement tipping over when the steering axle is pushed in; particularly on very uneven or sloping terrain!**

Adapt your driving technique accordingly and reduce speed when performing a turning manoeuvre on a headland, so that you are in complete control of the tractor and implement.



The steering axle requires the pulses per 100 m from the wheel of the implement.

Display in the Work menu:

AutoTrail in manual mode

- (1) Pilot control for steering against the slope
- (2) Actual axle position
- (3) Axle steered to the right
- (4) Axle steered to the left
- (5) Axle in straight position

AutoTrail in automatic mode

- with display of the steering angle
- with display of the intensity of the automatic slope counter-steering (values 1-10)

AutoTrail in road mode, steering locked

(forward speed greater than 7 km/h).

AutoTrail in road mode, steering unlocked



Unlocking of the steering possible at forward speed lower than 7 km/h.



**Forbidden on public roads!**

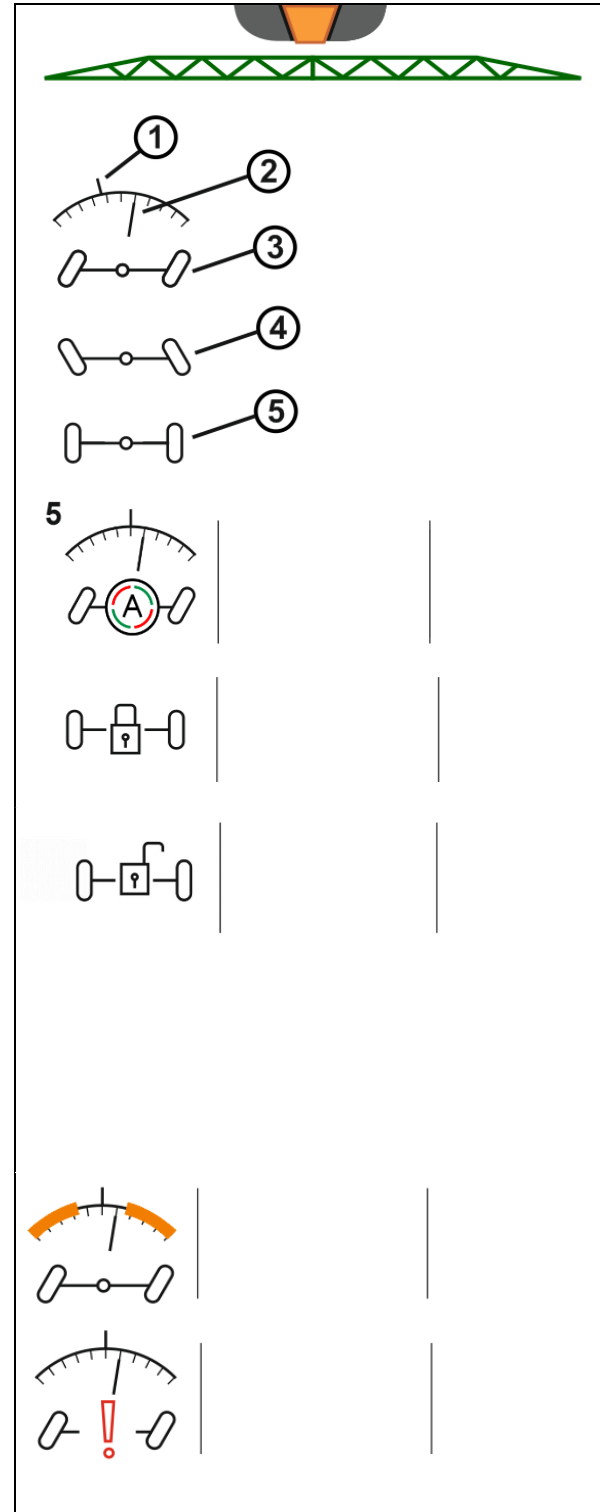


When the sprayer boom is unfolded, the steering is automatically unlocked.

AutoTrail with reduced steering angle due to high forward speed

Safety-relevant error

- Manual steering possible up to 7 km/h (only for troubleshooting).
- Contact the dealer.




## WARNING

**Risk of accident due to safety-relevant AutoTrail error.**

Driving on public roads is forbidden.





## Mode of the AutoTrail

### Automatic mode:

1.  Put AutoTrail in automatic mode.

The implement computer ensures the precise tracking of the implement.

### Manual operation mode:

1.  Put AutoTrail in manual operation mode.
- If necessary: Actuate   to steer the implement manually.
-  Centre position is approached as soon as the speed is greater than 1.





The function field for manual steering in automatic mode is only intended for the precise tracking, for example, on slopes.

Exception when reverse driving detection is active (Profile menu):

When driving in reverse in automatic mode, the implement is moved once to the centre position. After that, the implement can be steered manually.

### Variations for AutoTrail on slopes (can be set in Profile/Steering)

- **AutoTrail with automatic slope steering and tilt measurement using sensors.**
- **AutoTrail with manual slope counter-steering via key assignment on the control panel.**

- o   For manual steering against the slope (also possible with automatic slope counter-steering).
- o If the following functions are carried out then the manual slope correction is reset.



Steering in centre position



Switch the sprayer on / off



Change to manual mode.

Driving in reverse with reverse driving detection



## Transportation - Street mode



### DANGER

**Risk of accident due to faulty steering of the implement when the axle is steered!**

For safety reasons during road transport, move the steering axle to transport position!

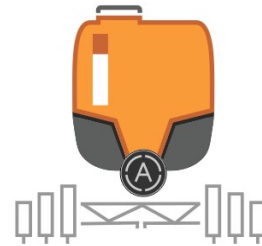
1. Move the sprayer boom to transport position.



2. Activate the locking mechanism before driving on roads.
3. When driving off, the axle is moved to the centre position and is automatically locked.



For road travel,  
lock steering



### 4.6.1.1 Hydropneumatic sprung suspension



**Manual operation, automatic mode**



**Lowering / lifting the implement in manual mode**



When switching on the control terminal, the spring suspension starts in automatic mode.

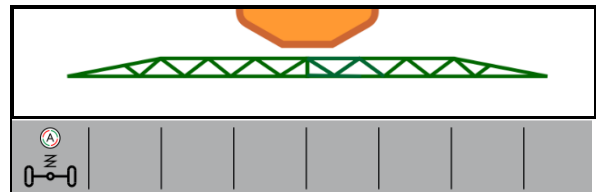
Always drive the implement in automatic mode.

When automatic mode is switched on, the implement computer controls the height of the field sprayer independent of the tank volume.

In manual mode the machine can be lowered or raised.

Display in the Work menu:

Hydropneumatic spring suspension  
in automatic mode (operating state).



## 4.7 Filling / refilling menu

Entering the nominal fill level

→ Area is calculated

or

Enter the area

→ Re-fill quantity is calculated

The application rate must have been correctly entered for the calculation.

### Implements with Comfort Package:

Before filling, enter / calculate the nominal fill level.

→ The filling procedure stops automatically when the nominal fill level is reached.



The entered fill level is adopted on the Twin-Terminal!

### Implements without Comfort Package:

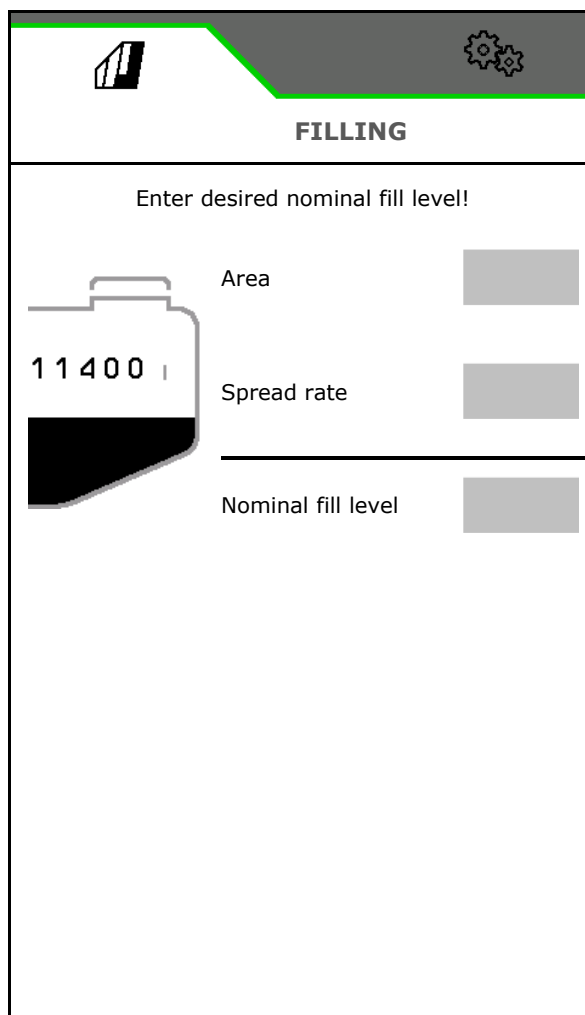
The menu only serves to calculate the nominal fill level.



Maximise the fill level display to be able to see the fill level from afar.



Return to the Filling menu



The screenshot shows the 'FILLING' menu on a device. At the top, there is a header bar with a gear icon on the right and a stylized 'F' icon on the left. Below the header, the title 'FILLING' is centered. The main content area has a prompt 'Enter desired nominal fill level!' at the top. On the left side of the main area, there is a large digital display showing '11400' with a small 'l' at the end. To the right of the display, there are three input fields with labels: 'Area', 'Spread rate', and 'Nominal fill level'. Each label is followed by a grey rectangular input box. The 'Area' and 'Spread rate' fields are in the top section, and the 'Nominal fill level' field is in the bottom section, separated by a horizontal line.

## AmaRow band spraying

Calculation of the fill quantity depends on the area to be sprayed and the application rate.

1. Enter the area to be treated

2. Enter the proportion of band spraying in percent

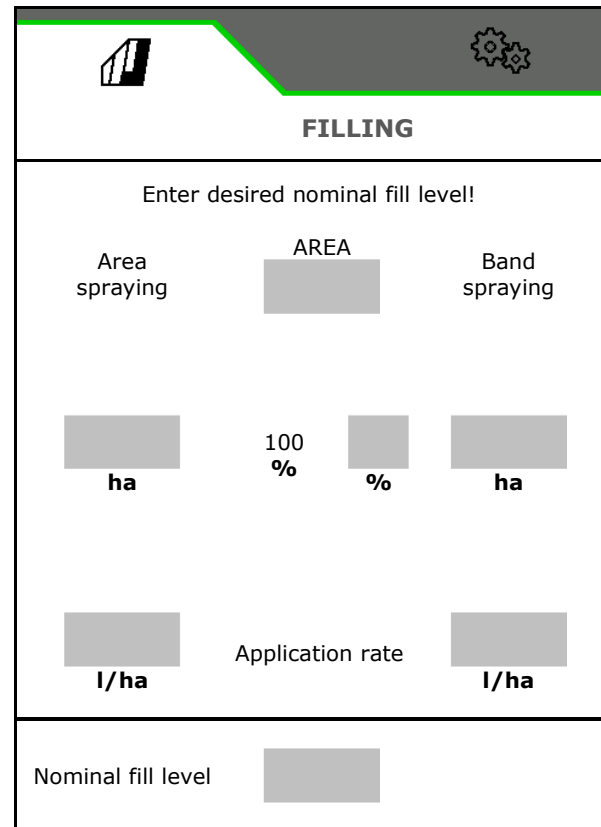
→ The areas for area spraying (headlands) and band spraying will be calculated.

Alternatively, the area for the area spraying or for band spraying can be entered and the percentage value will be calculated.

3. Enter the application rate for area spraying.

4. Calculate and enter the application rate for band spraying, see below.

5. TwinTerminal: the required fill quantity will be calculated and, if necessary, communicated to the TwinTerminal.



**FILLING**

Enter desired nominal fill level!

Area spraying  ha

AREA  ha

Band spraying  ha

100 %  %

l/ha Application rate  l/ha

Nominal fill level

## Calculating the application rate for band spraying

Area spraying application rate: 200 l/ha

Theoretical band width: 30 cm (see Settings, AmaSelect Row)

Nozzle spacing: 50 cm

→ Band spraying application rate:  
=  $200 \times 30 / 50 = 120$  l/ha



Maximise the fill level display to be able to see the fill level from afar.

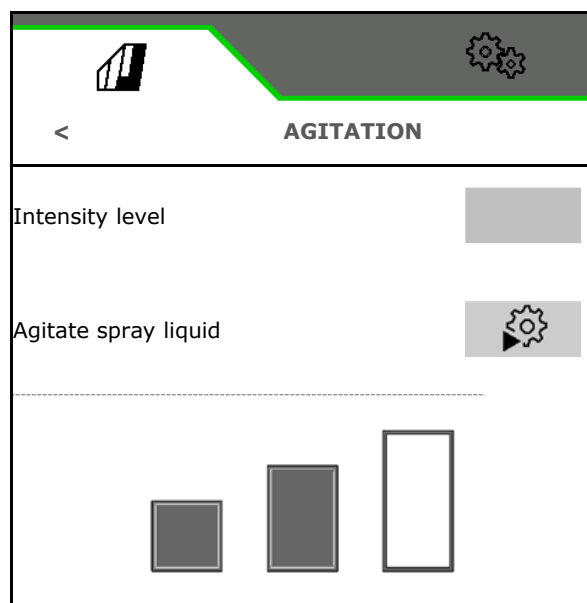


Return to the Filling menu

## 4.8 Agitation menu

Implements with Comfort Package:

- Intensity of the fill level-dependent agitation regulation
    - Low
    - Medium
    - High
  - Agitate the spray liquid with maximum power
- A message box appears
- ✓ Stop maximum agitation



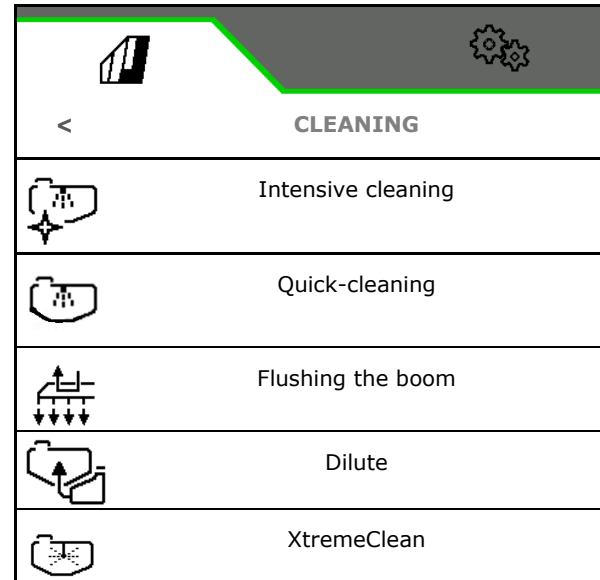
## 4.9 Cleaning menu



See operating manual for the implement

Implements with Comfort Package:

- Perform an intensive cleaning
- Perform a quick cleaning daily
- Flushing the boom
- Diluting the spray liquid
- XtremeClean



### 4.9.1 Intensive cleaning and quick cleaning

The cleaning program consists of several automatically running steps, see the operating manual for the implement!



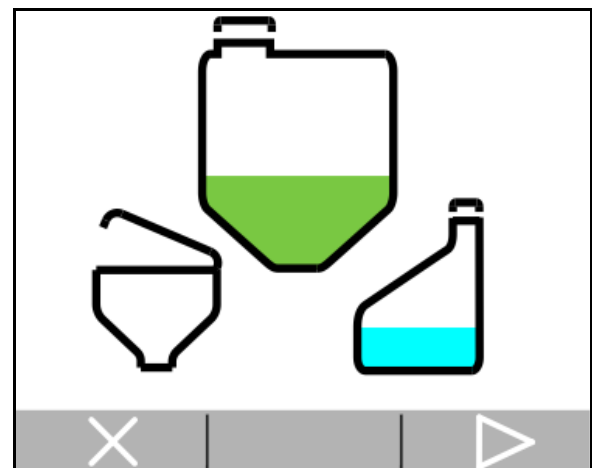
See operating manual for the implement!

> Start cleaning.

Cleaning water is intermittently sprayed out and the residual quantity is drained.

The following conditions must be fulfilled:

- ☒ Fill level in the spray liquid tank less than 1%
- ☒ Boom is unfolded
- ☒ Minimum fill level of the spray liquid tank



## 4.9.2 Flushing the boom

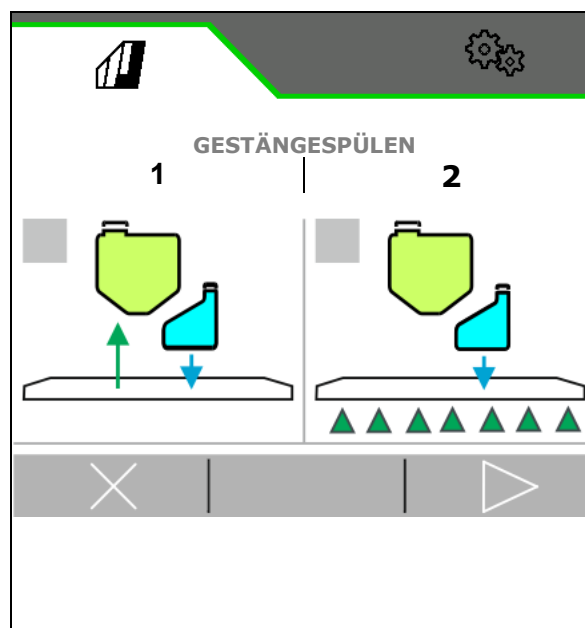
Flush the sprayer boom with flushing water.

Selection: ☒ yes/☐ no

- (1) Feed the flushing liquid into the spray liquid tank
- (2) Automatically spray out the flushing liquid (standard)
  1. Make selection (1), (2).
  2. Enter the required quantity of flushing water.
  3. Start flushing the boom.
  4. Switch off the pump

Active speed regulation for the pump drive:  
The hydraulic pump drive stops automatically after flushing the boom.

5. **X** Stop flushing the boom.



## 4.9.3 Dilute

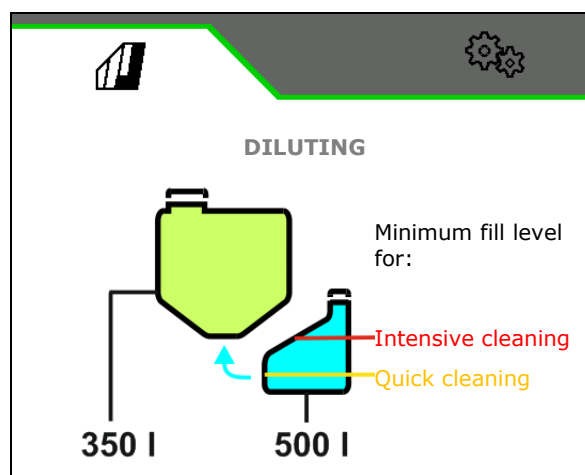


The fill level must be lower than the target fill level.



Dilute the spray liquid with flushing water.

Observe the display for the required quantity of flushing water.



#### 4.9.4 XtremeClean

XtremeClean comprises several automatically running steps. During the procedure, the cleaning water must be applied in several steps.



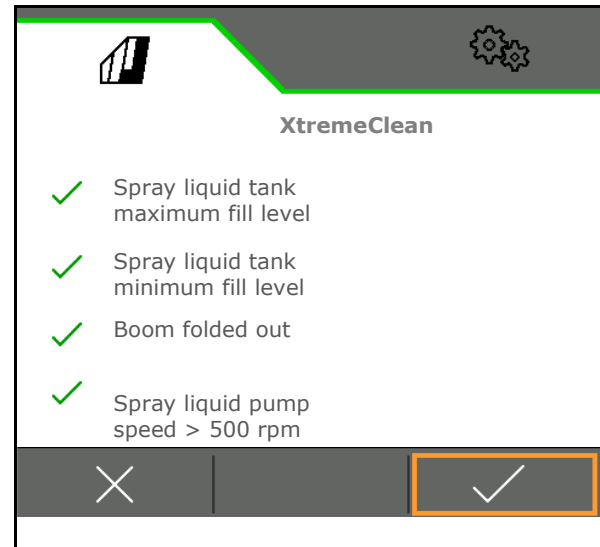
See operating manual for the implement!

> Start cleaning.

The cleaning procedure runs automatically.

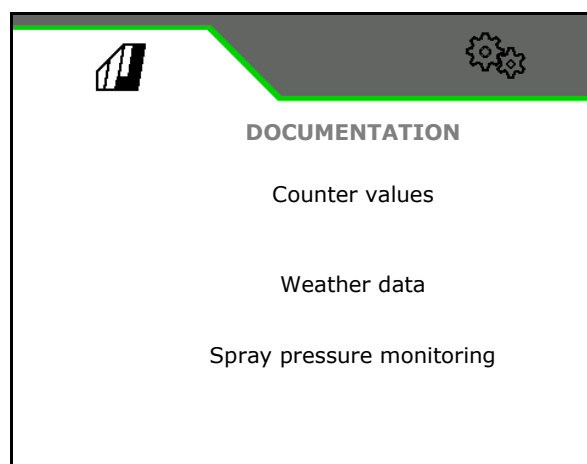
The following conditions must be fulfilled:

- ☒ Maximum fill level of the spray liquid tank is lower than 1%
- ☒ Minimum fill level of the spray liquid tank
- ☒ Boom is unfolded
- ☒ Spray liquid pump speed > 500 rpm



## 4.10 Documentation menu




- Display counter values
- Enter the weather data
- Display spray pressure monitoring (the spray pressure is recorded according to the legal regulations)



### 4.10.1 Counter values

In the documentation menu, the current job is displayed.

Data in the job:

-  Worked area (total / day)
-  Working time (total / day)
-  Spread quantity (total / day)



Delete day data



Call up the job list.

Job list:



The active job is marked in green.

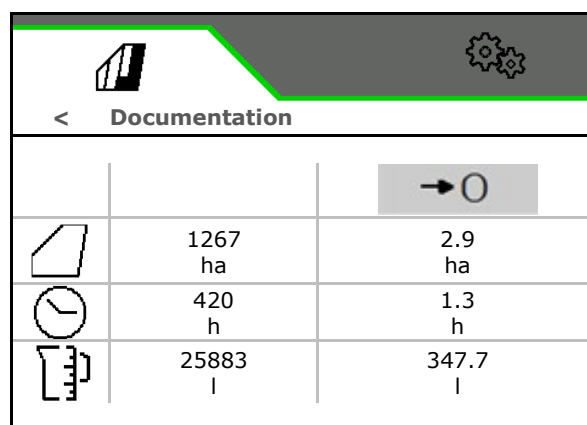
A maximum of 20 jobs can be created.






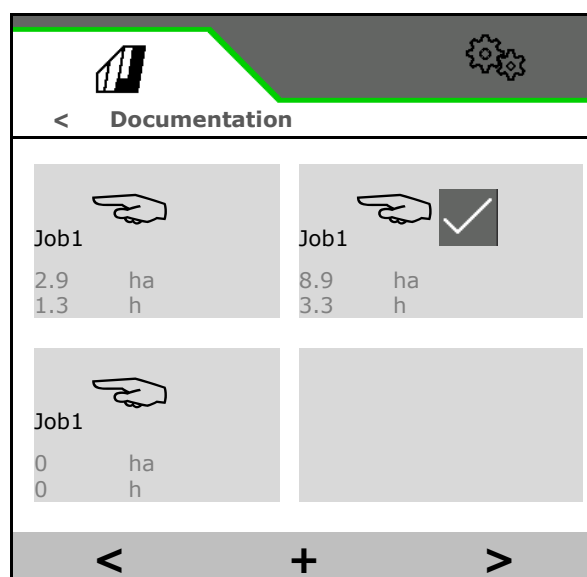
Select job.

+ Create a new job

< / > Scroll through the list








< Documentation		
		→ 0
	1267 ha	2.9 ha
	420 h	1.3 h
	25883 l	347.7 l

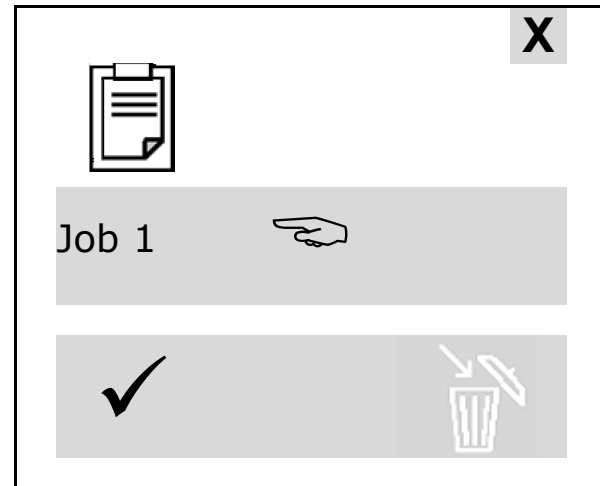


< Documentation	
<div>Job1</div> <div>2.9 ha</div> <div>1.3 h</div>	<div>Job1</div> <div>8.9 ha</div> <div>3.3 h</div>
<div>Job1</div> <div>0 ha</div> <div>0 h</div>	




### Editing jobs:

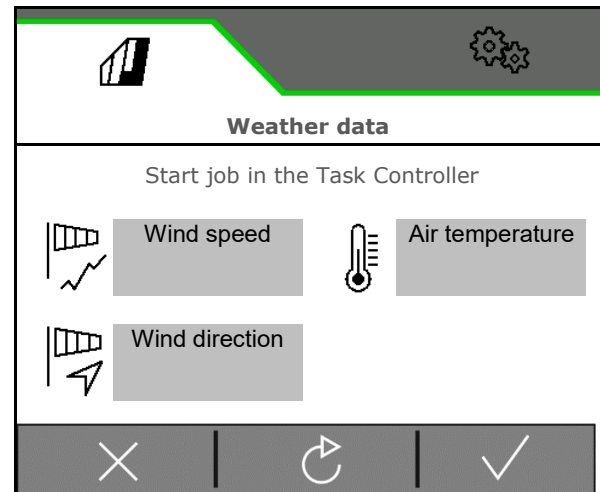
-  Activate job
-  Change the job name
-  Confirm job
-  Inactive jobs can be deleted
-  Exit the editing menu



### 4.10.2 Weather data

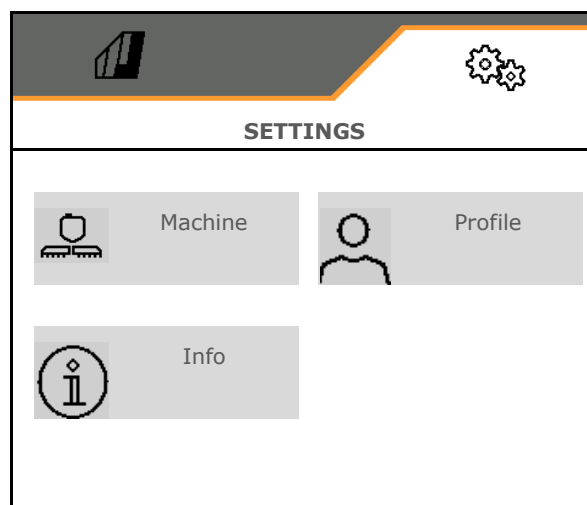
The weather data is transmitted to the Task Controller. To do this, the Task Controller must be started.

1. Enter the weather data
2.  Transmit data to the Task Controller, or  
X - Cancel



## 5 Settings

- Implement menu  
Entry of implement-specific or individual data.
- Profile menu  
Each user can save a personal profile with settings for the terminal and the implement.
- Info menu  
Software version and total area output.



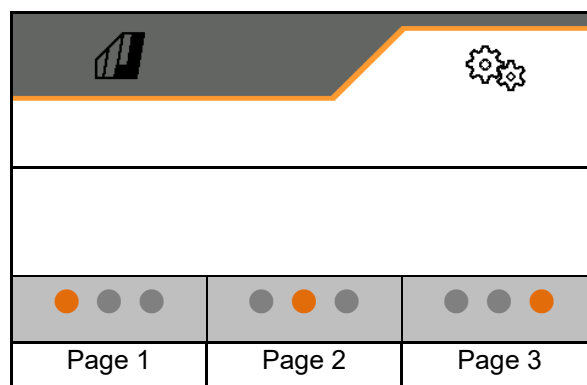
### Selection of the pages in the sub-menus

Some sub-menus consist of several pages.  
The pages are shown with point at the bottom edge of the screen.

Active page – white.

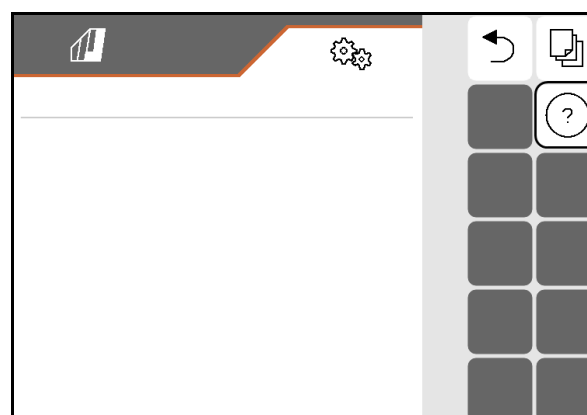


Scroll through the pages in the menu.



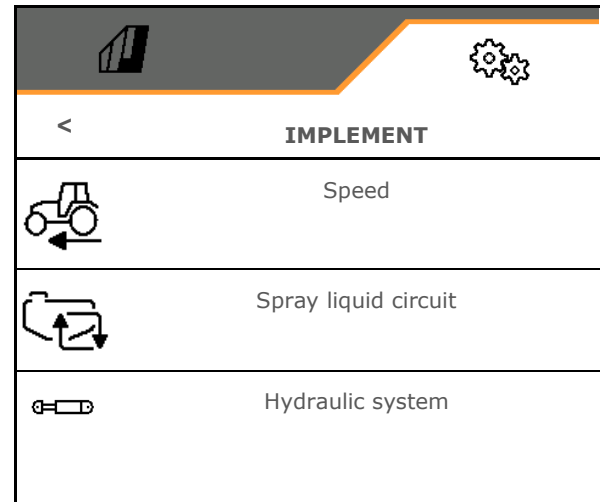
Display QR code. The SmartLearning app can be installed on a smartphone or tablet PC via the QR code.

SmartLearning is an interactive driver training for the operation of Amazone implements.



## 5.1 Machine

- Working speed, see page 60
- Liquid circuit, see page 62
- Hydraulic system, see page 66.



## 5.1.1 Speed



**The implement computer needs a speed signal for correct rate control.**

There are different sources for the forward speed signal input.

- The speed signal can be provided via the ISOBUS.
- The speed signal can be received through a GPS antenna.
- The speed signal can be calculated using the pulses per 100 m.
- The speed signal is simulated by entering a speed (e.g., when a speed signal from the tractor fails).

Entering a simulated speed allows you to continue operation even if the speed signal fails.

### UX with steering axle:

You must determine the wheel pulses per 100 m (teach in pulses), even if you select a different speed signal for rate control.

### Wheel change:

After changing the wheels, the wheel pulses per 100 m must be re-determined.

Select the source for the speed signal.

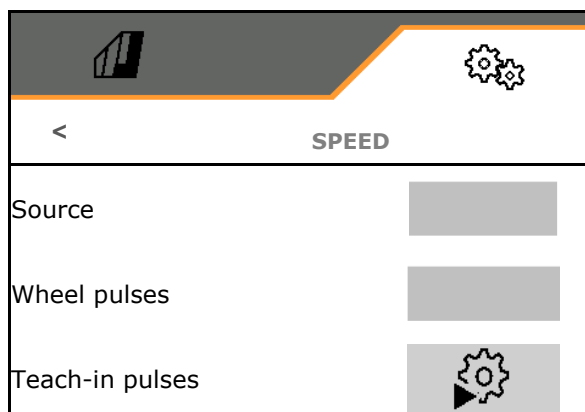
- Radar (ISOBUS): Tractor radar
- Wheel (ISOBUS): Tractor wheel
- Satellite (NMEA2000): GPS antenna
- Wheel (implement)
  - Enter pulses per 100 m, or
  - Teach-in pulses per 100 m
- Simulated (to check the application rate or if no other speed signal is available)
  - Enter the simulated speed

- The entered speed must be maintained later in all cases.
- If another speed source is detected, the simulated speed is automatically deactivated.



Check the accuracy of the utilised speed source.

- Inaccurate speed sources cause a faulty application rate.



The screenshot shows the 'SPEED' settings menu. At the top, there is a back arrow and a gear icon. Below the title 'SPEED', there are three rows of settings, each with a label and a corresponding input field or icon:

Setting	Value/Icon
Source	[Grey input field]
Wheel pulses	[Grey input field]
Teach-in pulses	[Gear icon]



## Teaching-in the pulses per 100 m



You must determine the wheel pulses per 100 m in working position under the prevailing operating conditions.

1. On the field, measure out a calibration distance of exactly 100 m.
2. Mark the start and end points.
3. Move the tractor to the start position.
4. ✓ Confirm.
5. Accurately travel along the measurement section from start to finish.
- The pulses are detected continuously and shown on the display.
6. Stop exactly at the end point.
7. ✓ Save value or **X** cancel measurement.

Teach-in pulses	
Measure a distance of 100 m and drive the tractor to the start position!	
Driven pulses	9876
Saved pulses	9700
<div> <span>×</span> <span>✓</span> </div>	



Check the number of pulses by comparing the speed display of the tractor and the control terminal.

## 5.1.2 Spray liquid circuit

- Front tank
  - ☒ Front tank with FlowControl in use
  - ☐ Front tank not in use

- Enter the minimum fill level in the spray liquid tank during spraying (10-40%).  
The minimum fill level in the spray liquid tank is maintained via the front tank.

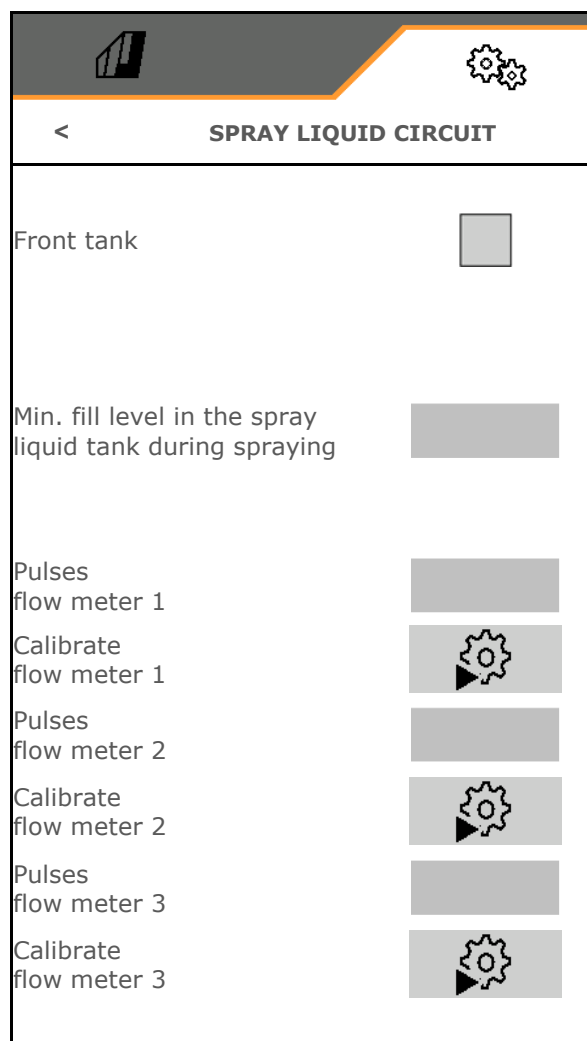
→ This can affect the front axle load of the tractor.

Flow meter 1

Flow meter 2 (return flow meter)

Flow meter 3 (High Flow+)

- Enter the pulses for the flow meter (0-9999)
- Calibrate flow meters




**SPRAY LIQUID CIRCUIT**


Front tank ☐

Min. fill level in the spray liquid tank during spraying


Pulses flow meter 1

Calibrate flow meter 1 

Pulses flow meter 2

Calibrate flow meter 2 

Pulses flow meter 3

Calibrate flow meter 3 

### Calibrating the flow meter



- The machine computer needs the calibration value "Pulse flow meter" for the flow meter / return flow meter for determining and controlling the spray rate.
- You have to determine the calibration value "Pulse flow meter" via a calibration procedure of the flow meter / return flow meter if the calibration value is not known.
- You can enter the calibration value "Pulse flow meter" for the flow meter / return flow meter manually if you know the exact calibration value.



- Determine the calibration value "Pulse flow meter".
  - Annually.
  - After removal of the flow meter.
  - After long periods of operation, because spray residue deposits can form in the flow meter.
  - If differences occur between the required spray rate and the actual spray rate.

#### Calibrate flow meter 1:

1. Fill the spray liquid tank with clear fresh water (approx. 1000 l)
2. ✓
3. Drive the pump with operating speed.
4. ✓



5. Switch on spraying and apply the displayed minimum quantity.

→ The values of the "Pulses" for the amount of water applied are measured continuously and shown on the display.





6. Switch of the spraying and interrupt the pump drive.
7. Determine the amount of water applied precisely by refilling the spray liquid tank
  - using a measuring vessel,
  - by weighing or
  - using a water gauge.

8. Enter the value for the amount of water determined.

9. ✓ Confirm entry.

→ The calibration value determined is displayed.

10. ✓ Save calibrated value.






CALIBRATING FLOW METER 1

Fill the determined quantity of water in the sprayer and set the nominal pump speed!

Tank fill level	0 l 1000 l
Nominal pump speed	0 rpm 540 rpm

✕
✓

CALIBRATING FLOW METER 1

Switch off the sprayer and enter the sprayed quantity.

Sprayed quantity	[Input field]
Measured pulses	9999
Nominal pump speed	0 rpm

✕
✓

## Settings

### Enter the pulses for the flow meter 1

As an alternative to calibration, the correct pulses for flow meter 1 can be determined.

Here's how:

1. Single nozzle control: Close the return flow on the sprayer boom.
2. Meter the field sprayer (see implement operating manual).
3. Compare the measured nozzle output to the expected nozzle output.
4. Calculate the pulses:

$$\text{Pulses} = \frac{\text{Current pulses} \times \text{expected nozzle output}}{\text{Measured nozzle output}}$$

Then:

5. Open the return flow again on the sprayer boom.
6. Calibrate flow meter 2

### Calibrate flow meter 2:



Calibrate flow meter 1 beforehand.

1. Fill the spray liquid tank with clear water (approx. 1000 l) until the fill marking marked on both sides of the spray liquid tank.
2. ✓
3. Drive the pump with operating speed.

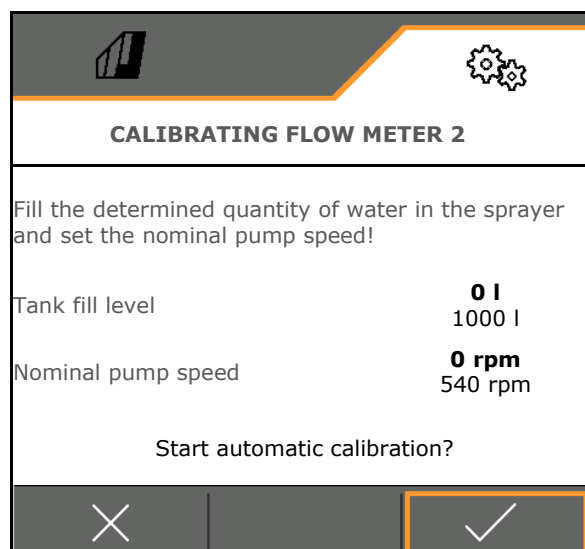


Calibration can only be carried out when spraying is switched off.

4. ✓
5. Drive the pump with operating speed.
6. ✓ Start automatic calibration.

→ The calibration value determined is displayed.

7. ✓ Save calibrated value.



**CALIBRATING FLOW METER 2**

Fill the determined quantity of water in the sprayer and set the nominal pump speed!

Tank fill level **0 l**  
1000 l

Nominal pump speed **0 rpm**  
540 rpm

Start automatic calibration?




**Calibrating flow meter 3 (High Flow):**

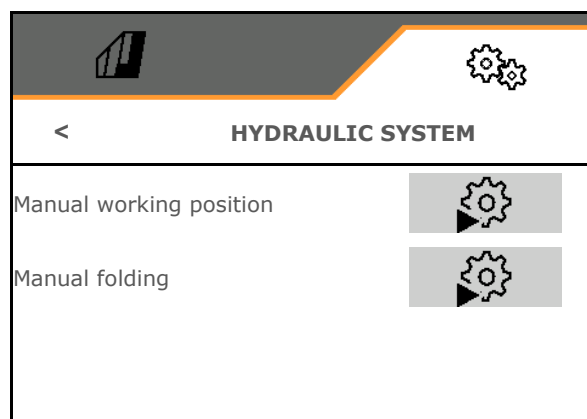
For determining pulses per litre for flow meter 3, flow meter 3 must be mounted at the position of flow meter 2 in the liquid circuit.

1. Switch off the High Flow (machine data menu)
2. ✓
3. Mount DFM 3 at the position of DFM 2.
4. ✓
5. Fill the spray liquid tank with clear water (approx. 1000 l) until the fill marking marked on both sides of the spray liquid tank.
6. ✓
7. Drive the pump with operating speed.
8. ✓ Start automatic calibration.
- The calibration value determined is displayed.
9. ✓ Save calibrated value.
10. Flow meter 2 and 3 are mounted back at their correct positions.

## 5.1.3 Hydraulic

- In case of malfunction, simulate the manual working position.  
The manual working position enables continued operation if there is a malfunction.
- Manual folding of the Flex-folding  
Manual folding serves as emergency folding in case of malfunction.


 See implement operating manual / Malfunction section!



### Manual working position with Flex-folding

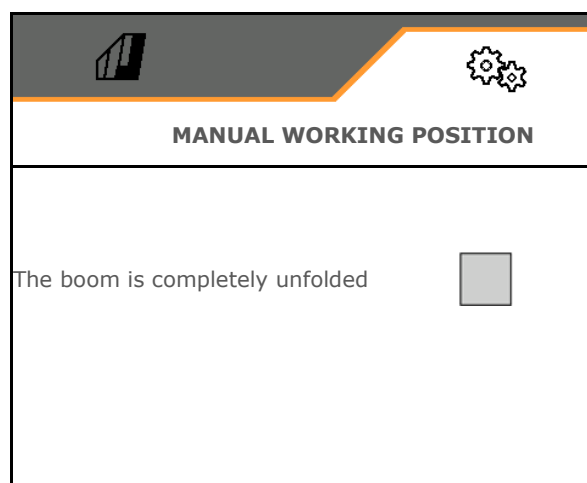
- Manual working position
  - ☒ Yes, the implement computer is given the information that the implement is in working position. (required for ContourControl).

→ The boom must be completely unfolded on both sides!

 Actual folding position and error messages are ignored until restart.

Boom guidance can be impaired..

- ☐ no



## Manual folding of the Flex-folding



### WARNING

Damage to the implement caused by improper operation of the manual folding.

Be careful when folding the implement manually.

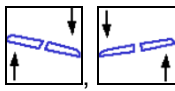
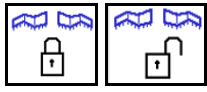

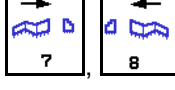






Folding of the sprayer sections from the outside to the inside.

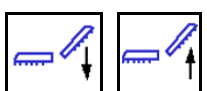
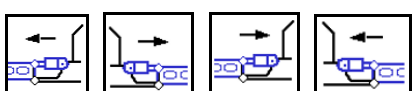
Unfolding of the sprayer sections from the inside to the outside.

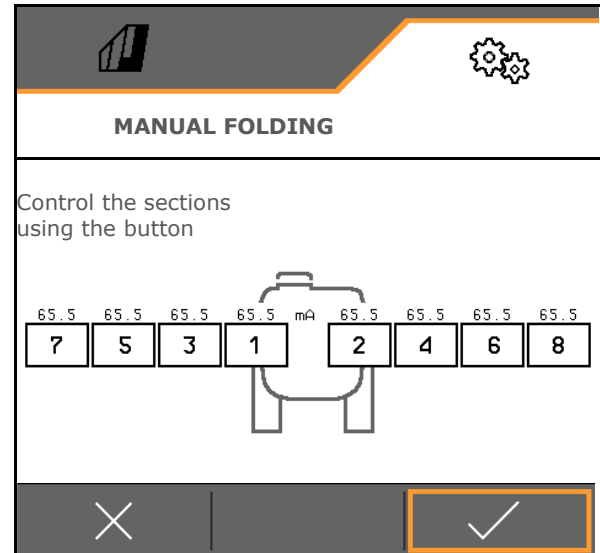
Folding the sprayer boom:

(Unfolding in the reverse order)

1.  Align the sections horizontally.
2.  Lock the vibration compensation.
3.  Lift the sprayer boom sufficiently.
4.  Fold the outer sections.
5.  Fold sections 5 and 6.
6.  Fold sections 4 and 5.
7.  Fold the boom package into transport position.
8.  Lock the boom package in transport position.
9. ✓ Terminate manual folding.

### Other manual boom functions:

-  Angle boom half up and down
-  Actuate SwingStop hydraulic cylinder



## 5.1.4 Selecting the implement profile for FT1502



Create implement profiles

As a standard, one profile is configured.

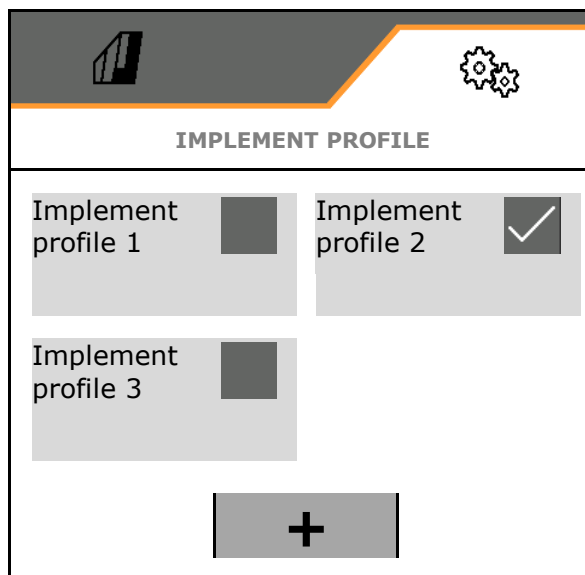
You can save 4 profiles with different settings.







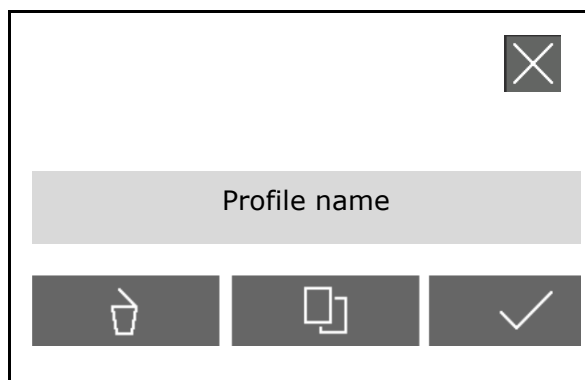
Tap the profile to edit.



Create new profile



-  Copy profile
-  Delete profile
-  Activate profile
-  Cancel
- Profile name    Enter profile name



Settings in the active implement profile:

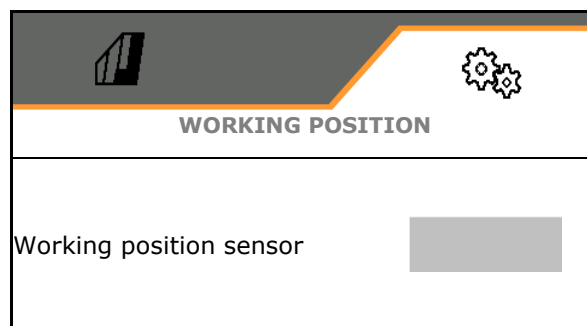
- Select control
  - via rear-mounted implement (operate FT-P via rear implement)
  - autonomous (operate FT-P as a separate implement)
- Select nozzle type
  - Standard
  - AmaSwitch
- Enter the number of part-width sections
- Enter the part-width section width for each part-width section
- The sum of the part-width sections results in the working width
- Configure the working position, see page 70.
- Coupling type
  - Mounted rear implement
  - Trailed rear implement
- Enter the geometry values, see page 71
- Switch-on delay / Switch-off delay
  - Switch-on delay, default value 400 ms
  - Switch-off delay, default value 200 ms

IMPLEMENT PROFILE – IMPLEMENT PROFILE 1	
Control	<input type="text"/>
Noz. type	<input type="text"/>
Number of part width sections	<input type="text"/>
Width of the part-width sections	<input type="text" value="&gt;"/>
Working width	2.4 m
'Working position'	<input type="text" value="&gt;"/>
Coupling type	<input type="text"/>
Geometry	<input type="text" value="&gt;"/>
Starting delay	<input type="text"/>
Switch-off delay	<input type="text"/>

## Settings

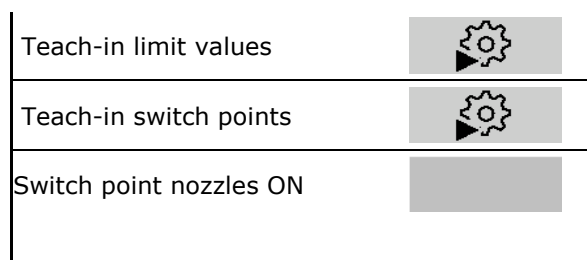
### 5.1.4.1 Configuring the working position for FT-P

- Working position sensor
  - No sensor
  - Lifting height ISOBUS digital
  - ISOBUS lifting height in %, see below for more settings
  - Analogue implement sensor
  - Digital implement sensor
    - ☒ Working position, when the sensor is attenuated
    - ☐ Working position, when the sensor is not attenuated



Other settings for: ISOBUS lifting height in % / analogue implement sensor:

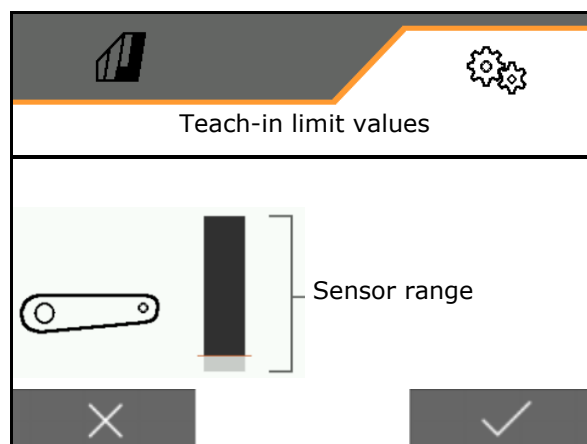
- Teach-in limit values, see below
- Teach-in switch points, see below
- Enter the switch point nozzles ON in % of the lifting height



#### Learn limit values

Before initial operation and when changing tractors, the limit values of the lifting gear must be taught in.

1. Lower the lifting gear / move the implement into working position.
2. ➤ Save the value and continue.
3. Raise the lifting gear as far as it goes.
4. ✓ Save value.

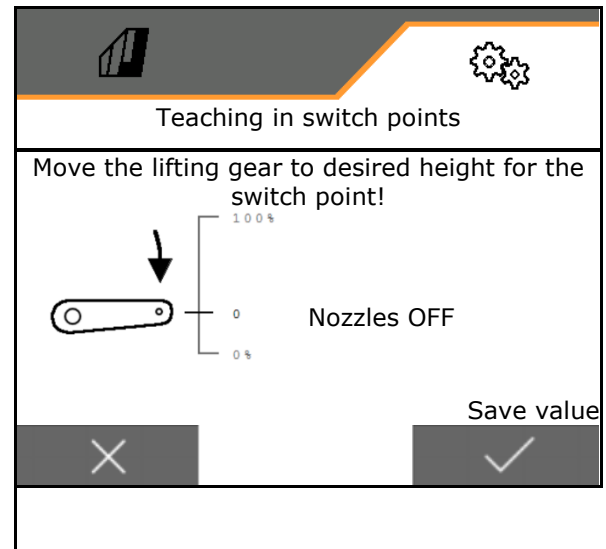


## Teaching in switch points

1. Move the lifting gear to desired height for the OFF switch point.
2. ✓ Save value.
3. Move the lifting gear to desired height for the ON switch point.
4. ✓ Save value.



The correct setting of the switch points is important for precise switching of the implement on the field.



### 5.1.4.2 Setting the geometry

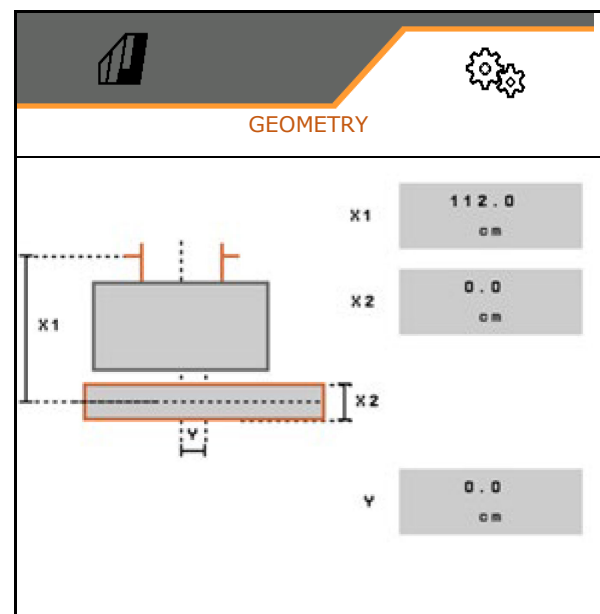
The geometry data must correspond to the real length dimensions of the implement in the direction of travel.



Lateral offset - implement to the left: Enter negative value

Mounted rear implement:



- Enter the value x1 for the distance from the connection device to the spreading centre.
- Enter the value x2 for the spreading length
- Enter the value Y for the lateral offset



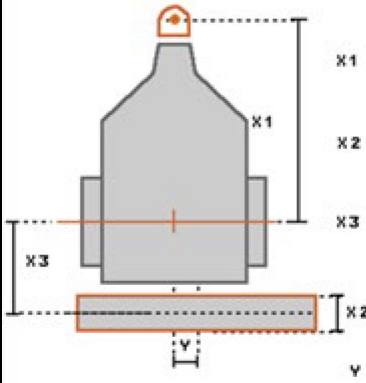
## Settings

Trailed rear implement:

- Value x1 for the distance from the connection device to the axle
- Value x2 for the distance from the axle to the spreading centre
- Enter the value x3 for the spreading length
- Enter the value Y for the lateral offset

GEOMETRIE



x1
0.0

cm

x2
0.0

cm

x3
112.0

cm

Y
0.0

cm



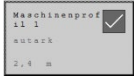
## 5.2 Profile



Create profiles

As a standard, one profile is configured.

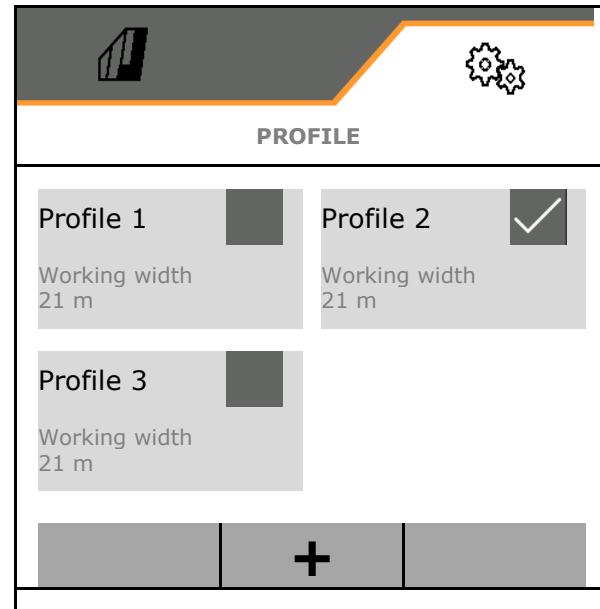
You can save 3 profiles with different settings.







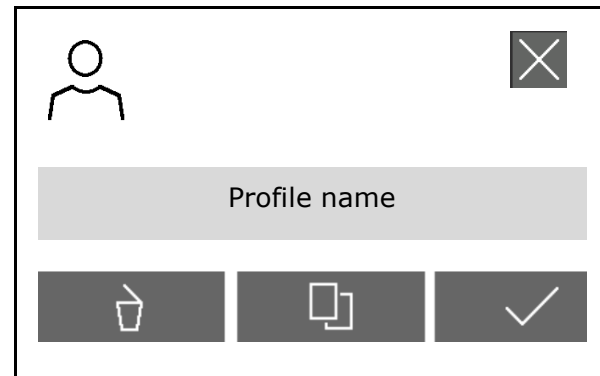
Tap the profile to edit.



Create new profile



-  Copy profile
-  Delete profile
-  Activate profile
-  Cancel
- Profile name Enter profile name



## Settings

















Settings in the active profile:

- Configure the multi-function display, see page 75.
- Configure key assignment, see page 76.



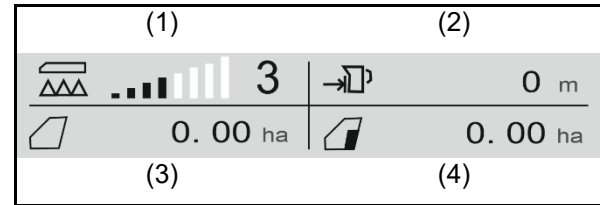
The keys can be assigned differently for the Work menu and the Cleaning menu.

- Configure the start functions, see page 76
- Configure the automatic devices, see page 76.
- Configure alarm limits, see page 77.
- Configure the hydraulic pump drive
- Configure the boom behaviour, see page 79.
- Configure rate control, see page 81.
- Configure part-width section control, see page 82.
- Configure AmaSelect, see page 84.
- Configure filling profiles, see page 94.
- Configure ISOBUS, see page 96.
- Configure steering system, see page 98.

 	
< PROFILE - PROFILE 2	
	Multi-function display
	Working key assignment
	Cleaning key assignment
	Selection of the start functions
	Automatic devices
	Pump
	Pump drive
	Boom behaviour
	Rate control
	Part-width section control
	AmaSelect
	Filling profile
	ISOBUS
	Steering

## 5.2.1 Multi-function display (MFD)

Multi-function display in the Work menu:

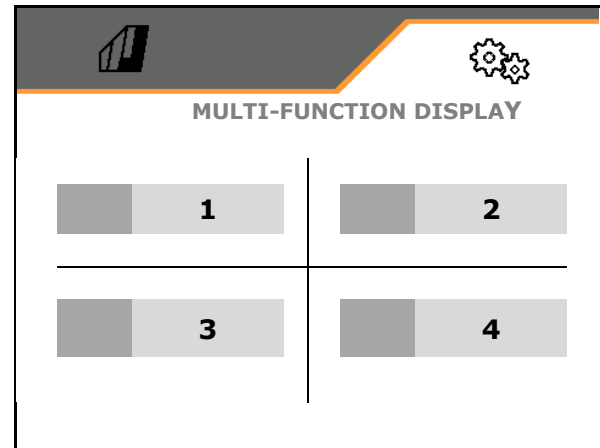


The 4 fields of the multi-function display can each be assigned with different displays.

1. Mark field 1-4 for the multi-function display.
2. Select display for field 1-4.

Selectable displays:

- Speed (simulated speed is marked in yellow)
- Spraying pump speed
- Distance counter
- Remaining distance
- Setpoint spray pressure
- Quantity
- Tank fill level
- Setpoint application rate
- Remaining area
- Area
- Agitator capacity
- Implement utilisation (with display for HighFlow control)
- Front tank fill level



## 5.2.2 Configuring the free key assignment



The keys can be freely assigned separately for the Work and Cleaning menus.

Here the function fields of the work menu can be freely assigned.

1. Select function on the display.  
Scroll first if necessary.
  2. Assign the function to the freely selectable function field.  
Select the page first if necessary.
- Function appears on the function field.
3. ✓ Confirm after all of the desired functions have been assigned.



## 5.2.3 Configuring the start functions

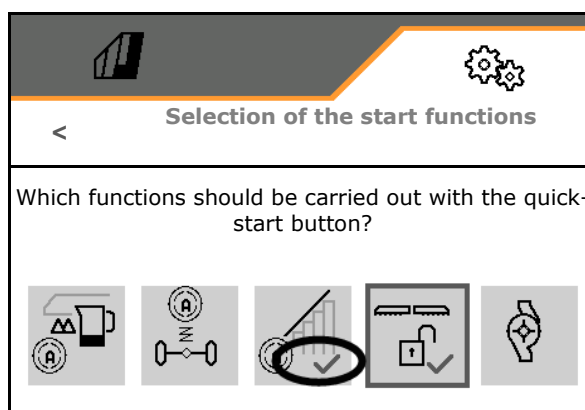
The common switchable start functions can be selected here.

The functions can be started together before




operation with

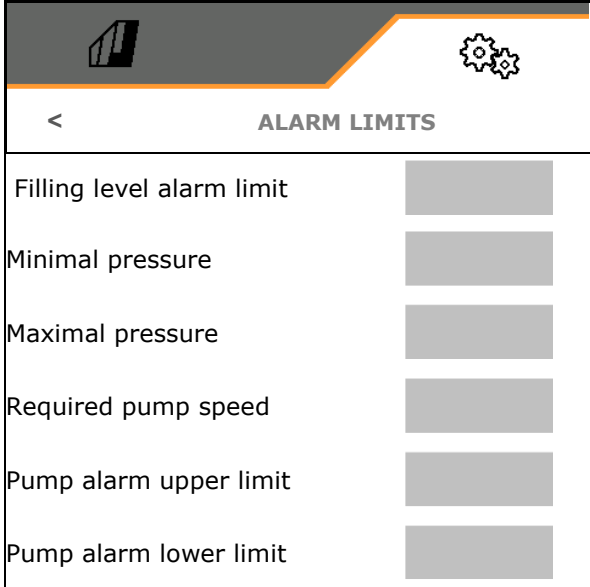
1. Mark the desired start function.
- A checkmark appears in the symbol.
2. ✓ Confirm after all of the desired start functions have been selected.



### 5.2.4 Configuring the alarm limits

- Filling level alarm limit in l
- Minimum pressure in bar
- Maximum pressure in bar
- Nominal pump speed in rpm
- Pump speed alarm upper limit in rpm
- Pump speed alarm lower limit in rpm

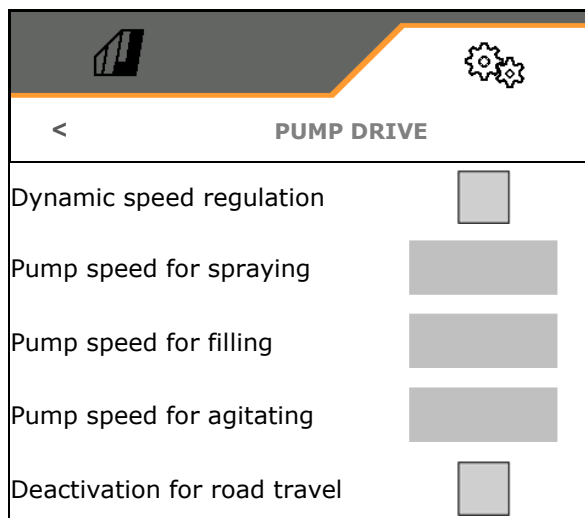
 A message box is shown when the boundary is crossed.



ALARM LIMITS	
Filling level alarm limit	<input type="text"/>
Minimal pressure	<input type="text"/>
Maximal pressure	<input type="text"/>
Required pump speed	<input type="text"/>
Pump alarm upper limit	<input type="text"/>
Pump alarm lower limit	<input type="text"/>

## 5.2.5 Pump drive

- Dynamic speed regulation
  - ☒ Yes, automatic starting and stopping of the pumps. Pump speed is automatically adjusted for the target rate and agitator capacity.
  - ☐ No (CP: starting and stopping of the pump is possible via TwinTerminal)
- Pump speed for spraying
- Pump speed for filling
- Pump speed for agitating
- The pump drive can be deactivated for road travel (Only with dynamic speed regulation).
  - ☒ Yes, the pump drive is automatically switched off for road travel.
  - ☐ no



PUMP DRIVE	
Dynamic speed regulation	<input type="checkbox"/>
Pump speed for spraying	<input type="range"/>
Pump speed for filling	<input type="range"/>
Pump speed for agitating	<input type="range"/>
Deactivation for road travel	<input type="checkbox"/>

## 5.2.6 Configure the boom behaviour

- Working height (height of the spraying nozzle) in cm
- Raise boom at the headlands
  - Off (do not raise)
  - Low (+ 25 cm)
  - Medium (+ 100 cm)
  - High (+ 150 cm)
- Tilt adjustment on headlands The boom will be horizontally aligned automatically, when the nozzles are switched off.
  - ☒ Yes
  - ☐ No
- Automatic height adjustment on headlands DistanceControl remains active on headlands.
  - ☒ Yes
  - ☐ No

### Only ContourControl:

- Activate / deactivate the distance sensors, see page 80.
- Distance sensor sensitivity
  - Low (low forward speed, heterogeneous crop)
  - Medium
  - High (high forward speed, homogeneous crop)
- Mode (Profi-folding 2/Flex-folding 2)
  - Angle up
  - Tilt adjustment

<

BOOM BEHAVIOUR

>

working height

Raise at the headlands

Tilt adjustment on headlands

Automatic height adjustment on headlands

Activate distance sensors

Boom guidance sensitivity

Mode

## Settings

- Automatic locking when folding
  - ☒ Yes
  - ☐ No
- Automatic tilt adjustment when locking
  - ☒ Yes
  - ☐ No
- Maximum angle up
 

Default value 100% (maximum possible angle)
- Maximum angle down
 

Default value 100% (maximum possible angle)

Auto lock when folding in

☐

Automatic tilt adjustment when locking

☐

Maximum angle up

Maximum angle down

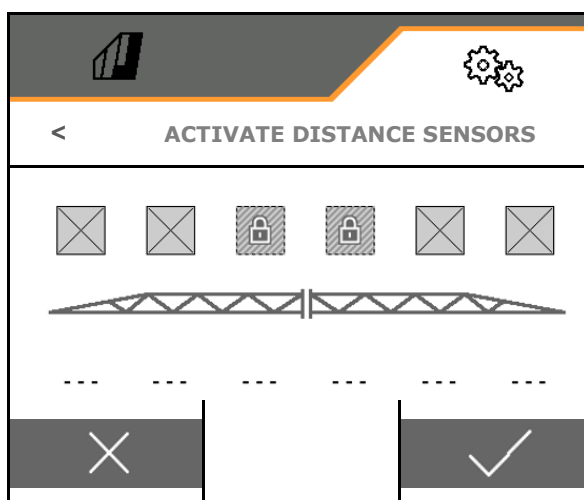
## Activating / deactivating the distance sensors

Deactivate the distance sensors:

- When working with reduced working width, if sensors are covered by the folded boom section.
- It is possible to continue working in case of a fault.
- With uneven or patchy crops.
  - ☒ Sensor activated
  - ☐ Sensor deactivated



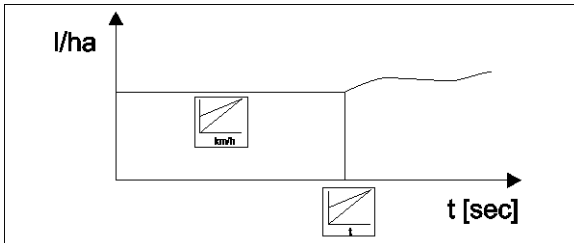
ContourControl:  In tilt mode, the inner distance sensors are deactivated





## 5.2.7 Configure the rate control

- Enter the quantity increments in % in the Work menu for target rate changes (default value: 10%)
- Start-up ramp  
The start-up ramp prevents under-metering when starting up.



After switching on the sprayer, an increased quantity will be metered for the entered time / until the entered speed is reached.

After that, the rate control starts.

- o ☒ yes  
Enter the start-up speed  
Enter the start-up time  
(Start-up speed and start-up time)
- o ☐ no
- Headland pressure regulation
  - o ☒ yes
  - o ☐ No (default)
- Enter the headland pressure, approx. 1-2 bar higher than the spray pressure  
(Standard value: 5 bar)

<

RATE CONTROL

⚙️

Quantity increments

Start-up ramp
☐

Headland pressure regulation
☐

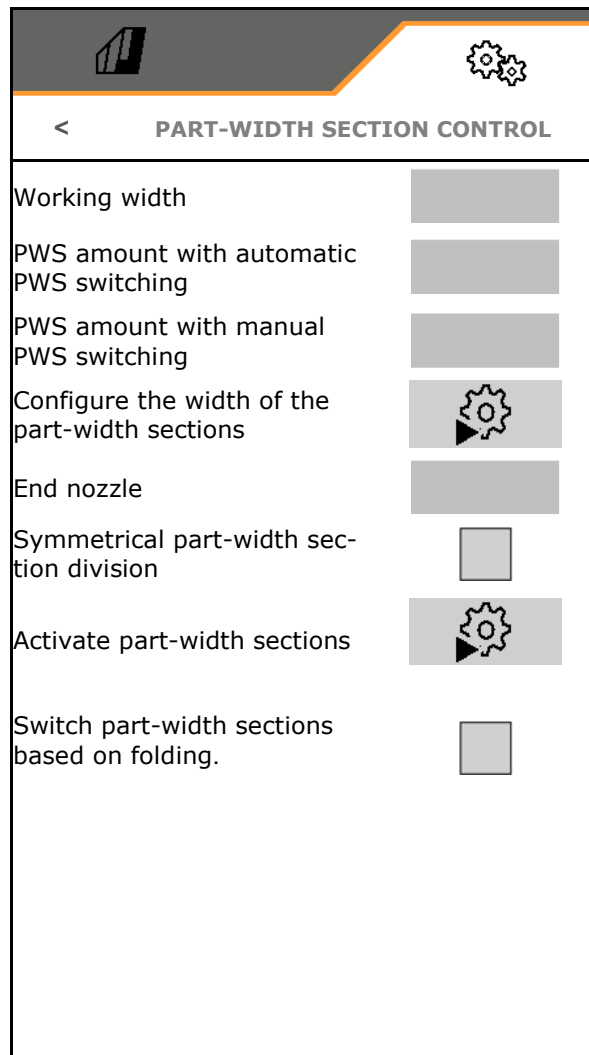
Headland pressure

## 5.2.8 Configuring part-width section control

- Enter the working width.
- Number of part-width sections for automatic part-width section control (number of nozzles, possibly fewer on third-party terminals)
- Number of part-width sections for manual part-width section control
- Configure the width of the part-width sections see page 83
- Enter the width of the end nozzles in metres
- Symmetrical part-width section division
  - ☒ yes
  - ☐ no
- Activate the part-width section, see page 83
- Switch part-width sections / nozzles in accordance with the boom section position.
 

Part-width section control: part-width sections must match the nozzles on the boom section.

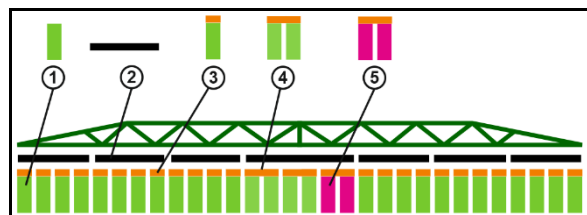
  - ☒ Nozzles on folded boom sections are not switched on
  - ☐ Nozzles on folded boom sections will also be switched on



### Configuring the width of the part-width sections

Only if the number of automatic part-width sections is not equal to the number of nozzles.

- (1) Nozzle
- (2) Manual part-width section
- (3) Automatic part-width section = one nozzle
- (4) Automatic part-width section = two nozzles
- (5) Part-width section marked for editing



When working with a reduced working width, the part-width sections must be configured accordingly.

1. ☒ Change width for manual or automatic part-width section?



2. Select the part-width section.



3. Edit part-width section.



- o Enlarge part-width section.



- o Reduce part-width section.



4. Acknowledge entry.

### Configure part-width sections

Selected part-width section:  
1  
Width: 3 m / 6 nozzles

Manual part width sections
Automatic part width sections



- For symmetrical part-width sections, the part-width sections only have to be entered on one side
- Automatic part-width sections can have a maximum width equal to that of the corresponding manual part-width section.
- Outer automatic part-width sections can be sensibly grouped to prevent constant switching by Section Control.
- An automatic part-width section can only be changed if the part-width section or adjacent part-width section contains more than 2 nozzles.

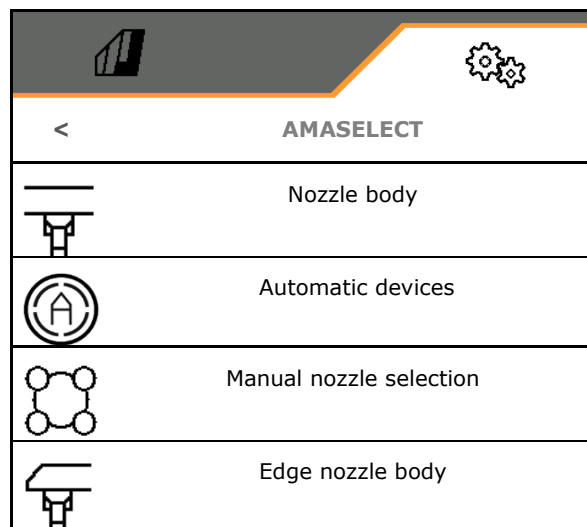
### Activating / permanently deactivating part-width sections

- ☒ Part-width section active
- ☐ Part-width section not active (are shown in red in the Work menu)

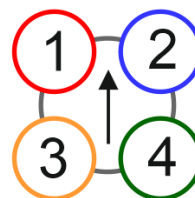
Active part-width sections

## 5.2.9 Configuring AmaSelect

- Configure the nozzle bodies, see page 85.
- Automatic nozzle selection
- Configure manual nozzle selection, see page 91.
- Configure edge nozzle bodies, see page 92.



- Nozzles 1 and 2 are mounted at the front in the direction of travel.
- The nozzles are coloured according to the nozzle size.



### 5.2.9.1 Nozzle body



The nozzle bodies must be equipped depending on



- the possible nozzle combinations, see "Automatic functions"
- the nozzle size, see table.

Small nozzle	Medium nozzle	Large nozzle
Nozzle 1, nozzle 4	Nozzle 3	Nozzle 2



For nozzle spacing of 25 cm, equip nozzle 1 and 2 in the nozzle body with the same nozzles.

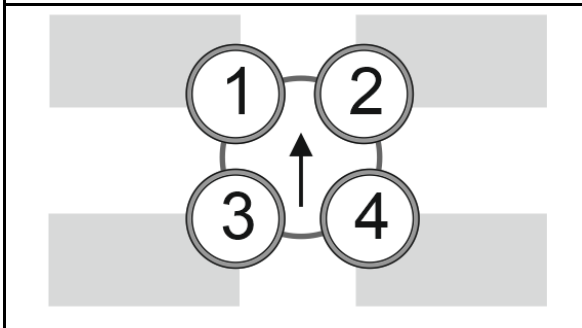
- 25 cm nozzle spacing
  - ☒ Yes, displacement kit 25 cm present
  - ☐ No, 50 cm

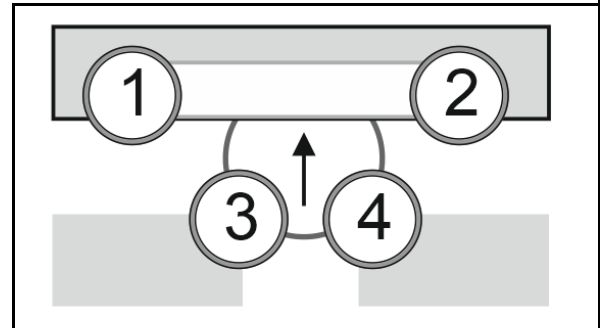
< NOZZLE BODY

25 cm nozzle spacing ☐

Display for 50 cm nozzle spacing:

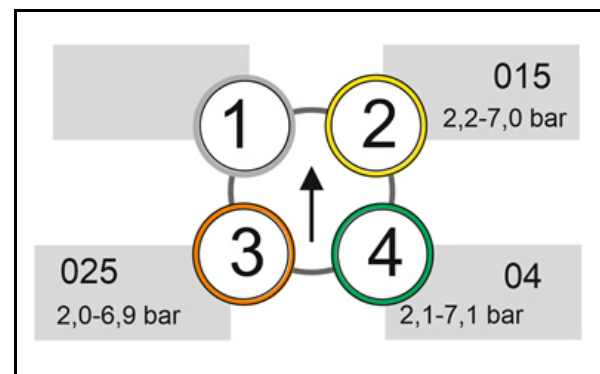


Display for 25 cm nozzle spacing:



- Enter the nozzle parameters  
Each nozzle is shown with the parameters that have been entered.
- Tap the nozzle for configuration.

Nozzle spacing 25 cm: nozzle 1 and 2 will be configured together.



## Settings

2. Make the entries for nozzles 1, 2, 3, 4.

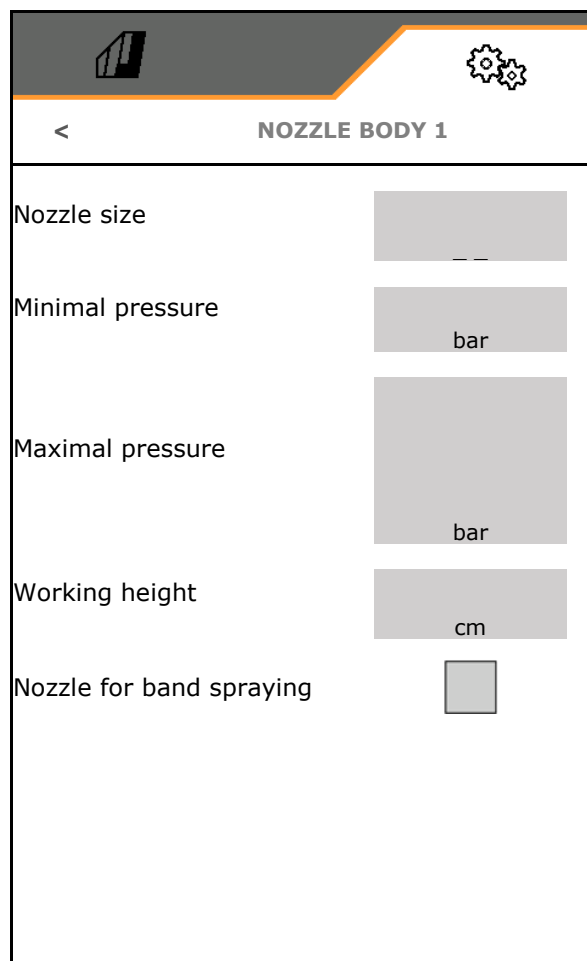
- o Nozzle size (with colour identification)
- o Minimum pressure for the nozzle
- o Maximum pressure for the nozzle

**i** The pressure entry determines the changing over to a different nozzle when using nozzle combinations.

- o Working height for the nozzle
- o Select nozzle for band spraying.
  - ☒ Use this nozzle for band spraying
  - ☐ Do not use this nozzle for band spraying

Band spraying 75 cm: select nozzles 1 and 2 for band spraying.

Band spraying 50 cm: select nozzles 3 and 4 for band spraying.

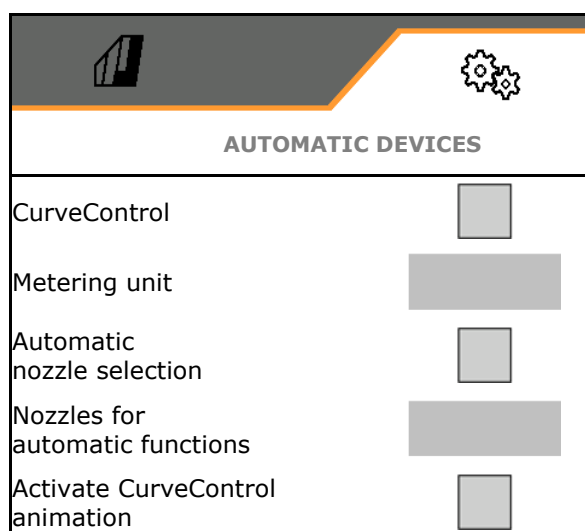


### 5.2.9.2 Automatic Devices

- CurveControl, see page 87.
- Metering at CurveControl, see page 87.
- Automatic nozzle selection
  - ☒ Use automatic nozzle selection according to the selected nozzle combination.
  - ☐ No automatic nozzle selection
- Nozzles for automatic functions, see page 88.
- Activate CurveControl animation
 

With some control terminals animation results in restart of the implement computer. In this case switching off the animation is the remedy.

  - o ☒ Animation switched on
  - o ☐ No animation



## CurveControl

When driving in curves, the site-specific target rate cannot be maintained via the working height.

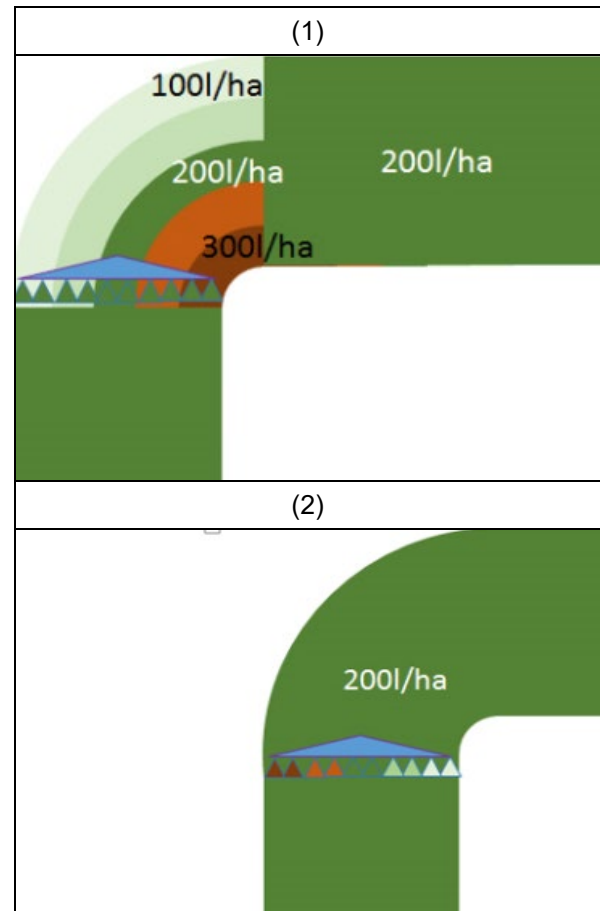
- Inside of the curve → lower nozzle speed → over-metering
- Outside of the curve → Higher speed of the nozzle → Under-metering

CurveControl enables an adjustment of the application rate through automatic changeover of the nozzles when driving in curves.

- CurveControl Pro with 3 different-sized nozzles
- CurveControl Eco with 2 different-sized nozzles

(1) ☐ No CurveControl

(2) ☒ CurveControl switched on



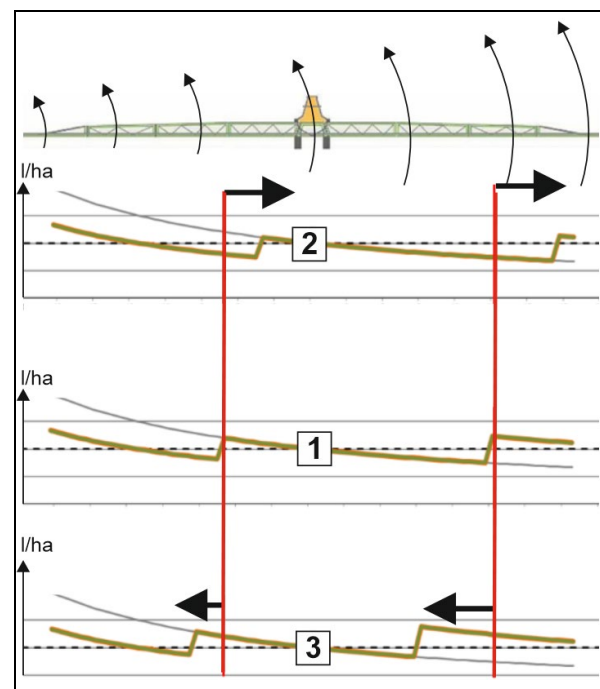
## Metering at CurveControl

(1) Normal metering

(2) Under-metering  
The entered target application rate is approximately the maximum application rate. The switch point to a larger nozzle is shifted to the outside of the curve, to prevent over-metering.

(3) Over-metering

The entered target rate is approximately the minimum application rate on the boom. The switch point to a larger nozzle is shifted to the inside of the curve to prevent under-metering.



## Settings

### Nozzles for automatic functions

Nozzle combinations	Possible switching positions	Example for nozzle equipment (from small to large)
Version 1 Nozzle 1 and nozzle 2	1 2 1+2	Nozzles 1=015 Nozzle 2=025
Version 2 Nozzle 2, nozzle 3 and nozzle 4	4 3 3+4 2+4	Nozzles 4=015 Nozzle 3=025 Nozzle 2=04
Version 3 Nozzle 3 and nozzle 4	4 3 3+4	Nozzles 4=015 Nozzle 3=025



### 5.2.9.3 Application example for creating a nozzle selection

(Working with application maps)

- Forward speed: 10 km/h
- Nozzle ID for pressure between 2-8 bar
- Required application rate: 60-280 l/min

**Selected:**

Nozzle combinations	Possible switching positions	Example for nozzle equipment
Version 1		
Nozzle 1 and nozzle 2	1 2 1+2	Nozzles 1=015 Nozzle 2=025

When selecting the nozzles, observe that the application rates of the individual nozzles overlap sufficiently so that all quantities can be spread correctly.

- Minimum pressure for nozzle 1
- Maximum pressure nozzle 1 and minimum pressure nozzle 2: Select with overlap area.
- Maximum pressure nozzle 2 and minimum pressure nozzle 3: Select with overlap area.
- Maximum pressure for nozzle 3

	Nozzle 1	Nozzle 2	Nozzle 1+2
Nozzle:	ID015	ID025	ID015+ ID025 = 0.4
Pressure range:	2.2-7.0 bar	2.0-6.9 bar	2.1-7.1 bar
for application rates:	60-108 l/ha	96-180 l/ha	156-288 l/ha
	Pressures and application rates from the spray table		

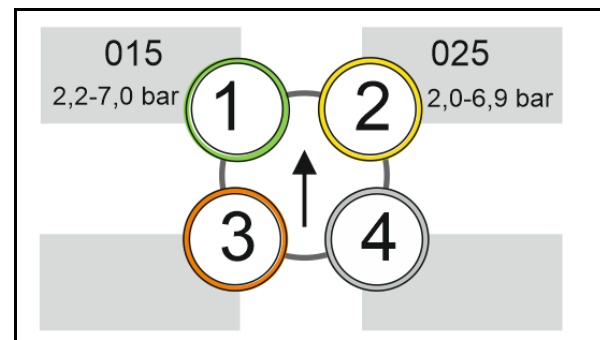
60 l/ha	100 l/ha	200 l/ha	300 l/ha
Nozzle 1	Nozzle 2	Nozzle 1+2	

Nozzle 1:

- Select a small nozzle.
- Enter the pressure range.

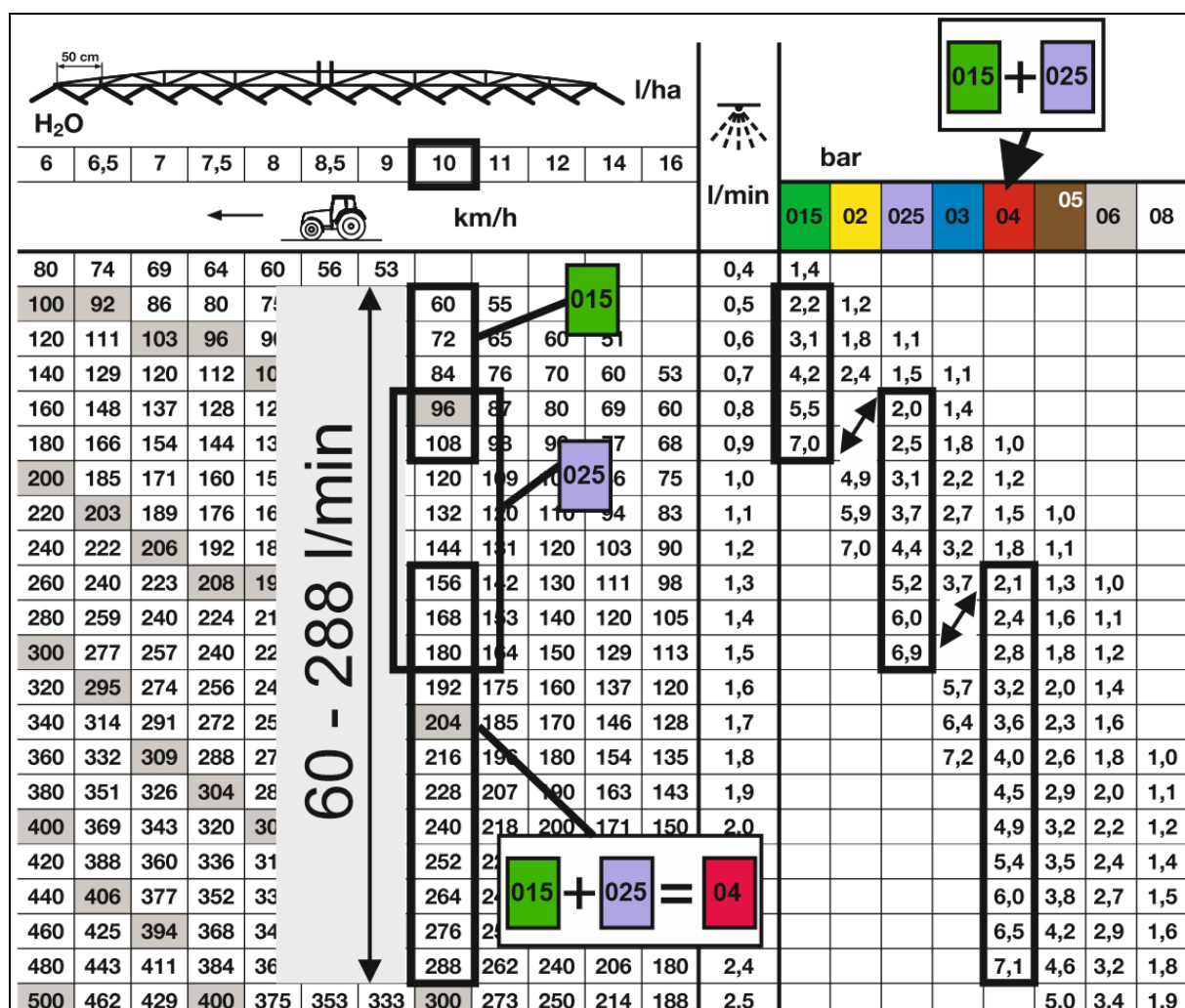
Nozzle 2:

- Select a large nozzle.
- Enter the pressure range.



# Settings

## Spray table for selecting the nozzles and pressure ranges



### 5.2.9.4 Manual nozzle selection

#### Which nozzles are required for operation?

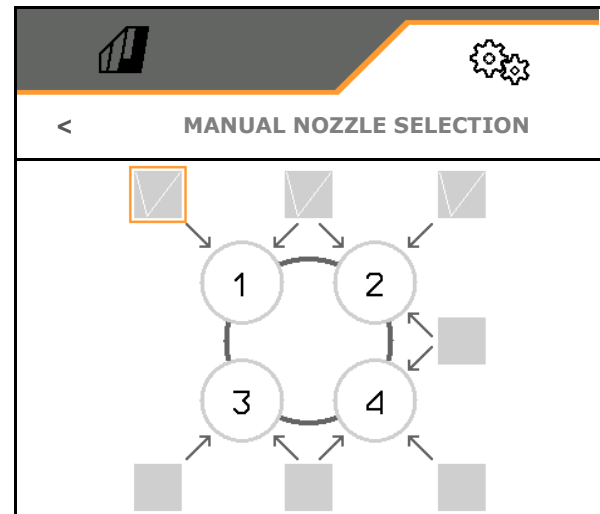
Select the required nozzle or combination of nozzles (for manual switching and automatic device):

1. Mark nozzle or the combination of nozzles

A maximum of 7 nozzles and combinations of nozzles can be selected.

2. Select nozzle / combination of nozzles.




- ☒ Selected
- ☐ Not selected



If nozzles 2 and 3 are selected, it is not possible to switch between 2 and 3 without briefly opening further nozzles.

### 5.2.9.5 Edge nozzle body

- Equipping
- Boundary nozzle assignment, see page 92.
- Auxiliary nozzle assignment, see page 91.

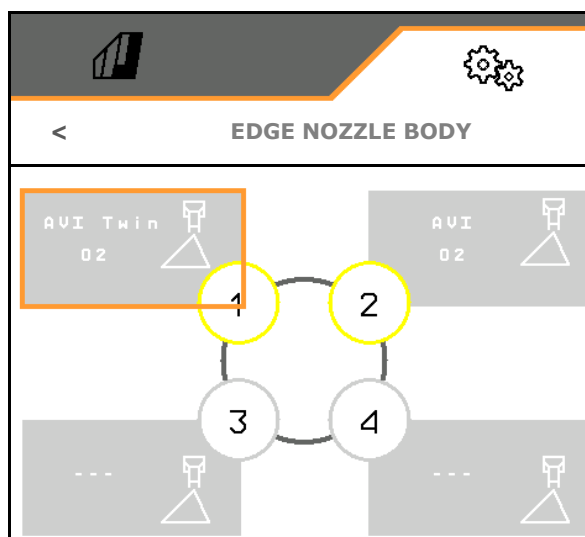
EDGE NOZZLE BODY	
	Equipping
	Boundary nozzle assignment
	Auxiliary nozzle assignment

## Settings

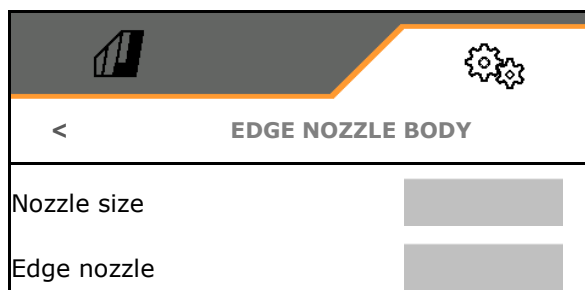
### Equipping

Each nozzle is shown with the parameters that have been entered.

1. Select nozzle for the configuration.



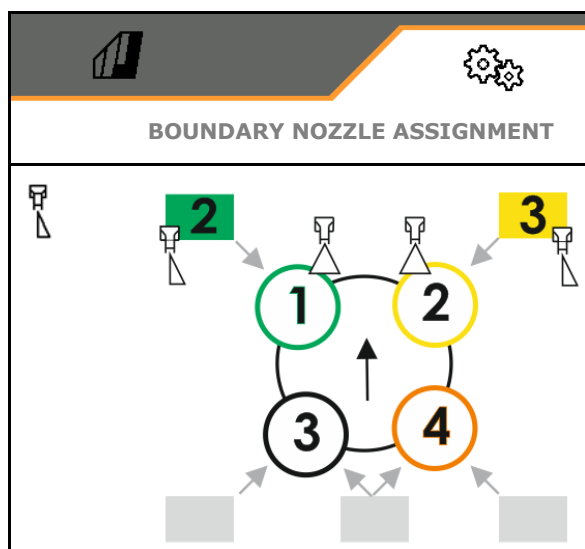
2. Make the entries for the nozzle.
  - Nozzle size (with colour identification)
  - Boundary nozzle, auxiliary nozzle



### Boundary nozzle assignment

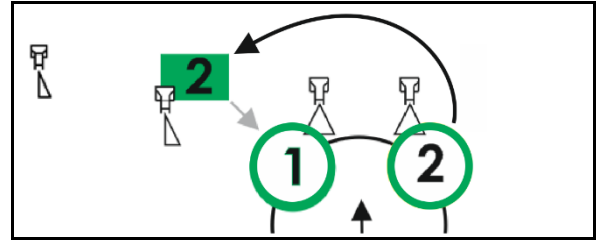
Which boundary nozzle should be switched on with which standard nozzle from the standard nozzle body?

1. Mark an angular field for the boundary nozzle.
2. Enter the position of the boundary nozzle (1-4) that should be switched simultaneously with the standard nozzle (1-4).



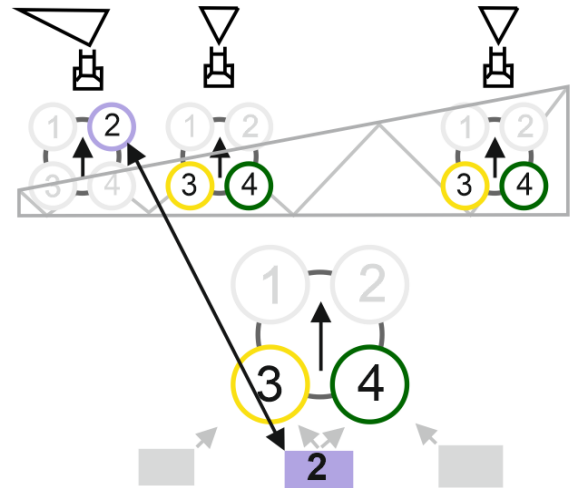
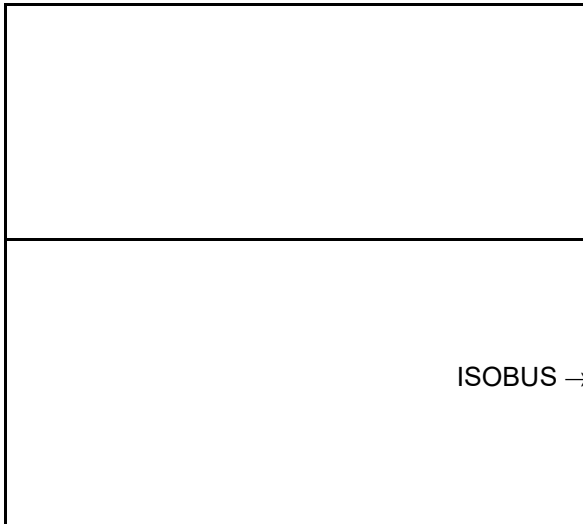
### Example 1:

When standard nozzle 1 is switched, nozzle 2 is switched as the boundary nozzle.



### Example 2:

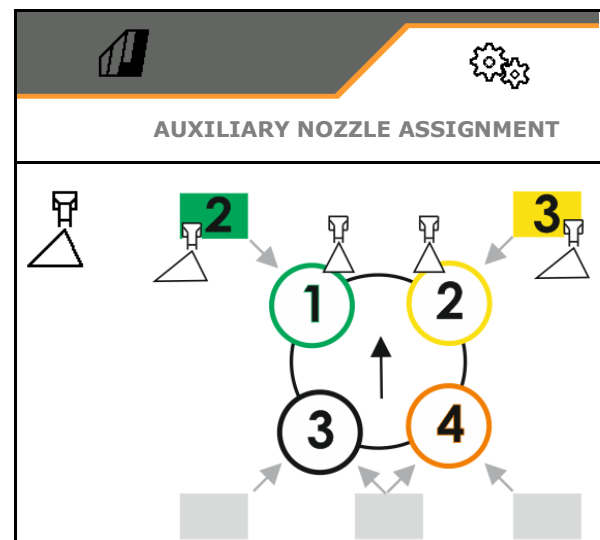
When nozzle combination 3 and 4 is switched, nozzle 2 is switched as the boundary nozzle.



### Auxiliary nozzle assignment

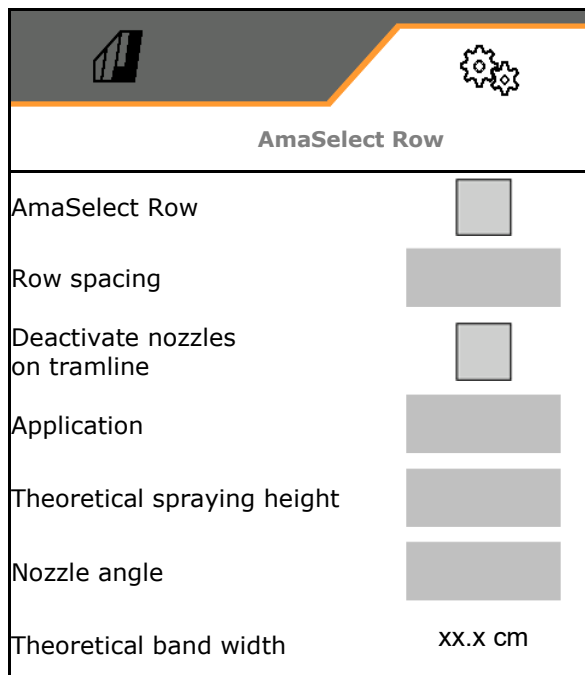
Which auxiliary nozzle should be switched on with which standard nozzle from the standard nozzle body?

1. Mark an angular field for the auxiliary nozzle.
2. Enter the auxiliary nozzle (1-4) that should be switched simultaneously with the standard nozzle (1-4).



## 5.2.9.6 AmaSelect Row band spraying

- AmaSelect Row
    - ☒ Band spraying can be switched on in the Field menu
    - ☐ Only area spraying
  - Enter the row spacing
    - 50 cm
    - 75 cm (25 cm kit necessary)
  - Deactivate nozzles in tramlines
    - ☐ Nozzles not active
    - ☐ Nozzles active
  - Application
    - Spray in plant row
    - Spray between the rows
  - Enter theoretical spraying height
  - Enter spray angle of the nozzles for band spraying
- The theoretical band width will be calculated and displayed.



The screenshot shows the 'AmaSelect Row' settings menu. At the top, there is a header bar with a gear icon and the title 'AmaSelect Row'. Below the header, the settings are listed with corresponding input fields:

- AmaSelect Row: A toggle switch.
- Row spacing: A numeric input field.
- Deactivate nozzles on tramline: A toggle switch.
- Application: A dropdown menu.
- Theoretical spraying height: A numeric input field.
- Nozzle angle: A numeric input field.
- Theoretical band width: A display field showing 'xx.x cm'.

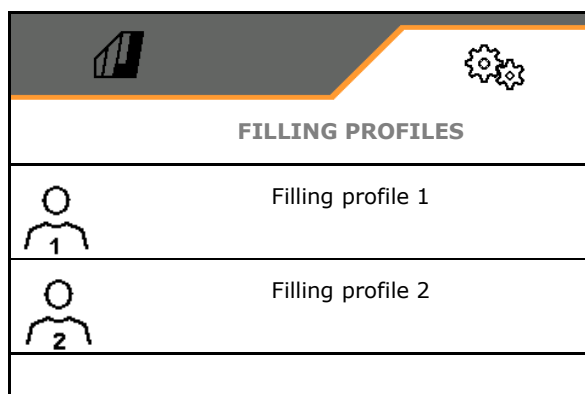
## 5.2.10 Creating filling profiles

Comfort Package Plus:

You can create 2 filling profiles.

A filling profile for automatic filling can be activated on the TwinTerminal.



- Configure filling profile 1
- Configure filling profile 2



The screenshot shows the 'FILLING PROFILES' menu. At the top, there is a header bar with a gear icon and the title 'FILLING PROFILES'. Below the header, the profiles are listed with corresponding icons:

- Filling profile 1: Represented by a person icon with the number 1.
- Filling profile 2: Represented by a person icon with the number 2.

- Filling the spray liquid tank
  - Suction connection
  - Pressure connection
  - --- No filling
- Enter nominal fill level for spray liquid tank
- Filling the flushing water tank
  - Suction connection
  - Pressure connection
  - --- No filling
- Enter nominal fill level for flushing water tank
- Select the liquid for the flushing function
  - Suction connection
  - Spray liquid tank
  - Flushing water tank
  - Pressure connection
  - ---
- Select filling with drip-free plug coupling closed transfer system
- Filling pause to flush in agents
  - ☒ yes
  - ☐ no
- Filling pause in % of the target fill level to flush in agents
- Filling capacity
  - 1 - Normal filling capacity
  - 2 - Increased filling capacity
  - 3 - Maximum filling capacity
- Foam suppression function via internal cleaning nozzles during the filling procedure
  - ☒ yes
  - ☐ no
- Automatically clean induction bowl after it is folded up
  - ☒ yes
  - ☐ no

<
**FILLING PROFILE 1**

Filling the spray liquid tank	<input style="width: 100%;" type="text"/>
Nominal fill level for spray liquid tank	<input style="width: 100%;" type="text"/>
Filling the flushing water tank	<input style="width: 100%;" type="text"/>
Nominal fill level for flushing water tank	<input style="width: 100%;" type="text"/>
Induction bowl flushing function	<input style="width: 100%;" type="text"/>
Filling of closed transfer system	<input style="width: 100%;" type="text"/>
Filling pause	<input style="width: 50px;" type="text"/>
Filling pause limit value	<input style="width: 100%;" type="text"/>
Filling capacity	<input style="width: 100%;" type="text"/>
Foam suppression function	<input style="width: 50px;" type="text"/>
Automatic cleaning of induction bowl	<input style="width: 50px;" type="text"/>

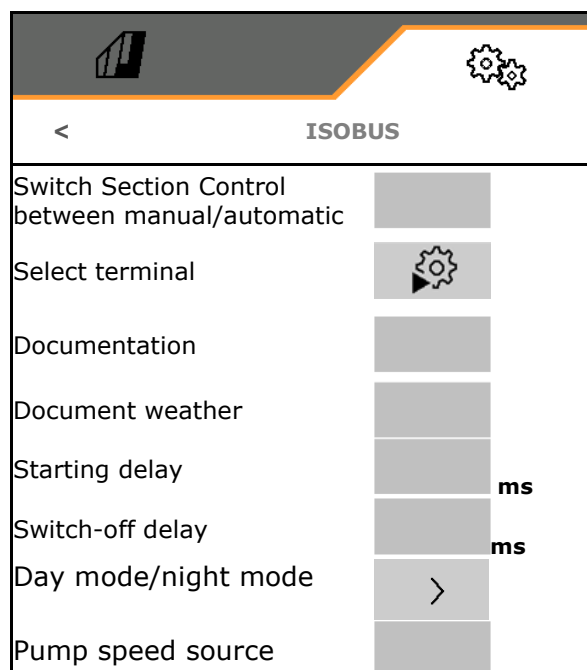
## 5.2.11 Configuring ISOBUS

- Switching the Section Control to Manual/Automatic
  - In the GPS menu  
Section Control is switched in the GPS menu.
  - In the Work menu (Recommendation for AmaTron 4)  
Section Control is switched in the ISOBUS Work menu:



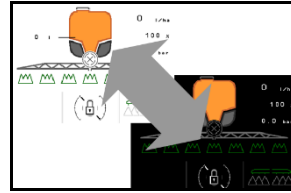
Section Control Manual / Automatic• Select the terminal

- Select the control terminal to display the implement operation
- Select the control terminal to display the documentation and Section Control.
- Documentation
  - Task Controller, job management active  
→ The implement computer communicates with the Task Controller of the terminal
  - Only machine-internal documentation
- Document weather
  - The Weather data menu appears in the Field menu. Weather data can be read in, edited and transmitted to the Task Controller.
  - Switch-on delay / Switch-off delay  
Switch-on delay: Default value: 400 ms
    - High value: Switches on early (overlap)
    - Low value: Switches on late (no overlap)
  - Switch-off delay: Default value: 200 ms
    - High value: Switches off late (overlap).
    - Low value: Switches off early (no overlap).
  - Switch-off delay, default value 200 ms
    - Low value: Switches off late (overlap).
    - High value: Switches off early (no overlap).





- Display day and night mode
- Pump speed source
  - o PTO shaft (ISOBUS)
  - o Off (no speed sensor available)



## Display day and night mode

- Automatic changeover depending on the brightness
  - o ☒ yes
  - o ☐ no
- Switch point for brightness in % for changing over to night mode
- Switch point for brightness in % for changing over to day mode

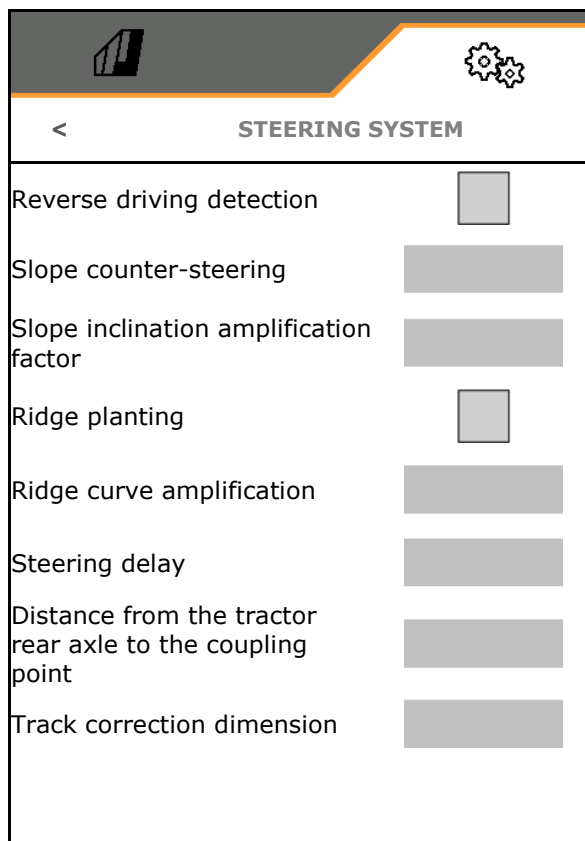
The current value for the brightness is displayed (0% maximum dark, 100% maximum bright).

Current value 255% → No data available via ISOBUS.

DAY/NIGHT MODE	
Automatic changeover	<input checked="" type="checkbox"/>
Night mode switch point	<input type="text"/>
Day mode switch point	<input type="text"/>
Current value	<b>255%</b>

## 5.2.12 Configuring the steering system

- Reverse driving detection
  - ☒ yes
  - ☐ no
- Slope counter-steering in AutoTrail automatic mode
  - Manual steering against the slope
  - Automatic steering against the slope
- Slope inclination amplification factor for automatic steering against the slope
- Ridge planting, See below
  - ☒ Yes, drive into the field at a right angle.
  - ☐ no
- Ridge curve amplification, default value 15, affects driving into the field
- Steering delay, See99
- Distance from the tractor rear axle to the coupling point
- Track correction dimension

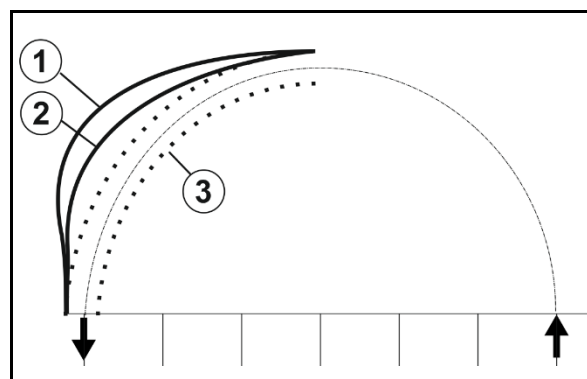


### Ridge planting

The implement is steered in a larger curve. As a result, the implement reaches the field at a right angle.

The steering can be influenced by the ridge curve amplification.

- (1) Ridge planting switched on, large value for the ridge curve amplification.
- (2) Ridge planting switched on, small value for the ridge curve amplification.
- (3) Implement follows the tractor track.



## Steering delay

With the steering point delay, the moment for driving into the curve can be adjusted.

A correctly adjusted implement does not "jerk" when steering into the curve and precisely follows the rear wheel track

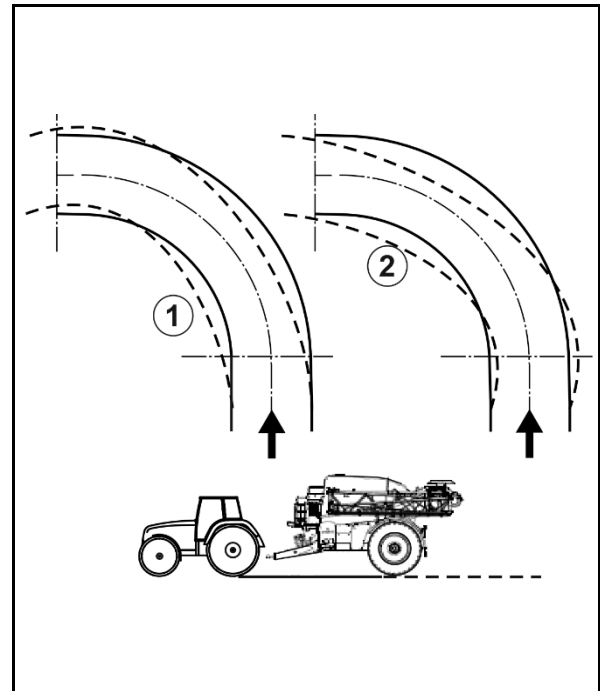
Set the behaviour for a 90° curve at normal forward speed.

- The distance from the rear axle of the tractor to the coupling point must be correctly adjusted beforehand.
- Ridge planting must be deactivated.

The higher the value, the later the implement is steered.

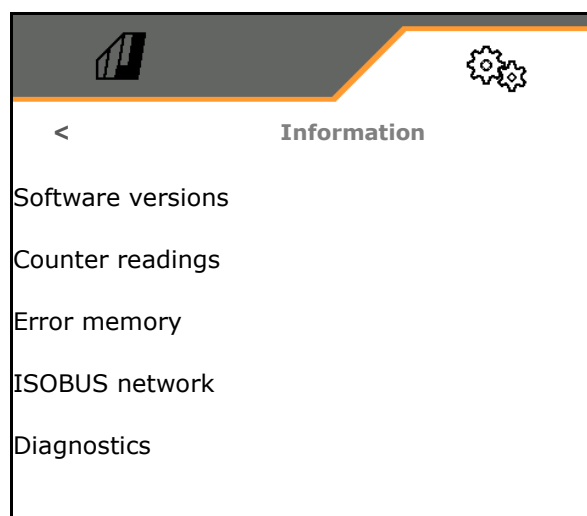
Default value 1.5 s

Sensible values are 3.0 – 3.5 s



### 5.3 Information

- Display of all software versions of the implement
- Display of counter readings with the determined data
- Display of the error memory
- Display of all participants in the ISOBUS network
- Display of the diagnosis data (execution of functions only possible with password)



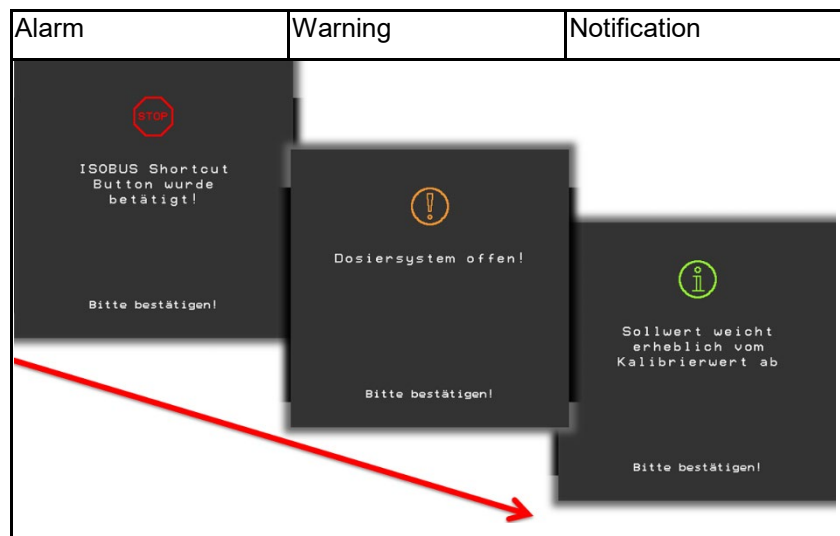
### 5.4 Setup



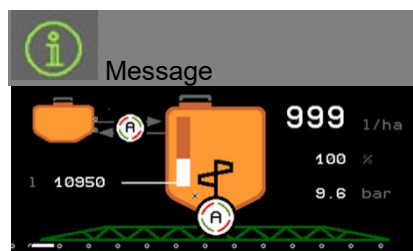
- Changes to the setup may only be made by Customer Service.
- To access the Setup menu, you have to enter the password.
- In the setup, you can change the implement's basic settings. Incorrect settings can lead to implement failure.

## 6 Malfunction

### 6.1 Alarm / warning and notification



→ Full-screen messages must always be acknowledged!



→ Messages in the work menu (top) do not need to be acknowledged.

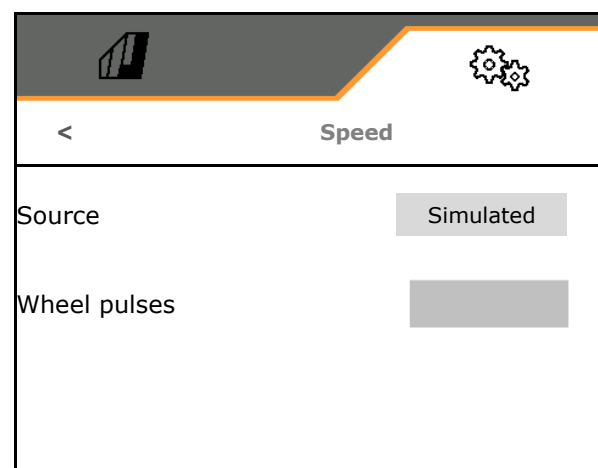
### 6.2 Failure of the speed signal from ISOBUS

A simulated speed can be entered in the Implement Data menu as a source for the speed signal.

This allows the use of the implement without a speed signal.

See:

1. Enter simulated speed.
2. Maintain the simulated speed as you continue operation.



## 6.3 Fault table

Number	Type	Cause	Remedy
F15001	Warning	An error has been detected in the runtime monitoring of the boom folding job computer.	<ul style="list-style-type: none"> <li>• Restart the implement</li> <li>• Check the boom folding job computer connection cable</li> <li>• Check fuse F6</li> </ul>
F15002	Note	Spraying pump speed is too low	<ul style="list-style-type: none"> <li>• Operate the spraying pump at 540 rpm</li> </ul>
F15003	Note	One of the cleaning steps could not be completed with the defined conditions. <ul style="list-style-type: none"> <li>• The required quantity of flushing water cannot be withdrawn</li> <li>• The spray pressure does not drop below 1 bar</li> </ul>	<ul style="list-style-type: none"> <li>• Check the flushing water tank (fill level curve, fill level sensor, etc.)</li> <li>• Check the pressure sensor for the spray line (BWA011)</li> </ul>
F15004	Warning	Position recording signal for the rate control valve is outside the permitted signal range of 4 to 20mA	<ul style="list-style-type: none"> <li>• Check the connection line for the rate control valve (KWA011)</li> <li>• Check fuse F2</li> <li>• Check the rate control valve (KWA011)</li> </ul>
F15005	Alarm	The voltage of the axle potentiometer is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the connection cable and potentiometer on the drawbar.</li> </ul>
F15006	Warning	This text appears when exiting the Diagnosis menu	---
F15007	Alarm	The voltage of the oil pressure sensor is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the pressure sensor and connecting cable of the hydro accumulator.</li> </ul>
F15008	Alarm	Failure of the front or rear tank fill level indicator, automatic mode for the fill level control between the front and rear tank is terminated	<ul style="list-style-type: none"> <li>• Adjust the fill level ratio between the front and rear tank</li> <li>• Check the fill level sensors and fill level curves.</li> </ul>
F15009	Warning	The fill level-dependent agitation pressure cannot be maintained	<ul style="list-style-type: none"> <li>• Check the connection line and agitation pressure valve (KWA045)</li> <li>• Check the agitator nozzles</li> <li>• Check the suction filter</li> </ul>
F15010	Warning	The signal of the agitation pressure sensor is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the sensor and connection cable</li> </ul>
F15011	Warning	An error was detected during the runtime monitoring of the Comfort Package / Comfort Package plus job computer.	<ul style="list-style-type: none"> <li>• Restart the implement</li> <li>• Check the Comfort Package/Comfort Package plus job computer</li> <li>• Check fuse F7</li> </ul>
F15012	Warning	The voltage value of the potentiometer on the suction tap is outside the permitted signal range of 0.5...4.5 V (Comfort Package) or 2 to 22 mA (Comfort Package Plus)	<ul style="list-style-type: none"> <li>• Check the sensor and connection cable</li> <li>• Check fuse F2</li> </ul>
F15013	Warning	Missing change of the voltage value for the pressure sensor when controlling the setting motor at the same time	<ul style="list-style-type: none"> <li>• Check the connection line and agitation pressure valve (KWA045)</li> <li>• Check the agitator nozzles</li> <li>• Check the suction filter</li> </ul>

F15014	Warning	Missing change of the signal value of the suction tap position recording when controlling the setting motor at the same time	<ul style="list-style-type: none"> <li>• Check the connecting cable and suction tap adjustment motor</li> <li>• Check the position recording for the suction tap</li> <li>• Check the suction tap mechanism</li> </ul>
F15015	Warning	Suspension computer is sending a signal for the sensor for detecting the left spring position (rear) that is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the height detection on the axle and connecting cable</li> </ul>
F15016	Warning	Suspension computer is sending a signal for the sensor for detecting the right spring position (rear) that is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the height detection on the axle and connecting cable</li> </ul>
F15017	Warning	The suspension computer reports that the height of the left and right axis have different heights.	<ul style="list-style-type: none"> <li>• Check the oil supply</li> <li>• Check the spring suspension valves</li> <li>• Check the height detection on the axle and connecting cable</li> <li>• Use the diagnosis menu to check if the connections of the potentiometer for the height adjustment or when connecting left and right hydraulic valves have been swapped.</li> </ul>
F15018	Warning	An error has been detected in the runtime monitoring of the spring suspension job computer.	<ul style="list-style-type: none"> <li>• Restart the implement</li> <li>• Check the spring suspension job computer connection cable</li> <li>• Check fuse F7</li> </ul>
F15019	Warning	Voltage value of the pressure sensor for pressure / rate control is outside the permitted signal range of 0.5 V to 4.5 V	<ul style="list-style-type: none"> <li>• Check the pressure sensor and connecting cable.</li> </ul>
F15020	Warning	Although at least one part-width section valve is opened and a pressure of >2 bar is applied, the flow meter is not sending a signal	<ul style="list-style-type: none"> <li>• Check the flow meter and connecting cable</li> <li>• Check the pressure sensor</li> </ul>
F15021	Warning	Although the bypass valve is open and a pressure of >2 bar is applied, the flow meter is not sending a signal	<ul style="list-style-type: none"> <li>• Check the flow meter and connecting cable</li> <li>• Check the return flow control valve</li> <li>• Check the pressure sensor</li> </ul>
F15022	Warning	Although at least one part width section valve is open, HighFlow is activated and a pressure of >2 bar is applied, the flow meter is not sending a signal	<ul style="list-style-type: none"> <li>• Check the flow meter and connecting cable</li> <li>• Check the pressure sensor</li> </ul>
F15023	Warning	An error has been detected in the runtime monitoring of the AmaSwitch job computer.	<ul style="list-style-type: none"> <li>• Restart the implement</li> <li>• Check the AmaSwitch job computer connection cable</li> <li>• Check the fuse for the ISOBUS load on the tractor</li> </ul>
F15024	Warning	The current of the fill level sensor is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the potentiometer and connecting cable of the fill level sensor</li> <li>• Liquid in the front tank can be pumped by pressing and holding the respective direction key</li> </ul>

## Malfunction

F15025	Warning	Front tank computer reports that the fill level sensor has failed (voltage value at the potentiometer is outside the permitted signal range of 2 to 22 mA)	<ul style="list-style-type: none"> <li>• Check the potentiometer and connecting cable of the fill level sensor</li> <li>• Liquid in the front tank can be pumped by pressing and holding the respective direction key</li> </ul>
F15026	Warning	An error has been detected in the runtime monitoring of the TwinTerminal.	<ul style="list-style-type: none"> <li>• Restart the implement</li> <li>• Check the TwinTerminal connection cable</li> <li>• Check fuse F7</li> </ul>
F15027	Warning	The voltage of the tilt sensor is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the tilt sensor and connecting cable</li> <li>• Check the implement and boom settings in setup</li> </ul>
F15028	Warning	The relay is not responding to the switching commands of the base computer	<ul style="list-style-type: none"> <li>• Check relay K1</li> <li>• If necessary, replace with an adjacent relay</li> </ul>
F15029	Warning	The relay is not responding to the switching commands of the base computer	<ul style="list-style-type: none"> <li>• Check relay K2</li> <li>• If necessary, replace with an adjacent relay</li> </ul>
F15030	Warning	The relay is not responding to the switching commands of the base computer	<ul style="list-style-type: none"> <li>• Check relay K3</li> <li>• If necessary, replace with an adjacent relay</li> </ul>
F15031	Warning	Despite controlling the tilt (by the operator, or automatically by the job computer), no change in the tilt sensor signal is determined.	<ul style="list-style-type: none"> <li>• Check the oil supply</li> <li>• Check the tilt adjustment and angle detection.</li> </ul>
F15032	Warning	An error was detected while monitoring the job computer for additional part-width sections and edge nozzles.	<ul style="list-style-type: none"> <li>• Restart the implement</li> <li>• Check the connection cable for the job computer for additional part-width sections</li> <li>• Check the tractor fuse</li> </ul>
F15033	Warning	The voltage of the tilt sensor is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the tilt sensor and connecting cable</li> <li>• Check the implement and boom settings in setup</li> </ul>
F15034	Warning	The voltage of the "Spring package to implement" potentiometer is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the potentiometer and connecting cable</li> <li>• Check the implement and boom settings in setup</li> </ul>
F15035	Note	Excessive forward speed when driving in curves, abrupt changing of the curve direction or uneven driving style when driving in curves	<ul style="list-style-type: none"> <li>• Reduce the forward speed</li> <li>• Drive in curves with a constant speed and without changing directions</li> </ul>
F15036	Warning	The tilt adjustment in the implement menu is not calibrated.	<ul style="list-style-type: none"> <li>• Calibrate tilt adjustment</li> </ul>
F15037	Note	Message appears when accessing the diagnosis menu	---
F15038	Warning	The voltage of the "Boom tilt" potentiometer is outside the permitted signal range of 0.5 to 4.5 V	<ul style="list-style-type: none"> <li>• Check the potentiometer and connecting cable</li> <li>• Check the correct implement and boom settings in setup</li> </ul>



F15039	Warning	Left ultrasonic sensor is not sending a signal	<ul style="list-style-type: none"> <li>• Check the left ultrasonic sensor, extension cable and the connecting cable (including amplification electronics) and replace if necessary</li> </ul>
F15040	Note	Source for the forward speed does not send a signal	<ul style="list-style-type: none"> <li>• Select another speed source in the machine implements menu</li> <li>• Check the settings of the TECU</li> </ul>
F15041	Alarm	ISOBUS shortcut button ISB is pressed (with AmaTron3 = On / Off switch)	<ul style="list-style-type: none"> <li>• Release ISB</li> </ul>
F15042	Alarm	ISOBUS shortcut button ISB is no longer pressed (with AmaTron 3 = On / Off switch)	---
F15043	Note	No signal for the PTO shaft speed at the ISOBUS	<ul style="list-style-type: none"> <li>• PTO shaft speed must be sent by TECU</li> <li>• As an alternative, select another source for the pump speed in the Implement settings menu (contact your AMAZONE dealer)</li> </ul>
F15044	Warning	Right ultrasonic sensor is not sending a signal	<ul style="list-style-type: none"> <li>• Check the right ultrasound sensor, extension cable and the connecting cable (including amplification electronics) and replace if necessary</li> </ul>
F15045	Warning	The voltage of the height potentiometer is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the height potentiometer and connecting cable</li> </ul>
F15046	Warning	Nominal value for the oil reservoir cannot be reached	<ul style="list-style-type: none"> <li>• Check/switch on the oil supply</li> <li>• Check the signal for the hydro accumulator pressure sensor</li> </ul>
F15047	Note	Appears when the job computer recognises that the values taught are not plausible (e.g., value 5 is smaller than value 4, although value 6, 7, 8 are larger again and value 1, 2, 3 are smaller) after the teaching process for the fill level curve (rear tank and / or front tank).	<ul style="list-style-type: none"> <li>• Check the measuring points of the fill level curve for plausibility</li> </ul>
F15048	Note	The computer must be restart to adopt the changed settings	<ul style="list-style-type: none"> <li>• Actuating the ACK key on the ISOBUS terminal restarts the job computer directly, without allowing the time to expire</li> </ul>
F15049	Warning	An error has been detected in the runtime monitoring of the extension unit 1 job computer.	<ul style="list-style-type: none"> <li>• Restart the implement</li> <li>• Check the extension unit 1 job computer connection cable</li> <li>• Check fuse F6</li> </ul>
F15050	Warning	An error has been detected in the runtime monitoring of the extension unit 2 job computer.	<ul style="list-style-type: none"> <li>• Restart the implement</li> <li>• Check the extension unit 2 job computer connection cable</li> <li>• Check fuse F6</li> </ul>
F15052	Warning	Despite controlling the spring suspension (by the operator, or automatically by the job computer), no change in the spring suspension sensor signal is determined.	<ul style="list-style-type: none"> <li>• Check the spring suspension oil supply/valves</li> <li>• Check the spring suspension sensor position</li> <li>• Check the spring suspension calibration</li> </ul>

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F15053	Note	The one-time calibration of the sensors on the spring suspension has not been performed yet	<ul style="list-style-type: none"> <li>Calibrate the spring suspension in the implement setup (contact your AMAZONE dealer)</li> </ul>
F15054	Note	Possible causes: <ul style="list-style-type: none"> <li>Induction bowl position sensor (BEL092) has failed</li> <li>Spray liquid fill level sensor (BWA090) has failed</li> <li>Communication between the Comfort Package Plus job computer (AEL051) and base computer (AEL652)</li> </ul>	<ul style="list-style-type: none"> <li>Check the sensors</li> <li>Check fuse F1</li> <li>Check fuse F2</li> <li>Check the cable connection</li> </ul>
F15055	Note	--	See instructions in the message box
F15056	Note	--	See instructions in the message box
F15057	Note	The one-time calibration of the fill level sensor has not been performed yet	<ul style="list-style-type: none"> <li>Calibrate the fill level sensor or enter the offset value for the fill level curve (contact your AMAZONE dealer)</li> </ul>
F15058	Note	The speed of the flushing water pump is outside of the tolerance range of +/- 10% of the nominal speed for a period of 10 sec.	<ul style="list-style-type: none"> <li>Check the switching distance of the flushing water pump speed sensor (BEL004) from the pump drive shaft (3.5...4 mm)</li> <li>Check the oil supply from the tractor</li> </ul>
F15059	Note	Speed recording for the flushing water pump has failed	<ul style="list-style-type: none"> <li>Check the flushing water pump speed sensor (BEL004) connection cable</li> <li>Check the flushing water pump speed sensor (BEL004)</li> </ul>
F15060	Note	The fill level in the flushing water tank is lower than 100 litres.	<ul style="list-style-type: none"> <li>Fill the flushing water tank</li> <li>Check the flushing water tank sensor</li> </ul>
F15061	Note	The one-time calibration of the fill level sensor has not been performed yet	<ul style="list-style-type: none"> <li>Calibrate the fill level sensor or enter the offset value for the fill level curve (contact your AMAZONE dealer)</li> </ul>
F15062	Note	Indication of emergency operation function. Induction bowl position sensor (BEL092) has failed	---
F15063	Note	Failure of the flushing water tank fill level sensor (BWA091) or failure of the valve for filling the flushing water tank	---
F15064	Note	Voltage value of the boom tilt potentiometer must be within 2.0 V to 3.0 V	<ul style="list-style-type: none"> <li>Carry out calibration again</li> <li>Make sure that the implement is positioned horizontally</li> <li>Check the tilt sensor and connecting cable</li> </ul>
F15065	Warning	In order to be able to operate the folding function, the speed must not be faster than 3 km/h	<ul style="list-style-type: none"> <li>Reduce the speed</li> <li>Check the signal of the source selected for the speed</li> <li>Select a different source for the speed</li> </ul>
F15066	Alarm	The basis computer of the sprayer does not receive any messages from the yaw rate sensor	<ul style="list-style-type: none"> <li>Check the connection cable and yaw rate sensor</li> <li>Check fuses F1 and F2</li> <li>Check the settings in the Setup menu</li> </ul>
F15067	Note	Failure of the spray liquid tank fill level sensor (BWA090) or failure of the valve for filling the flushing water tank	---

F15068	Warning	Suspension computer is sending a signal for the sensor for detecting the front left spring position (rear) that is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the height detection on the axle and connecting cable</li> <li>• Check the implement settings (sensor only with UX11200)</li> </ul>
F15069	Note	Suspension computer is sending a signal for the sensor for detecting the front right spring position that is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the height detection on the axle and connecting cable</li> <li>• Check the implement settings (sensor only with UX11200)</li> </ul>
F15070	Note	Spring suspension is not in automatic mode.  Implements with spring suspension should only be operated when not in automatic mode in exceptional cases.	<ul style="list-style-type: none"> <li>• Switch on spring suspension automatic mode</li> </ul>
F15071	Warning	UX11200: Suspension computer is attempting to correct the spring position and there is no oil pressure available.	<ul style="list-style-type: none"> <li>• Switch on the oil circulation</li> <li>• Check the oil supply</li> <li>• Check the oil pressure sensor</li> </ul>
F15072	Note	Drawbar steering: The steering angle is limited when the booms are in transport position	<ul style="list-style-type: none"> <li>• Check the sensors and connection cable</li> </ul>
F15073	Warning	The one-time calibration of the steering system has not been performed yet.	<ul style="list-style-type: none"> <li>• Calibrate the steering system (contact your AMAZONE dealer)</li> </ul>
F15074	Warning	Instruction for emergency activation. Appears when the position recording of the induction bowl has failed and a cleaning function for the induction bowl is activated.	---
F15076	Warning	An error has been detected in the runtime monitoring of the ContourControl job computer.	<ul style="list-style-type: none"> <li>• Restart the implement</li> <li>• Check the ContourControl job computer connection cable</li> <li>• Check the fuse for the ISOBUS load on the tractor</li> </ul>
F15077	Warning	The displayed nozzle body (counting method: from left to right in the direction of travel) has repeatedly not switched the desired nozzle on or off.	<ul style="list-style-type: none"> <li>• Check the connection cable and plug for the affected nozzle body</li> <li>• Check the affected nozzle body (stiffness, cleaning, damage)</li> </ul>
F15078	Warning	The message appears when the base computer of the implement does not receive any messages from the AmaSelect central unit (AEL240)	<ul style="list-style-type: none"> <li>• Restart the implement</li> <li>• Check the connecting cable for the central unit</li> <li>• Check the fuse for the ISOBUS load on the tractor</li> <li>• Check the implement settings</li> </ul>
F15079	Warning	The displayed control unit (AEL240...248) (counting method: from left to right in the direction of travel) is not communicating with the base computer.	<ul style="list-style-type: none"> <li>• Check the connection cable and plug for the affected control unit and all other control units</li> <li>• Check the voltage supply from the tractor</li> </ul>

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F15081	Warning	The locking mechanism of the tilt adjustment is not closed.	<ul style="list-style-type: none"> <li>• Close the locking mechanism</li> <li>• Check the sensor of the boom locking mechanism (BEL370)</li> <li>• By actuating the folding function again, the boom and the outer sections can be folded without locking. The message appears again the next time the boom is unfolded.</li> </ul>
F15083	Warning	The voltage on at least one nozzle body is lower than 10V	<ul style="list-style-type: none"> <li>• Check the nozzle body connection cable</li> <li>• Check the voltage supply from the tractor</li> </ul>
F15084	Warning	Faulty configuration / addressing of the nozzle body	<ul style="list-style-type: none"> <li>• Check the nozzle body connection cable</li> <li>• Check the voltage supply from the tractor</li> <li>• Have nozzle bodies been replaced?</li> <li>• Please contact your AMAZONE dealer</li> </ul>
F15085	Note	The voltage supply to the AmaSwitch job computer is lower than 8V	<ul style="list-style-type: none"> <li>• Check the AmaSwitch job computer connection cable</li> <li>• Check the voltage supply from the tractor</li> </ul>
F15086	Note	There has been an attempt to activate Section Control automatic mode, but all of the prerequisites have not been met	---
F15087	Note	See instruction	<ul style="list-style-type: none"> <li>• Repeat cleaning procedure</li> </ul>
F15088	Note	The configuration of the boom width and working width do not match	<ul style="list-style-type: none"> <li>• Check the settings</li> </ul>
F15089	Warning	Error on the left boom half, e.g. a short circuit or overload	<ul style="list-style-type: none"> <li>• Check the nozzle body connection cable</li> <li>• Check the voltage supply from the tractor</li> <li>• Check the connection lines in the boom</li> </ul>
F15090	Warning	Error on the right boom half, e.g. a short circuit or overload	<ul style="list-style-type: none"> <li>• Check the nozzle body connection cable</li> <li>• Check the voltage supply from the tractor</li> <li>• Check the connection lines in the boom</li> </ul>
F15091	Warning	AmaSwitch job computer (AAEL260) is not in operating condition	<ul style="list-style-type: none"> <li>• Disconnect the ISOBUS plug from the tractor, wait for 20 sec. and reconnect</li> <li>• Please contact your AMAZONE dealer</li> </ul>
F15092	Note	Emergency operation function. The induction bowl is working at maximum suction capacity.	---
F15093	Warning	The voltage supply on the ISOBUS load contacts on the base computer is lower than 10V	<ul style="list-style-type: none"> <li>• Check the fuse on the tractor</li> <li>• Check the voltage supply from the tractor</li> <li>• Check the ISOBUS connection cable and base computer connection cable</li> </ul>

F15094	Warning	An update has been installed on the AmaSelect job computer or a new AmaSelect job computer has been installed on the implement, and an error has occurred with the software adjustment	<ul style="list-style-type: none"> <li>• Restart the implement and leave the tractor running</li> <li>• Do not interrupt the voltage supply of the implement!</li> </ul>
F15095	Note	Emergency operation function. The agitator is no longer being regulated and is working at full capacity. The agitator is closed when the fill level in the main tank is less than 5%.	---
F15096	Note	Instruction for emergency activation. Appears when the position recording of the suction tap motor or the suction tap motor has failed.	---
F15097	Note	Instruction for emergency activation. Appears when the position recording of the suction tap motor or the suction tap motor has failed.	---
F15098	Note	Instruction for emergency activation. Appears when the position recording of the suction tap motor or the suction tap motor has failed.	---
F15099	Note	This message appears when the base computer (AEL652) no longer receives any messages from the Comfort Package plus job computer (AEL051).	<ul style="list-style-type: none"> <li>• Check the CAN bus connection</li> <li>• Check the Comfort Package plus job computer (AEL051)</li> <li>• Please contact your AMAZONE service partner</li> </ul>
F15100	Note	---	<ul style="list-style-type: none"> <li>• Check the CAN bus connection</li> <li>• Check the Comfort Package plus job computer (AEL051)</li> <li>• Please contact your AMAZONE service partner</li> </ul>
F15101	Note	---	<ul style="list-style-type: none"> <li>• Check the CAN bus connection</li> <li>• Check the Comfort Package plus job computer (AEL051)</li> <li>• Please contact your AMAZONE service partner</li> </ul>
F15102	Warning	Position recording signal for the left inner boom is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the sensor and sensor connection</li> <li>• Check the sensor connection line</li> <li>• Check fuse F2</li> <li>• Check fuse F6</li> </ul>
F15103	Warning	Position recording signal for the right inner boom is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the sensor and sensor connection</li> <li>• Check the sensor connection line</li> <li>• Check fuse F2</li> <li>• Check fuse F6</li> </ul>
F15104	Warning	An excessive current consumption / or no current consumption for an actuation on the "Spray line" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15105	Warning	An excessive current consumption / or no current consumption for an actuation on the valve for the oil motor of the flushing water pump has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve coil</li> </ul>

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F15106	Warning	An excessive current consumption / or no current consumption for an actuation on the valve for the secondary agitator has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve coil</li> </ul>
F15107	Warning	Position recording signal for the centre boom A on the left is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the sensor and sensor connection</li> <li>• Check the sensor connection line</li> <li>• Check fuse F2</li> <li>• Check fuse F6</li> </ul>
F15108	Warning	Position recording signal for the centre boom B on the left is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the sensor and sensor connection</li> <li>• Check the sensor connection line</li> <li>• Check fuse F2</li> <li>• Check fuse F6</li> </ul>
F15109	Warning	Position recording signal for the outer boom on the left is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the sensor and sensor connection</li> <li>• Check the sensor connection line</li> <li>• Check fuse F2</li> <li>• Check fuse F6</li> </ul>
F15110	Warning	Position recording signal for the centre boom section A on the left is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the sensor and sensor connection</li> <li>• Check the sensor connection line</li> <li>• Check fuse F2</li> <li>• Check fuse F6</li> </ul>
F15111	Warning	Position recording signal for the centre boom B on the right is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the sensor and sensor connection</li> <li>• Check the sensor connection line</li> <li>• Check fuse F2</li> <li>• Check fuse F6</li> </ul>
F15112	Warning	An excessive current consumption / or no current consumption for an actuation on the "Flushing water pump suction tap" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15113	Warning	An excessive current consumption / or no current consumption for an actuation on the "Injector" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15114	Warning	Undervoltage, motor temperature is too high or valve stiffness was detected	<ul style="list-style-type: none"> <li>• Check the valve for blockage/foreign objects</li> <li>• Check the valve for stiffness</li> <li>• Please contact your AMAZONE dealer</li> </ul>
F15115	Warning	An excessive current consumption / or no current consumption for an actuation on the "Drain tap" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15116	Warning	An excessive current consumption / or no current consumption for an actuation on the "Quick emptying" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>

F15117	Warning	An excessive current consumption / or no current consumption for an actuation on the "Flushing water tank filling" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15118	Warning	An excessive current consumption / or no current consumption for an actuation on the "Spray liquid tank pressure filling" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15119	Warning	An excessive current consumption / or no current consumption for an actuation on the "Flushing water tank pressure filling" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15120	Warning	An excessive current consumption / or no current consumption for an actuation on the "Spray liquid tank pump to induction bowl" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15121	Warning	An excessive current consumption / or no current consumption for an actuation on the "Ecofill" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15122	Warning	An excessive current consumption / or no current consumption for an actuation on the "Flushing water pump to spray liquid area" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15123	Warning	An excessive current consumption / or no current consumption for an actuation on the "Spraying pump pressure area stop tap" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15124	Warning	An excessive current consumption / or no current consumption for an actuation on the "Filling line stop tap" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15125	Warning	An excessive current consumption / or no current consumption for an actuation on the "Internal cleaning" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15126	Warning	An excessive current consumption / or no current consumption for an actuation on the "Induction bowl" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15127	Warning	An excessive current consumption / or no current consumption for an actuation on the "External cleaning" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15128	Warning	An excessive current consumption / or no current consumption for an actuation on the "Induction bowl cleaning" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15129	Warning	An excessive current consumption / or no current consumption for an actuation on the "Internal cleaning via spraying pump" valve has been detected.	<ul style="list-style-type: none"> <li>• Check the valve connection line</li> <li>• Check the valve in the liquid path for foreign objects</li> </ul>
F15130	Warning	The signal of the flushing water pump speed sensor is outside the permitted signal range of 2...7 mA or 17...20 mA	<ul style="list-style-type: none"> <li>• Check the sensor and measuring surface for soiling</li> <li>• Check the switching distance of the sensor</li> <li>• Check the connection line to the sensor</li> <li>• Check fuse F2</li> <li>• Check fuse F1</li> </ul>



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F15131	Warning	Position recording signal for the right outer boom is outside the permitted signal range of 2...22 mA	<ul style="list-style-type: none"> <li>• Check the sensor and installation</li> <li>• Check the connection line to the sensor</li> <li>• Check fuse F2</li> <li>• Check fuse F1</li> </ul>
F15132	Warning	The signal of the induction bowl suction setpoint generator is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the connection line to the sensor</li> <li>• Check fuse F2</li> <li>• Check fuse F1</li> </ul>
F15133	Warning	Position recording signal for induction bowl suction setpoint generator is outside the permitted signal range of 2 to 7mA or 17 to 22 mA	<ul style="list-style-type: none"> <li>• Check the connection line to the sensor</li> <li>• Check fuse F2</li> <li>• Check fuse F1</li> </ul>
F15134	Warning	Signal of pressure sensor for the fill level for flushing water tank is outside the permitted signal range of 2 to 22mA	<ul style="list-style-type: none"> <li>• Check the sensor connection line</li> <li>• Check fuse F2</li> </ul>
F15135	Warning	There is an error for a component (sensor / actuator) in the system - pay attention to additional error messages	
F15136	Warning	---	<ul style="list-style-type: none"> <li>• Reduce the fill level in the spray liquid tank to &lt; 20 litres</li> </ul>
F15137	Warning	---	<ul style="list-style-type: none"> <li>• Increase the fill level in the flushing water tank to at least 400 litres</li> </ul>
F15138	Warning		<ul style="list-style-type: none"> <li>• Increase the fill level in the flushing water tank to at least 200 litres</li> </ul>
F15139	Warning	HighFlow valve is not responding and is not sending any messages	<ul style="list-style-type: none"> <li>• Check the connection line to the sensor</li> <li>• Check fuse F2</li> <li>• Check fuse F1</li> </ul>
F15140	Warning	The voltage supply of the Comfort Package Plus job computer (AEL051) is lower than 9.0 V	<ul style="list-style-type: none"> <li>• Check fuse F7</li> <li>• Check the voltage supply from the tractor</li> <li>• Check the Comfort Package Plus job computer connection cable and the ground cable connection 3.X1 and 3.X4</li> </ul>
F15141	Warning	The sum of the currents on the outputs of the Comfort Package Plus job computer (AEL051) is greater than 25 A	<ul style="list-style-type: none"> <li>• Check the Comfort Package Plus wiring harness for short circuits</li> <li>• Check the Comfort Package Plus motor valves</li> </ul>
F15142	Warning	The left outer ultrasound sensor (BEL363) is not sending a signal or the signal is implausible	<ul style="list-style-type: none"> <li>• Check the sensor connection cable</li> <li>• Check the sensor</li> </ul>
F15143	Warning	The left centre ultrasonic sensor (BEL365) is not sending a signal or the signal is implausible	<ul style="list-style-type: none"> <li>• Check the sensor connection cable</li> <li>• Check the sensor</li> </ul>
F15144	Warning	The left inner ultrasound sensor (BEL367) is not sending a signal or the signal is implausible	<ul style="list-style-type: none"> <li>• Check the sensor connection cable</li> <li>• Check the sensor</li> </ul>
F15145	Warning	The right inner ultrasound sensor (BEL368) is not sending a signal or the signal is implausible	<ul style="list-style-type: none"> <li>• Check the sensor connection cable</li> <li>• Check the sensor</li> </ul>
F15146	Warning	The right centre ultrasound sensor (BEL366) is not sending a signal or the signal is implausible	<ul style="list-style-type: none"> <li>• Check the sensor connection cable</li> <li>• Check the sensor</li> </ul>



F15147	Warning	The right outer ultrasound sensor (BEL364) is not sending a signal or the signal is implausible	<ul style="list-style-type: none"> <li>• Check the sensor connection cable</li> <li>• Check the sensor</li> </ul>
F15148	Warning	The ContourControl job computer has detected a problem with the boom lifting unit	<ul style="list-style-type: none"> <li>• Check the lifting cylinder/lifting unit valves</li> <li>• Check the connection cable</li> <li>• Check the boom height potentiometer</li> <li>• Check fuse F2</li> <li>• Restart the implement</li> </ul>
F15149	Warning	The ContourControl job computer has detected a problem with the tilt adjustment	<ul style="list-style-type: none"> <li>• Check the hydraulic cylinder / tilt adjustment valves</li> <li>• Check the tilt cylinder pressure sensors</li> <li>• Check the connection cable</li> <li>• Restart the implement</li> </ul>
F15150	Warning	The ContourControl job computer has detected a problem with angling up the boom on the left	<ul style="list-style-type: none"> <li>• Check the lifting cylinder/angling up valves on the left</li> <li>• Check the connection cable</li> <li>• Check the angling up potentiometer</li> <li>• Check fuse F2</li> <li>• Restart the implement</li> </ul>
F15151	Warning	The ContourControl job computer has detected a problem with angling up the boom on the right	<ul style="list-style-type: none"> <li>• Check the lifting cylinder / angling up valves on the right</li> <li>• Check the connection cable</li> <li>• Check the angling up potentiometer</li> <li>• Check fuse F2</li> <li>• Restart the implement</li> </ul>
F15152	Warning	The ContourControl job computer has detected a problem with the boom folding on the left	<ul style="list-style-type: none"> <li>• Check the hydraulic cylinder/inner boom folding valves on the left</li> <li>• Check the connection cable</li> <li>• Check the inner boom folding potentiometer on the right</li> <li>• Check fuse F2</li> <li>• Restart the implement</li> </ul>
F15153	Warning	The ContourControl job computer has detected a problem with the boom folding on the right	<ul style="list-style-type: none"> <li>• Check the hydraulic cylinder/inner boom folding valves on the right</li> <li>• Check the connection cable</li> <li>• Check the inner boom folding potentiometer on the right</li> <li>• Check fuse F2</li> <li>• Restart the implement</li> </ul>
F15154	Warning	The ContourControl job computer has detected a problem with the SwingStop system	<ul style="list-style-type: none"> <li>• Check the hydraulic cylinder / SwingStop valves</li> <li>• Check the connection cable</li> <li>• Check the SwingStop oscillating path potentiometer</li> <li>• Check the yaw rate sensors in the boom</li> <li>• Check fuse F2</li> <li>• Restart the implement</li> </ul>

## Malfunction

F15155	Warning	The implement has detected that not all of the control units were properly switched off since the last shutting down of the system.	<ul style="list-style-type: none"> <li>• The ISOBUS load voltage from the tractor is not being switched off, check the tractor</li> <li>• If necessary, retrofit the AMAZONE isolating relay (NL1084)</li> </ul>
F15156	Warning	The signal of the transport position sensor is outside the permitted signal range of 2 to 7 mA or 17 to 22 mA	<ul style="list-style-type: none"> <li>• Check sensor BEL372</li> <li>• Check the sensor connection cable</li> <li>• Check fuse F1</li> <li>• Check fuse F2</li> </ul>
F15157	Warning	The signal of the transport position sensor is outside the permitted signal range of 2 to 7 mA or 17 to 22 mA	<ul style="list-style-type: none"> <li>• Check sensor BEL373</li> <li>• Check the sensor connection cable</li> <li>• Check fuse F1</li> <li>• Check fuse F2</li> </ul>
F15158	Warning	AutoTrail is not in centre position, speed source is not the implement, speed of the implement (wheel sensor) is greater than 4 km/h and the speed of the selected speed source is 0 km/h	<ul style="list-style-type: none"> <li>• Check the wheel speed sensor for proper function</li> <li>• Calibrate the wheel speed sensor of the implement (mounted implement)</li> <li>• Check the selected speed source for proper function</li> </ul>
F15159	Alarm	After moving to the centre position, the value of the axle angle potentiometer deviates by more than 0.1 mA (~0.4°) from the calibrated centre position	<ul style="list-style-type: none"> <li>• In road mode: Reactivate manual mode and press the "Move to centre position" button again -&gt; Reactivate road mode</li> <li>• In manual mode: Press the "Move to centre position" button again</li> </ul>
F15160	Alarm	<ul style="list-style-type: none"> <li>• The axle angle potentiometer is recording a steering movement of &gt; 1° (0.229 mA) although the steering valve has not been actuated</li> <li>• The axle angle potentiometer is recording a steering movement of &gt; 1° in the wrong direction when actuating the steering valves</li> </ul>	<ol style="list-style-type: none"> <li>1. Drive at less than 7 km/h</li> <li>2. Acknowledge the alarm message</li> <li>3. Press the "Axle steers to the right" or "Axle steers to the left" button</li> </ol> <p>-&gt; If the axle steers in the wrong direction, then check the plug for energising the valves and repeat steps 1-3. If the error still occurs, the steering must be recalibrated</p> <p>-&gt; The warning message disappears when the axle steers in the correct direction, if the error occurs again, the oil lines and steering valves must be checked (possible cause: steering valves or oil lines are leaky)</p>
F15161	Alarm	<ol style="list-style-type: none"> <li>1. In road or field mode, &gt; 1 V voltage is applied to the check valve</li> <li>2. When testing the mechanical functionality, the axle angle potentiometer has detected a change of 1° (0.229 mA). The test is performed every time road mode is activated</li> </ol>	<p>For 1.:</p> <ul style="list-style-type: none"> <li>• The actuation cable of the check valves is broken</li> <li>• A short circuit to plus is applied to the actuation cable of the check valves</li> </ul> <p>For 2.: both check valves have a mechanical defect -&gt; Check / replace the check valves</p>

F15162	Alarm	The signal of the axle steering angle sensor (BEL510) is outside the permitted signal range of 2 to 22 mA or the sum of the two potentiometers is outside of the range 23.5 to 24.5 mA	<ul style="list-style-type: none"> <li>• Check sensor BEL510</li> <li>• Check the sensor connection cable</li> <li>• Check fuse F1</li> <li>• Check fuse F2</li> </ul>
F15163	Alarm	<p>The axle angle potentiometer is not delivering information about a steering movement or about a steering movement that is too slow.</p> <p>Cause:</p> <ul style="list-style-type: none"> <li>• The axle angle potentiometer is loose and is no longer recoding the steering, or is slipping</li> <li>• The hydraulic line is defective and oil is escaping</li> <li>• The steering valve is defective and no longer opens far enough</li> </ul>	<ol style="list-style-type: none"> <li>1. Drive at less than 7 km/h</li> <li>2. Acknowledge the alarm message</li> <li>3. Press the "Axle steers to the right" for more than one second and check whether the axle is steering.</li> </ol> <p>-&gt; The axle does not steer = Check the hydraulic system</p> <p>-&gt; Axle steers and the error message disappears. Then press the "Axle steers to the left" button for more than one second and check whether the axle is steering. No error message = Hydraulic system must be checked for leaks and the axle angle potentiometer must be checked for firm seating</p>
F15164	Alarm	Steering is not calibrated	Calibrate steering
F15165	Alarm	<p>Road mode:</p> <p>The changes in acceleration of the wheel speed of the implement (mounted implement) and the yaw rate sensor deviate by more than 0.14 m/s<sup>3</sup> from each other</p> <p>Cause:</p> <ul style="list-style-type: none"> <li>• Wheel speed of the implement (mounted implement) is not properly calibrated</li> <li>• The yaw rate sensor is not installed horizontally or is twisted</li> </ul>	<ol style="list-style-type: none"> <li>1. Check whether the yaw rate sensor is installed horizontally and that the connection cable is precisely aligned to the rear</li> <li>2. Recalibrate the wheel speed of the implement</li> </ol> <p>Then accelerate a bit more strongly and brake so that the error message disappears</p>
F15166	Alarm	<p>Field mode:</p> <p>The changes in acceleration of the wheel speed of the implement (mounted implement) and the yaw rate sensor deviate by more than 0.14 m/s<sup>3</sup> from each other</p> <p>Cause:</p> <ul style="list-style-type: none"> <li>• Wheel speed of the implement (mounted implement) is not properly calibrated</li> <li>• The yaw rate sensor is not installed horizontally or is twisted</li> </ul>	<ol style="list-style-type: none"> <li>1. Check whether the yaw rate sensor is installed horizontally and that the connection cable is precisely aligned to the rear</li> <li>2. Recalibrate the wheel speed of the implement</li> </ol> <p>Then accelerate a bit more strongly and brake so that the error message disappears</p>
F15167	Alarm	At the output of the computer to the left steering valve, > 1 V voltage is applied, although the output is not actively energised.	<ul style="list-style-type: none"> <li>• Check the wiring harness and plug connection</li> </ul>
F15168	Alarm	At the output of the computer to the right steering valve, > 1 V voltage is applied, although the output is not actively energised.	<ul style="list-style-type: none"> <li>• Check the wiring harness and plug connection</li> </ul>
F15169	Alarm	The displayed nozzle is not closed (counting from the outer left ascending).	<ul style="list-style-type: none"> <li>• Reduce the spray pressure when switching</li> <li>• Check the connection cable and plug for the affected nozzle body</li> <li>• Check the affected nozzle body (stiffness, cleaning, damage)</li> </ul>

## Malfunction

F15170	Alarm	The displayed nozzle is not closed (counting from the outer left ascending).	<ul style="list-style-type: none"> <li>• Check the connection cable and plug for the affected nozzle body</li> <li>• Check the affected nozzle body (stiffness, cleaning, damage)</li> </ul>
F15171	Warning	The update could not be completed. The supply voltage is too low or the connection has been interrupted	<ul style="list-style-type: none"> <li>• Let the motor run to stabilise the supply voltage, switch off consumers</li> <li>• Re-establish the cable connection</li> </ul>
F15172	Warning	At least one LED of the affected control unit could not be switched on or off	<ul style="list-style-type: none"> <li>• Check the nozzles of the affected control unit</li> <li>• Check the wiring harness</li> <li>• Please contact your AMAZONE service partner</li> </ul>
F15173	Warning	The displayed control unit has determined an internal error (counting from the outer left ascending).	<ul style="list-style-type: none"> <li>• Please contact your AMAZONE service partner</li> </ul>
F15174	Warning	The displayed control unit is not responding (counting from the outer left ascending).	<ul style="list-style-type: none"> <li>• Check the connection cable to the control unit</li> <li>• Please contact your AMAZONE service partner</li> </ul>
F15175	Warning	The voltage of the capacitor bank in the displayed control unit is too low (counting method from outer left to right).	<ul style="list-style-type: none"> <li>• Check the nozzle bodies connected to the control unit for stiffness.</li> <li>• Check the voltage supply of the implement</li> </ul>
F15176	Warning	A nozzle body of the displayed control unit cannot be moved (counting method from outer left to right).	<ul style="list-style-type: none"> <li>• Please contact your AMAZONE service partner</li> </ul>
F15177	Warning	A control unit has been installed that has a different hardware revision than the rest of the system.	<ul style="list-style-type: none"> <li>• All control units must have the same hardware revision.</li> </ul>
F15178	Warning	More control units were detected on the right than on the left.	<ul style="list-style-type: none"> <li>• Check the cable and plug connection of the control units in the left boom (beginning on the outside)</li> <li>• Check the control units in the boom on the left (beginning on the outside)</li> </ul>
F15179	Warning	More control units were detected on the left than on the right.	<ul style="list-style-type: none"> <li>• Check the cable and plug connection of the control units in the right boom (beginning on the outside)</li> <li>• Check the control units in the boom on the right (beginning on the outside)</li> </ul>
F15180	Warning	The displayed control unit has an old software version and cannot be automatically updated (counting method from outer left to right).	<ul style="list-style-type: none"> <li>• Please contact your AMAZONE service partner</li> <li>• Update the affected control unit manually</li> </ul>
F15181	Warning	The displayed control unit expects a control unit, but it was not detected (counting method from outer left to right).	<ul style="list-style-type: none"> <li>• Please contact your AMAZONE service partner</li> <li>• Check the affected control unit</li> </ul>
F15182	Note	The pre-selected tank fill level has been reached	
F15183	Note	Speed is greater than 1 km/h when calibrating AutoTrail	<ul style="list-style-type: none"> <li>• Bring the implement to a standstill</li> <li>• Check the speed source</li> </ul>

F15184	Note	Changes were made to the nozzle body	<ul style="list-style-type: none"> <li>• Check the equipment of the standard nozzle body and assign the extra nozzles and boundary nozzles</li> </ul>
F15186	Note	Error when writing to the file server.	<ul style="list-style-type: none"> <li>• Check the settings on the ISOBUS terminal</li> <li>• Observe the terminal operating manual (is there enough memory/write protection?)</li> </ul>
F15187	Note	Error when reading from the file server or error in the XML file	<ul style="list-style-type: none"> <li>• Check the configuration file</li> </ul>
F15188	Note	Export of the settings is not possible because no ISOBUS file server has been started	<ul style="list-style-type: none"> <li>• Check the settings on the ISOBUS terminal</li> </ul>
F15189	Note	Import of the settings is not possible as no ISOBUS file server has been started.	<ul style="list-style-type: none"> <li>• Check the settings on the ISOBUS terminal</li> </ul>
F15191	Warning	The voltage of the boom locking mechanism sensor is outside of the range from 0.25 to 4.75V	<ul style="list-style-type: none"> <li>• Check the sensor and connection cable</li> <li>• Check fuse F2</li> </ul>
F15192	Warning	The valves were not addressed	<ul style="list-style-type: none"> <li>• Please contact your AMAZONE dealer</li> <li>• Address the CAN valves</li> </ul>
F15193	Note	If a boundary nozzle is installed on the extra nozzle body, this message box is shown if nozzle combinations of the standard nozzle body are configured to which no boundary nozzle was assigned.	<ul style="list-style-type: none"> <li>• Complete the nozzle configuration in the profile under the AmaSelect setting</li> </ul>
F15194	Note	If an extra nozzle is installed on the extra nozzle body, this message box is shown if nozzle combinations of the standard nozzle body are configured to which no extra nozzle was assigned.	<ul style="list-style-type: none"> <li>• Complete the nozzle configuration in the profile under the AmaSelect setting</li> </ul>
F15195	Warning	No manual and no automatic nozzle/nozzle combination was selected	<ul style="list-style-type: none"> <li>• At least one nozzle must be pre-selected in the profile under the AmaSelect setting</li> </ul>
F15197	Warning	The boom inner section is not unfolded or another boom section is not in its end position (folded or unfolded)	<ul style="list-style-type: none"> <li>• Fold the boom completely</li> </ul>
F15198	Warning	The pump was switched off during a cleaning function	<ul style="list-style-type: none"> <li>• Switch on the pump, restart the cleaning program if necessary</li> </ul>
F15201	Warning	Overvoltage detected on the valve or the valve detected an internal error	<ul style="list-style-type: none"> <li>• Disconnect the implement from the power supply and execute the function again</li> <li>• Please contact your AMAZONE dealer</li> </ul>
F15202	Warning	Undervoltage, motor temperature is too high or valve stiffness was detected	<ul style="list-style-type: none"> <li>• Check the valve for blockage/foreign objects</li> <li>• Check the valve for stiffness</li> <li>• Please contact your AMAZONE dealer</li> </ul>
F15203	Warning	Overvoltage detected on the valve or the valve detected an internal error	<ul style="list-style-type: none"> <li>• Disconnect the implement from the power supply and execute the function again</li> <li>• Please contact your AMAZONE dealer</li> </ul>
F15204	Warning	Induction bowl suction valve is not sending any messages	<ul style="list-style-type: none"> <li>• Check fuse F3</li> <li>• Please contact your AMAZONE dealer</li> </ul>

## Malfunction

F15205	Warning	The yaw rate sensor has detected an error	<ul style="list-style-type: none"> <li>• Check the sensor bracket - the sensor must be firmly installed without vibrations</li> <li>• Please contact your AMAZONE dealer</li> </ul>
F15206	Warning	The voltage of the oil pressure sensor is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the pressure sensor and connecting cable</li> </ul>
F15208	Warning	The current agitating pressure is higher than the target agitating pressure for longer than 10 seconds	<ul style="list-style-type: none"> <li>• Check agitator valve KWA045</li> <li>• Check agitator valve connection cable KWA045</li> </ul>
F15210	Alarm	The basis computer of the sprayer does not receive any messages from the yaw rate sensor	<ul style="list-style-type: none"> <li>• Check the connection cable and yaw rate sensor</li> <li>• Check fuses F1 and F2</li> <li>• Check the settings in the Setup menu</li> </ul>
F15211	Warning	The CurveControl yaw rate sensor has detected an error	<ul style="list-style-type: none"> <li>• Check the sensor bracket - the sensor must be firmly installed without vibrations</li> <li>• Please contact your AMAZONE dealer</li> </ul>
F15214	Warning		Check the following valve: KWA020
F15222	Warning	The boom is lower in transport position than the calibrated setpoint. For example, this can be caused by insufficiently greased boom supports, by a boom that is supported with tension, or by leaks in the hydraulic circuit.	<ul style="list-style-type: none"> <li>• Park the implement on level ground, align boom straight and fold it</li> <li>• Grease boom supports</li> <li>• Please contact your AMAZONE dealer</li> </ul>
F15223	Note	The parameter assignments of the job computer for ContourControl are missing. Boom functions are only available to a limited extent.	<ul style="list-style-type: none"> <li>• Please contact your AMAZONE dealer</li> </ul>
F15224	Note	Working position source not available	
F15225	Note	The <i>Preload</i> or <i>Main part-width section switch</i> DirectInject function is active and at the same time, the target rate of the pump is greater than 50 ml/min and the supply pressure is lower than 1.0 bar.	<ul style="list-style-type: none"> <li>• Check whether the DirectInject pump (GWA121) is actually metering into the mixer / spray line.</li> </ul>
F15226	Warning	The signal of BWA123 is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check the sensor and connection cable</li> </ul>
F15227	Warning	Pressure at the DirectInject cleaning nozzle < 2 bar when cleaning is activated	<ul style="list-style-type: none"> <li>• Increase the speed of the spraying pump</li> <li>• Check the function of valves KWA123 or KWA126</li> </ul>
F15228	Warning	Speed of the DirectInject agitator < 5 rpm	<ul style="list-style-type: none"> <li>• Check the DirectInject agitator</li> <li>• Check the connection cable</li> </ul>
F15229	Warning	Only nozzles with DES active and BWA011 continuously measures more than 2 l/min or only nozzles without DES active and BWA130 measures more than 2 l/min	<ul style="list-style-type: none"> <li>• Check whether BWA011 or BWA130 continuously measure implausible flows</li> <li>• Check the tightness of the closed valves KWA131 and KWA141</li> </ul>
F15230	Note	KWA020 is closed and BWA020 is continuously measuring more than 1 l/min (configurable).	<ul style="list-style-type: none"> <li>• Check whether BWA020 continuously measures implausible flows</li> <li>• Check the tightness of the closed valve KWA020</li> </ul>
F15231	Note	Signal status of KWA122 (open/closed) does not correspond to the actuation	<ul style="list-style-type: none"> <li>• Check valve KWA122 and connection cable of the valve</li> </ul>

		signal of KWA122.	
F15232	Note	Signal status of KWA124 (open/closed) does not correspond to the actuation signal of KWA124.	<ul style="list-style-type: none"> <li>• Check valve KWA124 and connection cable of the valve</li> </ul>
F15238	Warning	The signal of BEL376 is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check potentiometer BEL376 and the connection cable for the sensor</li> </ul>
F15239	Warning	The signal of BEL377 is outside the permitted signal range of 2 to 22 mA	<ul style="list-style-type: none"> <li>• Check potentiometer BEL377 and the connection cable for the sensor</li> </ul>
F15240	Warning	DirectInject pump efficiency < 80%	<ul style="list-style-type: none"> <li>• Vent the DirectInject pump</li> <li>• Check the fill level in the DirectInject tank</li> <li>• Check the delivery rate of the DirectInject pump</li> <li>• If the delivery rate is wrong, check the tightness of the vales in the DirectInject pump</li> <li>• Check the supply to the DirectInject pompe</li> <li>• Vent the DirectInject pump</li> <li>• Check sensor BWA125</li> </ul>
F15246	Warning	Notification message in the "Manual folding" menu	<ul style="list-style-type: none"> <li>• Unfold the boom symmetrically before adjusting the tilt</li> </ul>
F15247	Warning	No communication with the SwingStop ECU	<ul style="list-style-type: none"> <li>• Check the plug connection to the SwingStop ECU</li> </ul>
F15248	Warning	No current flow via plug to valve KHY391	<ul style="list-style-type: none"> <li>• Check the plug connection to valve KHY391</li> </ul>
F15249	Warning	No current flow via plug to valve KHY392	<ul style="list-style-type: none"> <li>• Check the plug connection to valve KHY392</li> </ul>
F15250	Warning	No current flow via plug to valve KHY395	<ul style="list-style-type: none"> <li>• Check the plug connection to valve KHY395</li> </ul>
F15251	Warning	No current flow via plug to valve KHY396	<ul style="list-style-type: none"> <li>• Check the plug connection to valve KHY396</li> </ul>
F15252	Warning	The signal is outside the permitted signal range of 2 to 22mA	<ul style="list-style-type: none"> <li>• Check plug connection to sensor BEL391</li> <li>• Check sensors BEL391</li> </ul>
F15253	Warning	The signal is outside the permitted signal range of 2 to 22mA	<ul style="list-style-type: none"> <li>• Check plug connections to sensor BEL395</li> <li>• Check sensors BEL395</li> </ul>
F15254	Warning	The signal is outside the permitted signal range of 2 to 22mA	<ul style="list-style-type: none"> <li>• Check plug connections to sensor BHY391</li> <li>• Check sensors BHY391</li> </ul>
F15255	Warning	The signal is outside the permitted signal range of 2 to 22mA	<ul style="list-style-type: none"> <li>• Check plug connections to sensor BHY395</li> <li>• Check sensors BHY395</li> </ul>
F15256	Warning	The ContourControl job computer detected excessive speed of the tilt axle and switched it off	<ul style="list-style-type: none"> <li>• Restart the function after 3 minutes</li> <li>• If this occurs regularly, contact your AMAZONE dealer</li> </ul>
F15257	Warning	The ContourControl job computer detected excessive speed of the lift axle and switched it off	<ul style="list-style-type: none"> <li>• Restart the function after 3 minutes</li> <li>• If this occurs regularly, contact your AMAZONE dealer</li> </ul>



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F15258	Warning	The signal is outside the permitted signal range of 2 to 22mA	<ul style="list-style-type: none"> <li>• Check potentiometer BEL311 and connection cable BEL311</li> </ul>
F15259	Warning	The HighFlow flow with active DirectInject is continuously higher than 2 l/min	<ul style="list-style-type: none"> <li>• Check the HighFlow valve for leaks</li> </ul>
F15260	Warning	Although at least one part width section valve is open and a pressure of >2 bar is applied, the flow meter does not send a signal	<ul style="list-style-type: none"> <li>• Check the flow meter and connecting cable</li> <li>• Check pressure sensor BWA010</li> </ul>
F15264	Warning	An error was observed in the AUX-N assignment. Erroneous assignments were deleted.	<ul style="list-style-type: none"> <li>• Check the assignment of the AUX-N control devices</li> </ul>
F15266	Note	The wheel speed sensor is not calibrated.	<ul style="list-style-type: none"> <li>• Calibrate the wheel speed sensor</li> </ul>
F15267	Warning	The configuration in the implement setup is not plausible.	<ul style="list-style-type: none"> <li>• Check the configuration for Flex-folding and AmaSelect</li> </ul>
F15268	Warning	The signal is outside the permitted signal range of 2...2mA	<ul style="list-style-type: none"> <li>• Check sensors BEL374 and the connection cables</li> </ul>
F15269	Warning	The feed pressure measured by the DirectInject pump (AEL120) was more than 12 bar for at least 5s	<ul style="list-style-type: none"> <li>• Check the feed line</li> <li>• Dilute highly viscous products</li> </ul>
F15270	Warning	The signal is outside the permitted signal range of 2 to 22mA	<ul style="list-style-type: none"> <li>• Check sensor BEL350</li> </ul>
F15271	Warning	No valid signal for the yaw rate for at least 10 s	<ul style="list-style-type: none"> <li>• Check sensor BEL380</li> </ul>
F15272	Warning	L-boom: do not fold the boom sections when they are in an angled-up or tilted state, because there is a risk of implement damage	<ul style="list-style-type: none"> <li>• Align the boom straight</li> </ul>
F15273	Warning	The message is shown one time when unfolding the inner boom sections using manual folding (only in conjunction with hydraulic transport locking brackets)	<ul style="list-style-type: none"> <li>• Open the transport locking brackets before unfolding the boom sections</li> </ul>
F15274	Warning	An attempt is being made to tilt the boom or to change to automatic/uncoupling mode while at least one boom section is not in a calibrated end position.	<ul style="list-style-type: none"> <li>• The boom sections must first be completely folded/unfolded</li> </ul>
F15275	Note	The TaskController supports fewer setpoints per boom section than are configured	<ul style="list-style-type: none"> <li>• Reduce the number of setpoints to be used in the implement settings</li> </ul>
F15276	Note	The UT on which the implement is logged in is too slow and has a delayed reaction, so that the CAN messages to the terminal are not processed in a timely manner.	<ul style="list-style-type: none"> <li>• Check or change the terminal</li> <li>• When working with CurveControl, deactivate the nozzle animation in the work view to reduce the BUS load.</li> <li>• Please contact your AMAZONE service partner</li> </ul>
F15277	Note	A pattern was selected in one of the 4 profiles, which was subsequently given the status "not assigned" again via the mySprayer app.	<ul style="list-style-type: none"> <li>• Choose a different pattern or reassign the desired pattern via the mySprayer app.</li> </ul>
F15278	Warning	The pattern could not be transmitted to the mySprayer app.	<ul style="list-style-type: none"> <li>• Check the connection to the implement in the mySprayer app and re-establish the connection if necessary</li> </ul>



F17900	Small note	At least one part-width section is opened and the current tank content is smaller than the set fill level alarm limit	<ul style="list-style-type: none"> <li>• If you do not want to receive this notification message, the fill level alarm limit can be set to 0 litre.</li> </ul>
F17901	Small note	Information appears when the speed "simulated speed" has been selected as the source and a speed > 1km/h has been detected at another source	<ul style="list-style-type: none"> <li>• Select an available speed source</li> </ul>
F17902	Small note	At least one part-width section is opened and the set pump speed deviates by more than the set limits (% min / % max).	<ul style="list-style-type: none"> <li>• Adjust pump speed or limit value.</li> <li>• If this error message is not desired, set the limit value to 0 rpm.</li> </ul>
F17903	Small note	At least one part-width section is opened & rate regulation to automatic & current application rate deviates by min. 11% from the set target rate.	<ul style="list-style-type: none"> <li>• Check nozzle selection</li> <li>• Check the agitator settings (for implements without Comfort Package)</li> <li>• Check the spray liquid circuit for leaks / blockages</li> <li>• Check the filter</li> <li>• If necessary, display the utilisation indicator on the multi-function display and check the forward speed</li> <li>• Check the flow meter</li> </ul>
F17904	Small note	At least one part-width section is opened & the current pressure is smaller than the set min. pressure	<ul style="list-style-type: none"> <li>• Increase the pressure in the spray liquid circuit or adjust the min. pressure limit</li> </ul>
F17905	Small note	Current pressure is greater than the set max. pressure since min. 10 seconds and the set pressure is not = 0	<ul style="list-style-type: none"> <li>• Increase the pressure in the spray liquid circuit or adjust the min. pressure limit</li> </ul>
F17906	Small note	Fill level in the rear tank <150 litres, front tank in manual mode	<ul style="list-style-type: none"> <li>• Pump the liquid manually to the rear tank using the "Pump to rear" button</li> <li>• Liquid is required in the rear tank to operate the FlowControl injectors</li> </ul>
F17907	Small note	Fill level in the front tank is too high (FT1001: 1070L, FT1502:1580L)	<ul style="list-style-type: none"> <li>• Pump the liquid manually to the rear tank using the "Pump to rear" button</li> <li>• If the error occurs frequently, check the settings for the injectors (please contact your AMAZONE dealer)</li> </ul>
F17908	Small note	The Task Controller has switched off the Section Control	<ul style="list-style-type: none"> <li>• Check the Task Controller</li> </ul>
F17910	Small note	The measured wind speed is higher than the set limits	<ul style="list-style-type: none"> <li>• Sensor in working position?</li> <li>• Check the set limits</li> <li>• Terminate work procedure</li> </ul>
F17911	Small note	The position recording for boom folding has detected that at least one boom section is not folded up to the stop.	<ul style="list-style-type: none"> <li>• Actuate boom folding again and completely fold / unfold the boom</li> <li>• Check the sensors and cable of the angle recording on the boom section</li> <li>• Check the hydraulic cylinder and mechanics of the boom folding mechanism</li> </ul>

## Malfunction

F17912	Small note	Excessive forward speed when driving in curves, abrupt changing of the curve direction or uneven driving style when driving in curves	<ul style="list-style-type: none"> <li>• Reduce the forward speed</li> <li>• Drive in curves with a constant speed and without changing directions</li> <li>• Avoid changing tracks at higher forward speeds</li> </ul>
F17914	Small note	If one of the boom locking sensors is actuated (fold boom) and AutoTrail is not yet in road mode.	---
F17917	Small note	Working position is not active (boom in transport position) and steering manual mode or automatic mode is active and the speed is lower than 15 km/h	<ul style="list-style-type: none"> <li>• Lock the axle for road travel</li> <li>• Reduce the speed and put in working position</li> </ul>
F17918	Small note	In road mode, an attempt was made to actuate a steering function or to activate the automatic mode of the steering system	<ul style="list-style-type: none"> <li>• Reduce speed (lower than 7km/h)</li> <li>• Activate field mode (unlock axle)</li> </ul>
F17920	Small note	After starting the implement or automatically moving to the centre position, the axle is not in the driving straight ahead position.	<ul style="list-style-type: none"> <li>• Connect the oil supply</li> <li>• Move the axle manually to the centre position</li> </ul>
F17924	Small note	While attempting to load the oil reservoir, the oil pressure drops under 130bar	<ul style="list-style-type: none"> <li>• Increase the tractor engine speed</li> <li>• Check the oil filter</li> <li>• Check the oil supply from the tractor</li> </ul>
F17925	Small note	Rate control changed from automatic mode to manual mode	<ul style="list-style-type: none"> <li>• A target pressure can be set with the + and - softkeys, the sprayer regulates the specified pressure, regardless of the forward speed and active part-width sections</li> <li>• Actuate the automatic rate control softkey to go back to automatic mode</li> </ul>
F17926	Small note	Spring suspension is not in automatic mode and the speed is greater than 0 km/h	<ul style="list-style-type: none"> <li>• Move the spring suspension to automatic mode</li> </ul>
F17928	Small note	The application rate deviates from the calculated target rate by at least 11%	<ul style="list-style-type: none"> <li>• Adjust the forward speed</li> <li>• Adjust the application rate</li> </ul>
F17929	Small note	Band spraying active - function change nozzles, extra nozzles, or edge nozzles activated	<ul style="list-style-type: none"> <li>• Activate area spraying and call-up the function again</li> </ul>
F17933	Small note	The boom guidance was automatically deactivated (e.g. by folding/unfolding the boom sections only in conjunction with ContourControl).	<ul style="list-style-type: none"> <li>• Reactivate automatic mode</li> </ul>

## 7 AUX-N multi-function sticks

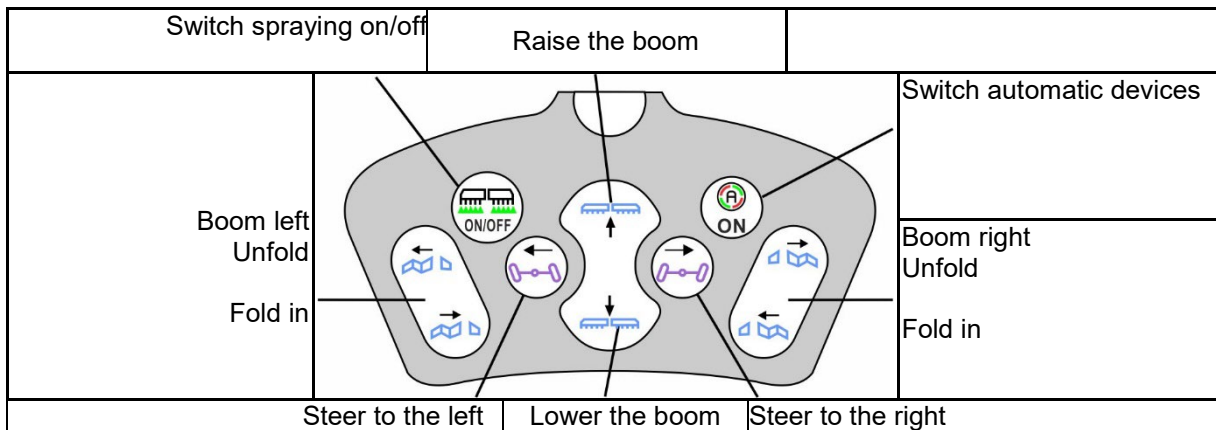


### AUX-N - Auxiliary Control

The implement computer supports the AUX-N standard. Therefore, the functions of the implement can be assigned to an AUX-N-compliant multi-function stick.

The AmaPilot+ and Fendt multi-function sticks are pre-assigned as a standard.

### Assignment of the Fendt multi-function stick



## 8 AmaPilot+ multi-function stick

The implement functions can be executed using the AmaPilot+.

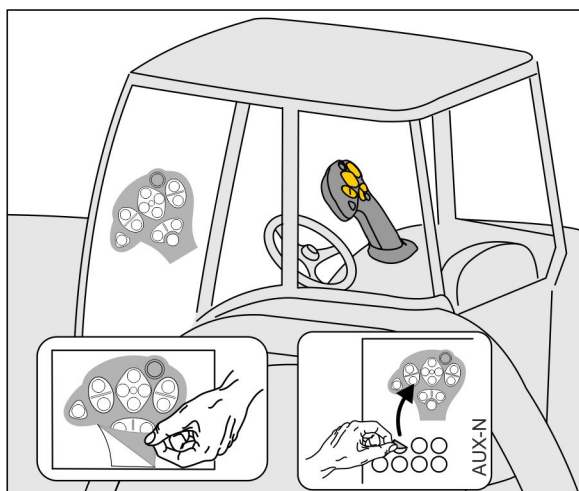
AmaPilot+ is an AUX-N control element with freely selectable button assignment.

A default button assignment is pre-configured for every Amazone ISOBUS implement.

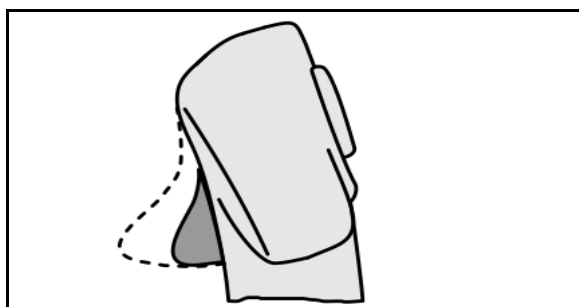
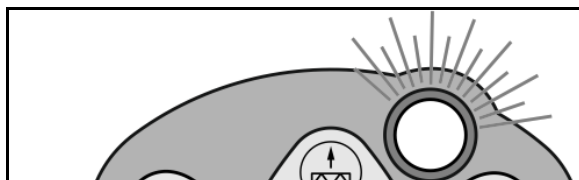
The functions are spread over 3 levels and can be selected by pressing with your thumb.

In addition to the standard level, two other control levels can be switched.

A sticker with the default assignment can be stuck in the cab. For a freely assigned key assignment, a new sticker can be applied over the default assignment.

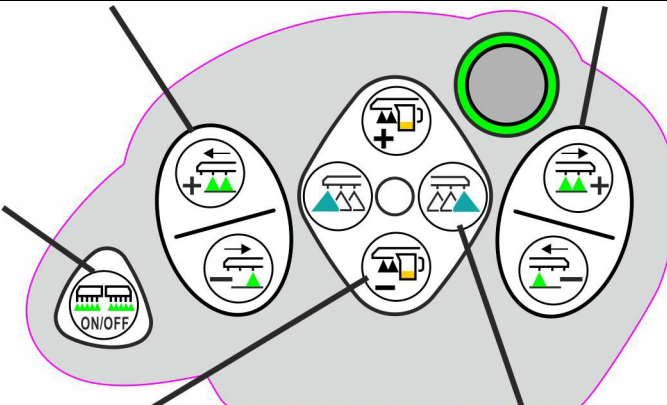


- Standard level,  
Illuminated button is green.
- Level 2 when trigger on the back is held,  
Illuminated button is yellow.
- Level 3 after pressing the illuminated button,  
Illuminated button is red.

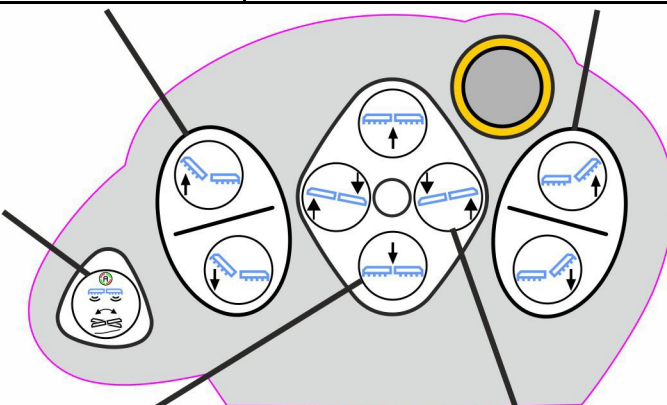


# AmaPilot+ with fixed assignment / default assignment

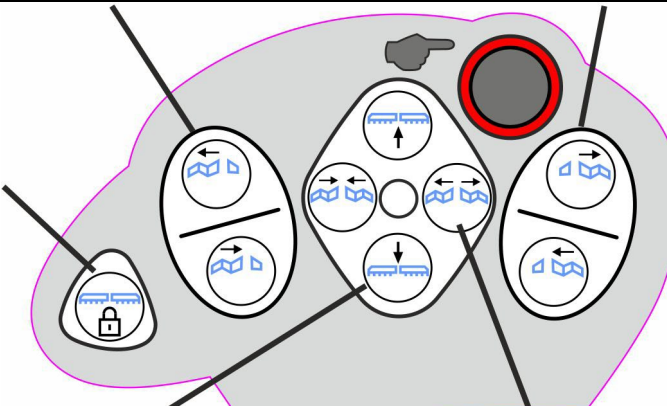
## Standard level, green

Switch on/off part width sections, left-hand side	Switch on/off part width sections, right-hand side
Switch spraying on / off	
Reduce/increase application rate	Boundary nozzle left/right

## Level 2, yellow

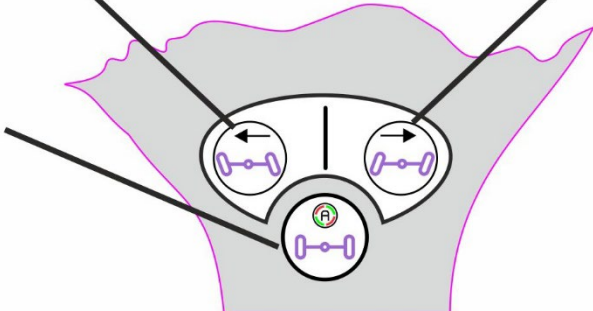
Angle out/angle in boom, left-hand side	Angle out/angle in boom, right-hand side
DistanceControl Mirror the booms	
Raise/lower the booms	Sprayer boom inclination

## Level 3, red

Fold in/out boom, left-hand side	Fold in/out boom, right-hand side
Lock/unlock swing compensa- tion	
Raise/lower the booms	Fold in/out booms

## AmaPilot+ multi-function stick

### Functions on all levels:

<p>Pantera: Steer the rear wheel steering to the left UX: Steer axle / draw bar to the left</p>	<p>Pantera: Steer rear wheel steering to the right UX: Steer axle / draw bar to the right</p>
<p>Pantera: Switch between 2 &lt;-&gt; 4 wheel steering UX: AutoTrail toggle automat- ic/manual</p>	

## 9 Boom part width section control box AMAClick

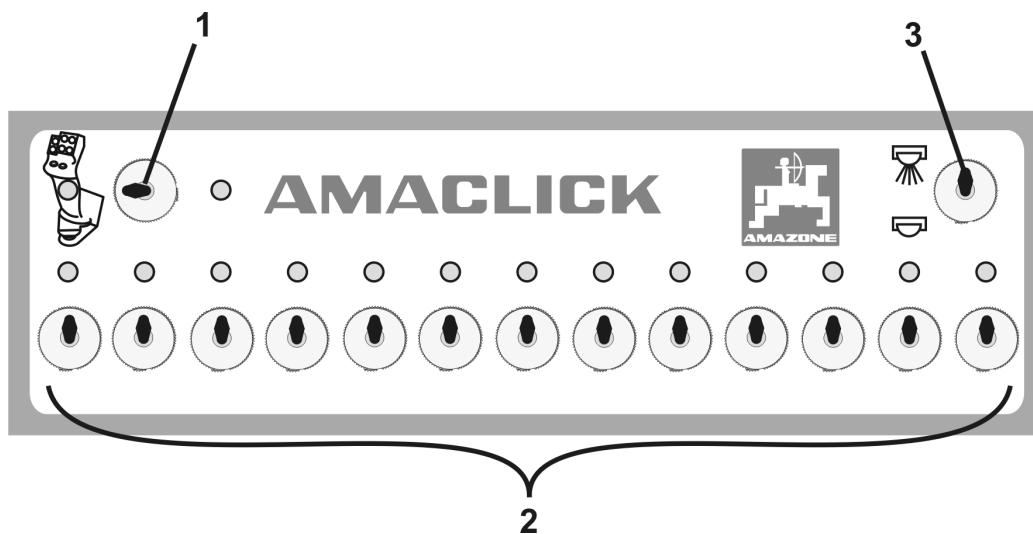
### 9.1 Function

The AMAClick control box is used in combination with the


- in-cab terminal,
  - in-cab terminal and multi-function stick
- for operating the AMAZONE – field sprayers.

With the AMAClick +

- every part width section can be switched on or off as required.
- can switch the application of spraying agent on and off.





(1) On / Off switch

- Switch position :  
AMAClick not active. Operation of the part width sections via the in-cab terminal / multi function stick.
- Switch position "AMAClick":  
Spraying on / off and part width sections are switched using AMAClick  
(Operation with the in-cab terminal / multi-function stick is then no longer possible).  
The lamp above the boom part width sections indicates that the part width sections are switched on.

(2) Part width section control

A part width section control is available for each part width sections.  
If several controls are available as part width section, the control on the right is not assigned (e.g., field sprayer with 11 part width sections, AMAClick 13 controls → 2 controls far to the right are not assigned).

- (3) Switch spraying on  / off .  
Spraying agent is spread via all part width sections switched on, no spraying agent is spread.

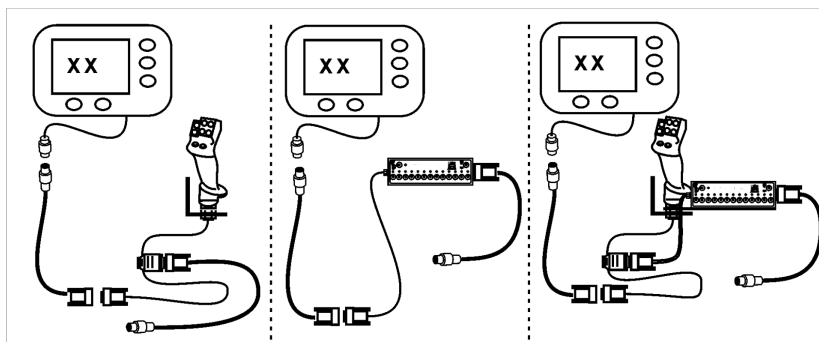


To indicate the part width section controls not assigned, you can remove the plastic caps.

## 9.2 Attachment

Screw the AMAClick via the hole cut-out of the console on the multi-function stick or mount alternatively in the tractor cab so that it can be accessed conveniently.

### Attaching to the third-party terminal









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