

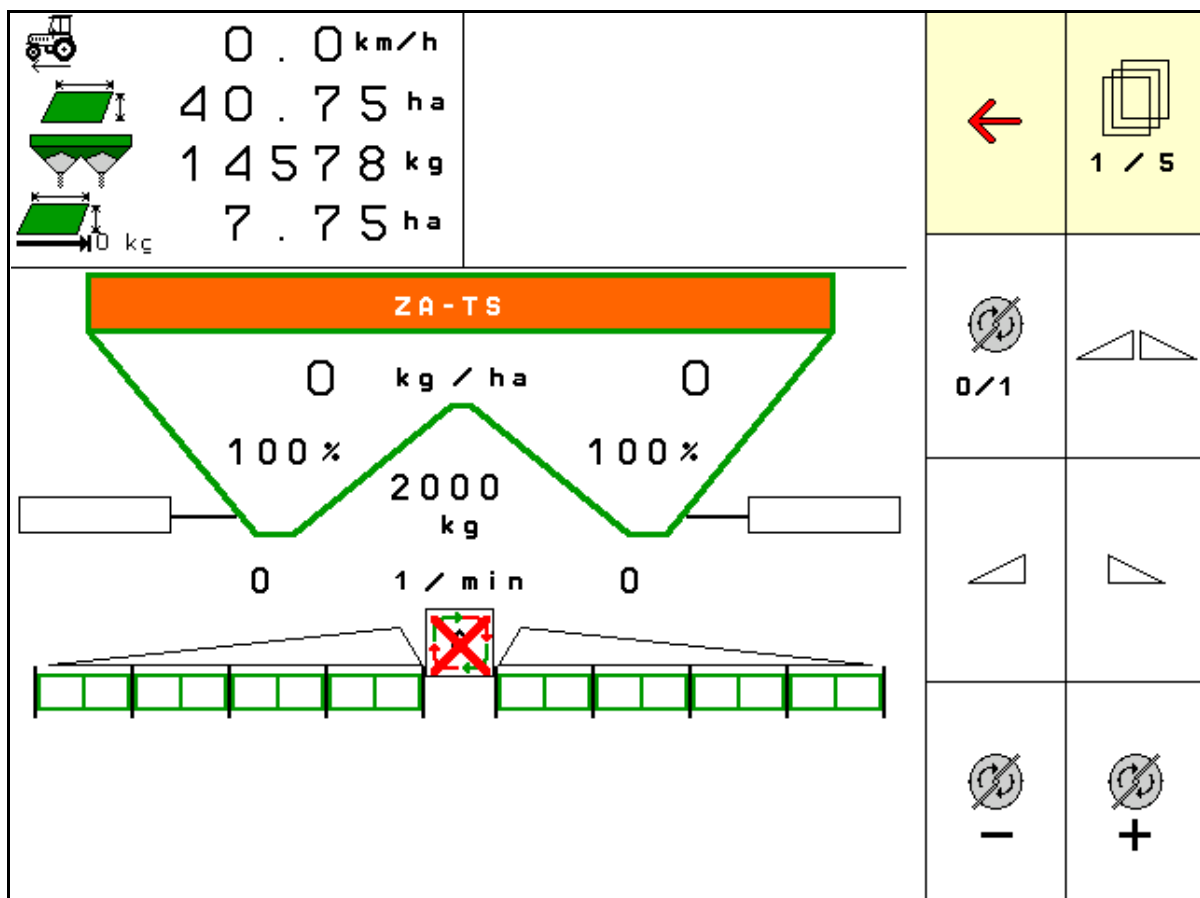
Operating Manual

AMAZONE

Software ISOBUS

for

ZA-TS ZG-TS



MG4143
BAG0095.17 03.19
Printed in Germany

Please read and follow
this operating manual before
putting the machine into
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.

Identification data

Enter the machine identification data here. You will find the identification data on the rating plate.

Machine identification number:
(ten-digit)

Type:

ISOBUS

Year of manufacture:

Basic weight (kg):

Approved total weight (kg):

Maximum load (kg):

Manufacturer's address

AMAZONEN-WERKE

H. DREYER GmbH & Co. KG

Postfach 51

D-49202 Hasbergen

Phone: + 49 (0) 5405 50 1-0

E-mail: amazone@amazone.de

Spare part orders

Spare parts lists are freely accessible in the spare parts portal at www.amazone.de.

Please send orders to your AMAZONE dealer.

Formalities of the operating manual

Document number: MG4143

Compilation date: 03.19

© Copyright AMAZONEN-WERKE H. DREYER GmbH & Co. KG, 2019

This document is protected by copyright.

Reprinting, even of sections, permitted only with the approval of
AMAZONEN-WERKE H. DREYER GmbH & Co. KG.

Foreword

Preface

Dear Customer,

You decided to purchase one of our high quality machines from the comprehensive range of farm machinery produced by AMAZONEN-WERKE, H. DREYER GmbH & Co. KG. We thank you for your confidence in our products.

On receiving the machine, check to see if it was damaged during transport or if parts are missing. Using the delivery note, check that the machine was delivered in full including the ordered special equipment. Replacement will be made only if a claim is filed immediately!

Please read and follow this operating manual - in particular, the safety instructions - before putting the machine into operation. Only after careful reading will you be able to benefit from the full scope of your newly purchased machine.

Please ensure that all the machine operators have read this operating manual before they put the machine 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 machine.

User evaluation

Dear Reader,

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

AMAZONEN-WERKE

H. DREYER GmbH & Co. KG

Postfach 51

D-49202 Hasbergen

Phone: + 49 (0) 5405 50 1-0

E-mail: amazone@amazone.de

1	User information	7
1.1	Purpose of the document.....	7
1.2	Locations in the operating manual.....	7
1.3	Diagrams used.....	7
2	General safety instructions.....	8
2.1	Representation of safety symbols.....	8
3	Product description	9
3.1	Software version	9
3.2	Menu navigation layout	9
3.3	Hierarchy of the ISOBUS software	10
4	Main menu	11
4.1	Display of the Main menu	11
4.2	Sub-menus of the Main menu.....	11
5	Weather documentation	12
6	Manage documentation.....	13
7	Enter / determine / manage fertiliser-specific data	14
7.1	Fertiliser database	14
7.2	Enter fertiliser data	14
7.3	The fertiliser calibration factor.....	16
7.4	Determining the fertiliser calibration factor when the implement is at a standstill	18
7.4.1	Determining the calibration factor using the lateral calibration device	19
7.4.2	Determining the calibration factor using the shutter (for fine special spreading material).....	20
7.5	Border, boundary and ditch spreading configuration	22
7.6	Optimising switch points	23
7.6.1	Set-up assistance	23
8	User profile.....	25
8.1	Configure key assignment	27
8.2	Configuring the multi-functional display	29
8.3	Configure the ISOBUS.....	30
9	Configure implement.....	32
9.1	Refill fertiliser.....	34
9.2	Emptying the fertiliser hopper	35
9.3	Weighing spreader: Taring the fertiliser spreader.....	36
9.4	Weighing spreader: adjusting the fertiliser spreader	36
9.5	Speed signal source	37
9.6	Spreader alignment.....	37
9.7	Service spreader.....	38
9.8	Configuring ArgusTwin.....	38
9.9	WindControl configuration.....	39
9.10	FlowCheck configuration.....	39
9.11	Setup menu.....	39
10	Mobile fertiliser test rig	40
11	Info menu.....	41
12	Application on the field	42
12.1	Functions in the Work menu	43
12.2	Display Work menu.....	45
12.3	Special instructions in the work menu	46

Table of Contents

12.4	Mini-view in Section Control	47
12.5	Calibration on the field.....	48
12.5.1	Online calibration with weighing technology (scale)	48
12.5.2	Offline calibration during a calibration run.....	49
12.6	Description of the functions in the Work menu	51
12.6.1	Shutter	51
12.6.2	Changing the spread rate while spreading	51
12.6.3	Refill fertiliser	52
12.6.4	Hydro: Switching spreading disc drive on and off	52
12.6.5	Boom part width sections	53
12.6.6	Boundary spreading	54
12.6.7	Switching Section Control (GPS control)	56
12.6.8	AutoTrail steering axle.....	57
12.6.9	ArgusTwin (optional)	60
12.6.10	WindControl.....	62
12.6.11	FlowCheck.....	63
12.6.12	ZG-TS work lights.....	63
12.7	Procedure for use.....	64
12.7.1	Use of fertiliser spreader with mechanical spreading disc drive	64
12.7.2	Use of fertiliser spreader with hydraulic spreading disc drive.....	65
13	AUX-N multi-function sticks	67
14	AmaPilot/AmaPilot+ multi-function stick	68
15	Maintenance and cleaning.....	70
15.1	Cleaning	70
15.2	Notes on an update of the software	70
16	Problem.....	73
16.1	Failure of the speed signal from the ISO-bus	73
16.2	Display on the control terminal	73
16.3	Fault table.....	74

1 User information

The "User information" section supplies information on using the operating manual.

1.1 Purpose of the document

This operating manual

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

1.2 Locations in the operating manual

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

1.3 Diagrams used

Instructions for action and reactions

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

Example:

1. Instruction for action 1
→ Reaction of the machine to instruction for action 1
2. Instruction for action 2

Lists

Lists without a mandatory sequence are presented as a list with bullet points.

Example:

- Point 1
- Point 2

Item numbers in diagrams

Numbers in round brackets refer to the item numbers in the diagrams. The first digit refers to the diagram; the second digit, to the item number in the illustration.

2 General safety instructions

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



The operation manual

- must always be kept at the place at which the machine 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 gravity of the risk and has the following significance:



DANGER

Indicates an immediate high risk, which will result in death or serious physical injury (loss of body parts or long term damage) if not avoided.

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 incur 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 machine handling.

Non-compliance with these instructions can cause faults on the machine or in the environment.



NOTE

Indicates handling tips and particularly useful information.

These instructions will help you to use all the functions of your machine to the optimum.

3 Product description

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

The ISOBUS software works with the following AMAZONE fertiliser spreaders:

- **ZA-TS** with delivery point adjustment, Auto TS boundary spreading system, power take-off or optional hydraulic spreading disc drive
- **ZG-TS** with delivery point adjustment, Auto TS boundary spreading system, power take-off or optional hydraulic spreading disc drive

The Main menu is shown after switching on the ISOBUS terminal when the machine computer is connected.

Adjustments

The settings can be adjusted through the sub-menus in the Main menu.

Operation

The ISOBUS software controls the spread rate according to travel speed.




The Work menu shows all of the spreading data during operation and, depending on the equipment, the machine can be operated through the Work menu.

3.1 Software version

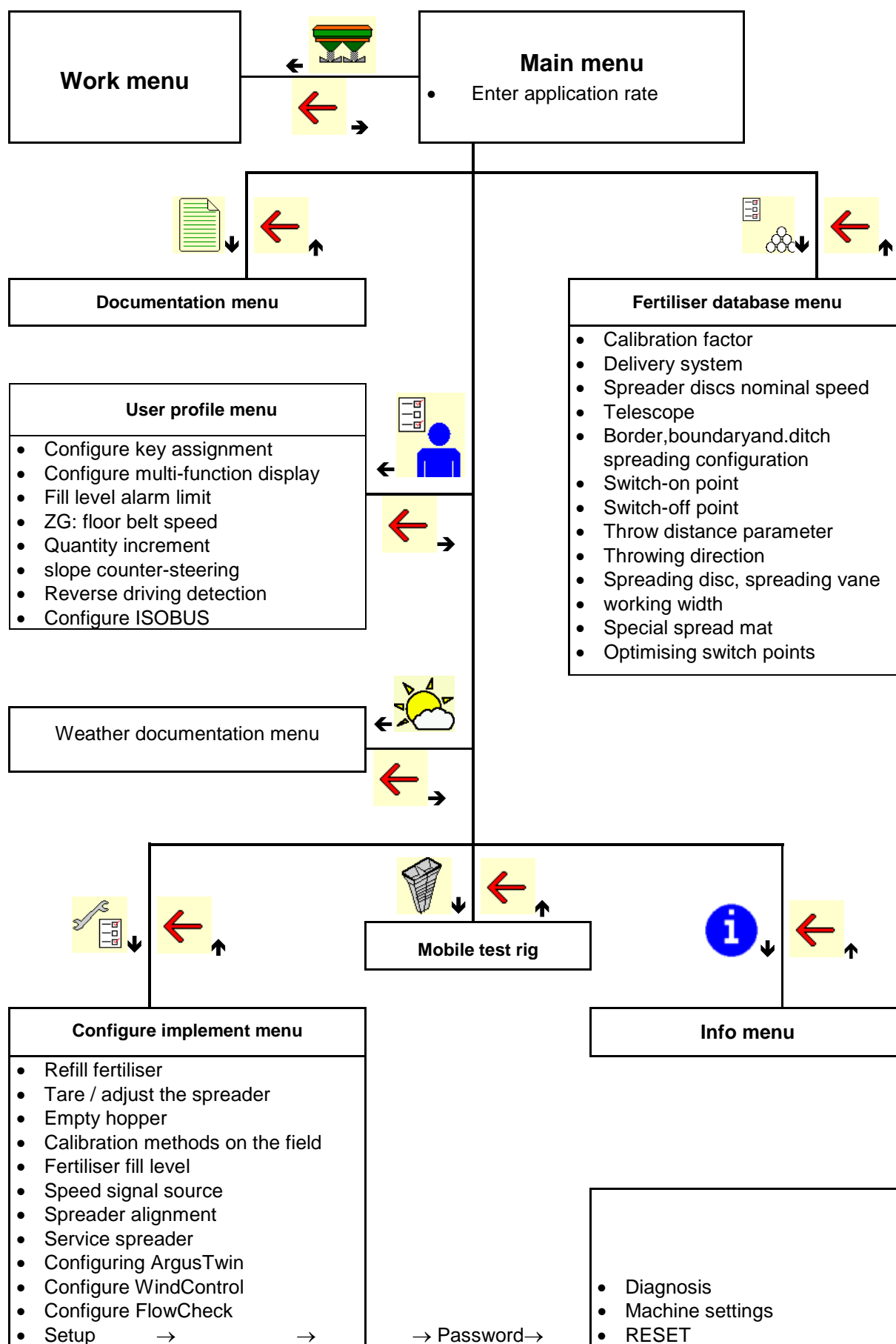
This operating manual is valid from software version:

Base computer: 1.17.01

3.2 Menu navigation layout

	<ul style="list-style-type: none">•  Back to previous menu•  Scrolling in the menu
---	---

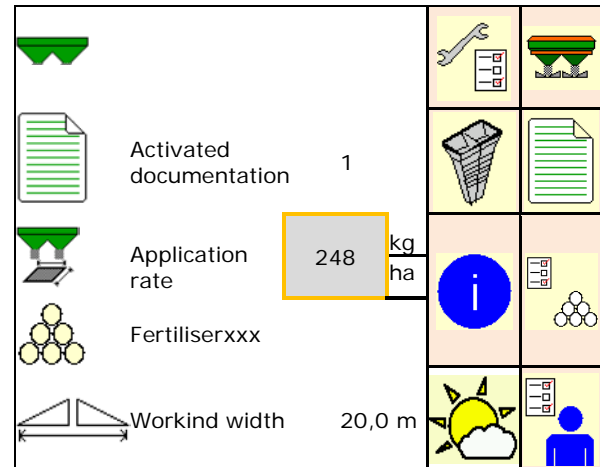
3.3 Hierarchy of the ISOBUS software






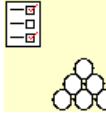
4 Main menu

4.1 Display of the Main menu

- Adjusted machine
- Only internal documentation
- Enter application rate
- Fertiliser selected
- Set working width







4.2 Sub-menus of the Main menu

-  Work menu
 - Display and operation during work.
-  Documentation menu (as a simple alternative to the Task Controller)
 - Saving of areas, times, amounts.
 - The calculated data can be stored for up to 20 documented jobs.
-  Weather documentation menu
 - Save weather data
-  Fertiliser menu
 - Entry of the data that are dependent on the fertiliser used.
 - Before each use, determine the calibration factor for the fertiliser to be spread.



On the wighing spreader, you can

- calculate the calibration factor during calibration travel (page 22).
- use online calibration to continuously calculate the calibration value while spreading (page 22).

-  User profile menu
 - o Each user can save a personal profile with settings for the terminal and the implement.
-  Configure implement menu
 - o Entry of machine-specific or individual data.
-  Mobile fertiliser test rig menu
 - o For checking lateral distribution with the mobile test rig. (Refer to the operating manual for the mobile test rig).
-  Info menu
 - o Software version and total ground coverage.


5 Weather documentation









The Task Controller must be activated.

Every time you save, the entered weather data are saved with the active job in the Task Controller.

- Enter wind strength
- Enter wind direction
- Enter temperature

→  Save weather data.

 Weather data	
Active job	
 Wind speed	<input type="text"/> m/s
 Wind direction	<input type="text"/>
 Temperature	<input type="text"/> °C
 Cancel	 Save

6 Manage documentation





Select **Documentation** in the main menu!



The **Documentation** menu is an internal, non-readable job memory.

When the documentation menu is opened, the documentation which has been started is shown.

-  Overall data display
-  Daily data display






To end a documentation process, another must be started.




Up to a maximum 20 documented jobs can be stored.

Before further documented jobs can be created, existing ones must be deleted.

-  Create new documentation.

→ Enter the name.

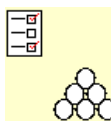
-  Start documentation.
-  Delete day data.
-  Start previously created documentation.
-  Start later created documentation.
-  Delete documentation.

Documentation			
Name			
			
Worked area	0.00	0.00	ha
Required time	0.00	0.00	h
Theoretical amount	0.00	0.00	kg



- One documentation is always started.
- Documentation which has already been stored can be selected and restarted.

7 Enter / determine / manage fertiliser-specific data





Select **Fertiliser** in the main menu!

7.1 Fertiliser database

In the fertiliser database, up to 20 fertiliser types with software settings and settings at the fertiliser spreader can be saved, edited and displayed.

-  Call up the fertiliser database.
 - o  Add new fertiliser.
 - o  Delete marked fertiliser.









Fertiliser		
12D02Fertiliser 2		
Working width	24.0m	
Disc	TS2	
DFertiliser 3		
Working width	24.0m	
Disc	TS2	
Do11dFertiliser 1		
Working width	24.0m	
Disc	V1	

7.2 Enter fertiliser data



All fertiliser-specific details can be obtained from the setting chart.

- Enter the name of the fertiliser
- Calibration factor, see page 16.
- Calibration factor, see page 14.
- ZA-TS, ZG-TS: Delivery system position value from the setting chart
- Nominal spreading disc speed value from the setting chart
- Telescope (required for FlowCheck)
- Configure the border spreading, see page 22.
- Configure the boundary spreading, see page 22.

	Name	<input type="text"/>
	Calibration factor	<input type="text"/>
	Determine the calibration factor	<input type="text"/>
	Drop-point pos.	<input type="text"/>
	Disc nominal speed	<input type="text"/> 1 min
	Telescope	<input type="text"/>
	Config. border spreading	<input type="text"/>
	Config. boundary spreading	<input type="text"/>

- Configure ditch spreading, see page 22.
- Enter the switching on point.
value from the setting chart
- Enter the switching off point.
 - Typical value for tramline-optimised driving
ZA-TS: 7 m
ZG-TS: 10 m
 - Setting chart value for distribution-optimised driving
- Throw distance parameter for WindControl
value from the setting chart
- Enter the throwing direction for the
ArgusTwin system.
value from the setting chart
- ! Confirm the throwing direction with the mo-
bile test rig.
- Enter the spreading disc (required for
FlowCheck)
- Check / enter working width
- Select special spreading materials
 - Fertiliser
 - Fine special spreading material (slug
pellets, fine seed)
- ! The speed-proportional quantity regulation
is not active!
 - Coarse special spreading material
(rice, cereals, peas)
- Optimising switch points, see page 23.

 Configure ditch spreading		
	Switching on point	<input style="width: 100%;" type="text"/> m
	Switching off point	<input style="width: 100%;" type="text"/> m
	Throw distance parameter	
	throwing direction	<input style="width: 100%;" type="text"/>
	Spread disc	<input style="width: 100%;" type="text"/>
	Working width	<input style="width: 100%;" type="text"/> m
	Special spread mat.	<input style="width: 100%;" type="text"/>
 Optimising switch points		



The entry of several fertiliser data (e.g., spreading disc) serves only for data storage and does not replace the setting chart for the respective fertiliser.

7.3 The fertiliser calibration factor



- The fertiliser calibration factor can be found in the setting chart for each fertiliser.
- Use the fertiliser calibration factor from the setting chart as a reference value before calibration and enter in the fertiliser data.
- The value of the setting chart is optimised by calibrating the fertiliser.
- The determined fertiliser calibration factor overwrites the value from the setting chart.

Before determining the fertiliser calibration factor:

- Select fertiliser / add new fertiliser.
- Carry out / check settings for the fertiliser.

The fertiliser calibration factor determines the regulating behaviour of the machine computer and is dependent on the flow characteristics of the fertiliser to be spread.

The fertiliser flow characteristics depend on:

- fertiliser storage, storage time and climatic factors.
- working conditions.

The calibration value is determined differently for each spreader.

The table below indicates the pages where the calibration method is described for each spreader.

	ZA-TS		ZG-TS
		Profis	Profis
Calibrate the fertiliser with the implement at standstill:	See page		
• Calibration via the lateral calibration device	19	19	
• Calibration with mounted implement (special spreading material)	20	20	20
Calibrate the fertiliser while driving:	See page		
• Automatically during calibration travel		22	22
• Online calibration while driving with scale		48	48



- The fertiliser flow characteristics may change even after a brief fertiliser storage period.
Therefore, before each use, re-determine the fertiliser calibration factor of the fertiliser to be spread.
- Always determine the fertiliser calibration factor again if deviations occur between the theoretical and actual spread rates.
- The spread rate entered in the terminal must not exceed a maximum value (dependent on working width, proposed speed and entered calibration factor).
→ The maximum spread rate/ha has been reached when the slider is fully open.



Realistic calibration factors for fertiliser (0.7 to 1.4):

- 0.7 for urea
- 1.0 for calcium ammonium nitrate (CAN)
- 1.4 for fine, heavy PK fertilisers



Application of special spreading material

Coarse special spreading material (rice, rye, barley, wheat, oats):





- The realistic range for the calibration factor is increased from 0 to 2 because of the very different flow characteristics of rice.

Fine special spreading material (slug pellets, rapeseed, mustard, radish and other fine seeds):

- As a result of a very low application rate, the calibration is carried out directly on the shutter.
- The speed-proportional quantity regulation is not active!
- ArgusTwin and WindControl will be automatically deactivated.

7.4 Determining the fertiliser calibration factor when the implement is at a standstill


Determine the calibration factor→

	Name	<input type="text"/>
	Calibration factor	<input type="text"/>
	Determine the calibration factor	<input type="text"/>
	Disc nominal speed	<input type="text"/> 1 min

Determine the calibration factor via:

Lateral opening (calibration device)

Left slide with calibration chute

	Determine the calibration factor
<input type="text"/>	
<input type="text"/>	
<input type="text"/>	







The scale used to determine the fertiliser calibration factor at standstill must weigh accurately. Inaccuracies may cause deviations in the actual dispensed quantity.

7.4.1 Determining the calibration factor using the lateral calibration device





Before the actual determination of the calibration factor, carry out a test run (without calibration menu) in order to guarantee a continuous flow of fertiliser.






1. Add a sufficient quantity of fertiliser to the hopper.
 2. Hang a collection bucket onto the calibration device.
 3. Open the discharge of the calibration device via the hand lever.
- During calibration, the terminal indicates the calibration time in seconds.
4. Close the discharge as soon as the collection bucket is full.

	Determine the calibration factor	1/3
	Open shutter	
	Wait until calibration bucket is full	
	Time	0 s
	Cancel	

5. Weigh the collected fertiliser (allow for the weight of the collection bucket).
6. Enter amount of weighed fertiliser, pay attention to the units.

	Calibrate spreader	2/3
	Enter in weight collected	5.00 kg

- The new calibration factor will be displayed.
7. Save the new calibration factor, abort calibration, repeat the calibration with the new calibration factor.

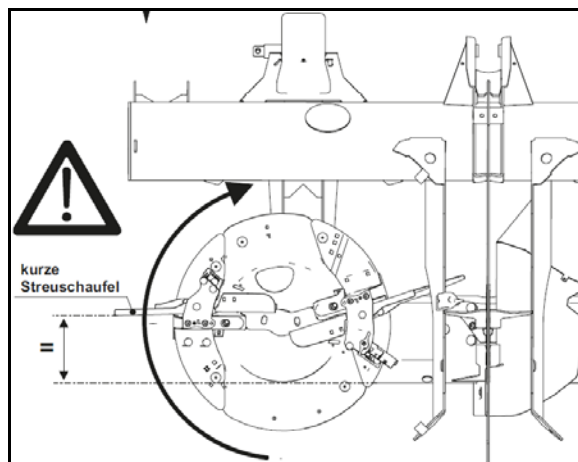
	Calibrate spreader	3/3
	New calibration factor	1.00
	Repeat	
	Cancel	
	Save	

7.4.2 Determining the calibration factor using the shutter (for fine special spreading material)

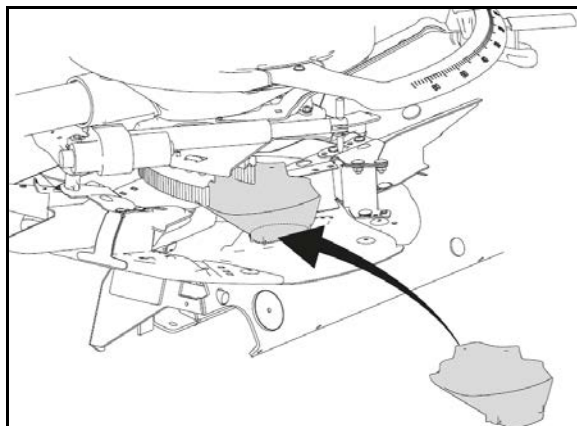
Preparing the calibration

1. Turn the left spreading disc to the correct position.

Position of the short spreading vane, outside →



2. Install the calibration chute above the left spreading disc.
3. With manual adjustment of the delivery system: Set the delivery system to Position 10 on the left side.
4. Add a sufficient quantity of fertiliser to the hopper.
5. Position the collection bucket under the left outlet opening.



Select the fertiliser menu.

6. Select fine special spreading material.
- ArgusTwin wird automatisch deaktiviert.



Name

Slug pellets_1__



Special spreading materials



Determining the calibration factor for the slug pellets

1. Determine the calibration factor.



Determine the calibration factor

2. Select the calibration shutter.



Determine the calibration factor






Shutter

3. Check the value entered for the special spreading material:


→ **Enter the specified speed and maintain later during spreading!**



Carry out calibration:


→ > continue

	Determine the calibration factor	1/6
	Working width	<input type="text"/> m
	Application rate	<input type="text"/> kg/ha
	Intended forward speed	<input type="text"/> km/h
	Calibration factor	<input type="text"/>
<input type="button" value="Cancel"/> <input type="button" value="Continue"/>		





With electrical delivery system:


4.  Set the delivery system to Position 10 on the left side.


	Determine the calibration factor	2/6
	Set the delivery system to Position 10 Install the calibration chute on the left spreading disc and correctly position the spreading disc	
<input type="button" value="Cancel"/>		

5.  Open the left slide gate

→ During calibration, the terminal indicates the calibration time in seconds.

	Determine the calibration factor	
	open left hand shutter	
	When calibrating, ensure no person is in the danger zone.	
	Time	0 s

6.  As soon as the collection bucket is full, close the shutter to the left.

	Wait until collection bucket is full
---	--------------------------------------

7. Weigh the collected amount (take account of the weight of the collection bucket).

8. Enter amount of weighed fertiliser, pay attention to the units.








	 Enter in weight collected	<input type="text"/> kg
---	---	-------------------------

Table of Contents

→ The new calibration factor will be displayed.

9. Save the new calibration factor,
abort calibration,
repeat the calibration with the new calibration factor.

	Calibrate spreader
	New calibration factor 1.00

	Repeat
	Cancel
	Save



10. Correct the settings.



Select the fertiliser menu,

Delivery system: enter the position from the setting chart for the special spreading material.

11. With manual adjustment of the delivery system: Set the delivery system on the left according to the setting chart.
12. Remove the calibration chute.












	Delivery system	
---	-----------------	---

7.5 Border, boundary and ditch spreading configuration

When carrying out a type of boundary spreading, the values are entered automatically.

Values according to details in the setting chart.

- Enter the nominal disc speed.
- Enter the quantity reduction in %.
- Switch Auto TS
 - ☒ Boundary spreading with Auto TS boundary spreading vanes
 - ☐ Border spreading without Auto TS (X in the setting chart)
- Hydro: the nominal disc speed on the field side will be automatically reduced like on the boundary side.
However, the field side nominal disc speed can be changed.




	Config. border spreading
	Config. boundary spreading
	Configure ditch spreading
	Disc nominal speed  1 min
	Volume reduction  %
	Switch Auto TS 
	Nominal disc speed field side  1 min





If the speed is adjusted in the work menu during border or trench spreading, then the adjusted speed is incorporated here and is used as standard.







7.6 Optimising switch points

- Set-up assistance
 - Select the set-up assistance for the switch-on point or the switch-off point.
 - Select too early or too late switching.
- Show the implement geometry

	Optimising switch points
	Set-up assistance
	Implement geometry

7.6.1 Set-up assistance

1. Enter the route which should be switched off too early/too late.
 2. Enter the driving speed (only for time-based adjustment).
- When switching the implement, the entered speed should be maintained.
- New implement geometry and on/off point delays will be calculated.
- Show new implement geometry
3.  Save the settings or
 Cancel.

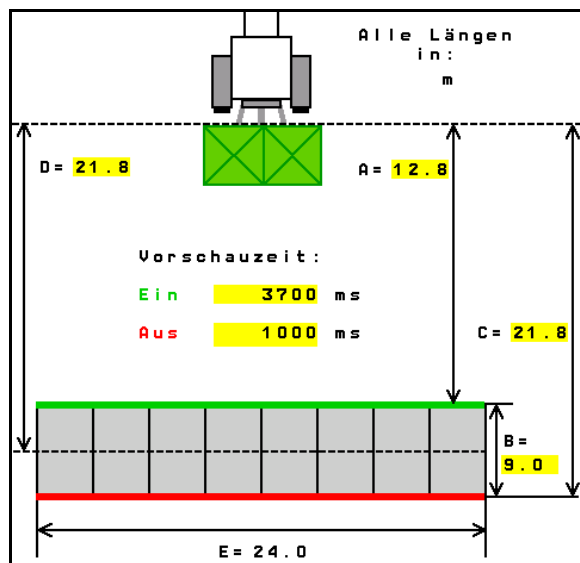
	Optimising the switch-on point
	Machine is switched on too early, by: <input style="width: 80px;" type="text"/> m
	Driving speed <input style="width: 80px;" type="text"/> km/h
	Implement geometry
	Cancel
	Save

7.6.1.1 Device geometry

Displaying the implement geometry is important in case the control terminal does not automatically adopt the changed values.

In this case, after optimising the seitch points, the changed values must be manually entered in the GPS menu.

The changed values are marked in yellow.




8 User profile




Select **User profile** in the main menu!


- Enter the name of the user
- Configure key assignment (see page 27)
- Configure the multi-functional display in the Work menu (see page 29).
- Enter alarm limit for residual quantity in kg (fertiliser spreader with low level alarm).
 - There is an acoustic warning when the residual fertiliser quantity is reached.
- Enter the quantity increment for increasing or reducing the spreading quantity.
- Show the floor belt speed in the work menu (ZG-TS).
 - ☒ Show message
 - ☐ Do not show message
- Slope counter-steering in automatic mode.
 - Automatic steering against the slope
 - Manual steering against the slope using the function keys.
- Reverse driving detection
 - ☒ yes
 - ☐ no
- Configure ISOBUS, see page 30.
- Im Menü Arbeit Hinweis einblenden, wenn Behälter leer (Leermelder muss vorhanden sein).
 - ☒ Show message
 - ☐ Do not show message

User profile






Configure key assignment




Configure multi-functional display




Fill level
alarm limit

kg




Quantity increment

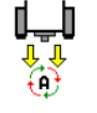
%




Show floor belt speed




slope counter-steering



Automatic reverse drive
detection







ISO Configure
ISOBUS







Hinweis einblenden,
wenn Behälter leer



User: change, new, delete

-  Change user:
- Create new user:
 1.  Create new user.
 2. Mark user.
 3. Confirm marking.
 4. Enter name.
-  Copy the current user with all their settings.
-  Delete user:

 Profile list

Pit	✓ 
Tom	
	



When using an AUX-N multi-function stick, the freely selected key assignment of the multi-function stick are saved with the respective user.

Each user profile needs a key assignment.




Perform the key assignment on the VT1.


8.1 Configure key assignment

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


- Free key assignment
 - ☒ Freely assignable key assignment
 - ☐ Standard assignment of the keys

Perform key assignment:

1. Call up list of the functions.
- Functions which have already been selected are greyed out.
2. Select function.
3.  Select the screen where the function should be saved in the work menu.
4. Press the key / function field in order to place the function to the key / function field.
5. In this manner, all functions can be assigned any way you like.
6.  Save the settings or
 -  cancel.
 - Multiple use is possible.
 - All of the functions do not need to be assigned.

-  Function field without function.

Call up the list of functions→





Configure key assignment

Free key assignment

Select the desired function from the list and press the desired button.

Empty / delete function

 Cancel

 Save

empty / delete function

Spreading discs on / off

Shutter both sides

Shutter right / left

Switch right boom part width sections on / off

Switch left off boom part width section on / off

Amount both sides + / -

Amount both sides 100%

Amount right + / -

Amount left + / -

• • •

Table of Contents

Work menu:

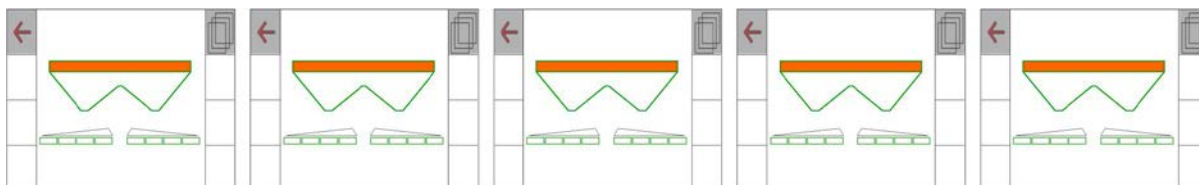


. Calling up the freely assignable function groups.

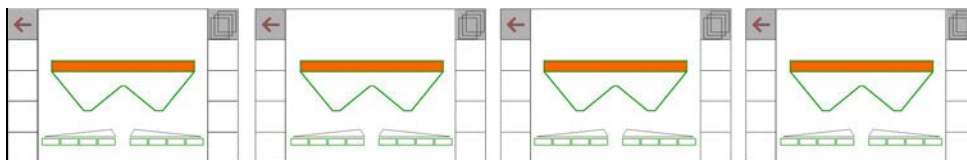
Example: for freely assignable functions 1 to 30, 32 in the Work menu

Page 1	Page 2	Page 3	Page 4	Page 5
--------	--------	--------	--------	--------

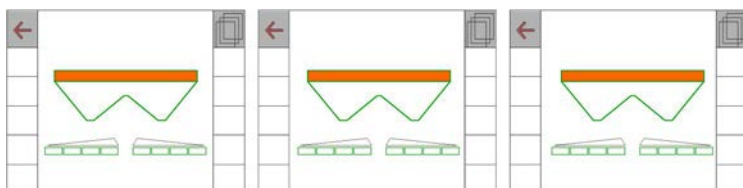
8 key terminal:



10 key terminal:



12 key terminal:

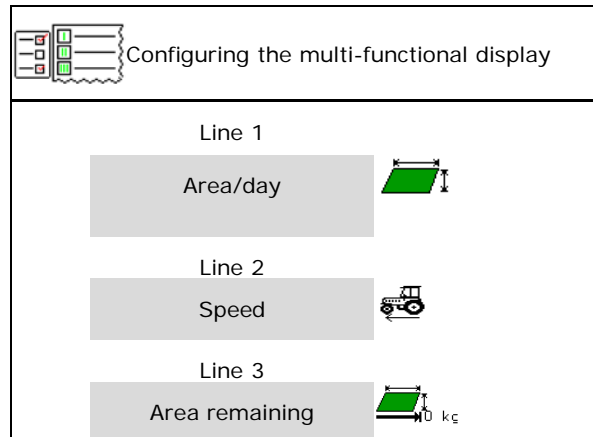
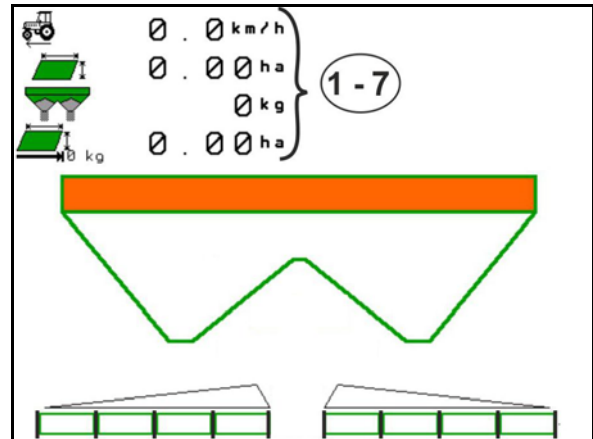


8.2 Configuring the multi-functional display

Six different data sets can be shown in the data lines in the Work menu.

- (1) Current speed
- (2) Worked area per day
- (3) Spread quantity per day
- (4) Remaining distance until hopper is empty
- (5) Remaining area until hopper is empty
- (6) Distance counter for the headlands to locate the next tramline.
- (7) Spreading disc nominal speed

The distance counter is set to zero when closing the shutter at the headlands and starts measuring the distance until the shutter is opened.




8.3 Configure the ISOBUS

- Select the terminal, see page 31.
- Switching the Section Control to Manual/Automatic
 - In the GPS menu
Section Control is switched in the GPS menu.
 - In the work menu (recommended setting)
Section Control is switched in the ISOBUS Work menu.



Section Control
Manual/Automatic

- Adjusting the switch points
 - Distance-based (terminal supports working length)
 - Time-based (terminal does not support working length)
- Document weather (only if job management is activated in the TaskController)
 - ☒ Yes
 - ☐ No
- Enter any number of part width sections. (maximum number of part width sections depends on the control terminal)
The maximum number of part width sections depends on the equipment.
Hydro: infinitely variable part width section control with Section Control.



ISO

Configure
ISOBUS


1

2


Select terminal




Adjusting the
switch points



Adjusting the
switch points



Document weather



Number of part width
sections

Selecting the terminal

If 2 control terminals are connected to the ISOBUS, one terminal can be selected for displaying.

- Select the terminal for implement operation
 - o 01 Amazone
 - o 02 other terminal
- Select terminal for documentation and Section Control
 - o 01 Amazone
 - o 02 other terminal

1. Select new terminal.



2. Change the terminal for displaying.



Logging onto the VT terminal can take up to 40 seconds.

If the terminal entered is not found after this time, the ISOBUS logs onto another terminal.



Select terminal



Terminal for implement operation



Terminal for documentation and Section Control



Cancel



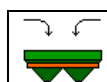
Change

9 Configure implement

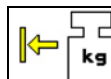


Select **Configure implement** in the main menu!

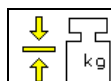
- Add fertiliser (see page 34).
- Weighing spreader: Tare the spreader, e.g. after the mounting of special equipment see page 36).
- Weighing spreader: adjust the spreader, e.g. after filling (see page 36).
- Empty the hopper after use and before cleaning (see page 35).
- Weighing spreader: select calibration method on the field.
 - Offline
 - Determination of the fertiliser calibration factor when beginning to spread.
 - Online scale
 - Continuous determination of the fertiliser calibration factor while spreading via weighing technology.
- Fertiliser filling level kg (not for fertiliser spreader with weighing technology).
- Configure the signal source for speed (see page 37).
- Alignment of spreader with tilt sensor, see page 38.
- Service spreader, see page 38.
- Configuring ArgusTwin, see page 38.



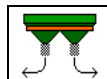
Refill fertiliser



Tare spreader



Adjusting the spreader



Empty hopper



Calibration methods on the field

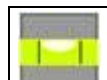


Fertiliser filling level

kg



Configure speed source



Spreader alignment

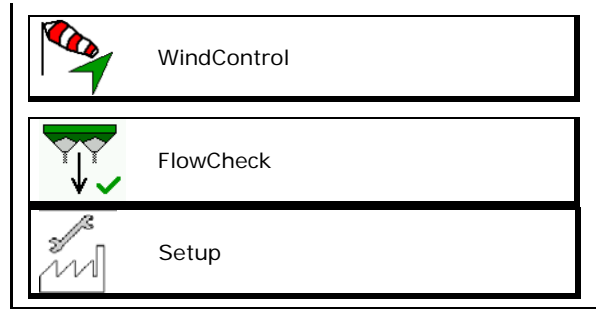


Service spreader



Configure Argus

- WindControl configuration, see page 39.
- FlowCheck configuration, see page 39.
- Call up the setup menu, only for customer service, see page 42



9.1 Refill fertiliser

Refill fertiliser.

Fertiliser spreader without weighing technology:

→ Enter amount of added fertiliser in kg and store.

Fertiliser spreader with weighing technology:

→ Added quantity of fertiliser is displayed in kg.

Store added quantity of fertiliser.

Refill fertiliser

amount of added fertiliser kg

Mit Rechenfunktion

(1) Theoretische Werte zur Berechnung

- Fläche die mit der Sollfüllmenge bearbeitet werden kann
- Ausbringmenge für Berechnung
- Zielfüllstand

(2) Tatsächliche Werte

- Nachgefüllte Menge
- Gesamtfüllstand

(3) Aus den tatsächlichen Werte berechnete Werte

- Stützlast
- Achslast
- Gesamtgewicht

Befüllmenü

Sollfüllmenge entspricht (1) ha

Bei aktueller Ausbringmenge (1) kg/ha

0 kg (2) (1) kg

(2) **6250 kg**

(3) 2900 kg

(3) 7650 kg

 (3) **Σ 10550 kg**



Die blinkende Streufächerbeleuchtung zeigt an, dass beim Befüllen der Sollfüllstand fast erreicht ist.

- 500 kg unter Sollfüllstand: Langsames Blinken
- 100 kg unter Sollfüllstand: Schnelles Blinken
- Sollfüllstand erreicht: Dauerlicht

9.2 Emptying the fertiliser hopper

The remaining fertiliser in the hopper can be emptied via the hopper tips.

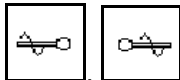


ZA-TS with a mechanical spreading disc drive:
Empty residue on left and right separately.

1. Turn the spreader disc by hand so that the hole in the spreader disc is pointing inwards, directly under the opening on the hopper.



2. Open both shutter.



3. run agitator shaft if required.
Keep the function field pressed.

→ Residual fertiliser runs out.



4. Close shutter.

- Display 0 – Shutter closed
- Display 100 – Shutter open



Empty hopper

Electric shutters

Left
100.

Left
100.



WARNING

Risk of injury near the rotating agitators and spreading disc drive.

- Keep spreading disc drive switched off!
- ZA-TS: Make sure the agitators and disc drive are switched off when emptying the residue.

9.3 Weighing spreader: Taring the fertiliser spreader

Taring the fertiliser spreader serves to determine the weight of the spreader with 0 kg hopper contents.

The fill quantity of the empty tank displayed must be 0 kg.

It is necessary to tare it:

- before initial use
- after installing special accessories

1. Completely empty the fertiliser spreader.

2. Wait until the  symbol turns off.

3. Tare spreader.

→ Fertiliser fill level is displayed at 0 kg.

4.  save.

9.4 Weighing spreader: adjusting the fertiliser spreader

Adjusting the fertiliser spreader serves to correct the scale with a full hopper (Parameter 2).

Adjustment is necessary if the wrong hopper content is displayed after filling.



The fertiliser spreader must be tared.

1. Fill the fertiliser spreader.



The filling quantity must be known.


2. Wait until the  symbol turns off.

3. Adjust the spreader.

4. Enter the correct hopper content.

→ New Parameter 2 will be displayed.

5.  **Save.**





Adjust the scale

Measured hopper content	xxx kg
Correct hopper content	<input style="width: 80px;" type="text"/> kg

Scale parameter 2:

Old: New:


Cancel


Save

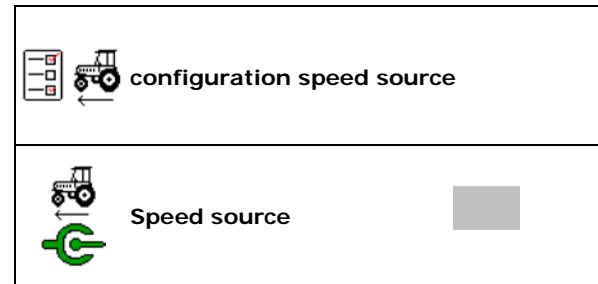
9.5 Speed signal source

There are different sources for the forward speed signal input.

- Radar (ISOBUS)
- Wheel (ISOBUS), e.g., tractor wheel
- Wheel (implement), e.g., implement towed with wheel
- Satellite (NMEA2000)
- Satellite (J1939)
- Simulated

→ After selecting the speed, enter the value for the simulated speed.

Entering a simulated speed allows you to continue spreading even if the speed signal from the tractor fails.

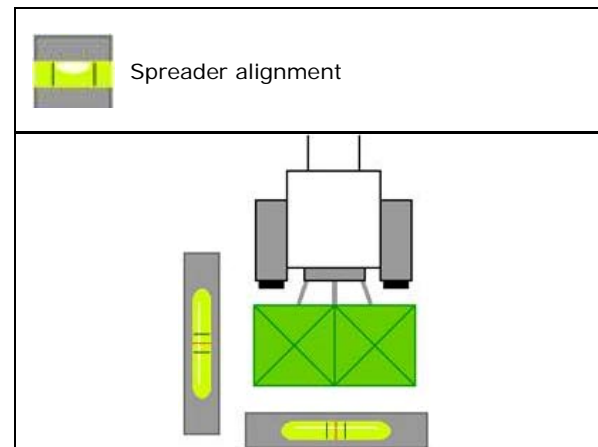


9.6 Spreader alignment

1. Position the mounted fertiliser spreader on a level surface.
2. Align the fertiliser spreader horizontally using the top link for the longitudinal direction and the lifting struts of the lower link for the transverse direction.






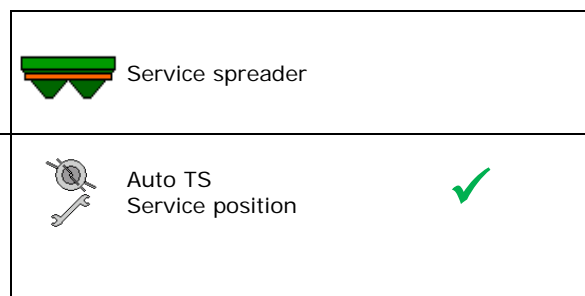
→ The fertiliser spreader is aligned when the red lines are in the middle.



9.7 Service spreader

Necessary to make it easier to exchange the spreader disc units TS1, TS 2, TS3

1.  Put Auto TS in a voltage-free middle position.
→  - Auto TS display is in the centre position
2.  Auto TS returns to its original position

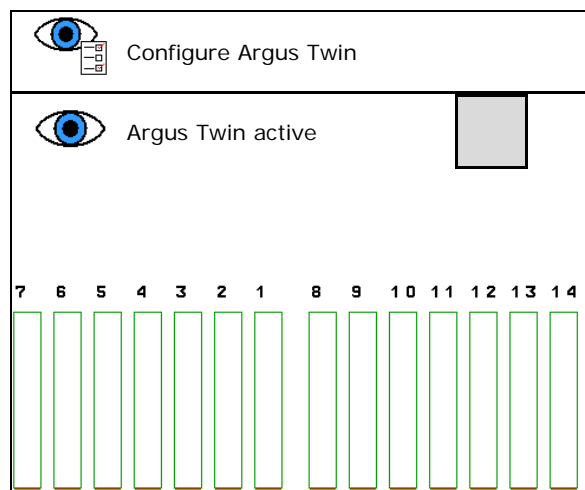


9.8 Configuring ArgusTwin

- ArgusTwin active
 - o ☒ ArgusTwin active (the position of the drop-point position is controlled via ArgusTwin)
 - o ☐ ArgusTwin not active (the drop-point position remains in the set position)






Sensor display:

During spreading, the measured values for the sensors are displayed.







9.9 WindControl configuration

- WindControl active
 - ☒ WindControl active
WindControl regulates the position of the delivery system through Argus
 - ☐ WindControl not active
When Argus is deactivated, WindControl must also be deactivated
- Wind sensor automatic folding active
 - ☒ Automatic folding active
Wind sensor automatically folds into transport position and operating position
Wind data is displayed
 - ☐ Automatic folding not active
- Detect gusts
 - ☒ Detect gusts
Gusts of wind are detected, a warning is issued
 - ☐ Do not detect gusts
- Select wind strength unit
 - m/s (metres per second)
 - bft (Beaufort scale - wind strength 0-12)

	WindControl	
	WindControl active	<input type="checkbox"/>
	Automatic folding active	<input type="checkbox"/>
	Detect gusts	<input type="checkbox"/>
	Wind strength unit	<input type="text"/>

9.10 FlowCheck configuration

- Automatically eliminate blockages
 - ☒ FlowCheck detects blockages and eliminates them by moving the shutter back and forth
 - ☐ FlowCheck not active
- Enter alarm limit for residual fertiliser
FlowCheck is not active below the alarm limit.
Hopper empty message is issued.
- Tolerance for detecting blockages
(default value 40%)

	FlowCheck	
	Eliminate blockages automatically	<input type="checkbox"/>
	alarm limit	<input type="text"/> kg
	Tolerance	<input type="text"/> %

9.11 Setup menu



Only for 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.

10 Mobile fertiliser test rig

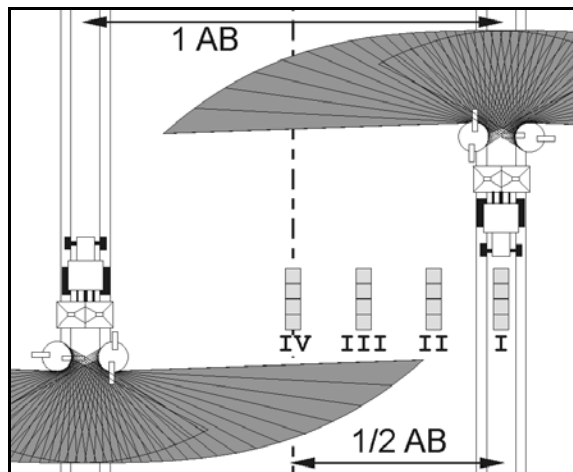


Select **Mobile test rig** in the Main menu.

Start mobile fertiliser test rig as explained in the mobile test rig operating manual and estimate the lateral distribution.



For each test series, successively fill the quantities of fertiliser into the measuring cup from each of the four collection trays in their four setup positions (I, II, III, IV) and enter the number of scale lines at the terminal.



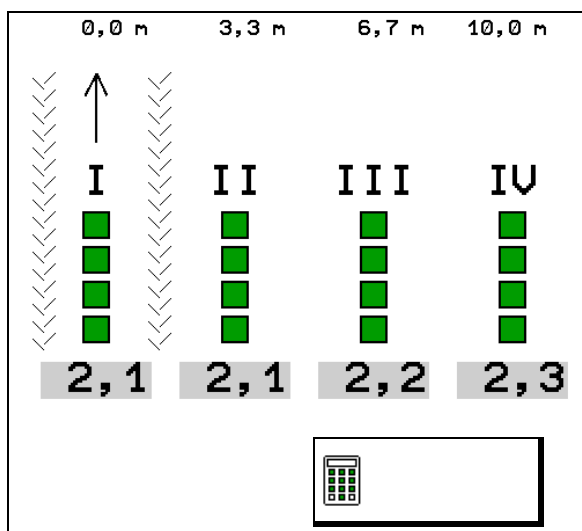
The distances between the fertiliser collection trays are displayed depending on the working width.



1. Enter the number of scale lines for fertiliser level **I to IV**.



2. Calculate the new adjustment value.
3. Perform the adjustment after calculating the setting value.



- The inlet system position selected in order to correct the computed difference, see fertiliser menu.



ArgusTwin: the changed throwing direction is calculated and automatically adopted.

- Correct the spreading disc speed by the difference calculated, see fertiliser menu.

4.



Save the value calculated and return to the main menu.

Drop point position
correction

0

Correction of the
spreading disc speed

0 rpm



Save



The corrected values


- will be stored in the Fertiliser menu,
- will be automatically adjusted (with hydraulic spreading disc drive, electrical adjustment of the delivery system),
- must be adjusted (with mechanical spreading disc drive, manual adjustment of the delivery system).

11 Info menu




Select **Info** in the main menu!

- MIN - Implement identity number
- Display the softkey number in the menus.
In addition, the error memory function field appears
- Display the work data
- Show the software version

Info	
MIN: ZA 00000000	
Display Soft key numbers 	
Total area spread	0 ha
Total quantity spread	0 1
Total work time	0 h
Driven distance in:	
Transportation position	km
Working position	km
Hydraulic system	xxxxxxx
Basis	xxxxxxx

Error memory

-  Display of the last 50 error messages (to do so, display the numbers of the softkeys, see above).

Error memory ECU operating hours: 00:00				
	No.	Error code	Operation. hours	
	00	F10000	00:00	
	00	F10000	00:00	
	00	F10000	00:00	

12 Application on the field



Select **Work menu** in the main menu!



If the work menu is left while working, then after 10 seconds, it automatically changes back to the work menu.



Weighing spreader:

- Carry out an automatic fertiliser calibration or switch on the online calibration when you start spreading.
- Tare the spreader before initial use and after fitting special equipment (see page 36).



Before the spreader can be used, the following information must be entered:

- Enter the fertiliser data from the setting chart in the fertiliser menu (see page 32).
- Load and start job (see page 12).
- Calibrate fertiliser at standstill or enter calibration value manually (see page 12).



Scrolling in the Work menu

12.1 Functions in the Work menu









































	Refill fertiliser
	Both shutters open / shut
 	Shutter open / shut left right
 	Reduce the spread rate on one side by application rate increment left right
 	Increase the spread rate on one side by application rate increment left right
 	Increase the spread rate on both sides by application rate increment reduce increase
	Adjust the spread rate on both sides to the target quantity
	Calibration travel
	Turn to the next page
	Back to the top menu structure
	Spreading discs on / off (keep pressed for 3 seconds)
 	Border spreading speed increase reduce
 	Trench spreading on / off left right
 	Boundary spreading on / off left right
 	Border spreading on / off left right
 	Switch on boom part width sections left right
 	Switch off boom part width sections left right
	Section Control on / off

Table of Contents

   	<p>AutoTrail steering axle Automatic/manual, slope counter-steering, centre position</p>
 	<p>Folding the WindControl wind sensor</p>
   	<p>Work lights</p>

12.2 Display Work menu

Alternative:		
Multi-function display	Selection window	Scale (standard)
	Display: <ul style="list-style-type: none"> • Scale • Steering • WindControl 	 

Spread amount, left side			Spread rate, right side
Spread amount left in %			Spread amount right in %
ArgusTwin: position of the drop-point position on the left			ArgusTwin: position of the drop-point position on the right
Shutter opening display			
ZA-TS: Empty hopper			ZG-TS: Metering chamber empty
<ul style="list-style-type: none"> • Left spreading disc switched on • FlowCheck status 	 Green / yellow / red	 Green / yellow / red	<ul style="list-style-type: none"> • Right spreading disc switched on • FlowCheck status
Spreading disc speed left	900 1/min	900 1/min	Spreading disc speed right
Shutter gate open			
Shutter gate closed			
Boundary spreading			
left			right
Pre-select, left side			Pre-select, right side
Trench spreading			Preselect trench spreading
boundary spreading			Preselect boundary spreading
Side spreading			Preselect side spreading

Table of Contents

One boom part width section off		Preselect one boom part width section off
Two boom part width sections off		Preselect two boom part width sections off
Three boom part width sections off		Preselect three boom part width sections off
Part width sections switched off, shutter closed		
Section Control:	Automatic manual	

	ZG-B: Floor belt speed in %
--	-----------------------------

12.3 Special instructions in the work menu



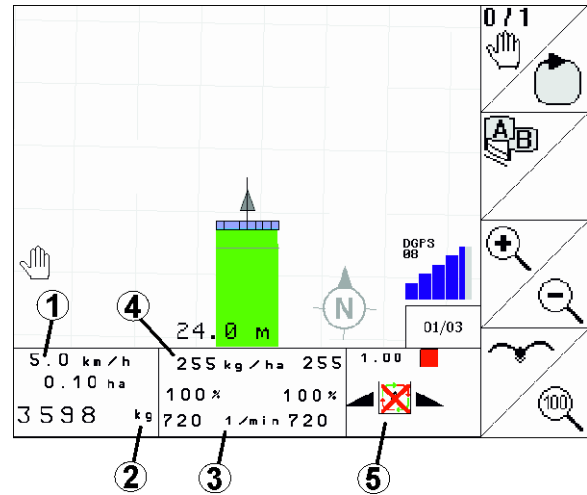
Displays marked in yellow are indications for deviating from the nominal state.

No job started in the Task Controller	0 . 0 km/h 0 . 00 ha 0 kg 0 . 00 ha
Application rate deviates from the setpoint by more than 10%	200 kg / ha 200
Percent setpoint rate change entered manually	110 % 110 %
Hopper content has reached the indicator limit	1500 kg
Spreader discs speed deviates by more than 50 rpm from the setpoint.	650 1 / min 630
Section Control is prepared to be switched on in the work menu	

12.4 Mini-view in Section Control

Mini-view is a section from the work menu which is shown in the Section Control menu.

- (1) The first two rows of the multi-functional display
- (2) Fill level in kg
- (3) Spreader discs speed
- (4) Actual spread rate
- (5) Section Control, Fertiliser calibration
Spreading mode (yellow when overriding Section Control)



Notes are also shown in the miniviews.



Mini-view cannot be displayed on all operating terminals.

12.5 Calibration on the field



For the desired target rate to be spread, the entries from calibration on the field must be made in the Fertiliser menu.

12.5.1 Online calibration with weighing technology (scale)

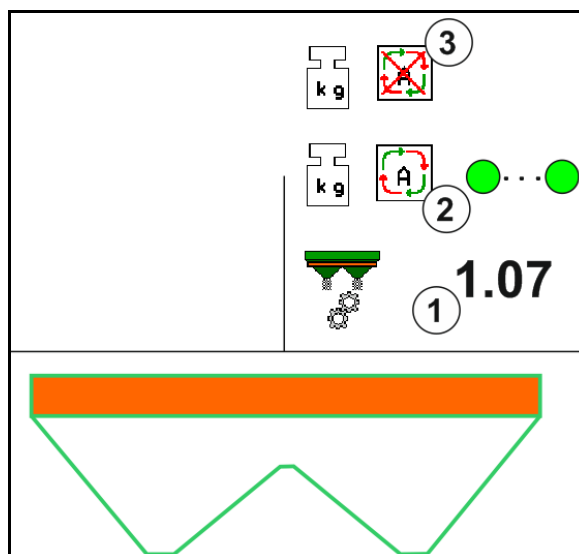
The calibration value is continuously recalculated via online weighing and the theoretically applied quantity. The required shutter position is adjusted online.



Select the desired calibration method in the Configure implement menu.

Display in the Work menu:

- (1) Current calibration factor
- (2) Online calibration active
- (3) Online calibration switched off



Online calibration can only be started when the scale is at rest and with hopper content greater than 200 kg.

If the symbol  appears in the display, the spreader is not at rest.

When working on hilly terrain or if the ground conditions are not level, system-induced fluctuations in determination of weight can occur:

In this case switch off online calibration during the run.



- Interruption of the online calibration is indicated.
- Spreading will continue with the displayed calibration factor.



During the spreading work, online calibration will be switched off automatically when the hopper content drops below 200 kg!

After filling (hopper volume greater than 200 kg), online calibration will be restarted automatically!

12.5.2 Offline calibration during a calibration run




Automatic **fertiliser calibration** for weighing spreader.

Offline calibration is carried out when beginning operation during spreading, whereby a minimum quantity of fertiliser needs to be spread.

- ZA-TS: Minimum fertiliser quantity = 200 kg
- ZG-TS: Minimum fertiliser quantity = 1000 kg

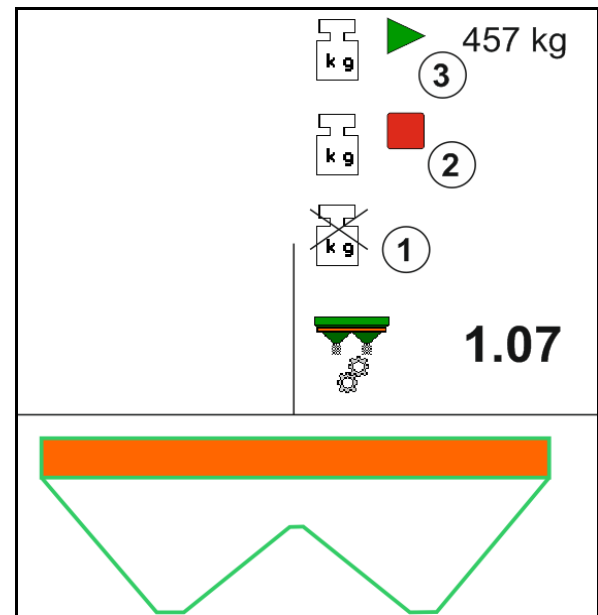


- Tractor with spreader must stand in a horizontal position at the start and end of calibration.
 - The calibration factor can only be started and ended when the scale is at rest.
- If the symbol  appears in the display, the spreader is not in resting position.



Select the desired calibration method in the Configure implement menu.

- (1) Fertiliser spreader not in resting position, weighing not possible
- (2) Offline calibration complete
- (3) Offline calibration started with display of the fertiliser quantity spread until then.



1. Select Work menu.



2. Start automatic calibration.

3. Start spreading as usual and spread the minimum quantity of fertiliser.

→ Calibration is indicated with a green triangle.

→ The quantity of fertiliser spread during calibration will be displayed.

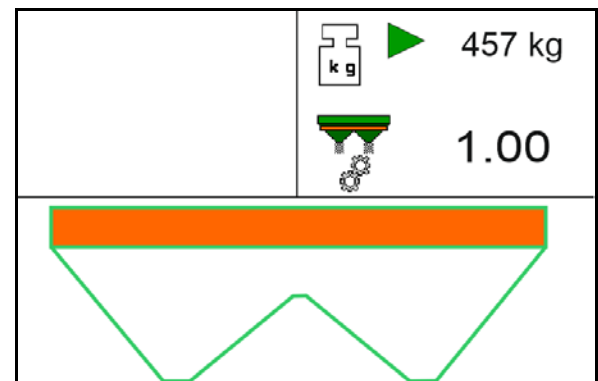





Table of Contents

→ A green checkmark signals that the minimum amount has been reached.




		457 kg
		1.07

4. When the minimum amount of fertiliser has been spread, close the shutter and stop.



5. End automatic calibration.

→ Calibration end is indicated with a red square.

		457 kg
		1.07

→ The new calibration factor will be displayed.

→ The new calibration factor will be displayed.

6. Store the calibration factor or abort calibration.

7. Resume spreading.



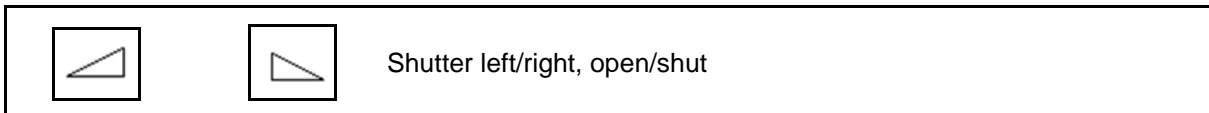
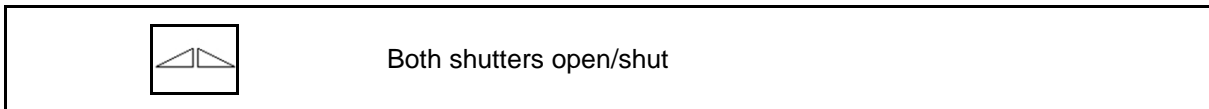
A calibration run can be performed at any time during operation to optimise the calibration factor.



After the first fertiliser calibration, additional calibrations should be performed with higher application rates (e.g. ZA-TS: 1000 kg, ZG-TS: 2500 kg) to further optimise the calibration factor.

12.6 Description of the functions in the Work menu

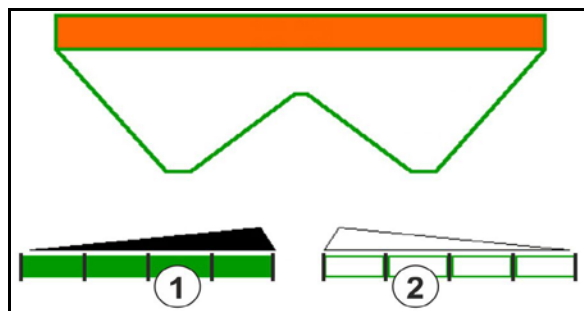
12.6.1 Shutter



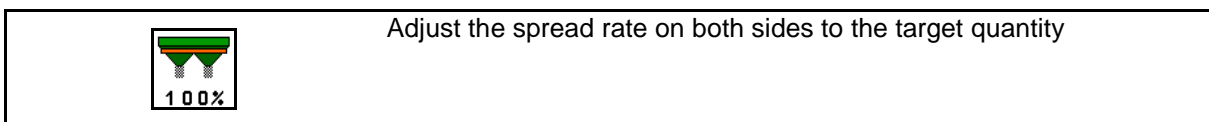
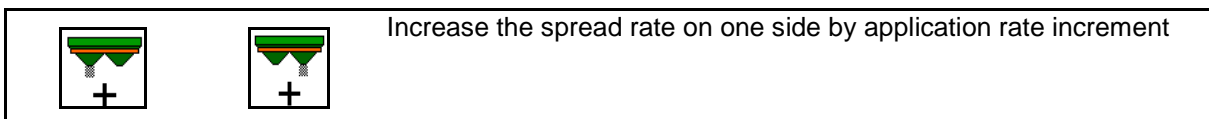
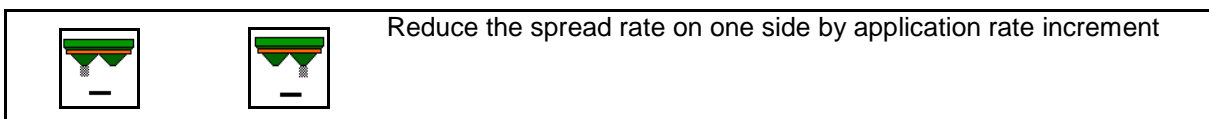
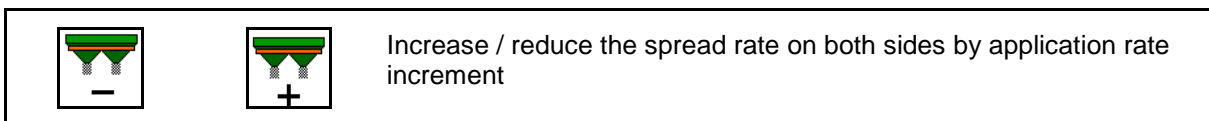
Open shutter before use,

- and drive off
- once the spreading discs have reached the correct speed.

- (1) Display shutter left side open.
- (2) Display shutter right side closed.

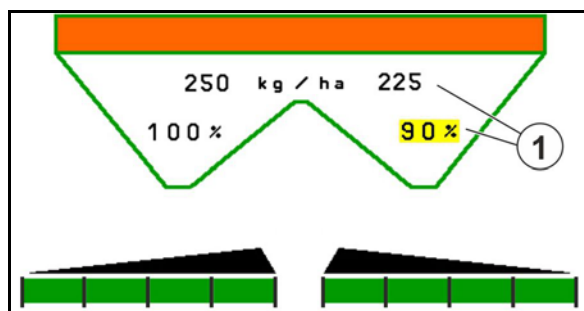


12.6.2 Changing the spread rate while spreading



- Each press of the key changes the spread amount by the rate increment (e.g. 10%).
- Enter the rate increment in the Machine Data menu.

- (1) Display changed spread rate in kg/ha and percent.



12.6.3 Refill fertiliser



Filling with fertiliser see page 34.

12.6.4 Hydro: Switching spreading disc drive on and off



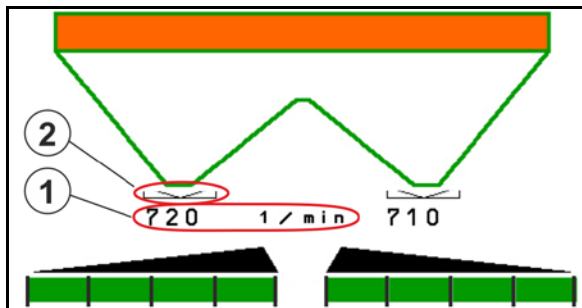
Spreading discs on/off



To switch on, press the key for at least three seconds until the tone stops.

The spreader discs operate at the speed entered in the Machine data menu

- (1) Display spreading disc speed
- (2) Display spreading discs, switched on



WARNING

Risk of injury from the rotating discs.
Keep people away from the discs.

12.6.5 Boom part width sections



Switch on boom part width sections left, right (4 steps)

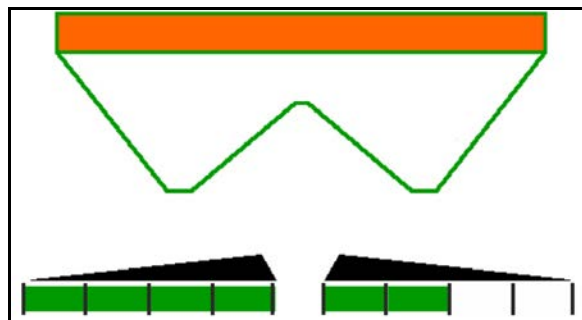


Switch off boom part width sections left, right (4 steps)

Display two right-hand boom part width sections switched off.



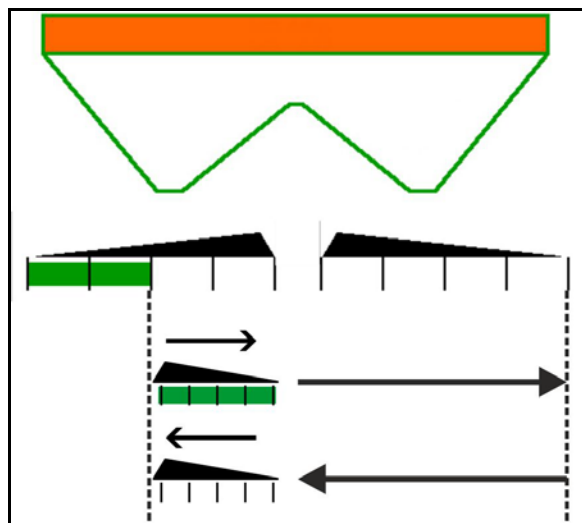
The boom width can be reduced when the shutters are closed.



Display 6 right-hand boom part width sections switched off.



For wedge shaped field spreading, all of the part width sections can be switched on or off from one side to the other.



12.6.6 Boundary spreading



Switch on/off trench spreading left/right.

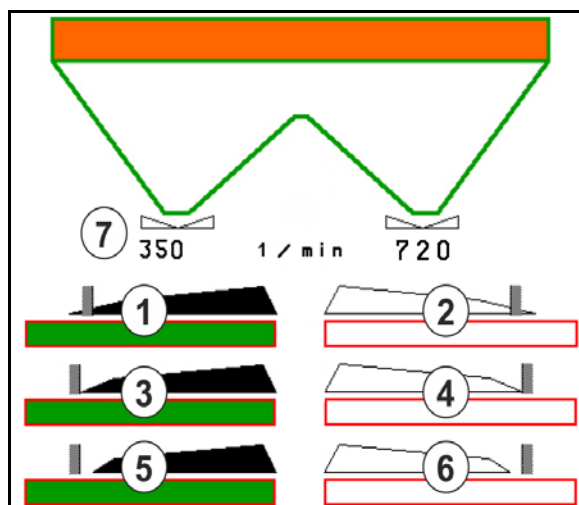


Switch on/off boundary spreading left/right.



Switch on/off side spreading left/right.

- (1) Display border spreading, switched on
- (2) Display border spreading, preselected
- (3) Display boundary spreading, switched on.
- (4) Display boundary spreading, preselected.
- (5) Display trench spreading, switched on
- (6) Display trench spreading, preselected
- (7) Display reduced spreading disc speed



When using the boundary spreading procedure, the switching of individual boom part width sections using the Section Control is overridden.



- For border and trench spreading, enter the data according to the setting chart in the Machine Data menu:
 - Border side volume reduction.
 - Border side speed reduction
- Boundary spreading can be selected when the shutters are closed.
- If the shutters are opened with boundary spreading switched on, a warning tone is issued.



Move each ClickTS manually to the boundary spreading position/normal spreading position.

Hydraulic spreader disc drive



Reduce/increase spreader disc speed for selected type of spreading.



- The boundary spreading speed is increased or reduced by 10 rpm each time the key is pressed.
- The changed border spreading speed is saved in the selected border spreading types for later border spreading, see fertiliser menu.

12.6.7 Switching Section Control (GPS control)



Switching Section Control on and off



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



WARNING

Risk of personal injury and environmental damage in the ejection area of the fertiliser spreader by fertiliser particles being unintentionally ejected.

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



CAUTION

Unintentional fertiliser spreading with Section Control.

Always work with boundary spreading equipment at the boundary. The boundary spreading equipment overrides the Section Control.



Information for Section Control:

- For safety reasons, define the field boundary after the first field perimeter drive.
- Section Control can always be overridden by:
 - manual part width section control.
 - boundary spreading
 - closing the shutter
- Switch the Section Control on at the terminal first.

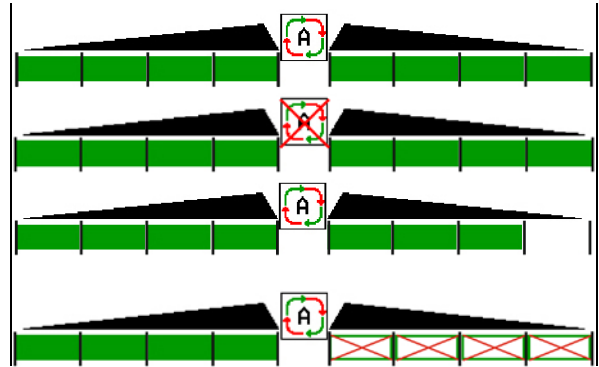


→ Then switch the Section Control on at the fertiliser spreader!

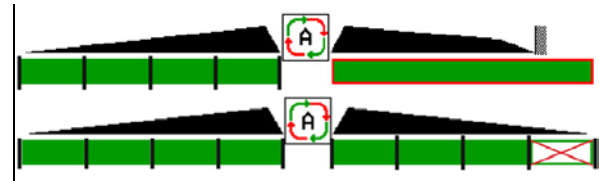
- The spreading disc must be rotating for the Automatic mode. The spreader discs operate at the speed entered in the Machine data menu.

Display:

- Section Control switched on (Automatic mode)
- Section Control switched off (Manual mode)
- Section Control switched on one part width section switched off by Section Control
- Section Control overridden by closing the shutter manually.



- Section Control overridden by right boundary spreading equipment
- Section Control overridden by manual switching of the part width section.




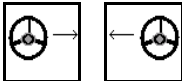


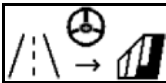
Mechanical spreading disc drive:

→ Section Control actuates a maximum of 8/16 part width sections.

Hydraulic spreading disc drive:

→ Section Control actuates the part width sections infinitely.

12.6.8 AutoTrail steering axle

	Automatic / Manual operation
	Manual steering (manual mode) / Steering against the slope (automatic)
	Take to centre position
	Lock the axle in transport position (switch to road travel mode)
	Unlock the axle (switch to field mode)



DANGER

Danger of accident!

Automatic mode and manual mode are forbidden when driving on roads.

→ The axle must be locked when driving on roads.

Automatic mode is forbidden when manoeuvring.

→ Manoeuvre in manual mode.



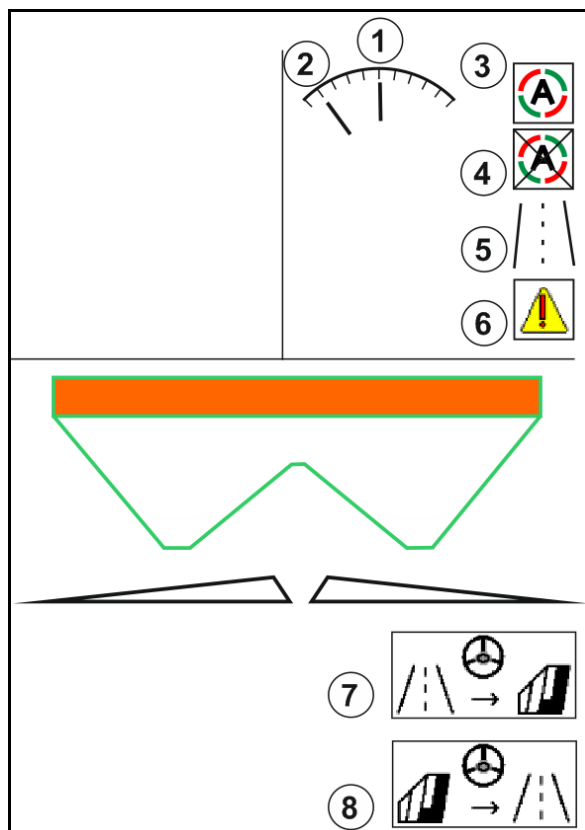
DANGER

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

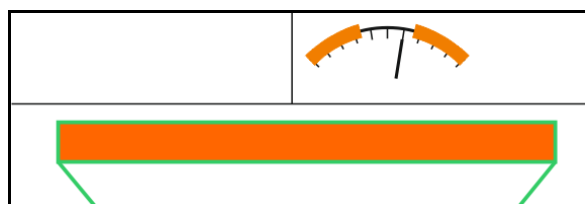
Adapt your driving technique accordingly and reduce speed when performing a turning manoeuvre on a headland, so that you are in complete control of the tractor and implement.

Display in the Work menu:

- (1) Axle in straight position
 - when driving on roads
 - when driving straight ahead on the field
- (2) Axle repositioned
 - when driving in curves on the field
 - when driving on slopes
- (3) AutoTrail in automatic mode
- (4) AutoTrail in manual mode
- (5) AutoTrail in road mode, steering locked
- (6) AutoTrail fault
- (7) Unlock the steering touchpad (from road mode to field mode)
- (8) Lock the steering touchpad in straight position (from field mode to road mode)

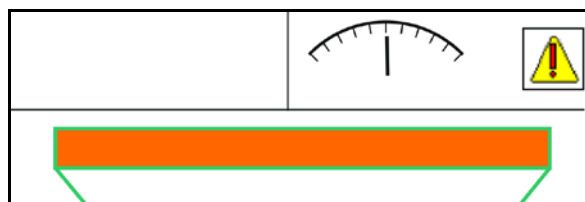


AutoTrail with reduced steering angle due to high forward speed



Safety-relevant error

- Manual steering possible up to 7 km/h (helpful 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.

- Press the  or  key until the tyres of the machine are exactly in the tractor's tracks again.
-  Centre position is approached as soon as the speed is greater than 0.

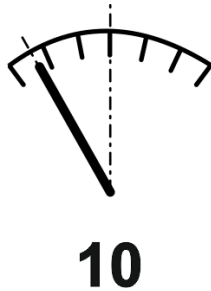


The function field for manual steering in automatic mode is only intended for the precise tracking, for example, on slopes.



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 counter-steering and tilt measurement using sensors.

- If there is lateral tilt, the sprayer is automatically counter-steered up the slope.
-   The slope correction intensity can be adjusted. A correction factor (values from 0-20) is shown for this purpose.
 - o Value 0 for normal steering against the slope.
 - o Value 20 for maximum steering against the slope.



AutoTrail with manual slope counter-steering via key actuation on the control panel.

-   For manual steering against the slope.
The pilot control for steering against the slope is shown as a red area.
 - If the following functions are carried out then the manual slope correction is reset.
 -  Steering in centre position,
 -  Close the shutter,
 -  Change to manual mode.
- Driving in reverse with reverse driving detection

Transportation - Street mode



DANGER

Risk of accident due to implement tipping over when the axle is steered!



Activate the locking mechanism before driving on roads.

→ When moving off, the axle is moved to the centre position and is automatically locked.

12.6.9 ArgusTwin (optional)

ArgusTwin constantly measures and regulates the throwing direction of the fertiliser spreader to optimise the lateral distribution.

The actual throwing direction is compared to the target values. If there are deviations, the position of the delivery system will be adjusted.

The target throwing direction is taken from the setting chart or determined using the mobile test rig.

If the measured values from the sensors are not sufficient to correctly determine the spreading direction, Argus will be deactivated.

May be caused by soiled sensors or a spread rate that is too slow.

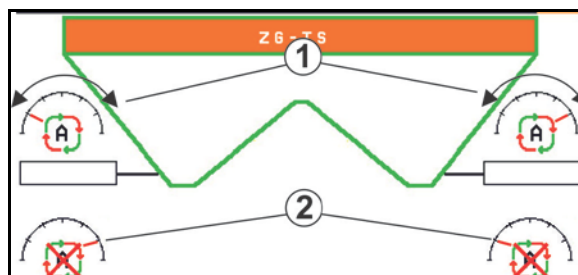
→ Clean sensors or refill hopper.

- (1) ArgusTwin is activated in the fertiliser menu.

The constantly changing position of the delivery system is displayed.

- (2) ArgusTwin is not activated in the fertiliser menu.

The set position of the delivery system is displayed.

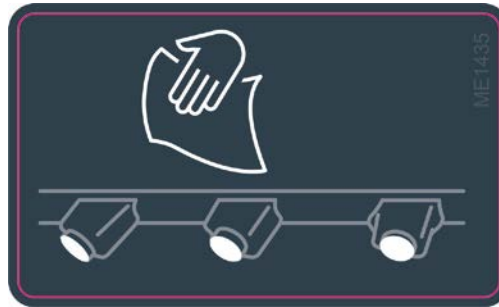




Faulty fertilising due to soiled radar sensors of the Argus system!

Strong or uneven dirt accumulations can prevent Argus from properly regulating the delivery system, and the crops are then over- or under-fertilised in strips.

- Depending on the operating conditions, check the radar sensors regularly for strong or uneven dirt accumulations.
- Clean the radar sensors if necessary.



12.6.10 WindControl



Wind sensor obstacle folding



- WindControl can only be used in combination with ArgusTwin, ArgusTwin does not need to be active.
- Spreading discs TS 2 or TS 3 must be installed.
- Prerequisite for folding the wind sensor: Forward speed less than 3 km/h.
- The wind sensor is automatically folded into operating position as soon as the spreading discs start rotating.
- The wind sensor is automatically folded into transport position as soon as the spreading discs stop rotating.



- To avoid obstacles, press the touchpad up to the end position.

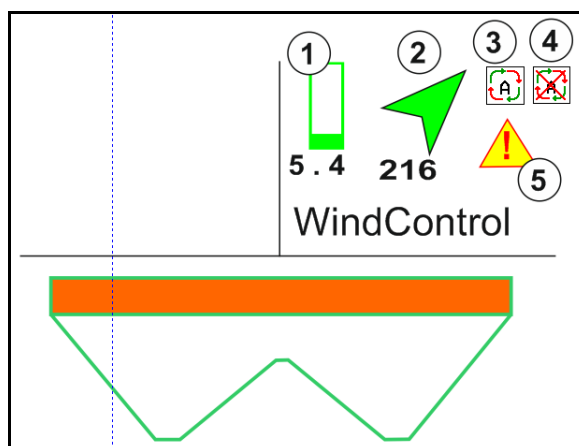


Before using WindControl, check that the throw distance parameter is correctly entered.

- (1) Wind speed display
- (2) Wind direction display
- (3) Automatic mode – WindControl regulation active
- (4) WindControl is not active, wind data are displayed.
- (5) Strong wind, interrupt work

Wind data shown in colours:

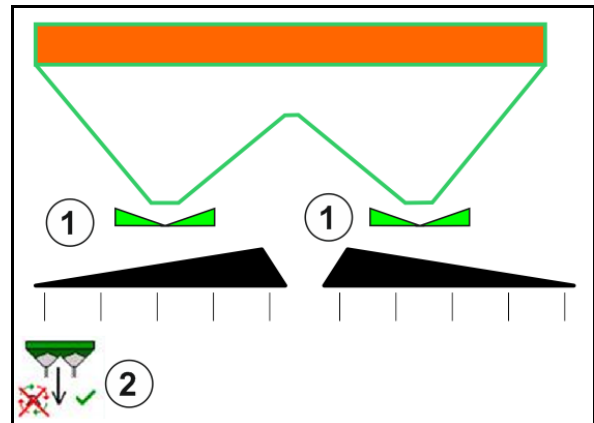
- Green – WindControl can compensate for wind effects
- Yellow – WindControl can compensate for wind effects within the limits
- Red – WindControl has reached the set limits. It is better to stop working.







12.6.11 FlowCheck

FlowCheck detects insufficient fertiliser outflow and blockages in the hopper.

- (1) During operation, FlowCheck is represented by the coloured spreading disc symbols.
 - Green – No deficiencies detected in the flow behaviour of the fertiliser.
 - Yellow – Insufficient flow behaviour was detected and an attempt is being made to correct this.
 - Red – Fertiliser flow behaviour is insufficient.
 - Stop working.
 - Eliminate the blockage.
- (2) FlowCheck display is switched off



12.6.12 ZG-TS work lights



 	Automatic / manual switching of the spread fan lighting
	Maintenance lighting on / off
	Hopper interior lighting on / off

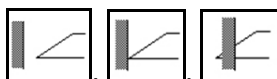


- The automatic spread fan lighting will be switched on as soon as the spreading discs rotate.
- The maintenance lighting consists of the fertiliser pre-chamber and the spreading disc lighting.

12.7 Procedure for use

12.7.1 Use of fertiliser spreader with mechanical spreading disc drive


1. Select fertiliser menu on the ISOBUS terminal:
 - o Enter the data according to the setting chart.
 - o No weighing spreader: carry out fertiliser calibration.
2. Select Work menu in the ISOBUS terminal.
3. Set the power take-off speed (see setting chart).
4. Move off and open both shutters .
5. Weighing spreader :
 - o Start with a calibration travel
 - or
 - o Perform online calibration (switch on in Machine Data menu).
6. If starting with boundary, trench or border spreading:



Select type of boundary spreading and field edge (left / right), and switch on.

- During spreading, the terminal shows the Work menu. All the settings required for spreading should be entered here.
- The calculated data is stored for the current job.

After use:

1.  Close both shutters.
2. Switch off power take-off.

12.7.2 Use of fertiliser spreader with hydraulic spreading disc drive

1. Select fertiliser menu on the ISOBUS terminal:
 - o Enter the data according to the setting chart.
 - o No weighing spreader: carry out fertiliser calibration.
2. Select Work menu in the ISOBUS terminal.
3. Actuate tractor control unit *red* to supply the control block with hydraulic fluid.



4. Switch on spreading discs.

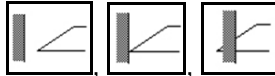


5. Move off and open the shutters



6. Weighing spreader:
 - o Start with a calibration travel
 - or
 - o Perform online calibration (switch on in Machine Data menu).

7. If starting with boundary, trench or border spreading:



Select type of boundary spreading and edge of the field (left / right), and switch on.

→ During spreading, the terminal shows the Work menu. All the settings required for spreading should be entered here.

→ The calculated data is stored for the current job.

After use:



1. Close both shutters.



2. Switch off spreading discs.

3. Actuate tractor control unit *red* to stop the hydraulic fluid supply to the control block.

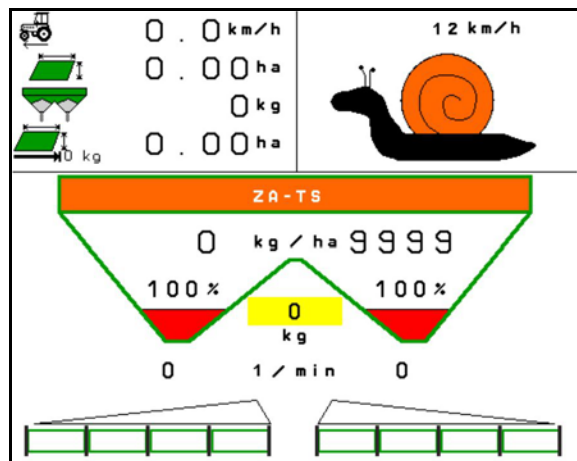
12.7.2.1 Procedure when spreading fine special spreading material




The fine special spreading material mode and the intended forward speed are displayed in the work menu.



For this purpose, in the fertiliser menu:

- select fine special spreading material.
- calibrate special spreading material



1. Select Work menu in the ISOBUS terminal.
2. Set the spreading disc speed (as specified in the setting chart).
3. Move off and open both shutters .
4. Reach the intended speed quickly () and maintain this speed during the spreading.
5. ZG-TS:  Actuate the floor belt if necessary. Continue pressing the button until there is sufficient spreading material in the pre-chamber.



WARNING

Over-metering and under-metering with slug pellets.

The desired application rate will only be achieved when maintaining the speed entered. A proportional speed spread rate is currently not possible.

13 AUX-N multi-function sticks

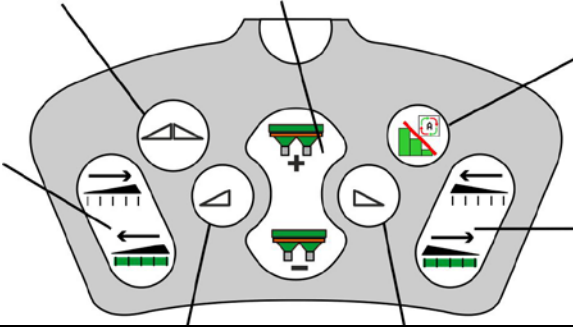


AUX-N - Auxiliary Control

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

Open/close both shutters		Reduce/increase spread rate	
Switch on/off boom part width sections, left side			Switching the Section Control to manual/automatic
			Switch on/off boom part width sections, right side
		Shutter left	Shutter right

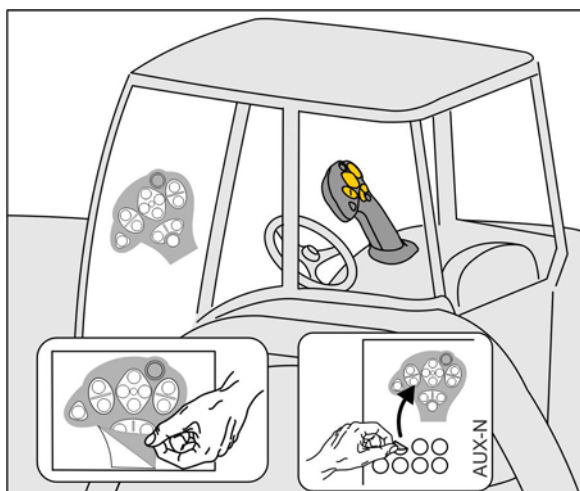
14 AmaPilot/AmaPilot+ multi-function stick

All of the implement functions can be performed using the AmaPilot and AmaPilot+.

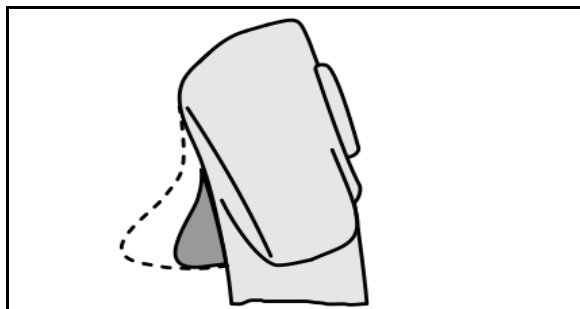
- AmaPilot with fixed key assignment
- AmaPilot+ is an AUX-N control element with freely assignable key assignment (keys pre-assigned like for the AmaPilot)

30 functions can be selected by pressing with your thumb. Two additional levels can also be switched on.

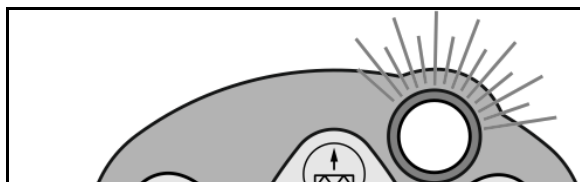
A sticker with the default assignment can be stuck in the cab. For a freely assigned key assignment, a new sticker can be applied over the default assignment.



- Standard level
- Level 2 when trigger on the back is held


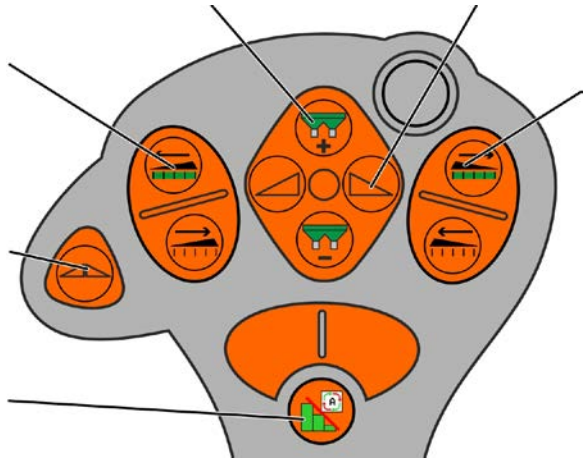



- Level 3 after switching the lit-up button



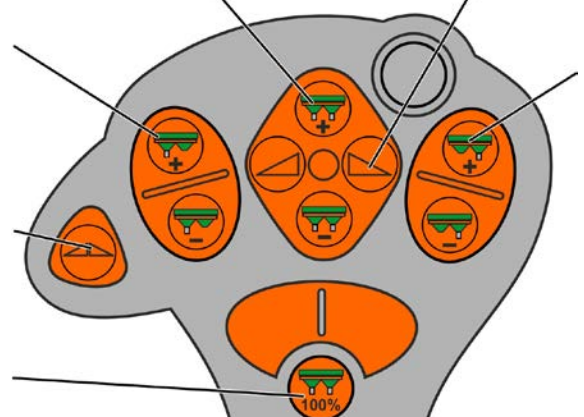
AmaPilot with fixed assignment: Standard level:



Reduce / increase application rate		Open / close shutter left, right
 Switch on / off boom part width sections, left side		 Switch on / off boom part width sections, right side
Open / close both shutters		
Switching the Section Control to manual/automatic		

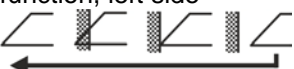
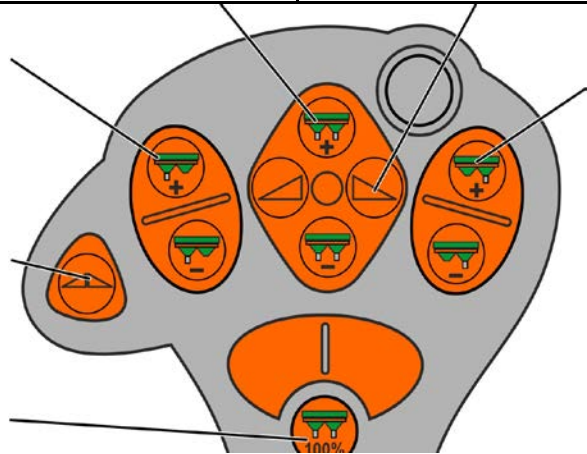


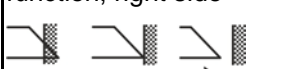
level 2:



Reduce / increase application rate		Open / close shutter left, right
Reduce / increase application rate, left side		Reduce / increase application rate, right side
Open / close both shutters		
Application rate to 100%		

Level 3:



Reduce / increase application rate		Open / close shutter left, right
Gradually switch off boundary spreading function, left side 		Gradually switch off boundary spreading function, right side 
Gradually switch on boundary spreading function, left side 		Gradually switch on boundary spreading function, right side 
Application rate to 100%		
Reduce spreading width for boundary spreading		Increase spreading width for boundary spreading
Normal spreading on both sides (not with AmaPilot+)		

15 Maintenance and cleaning



WARNING

Perform maintenance and cleaning only with the spreading discs and agitator shaft drive switched off.

15.1 Cleaning



DANGER

Do not reach into the outlet opening while operating the shutters! Risk of crushing!

To clean the fertiliser spreader, you must have the shutters open so the water and residual fertiliser can drain.

See Empty fertiliser hopper, page 35.

15.2 Notes on an update of the software

The settings and calibration values can be noted in the charts.



After resetting or an update of the software of the machine computer, the settings and calibration values must be re-entered.

Fertiliser menu

Name of the fertiliser				
Calibration factor				
Intended forward speed				
Set disc speed				
Spread disc				
Telescope vane				
Switch-off point				
Switch-on point				
Working width				
Special spreading materials				

Configure border spreading

Set disc speed				
Volume reduction				
Switch Auto TS				

Configure boundary spreading

Set disc speed				
Volume reduction				
Switch Auto TS				

Configure ditch spreading

Set disc speed				
Volume reduction				
Switch Auto TS				



User profile

User name				
Fill level alarm limit				
Quantity increment				

Configure key assignment

Page 1		Page 2	
Page 3		Page 4	

Configure multi-function display

Line 1				
Line 2				
Line 3				
Line 4				

Configure ISOBUS

UT Number				
Documentation				
TC number				
Switch SectionControl				
Set the switch points				

Implement menu

Calibration method				
Fertiliser fill level				
Speed source				

Configure the speed source

Speed source				
Wheel imp.				
Simulated speed				

Table of Contents

Setup/Implement settings

Spreader model				
----------------	--	--	--	--

Configure spreading disc speed

Hydraulic drive				
Control factor				

Calibrate shutter

Calibrate position left				
Calibration position right				

Configure scale

Weigh cell				
Parameter 1				
Parameter 2				

Configure Limiter/AutoTS

Limiter/AutoTS				
Normal spreading, left side				
Normal spreading, right side				
Bound. spread.left				
Bound. spread.right				

Configure delivery system adjustment

Electrical adjustment				
Calibrate position left				
Calibration position right				

Switch-on delay, switch-off delay

Switch-on delay				
Switch-off delay				

16 Problem

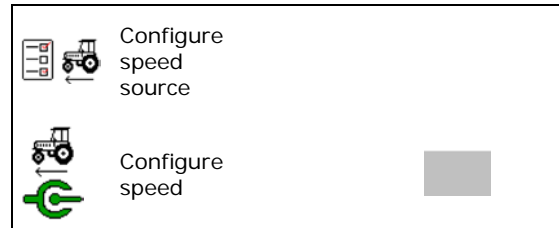
16.1 Failure of the speed signal from the ISO-bus

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

This allows continuing with spreading without a speed signal.

Proceed as follows to do so:

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



16.2 Display on the control terminal

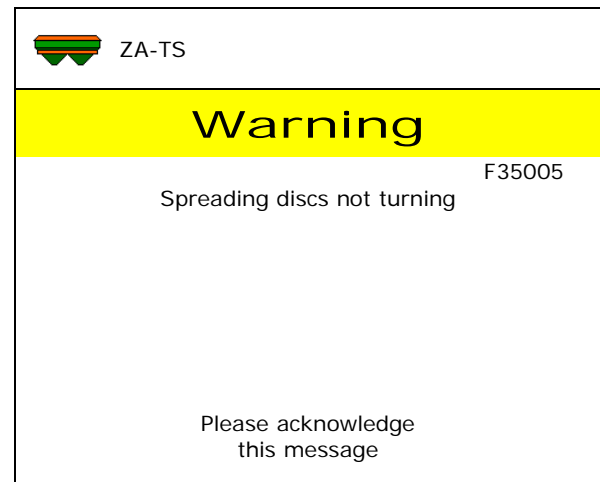
A message appears as:

- note
- warning
- alarm

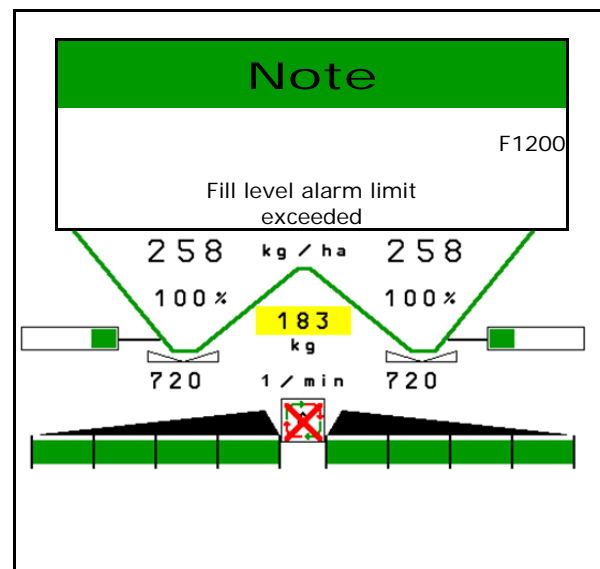
The following are displayed:

- the number of the fault
- a text message
- if applicable, the symbol of the respective menu

Warning/alarm:



Note:



16.3 Fault table

Number	Type	Cause	Remedial action
	Note	The spreader has not found the expected terminal on the ISOBUS and instead of that, has logged onto another terminal.	
F35002 F36800	Note	The fill quantity that has been weighed by the weigh cell is less than the alarm limit set.	<ul style="list-style-type: none"> • Refill with fertiliser • Adapt the fill level alarm limit in the implement settings
F35003	Alarm	The measuring value of the sensor on the left shutter does not change although the setting motor of the shutter has been switched on.	<ul style="list-style-type: none"> • Eliminate any damage or interruptions on the cable connector to the setting motor. • Hang the shutter back into the setting motor after the calibration • Replace the defective setting motor (EA380 or EA379)
F35004	Alarm	The measuring value of the sensor on the right shutter does not change although the setting motor of the shutter has been switched on.	<ul style="list-style-type: none"> • Eliminate any damage or interruptions on the cable connector to the setting motor. • Hang the shutter back into the setting motor after the calibration • Replace the defective setting motor (EA380 or EA379)
F35005	Warning	Hydro only: although the button for switching on has been pressed in the work menu, no speed can be measured on the spreading disc	<ul style="list-style-type: none"> • Switch on the spreader hydraulic supply • Connect the hydraulic hoses correctly to the tractor • Replace defective wiring harness (no voltage at hydraulic valve) • Eliminate any damage or interruptions on the cable connector to the speed sensor. • Replace defective speed sensor
F35006	Note		Close shutter
F35007 F36801	Note	The speed of the spreading disc deviates from the nominal speed set by at least 10%.	<ul style="list-style-type: none"> • Adapt the nominal speed • For PTO drives: correct the speed of the PTO shaft • With hydro: increase the oil supply quantity of the tractor
F35008 F36802	Note	ZG-TS only: when the shutter is open, the voltage of the angle sensor on the fill level flap in the metering chamber is greater than 2V for at least 15 seconds.	<ul style="list-style-type: none"> • Refill with fertiliser • Ensure for the correct floor belt drive

F35009 F36803	Note	Left filling level sensor is not actuated	<ul style="list-style-type: none"> • Refill with fertiliser • Eliminate the "fertiliser bridge" in the hopper using appropriate tools • Eliminate any damage or interruptions of the wiring • Replace defective filling level sensor
F35010 F36804	Note	The weigh cell computer NI113 has marked the last weight evaluated as invalid. OR the weight deviates by more than 10 kg/s	<ul style="list-style-type: none"> • Wait at least 10 seconds until the weight has settled. • Disconnect the spreader from the ISOBUS socket and reconnect again after 10 seconds. • Correct the weigh cell calibration • Replace defective weigh cell • Replace defective weigh cell computer NI113
F35012 F36805	Note	As the online or offline calibration should have started, according to the weigh cell there is less than 500 kg in the hopper.	<ul style="list-style-type: none"> • Refill with fertiliser
F35013	Note	The work menu has been exit when the spreading discs were still switched on.	<ul style="list-style-type: none"> • Switch off the spreading discs
F35015	Note	When accessing the calibration menu, the left shutter was opened.	<ul style="list-style-type: none"> • Close the left shutter in the work menu
F35016	Note	The automatic mode in Section Control was switched on for the first time.	<ul style="list-style-type: none"> • Note to read and acknowledge
F35017	Warning	The signal from the left pressure sensor is lower than 0.3 V or higher than 4.7 V	<ul style="list-style-type: none"> • Eliminate damage or interruptions on the cable to the pressure sensor • Replace the defective pressure sensor (NH085)
F35018	Warning	No messages was received from the weigh cell computer (NI113) for 2 seconds.	<ul style="list-style-type: none"> • Rectify fault in the wiring between job computer (NI164(NI181) and weigh cell computer (NI113). • Replace defective weigh cell computer (NI113).
F35019	Note	When accessing the calibration menu, one speed is available.	<ul style="list-style-type: none"> • Stop the tractor • Set simulated speed = 0
F35020	Note	The amount set in the calibration menu cannot be spread by the spreader.	<ul style="list-style-type: none"> • Reduce the application rate • Reduce the speed -reduce the working width
F35021	Note	"Slug pellets" was selected as a special spreading material in the fertiliser settings.	<ul style="list-style-type: none"> • Note to read and acknowledge
F35022	Note	The minimum fill level was not reached during the offline calibration	<ul style="list-style-type: none"> • Refill with fertiliser

Table of Contents

F35024	Note	The TaskController has changed the value for the Section Control state from 1 to 0. Maybe the job was terminated, or the GPS reception has failed	<ul style="list-style-type: none"> • Start job • Switch on Section Control from the terminal • Ensure that there is GPS reception
F35025 F36806	Note	During the online calibration, the new calibration factor calculated was above 1.4 and below 0.6 five times	<ul style="list-style-type: none"> • Remove the blockage on the shutter • Calibrate the fertiliser • Calibrate offline • Re-calibrate the weigh cell • Set the special spreading material, rice
F35026	Note	User is trying to switch on Section-Control, but the die requirements have not been fulfilled.	<ul style="list-style-type: none"> • Switch on spreading discs • Switch on the the terminal's Section Control
F35027	Note	Calibration value is outside the limit	<ul style="list-style-type: none"> • Check the value
F35028	Warning	The weather station is no longer sending any data to the implement bus.	<ul style="list-style-type: none"> • Contact the Service Department • Check the weather station wiring harness • Replace the weather station
F35029	Alarm	The voltage of the angle sensor on the cleaning hood is greater than 4.5 V or less than 0.5 V	<ul style="list-style-type: none"> • Eliminate any damage of the wiring • Replace defective angle sensor
F35030	Alarm	The voltage of the angle sensor on the cleaning hood is greater than 1.6 V	<ul style="list-style-type: none"> • Close cleaning hood • Align the booms on the sensor correctly • Position the sensor correctly
F35031	Warning	No messages are received by the drop-point system adjustment machine computer (NI125).	<ul style="list-style-type: none"> • rectify the fault in the wiring between the job computer (NI164) and drop-point system adjustment machine computer (NI125). • Replace the defective drop-point system adjustment machine computer (NI125)
F35032	Warning	The signal from the right pressure sensor is lower than 0.3 V or higher than 4.7 V	<ul style="list-style-type: none"> • Eliminate damage or interruptions on the cable to the pressure sensor. • Replace the defective pressure sensor (NH085)
F35033	Note	During the calibration, the voltage at the angle sensor of the fill level flap in the metering chamber of the ZG-TS was greater than 2.0 V for 20 seconds	<ul style="list-style-type: none"> • Before calibrating, refill with fertiliser • Make sure the oil is flowing • Ensure for the correct floor belt drive
F35034	Note	During the offline calibration, the new calibration factor calculated was above 1.4 and below 0.6	<ul style="list-style-type: none"> • Check the shutter for blockages • Repeat the calibration travel • Do not refill during the calibration travel • Calibrate the fertiliser • Re-calibrate the weigh cell • Set the special spreading material, rice
F35035	Warning	The desired application rate cannot be spread with the working width and speed	<ul style="list-style-type: none"> • Reduce the speed • Reduce the application rate • Reduce the working width

F35037	Note	The diagnosis menu has been called up	<input type="checkbox"/>
F35038	Note	The menu for emptying the hopper has been called up.	<input type="checkbox"/>
F35039	Note	The menu "Determine calibration factor" has been called up..	<input type="checkbox"/>
F35040	Note	The ISOBUS speed signal that has been selected in the menu "Configure source speed" is not available.	<ul style="list-style-type: none"> • In the menu "Configure source speed", select a speed that is available or the simulated speed. • Correct the settings of the tractor ECU.
F35041	Alarm	The ISOBUS Shortcut Button of the terminal has been pressed (e.g., On / Off button on the AMATRON or the mushroom-head button on the CCI terminal)	<ul style="list-style-type: none"> • Let go of the Shortcut Button
F35042	Alarm	The ISOBUS Shortcut Button of the terminal has been released (e.g., On / Off button on the AMATRON or the mushroom-head button on the CCI terminal)	<ul style="list-style-type: none"> • Confirm the message
F35044	Alarm	The hopper contains more than 300 kg and the oil pressure on the left hydraulic motor was too low for longer than 10 s during spreading operation.	<ul style="list-style-type: none"> • Eliminate the cause for blockage on the left shutter.
F35044	Warning	FlowCheck has measured a pressure that is too low in the flow of the left hydraulic motor over a longer period of time.	<ul style="list-style-type: none"> • Check the left hopper for clogs. • Check fertiliser settings (spreading disc and telescopic setting)
F35046	Note	One tractor ECU sends a speed signal > 0km/h to the ISOBUS whereas a simulated speed was set.	<ul style="list-style-type: none"> • Select the correct speed in the menu "Configure source speed" • Deactivate the tractor ECU (e.g., 0 lmp/100 m)
F35047	Warning	No impulses are received by the speed sensor on the left agitator when the electric agitator is switched on.	<ul style="list-style-type: none"> • Remove the blockage in the agitator • Eliminate damage or interruptions on the cable to the agitator motor • Replace defective agitator motor (EA358)
F35048	Warning	No impulses are received by the speed sensor on the right agitator when the electric agitator is switched on.	<ul style="list-style-type: none"> • Remove the blockage in the agitator • Eliminate damage or interruptions on the cable to the agitator motor • Replace defective agitator motor (EA358)
F35049	Warning	The signal of the angle sensor of the left shutter is less than 0.5 V.	<ul style="list-style-type: none"> • Eliminate damage or interruptions on the cable to the angle sensor • Replace the defective angle sensor (NH115)
F35050	Warning	The signal of the angle sensor of the right shutter is less than 0.5 V.	<ul style="list-style-type: none"> • Eliminate damage or interruptions on the cable to the angle sensor • Replace the defective angle sensor (NH115)

Table of Contents

F35051	Warning	The signal from the path measurement system of the linear drive for the left limiter is smaller than 0.5 V.	<ul style="list-style-type: none"> • Eliminate damage or interruptions on the cable to the linear drive • Replace defective linear drive (EA353)
F35052	Warning	The signal from the path measurement system of the linear drive for the right limiter is smaller than 0.5 V.	<ul style="list-style-type: none"> • Eliminate damage or interruptions on the cable to the linear drive • Replace defective linear drive (EA353)
F35053	Warning	Although the linear drive on the left limiter is switched on, the voltage value of the path measurement system in this drive does not change	<ul style="list-style-type: none"> • Remove blockage in the limiter • Eliminate damage or interruptions on the cable to the linear drive • Replace defective linear drive (EA353)
F35054	Warning	Although the linear drive on the right limiter is switched on, the voltage value of the path measurement system in this drive does not change	<ul style="list-style-type: none"> • Remove blockage in the limiter • Eliminate damage or interruptions on the cable to the linear drive • Replace defective linear drive (EA353)
F35055	Warning	The signal from the path measurement system of the linear drive for the left inlet system position is less than 0.5 V.	<ul style="list-style-type: none"> • Eliminate damage or interruptions on the cable to the linear drive • Replace defective linear drive (EA355)
F35056	Warning	The signal from the path measurement system of the linear drive for the right inlet system is less than 0.5 V.	<ul style="list-style-type: none"> • Eliminate damage or interruptions on the cable to the linear drive • Replace defective linear drive (EA355)
F35057	Warning	Although the linear drive on the left inlet system is switched off, the voltage value of the path measurement system in this drive does not change	<ul style="list-style-type: none"> • Eliminate the blockage of the inlet system adjustment • Eliminate damage or interruptions on the cable to the linear drive • Replace defective linear drive (EA355)
F35058	Warning	Although the linear drive on the right inlet system is switched off, the voltage value of the path measurement system in this drive does not change	<ul style="list-style-type: none"> • Eliminate the blockage of the inlet system adjustment • Eliminate damage or interruptions on the cable to the linear drive • Replace defective linear drive (EA355) • Replace defective F45 (EA355)
F35059	Warning	The signal from the path measurement system of the linear drive on the left AutoTS gearbox is less than 0.5 V.	<ul style="list-style-type: none"> • Eliminate damage or interruptions on the cable to the linear drive • Replace defective linear drive (EA387)
F35060	Warning	The signal from the path measurement system of the linear drive on the right AutoTS gearbox is less than 0.5 V.	<ul style="list-style-type: none"> • Eliminate damage or interruptions on the cable to the linear drive • Replace defective linear drive (EA387)
F35061	Warning	The sensor value of the linear drive for the left Auto TS vane does not change and does not have the required value	<ul style="list-style-type: none"> • Switch the Auto TS again • Remove soiling from the spreading disc • Re-calibrate Auto TS • Eliminate damage or interruptions on the cable to the linear drive • Remove defective linear drive (EA375)

F35062	Warning	The sensor value of the linear drive for the right Auto TS vane does not change and does not have the required value	<ul style="list-style-type: none"> • Switch Auto TS again • Remove soiling from the spreading disc • Re-calibrate Auto TS • Eliminate damage or interruptions on the cable to the linear drive • Remove defective linear drive (EA375)
F35063	Note	When using the mobile test rig, the position for the inlet system was calculated that was smaller than 0 or greater than 60.	<ul style="list-style-type: none"> • check settings according to setting chart. • spreading again • contact your local service partner
F35064	Note	The Section Control State changes from 1 to 0. Automatic part width section control has been deactivated by the spreader or terminal.	<ul style="list-style-type: none"> • Switch on the spreading discs • Switch off the boundary and ditch spreading • Do not operate the spreader by hand when in automatic mode • Eliminate other faults (e.g., shutter sensor failed) • Exit the calibration or implement menu
F35065	Warning	The signal from the angle sensor to the fill level flap in the metering chamber of the ZG-TS is less than 0.5 V.	<ul style="list-style-type: none"> • Eliminate any damage or interruptions of the wiring • Replace defective angle sensor
F35066 F36807	Note	Right filling level sensor is not actuated	<ul style="list-style-type: none"> • Refill with fertiliser • Eliminate the "fertiliser bridge" in the hopper using appropriate tools • Eliminate any damage or interruptions of the wiring • Replace defective filling level sensor
F35068	Note	Too much noise in the sensor signal or no CAN messages are received by the sensor.	<ul style="list-style-type: none"> • Disconnect the implement plug for the spreader and reconnect • Replace the sensor
F35069	Warning	Communication with the Argus sensors has been interrupted.	<ul style="list-style-type: none"> • Eliminate any damage to the wiring • Replace defective Argus sensor
F35070	Warning	Communication with the Argus sensors has been interrupted.	<ul style="list-style-type: none"> • Eliminate any damage to the wiring • Replace defective Argus sensor
F35071	Warning	FlowCheck has measured a pressure that is too low in the flow of the right hydraulic motor over a longer period of time.	<ul style="list-style-type: none"> • Check the left hopper for clogs. • Check fertiliser settings (spreading disc and telescopic setting)
F35072	Note	Changes have been made in the implement settings that require restarting the job computer.	
F35073	Warning	With automatic mode switched on, all of the part-width sections were located outside of the field boundary for longer than 10 seconds	

Table of Contents

F35074	Warning	<ul style="list-style-type: none"> The tilt was not transmitted by the scale computer. The tilt is precisely 0° for longer than 30 seconds 	<ul style="list-style-type: none"> Eliminate damage or interruptions on the cable to the tilt sensor Eliminate damage or interruptions on the cable to the scale computer Replace defective tilt sensor (NH163) Replace defective weigh cell computer (NI205)
F35077	Warning	The signal of the rear-left weigh cell is smaller than 4 mA.	<ul style="list-style-type: none"> Remedy damage or breaks on the cable to the weigh cell Replace defective weigh cell
F35078	Warning	The signal of the rear-right weigh cell is smaller than 4 mA.	<ul style="list-style-type: none"> Remedy damage or breaks on the cable to the weigh cell Replace defective weigh cell
F35079	Warning	The signal of the front-right weigh cell is smaller than 4 mA.	<ul style="list-style-type: none"> Remedy damage or breaks on the cable to the weigh cell Replace defective weigh cell
F35080	Warning	The speed is greater than 25 km/h and the spreading discs are rotating at more than 100 rpm	<ul style="list-style-type: none"> Switch off the spreading discs
F35081	Warning	The spreading disc speed required for wind compensation exceeds the permissible maximum spreading disc speed..	<ul style="list-style-type: none"> We recommend fertiliser spreading is stopped if the wind is too strong.
F35082	Warning	Strong gusty wind detected..	<ul style="list-style-type: none"> Check the strength of the gusts of wind. We recommend fertiliser spreading is stopped if the wind is too gusty. Check the weather station if there is no gusty wind
F35083	Warning	The fertiliser spreader's configuration limits have been reached. The wind effects can no longer be fully compensated.	<ul style="list-style-type: none"> We recommend fertiliser spreading is stopped if the wind is too strong.
F35084	Warning	Spreading disc TS1 is not supported by WindControl.	<ul style="list-style-type: none"> Upgrade spreading disc to TS2 or TS3. Otherwise, operate the machine without WindControl.
F35085	Warning	The tractor ECU received a signal that the ignition has been switched off while the spreading discs were switched off and the speed was < 0.5 km/h.	
F35087	Warning	During the online calibration, the new calculated calibration factor was above 1.4 or below 0.6 several times	<ul style="list-style-type: none"> Check the shutter opening for blockage Take the calibration factor from the setting chart Perform offline calibration
F35089	Note	The steering axle has not yet been calibrated.	<ul style="list-style-type: none"> Calibrate steering axle.

F35090	Alarm	The sensor required to determine the wheel angle sends invalid values.	<ul style="list-style-type: none"> • Eliminate damage or breaks on the cable to the wheel angle sensor. • Replace defective wheel angle sensor
F35091	Alarm	The rotation speed sensor required for automatic steering has failed.	<ul style="list-style-type: none"> • Eliminate damage or breaks on the cable to the turning speed sensor • Replace defective rotation speed sensor
F35092	Alarm	The ZG job computer does not respond	<ul style="list-style-type: none"> • Eliminate damage or breaks on the cable to the ZG job computer • Replace defective ZG job computer NI254
F35093	Alarm	The centre position of the steering axis was not reached.	<ul style="list-style-type: none"> • Check the controller for the stop and proportional valve • Ensure adequate oil supply • Check the running gear • Eliminate damage or breaks on the cable to the wheel angle sensor. • Replace defective wheel angle sensor
F35094	Warning	The hopper contains less than 300 kg and FlowCheck reports that the pressure is too low on the left spreading disc drive	<ul style="list-style-type: none"> • Refill with fertiliser
F35095	Warning	The hopper contains less than 300 kg and FlowCheck reports that the pressure is too low on the right spreading disc drive	<ul style="list-style-type: none"> • Refill with fertiliser
F35096	Note	The weather station is not fully unfolded. The WindControl controller is temporarily interrupted	
F35098	Warning	The weather station's folding mounting plate is blocked.	<ul style="list-style-type: none"> • Check for blockage or stiffness and remedy it
F35099	Alarm	The position of the steering axle has changed without the controller.	<ul style="list-style-type: none"> • Check the running gear and wheel angle sensor.
F35100	Note	The scale adjustment function can only be performed if at least 500 kg are in the hopper.	
F35104	Warning	The signal of the front-left weigh cell is smaller than 4 mA.	<ul style="list-style-type: none"> • Eliminate damage or breaks on the cable to the weigh cell. • Replace defective weigh cell.
F35105	Warning	The signal of the front-left weigh cell is smaller than 4 mA.	<ul style="list-style-type: none"> • Eliminate damage or breaks on the cable to the weigh cell. • Replace defective weigh cell.

Table of Contents

F35106	Warning	The sensor for recording the position of the folding mounting plate is smaller than 0.5 V.	<ul style="list-style-type: none"> • Eliminate damage or breaks on the cable to WindControl actuator. • Replace defective EA439 actuator
F35107	Alarm	The recorded position of the steering axle does not change in spite of a controller	<ul style="list-style-type: none"> • Check the controller for the stop and proportional valve • Ensure adequate oil supply. • Check the running gear • Eliminate damage or breaks on the cable to the wheel angle sensor. • Replace defective wheel angle sensor
F35107	Note	The steering axle may only be calibrated at a standstill	
F35115	Note	The hopper can only be drained at a standstill when the spreading discs are powered off.	
F35116	Warning	The inlet system position required for wind compensation exceeds the adjustable maximum	<ul style="list-style-type: none"> • We recommend fertiliser spreading is stopped if the wind is too strong.
F35117	Warning	The calculated wind data is implausible.	<ul style="list-style-type: none"> • Eliminate the stiffness in the fall protection • Check displayed wind data • Check the speed source of the fertiliser spreader • Replace defective weather station NH174
F35118	Warning	The permissible travel speed was exceeded when adjusting the position of the folding mounting plate.	<ul style="list-style-type: none"> • Reduce the speed below the specified numerical value when adjusting the folding mounting plate.
F35119	Warning	The permissible travel speed was exceeded when adjusting the position of the folding mounting plate.	<ul style="list-style-type: none"> • Reduce the speed below the specified numerical value when adjusting the folding mounting plate.
F35201	Warning	The Argus sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace Argus sensor at position 1 (NH177)
F35202 – F35214	Warning	The Argus sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace Argus sensor at position 2 (NH177) • Replace Argus sensor at position 1 (NH177)
F35203	Warning	The ArgusTwin sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace ArgusTwin sensor at position 3 (NH177)

			<ul style="list-style-type: none"> • Replace ArgusTwin sensor at position 2 (NH177)
F35204	Warning	The ArgusTwin sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace ArgusTwin sensor at position 4 (NH177) • Replace Argus sensor at position 3 (NH177)
F35205	Warning	The ArgusTwin sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace ArgusTwin sensor at position 5 (NH177) • Replace Argus sensor at position 4 (NH177)
F35206	Warning	The ArgusTwin sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace ArgusTwin sensor at position 6 (NH177) • Replace Argus sensor at position 5 (NH177)
F35207	Warning	The ArgusTwin sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace ArgusTwin sensor at position 7 (NH177) • Replace Argus sensor at position 6 (NH177)
F35208	Warning	The ArgusTwin sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace ArgusTwin sensor at position 8 (NH177) • Replace Argus sensor at position 7 (NH177)
F35209	Warning	The ArgusTwin sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace ArgusTwin sensor at position 9 (NH177) • Replace Argus sensor at position 10 (NH177)
F35210	Warning	The ArgusTwin sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace ArgusTwin sensor at position 10 (NH177) • Replace Argus sensor at position 9 (NH177)
F35211	Warning	The ArgusTwin sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace ArgusTwin sensor at position 11 (NH177) • Replace ArgusTwin sensor at position 10 (NH177)

Table of Contents

F35212	Warning	The ArgusTwin sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace ArgusTwin sensor at position 12 (NH177) • Replace Argus sensor at position 11 (NH177)
F35213	Warning	The ArgusTwin sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace ArgusTwin sensor at position 13 (NH177) • Replace Argus sensor at position 12 (NH177)
F35214	Warning	The ArgusTwin sensor has reported an error or no more messages are being received from this sensor.	<ul style="list-style-type: none"> • Disconnect the power supply of the spreader and reconnect • Replace ArgusTwin sensor at position 14 (NH177) • Replace ArgusTwin sensor at position 13 (NH177)
F36809	Note	A boundary spreading mode has been activated for which ClickTS must be switched on on the left.	
F36810	Note	A boundary spreading mode has been activated for which ClickTS must be switched on on the right.	
F36811	Note	Boundary spreading has been switched off or a boundary spreading mode has been activated for which ClickTS must be switched off on the left.	
F36812	Note	Boundary spreading has been switched off or a boundary spreading mode has been activated for which ClickTS must be switched off on the right.	
F36815	Note	'A boundary spreading function is activated and a shutter was opened.	



AMAZONEN-WERKE

H. DREYER GmbH & Co. KG

Postfach 51
D-49202 Hasbergen-Gaste
Germany

Tel.: + 49 (0) 5405 501-0
e-mail: amazone@amazone.de
<http://www.amazone.de>