



SCHMOTZER

Original operating manual

ISOBUS software

Hoeing machine

This operating manual is valid as of software version NW324-D

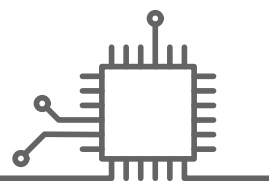


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About this operating manual

1

CMS-T-00000539-E.1

1.1 Meaning of the operating manual

CMS-T-006245-A.1

The operating manual is an important document and a part of the implement. It is intended for the user and contains safety-related information. Only the instructions provided in the operating manual are reliable. If the operating manual is not observed, it can result in serious injury or death.

1. The safety section must be completely read and observed before initial operation of the implement.
2. Before starting work, also read and observe each section of the operating manual.
3. Keep the operating manual available.
4. Hand over the operating manual to the subsequent user.

1.2 Diagrams

CMS-T-005676-C.1

1.2.1 Warnings and signal words

CMS-T-00002415-A.1

Warnings are marked with a vertical bar with a triangular safety symbol and the signal word. The signal words *"DANGER"*, *"WARNING"* or *"CAUTION"* describe the severity of the potential danger and have the following meanings:



DANGER

- Indicates a direct threat with high risk for severe physical injury, such as loss of limbs or death.



WARNING

- Indicates a possible threat with moderate risk for severe physical injury or death.



CAUTION

- Indicates a threat with low risk for light or moderately severe physical injuries.

1.2.2 Further instructions

CMS-T-00002416-A.1



IMPORTANT

- Indicates a risk for damage to the implement.



ENVIRONMENTAL INFORMATION

- Indicates a risk for environmental damage.



NOTE

Indicates application tips and instructions for optimal use.

1.2.3 Instructions

CMS-T-00000473-B.1

Numbered instructions

CMS-T-005217-B.1

Actions that have to be performed in a specific sequence are represented as numbered instructions. The specified sequence of the actions must be observed.

Example:

1. Instruction 1
2. Instruction 2

1.2.3.1 Instructions and responses

CMS-T-005678-B.1

Reactions to instructions are marked with an arrow.

Example:

1. Instruction 1

➔ Reaction to instruction 1

2. Instruction 2

1.2.3.2 Alternative instructions

CMS-T-00000110-B.1

Alternative instructions are introduced with the word "or".

Example:

1. Instruction 1

or

Alternative instruction

2. Instruction 2

Instructions with only one action

CMS-T-005211-C.1

Instructions with only one action are not numbered, but rather shown with a arrow.

Example:

► Instruction

Instructions without sequence

CMS-T-005214-C.1

Instructions that do not require a specific sequence are shown as a list with arrows.

Example:

► Instruction

► Instruction

► Instruction

1.2.4 Lists

CMS-T-000024-A.1

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

Example:

- Point 1
- Point 2

1.2.5 Item numbers in figures

CMS-T-000023-B.1

A framed number in the text, e.g. a 1, indicates an item number in an adjacent figure.

1.3 Other applicable documents

CMS-T-00000616-B.1

A list of other applicable documents can be found in the Appendix.

1.4 Your opinion is important

CMS-T-000059-C.1

Dear reader, our operating manuals are updated regularly. Your suggestions for improvement help us to create ever more user-friendly operating manuals. Please send us your suggestions by post, fax or email.

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Overview of the functions

2

CMS-T-00006184-B.1

Schmotzer hoeing machines are operated with the ISOBUS software. The ISOBUS software can be displayed and operated with an ISOBUS control terminal.

The ISOBUS software includes the following functions:











- Monitoring the implement data
- Activating and deactivating parallelograms
- Switching part-width sections manually and automatically
- Enter settings
- Managing implement profiles
- Managing the user profiles
- Managing the documentation
- Calling up information

Main menu overview

3

CMS-T-00006185-A.1

The Main menu is divided into the Field menu and the Settings menu.

Field menu	Settings
 FIELD MENU	 SETTINGS
<div>  Working </div> <div>  Documentation </div> <div>  Profile 1 </div>	<div>  Implement </div> <div>  Display </div> <div>  Service </div> <div>  Band spray. </div> <div>  Hoe set 1 </div>

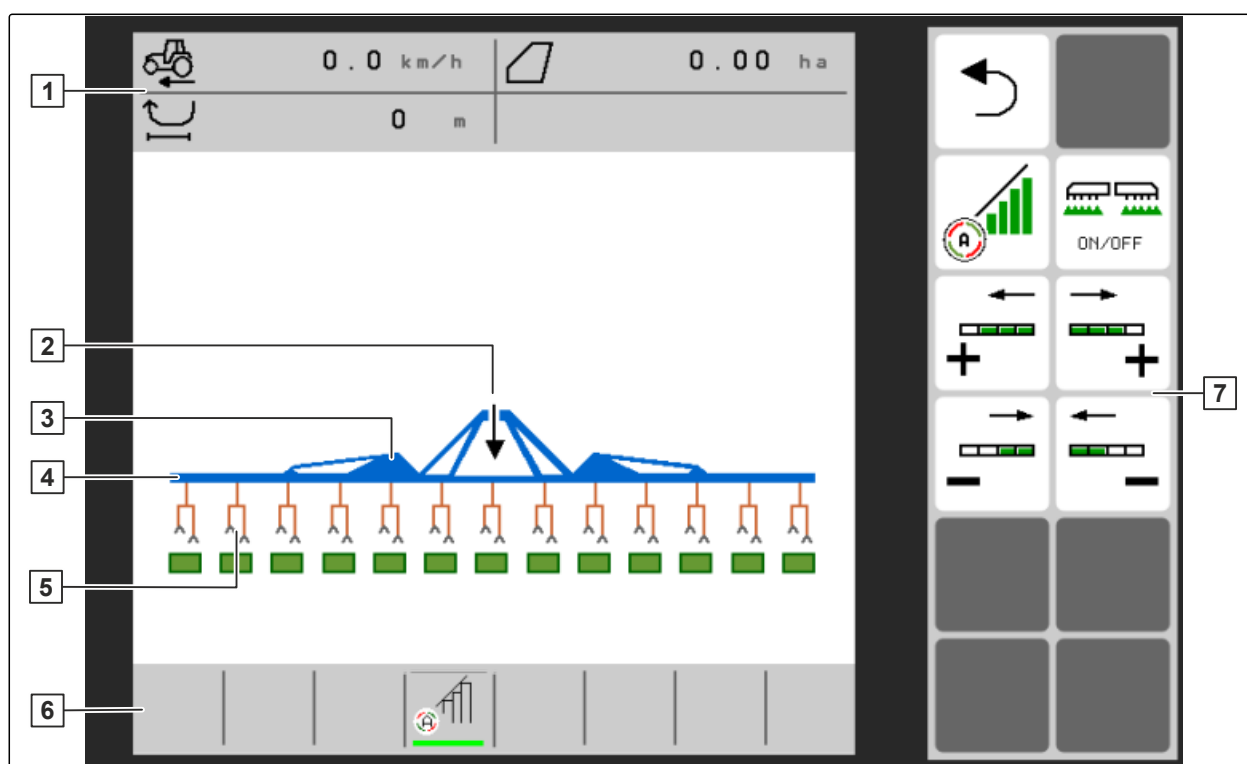
Work menu

4

CMS-T-00006186-B.1

4.1 Overview of the Work menu

CMS-T-00006187-B.1



CMS-I-00004420

- | | |
|---|--|
| 1 Multi-function display | 5 Display for the status and the position of the parallelograms |
| 2 Display for the status of the working position | 6 Status bar |
| 3 Display for the status of the folding | 7 Button bar |
| 4 Display for the status of the implement | |

4.2 Display for the status of the working position

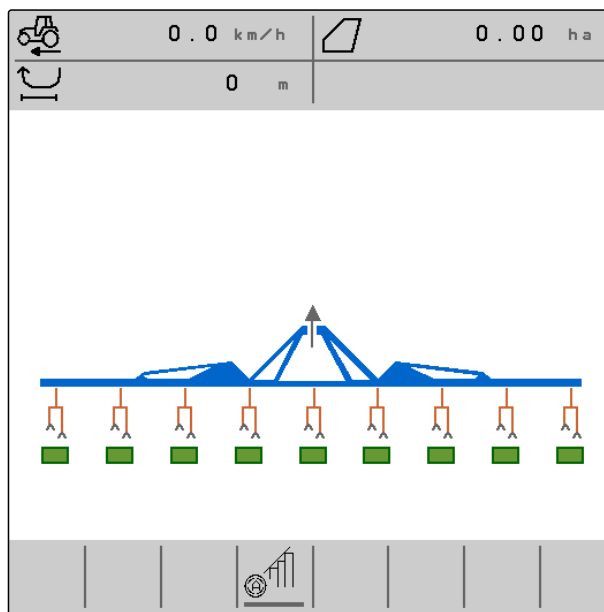
CMS-T-00008750-A.1

In the Work menu, an arrow shows whether the implement is lifted or lowered.

4 | Work menu

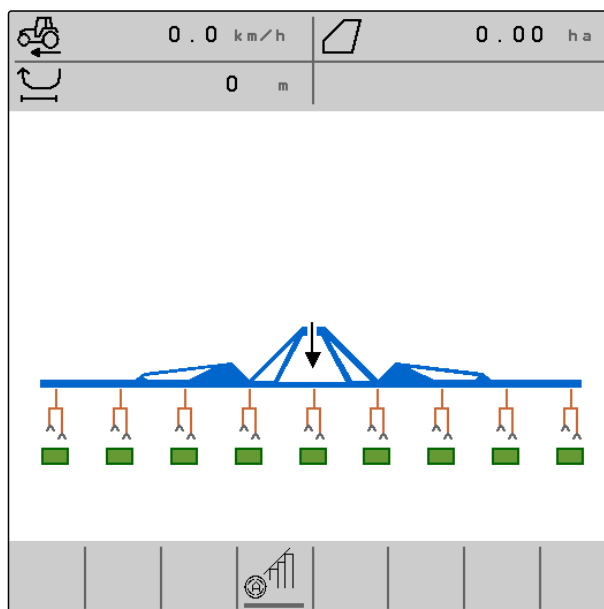
Display for the status of the folding

If the black arrow points up, the implement is lifted.



CMS-I-00005986

If the black arrow points down, the implement is lowered.



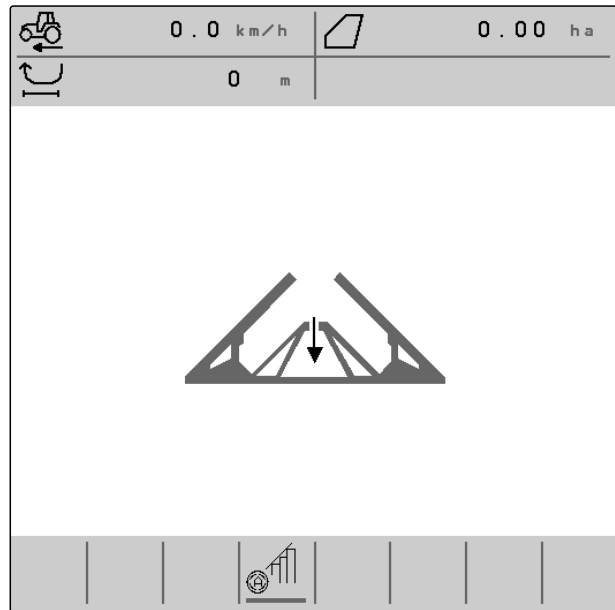
CMS-I-00006141

4.3 Display for the status of the folding

CMS-T-00006221-A.1

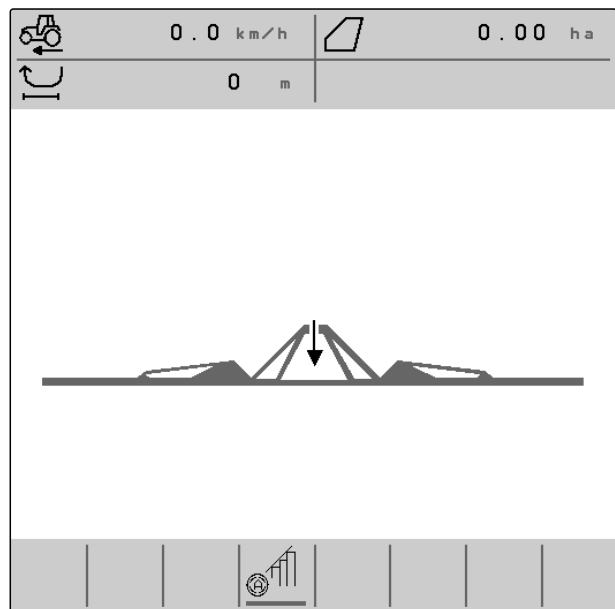
In the Work menu, a stylised implementslide rail shows whether the implement is folded or unfolded.

If a folded implement sliding rail is shown, the sections are folded and the support wheels are lifted.



CMS-I-00004421

If an unfolded implement sliding rail is shown, the sections are unfolded and the support wheels are lowered.




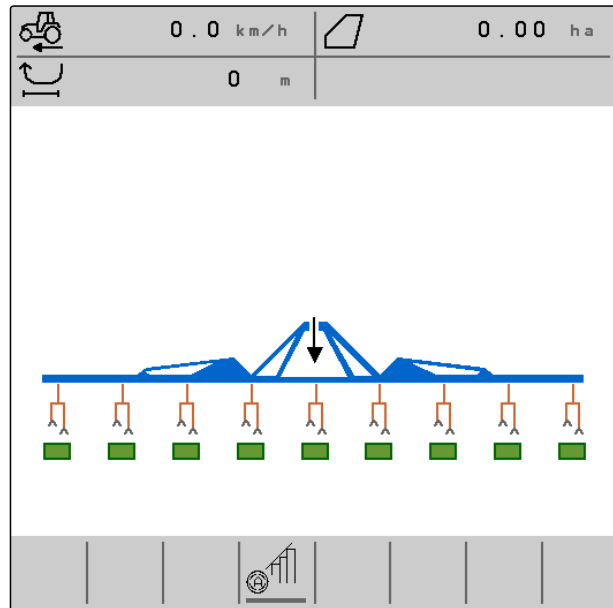
CMS-I-00004422

4.4 Display for the status of the implement


CMS-T-00008888-A.1

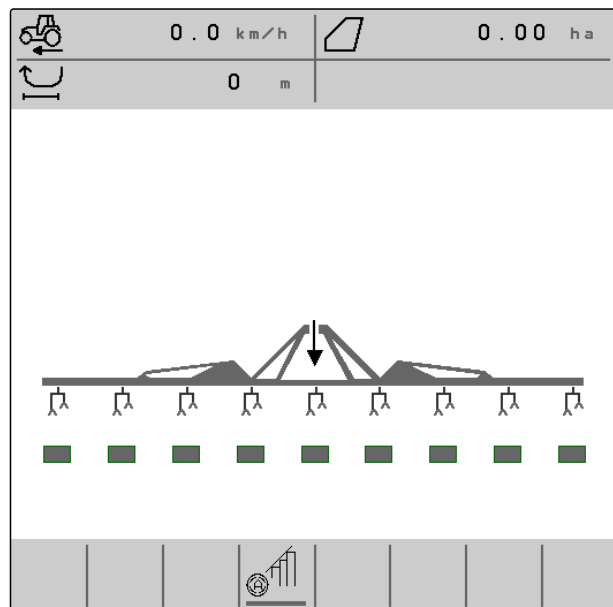
In the Work menu, the colours grey and blue show whether the implement is switched on or off.

When the implement is switched on using the  button, the colour of the implement slide rail changes from grey to blue. Switching on causes all activated parallelograms to be moved from transport position to working position, and the assigned rectangles change from grey to green on the display.



CMS-I-00006142

When the implement is switched off using the  button, the colour of the implement slide rail changes from blue to grey. Switching off causes all activated parallelograms to be moved from working position to transport position, and the assigned rectangles change from green to grey on the display.



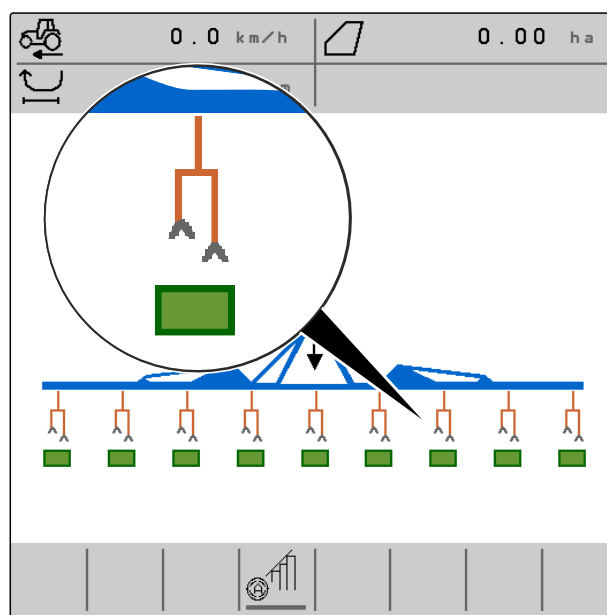
CMS-I-00006143

4.5 Display for the status and the position of the parallelograms

CMS-T-00006222-B.1

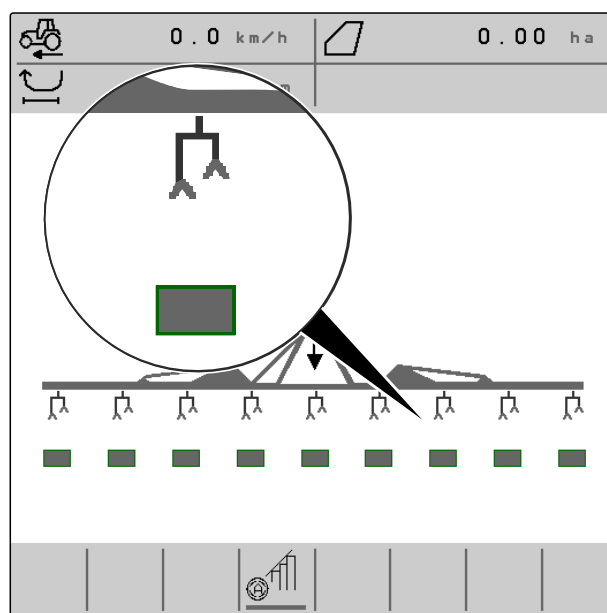
The Work menu shows whether a parallelogram is activated or deactivated, and whether a parallelogram is lifted or lowered.

Both when Section Control is switched off and when Section Control is switched on, activated parallelograms that are moved into working position are displayed with lowered, orange parallelogram symbols and rectangles filled in green.



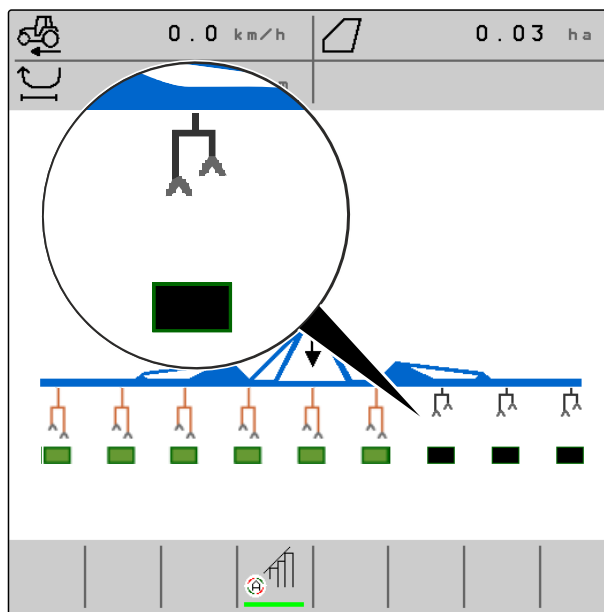
CMS-I-00004424

When Section Control is switched off, activated parallelograms that are moved in transport position by switching off the implement are displayed with lifted, black parallelogram symbols and rectangles filled in grey.



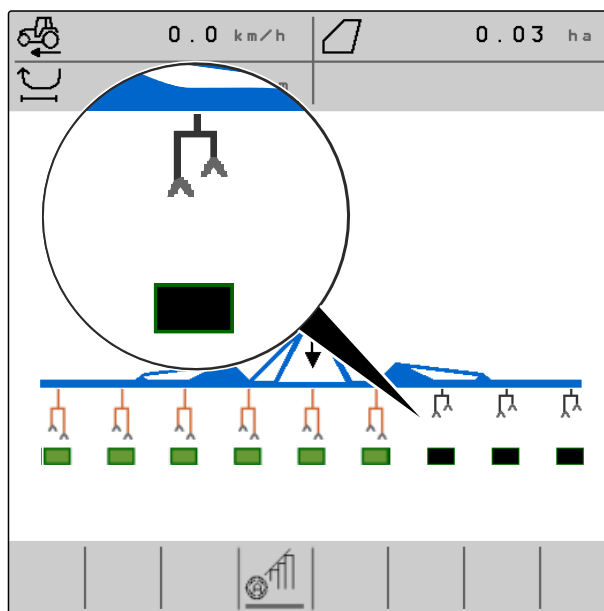
CMS-I-00004423

When Section Control is switched on, activated parallelograms that are moved in transport position by Section Control are displayed with lifted, black parallelogram symbols and rectangles filled in black.



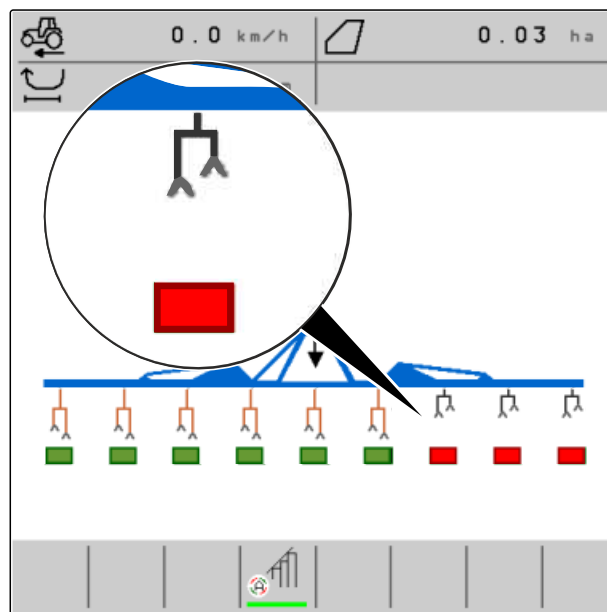
CMS-I-00006138

When Section Control is switched off, deactivated parallelograms that therefore in transport position are also displayed with lifted, black parallelogram symbols and rectangles filled in black.



CMS-I-00006139

When Section Control is switched on, deactivated parallelograms that therefore in transport position are displayed with lifted, black parallelogram symbols and rectangles filled in red.



CMS-I-00006140

4.6 Status bar

CMS-T-00006265-B.1

The status bar shows whether Section Control is switched off or on.

- 1 Section Control is switched off
- 2 Section Control is switched on







CMS-I-00004465

4.7 Functions in the button bar

CMS-T-00006273-B.1

Back.	Scroll through a menu with several pages.	Switch Section Control on and off.	ON/OFF Switch the implement on and off.	Activate deactivated parallelograms from right to left.
Activate deactivated parallelograms from left to right.	Deactivate activated parallelograms from left to right.	Deactivate activated parallelograms from right to left.	Switch the display from day mode to night mode and vice versa.	

			
Manage implement profiles and documentations.	Scroll in the button bar.	Clear all messages in the error memory.	Update the list of ISOBUS participants.


Basic operation

5


CMS-T-00006279-B.1

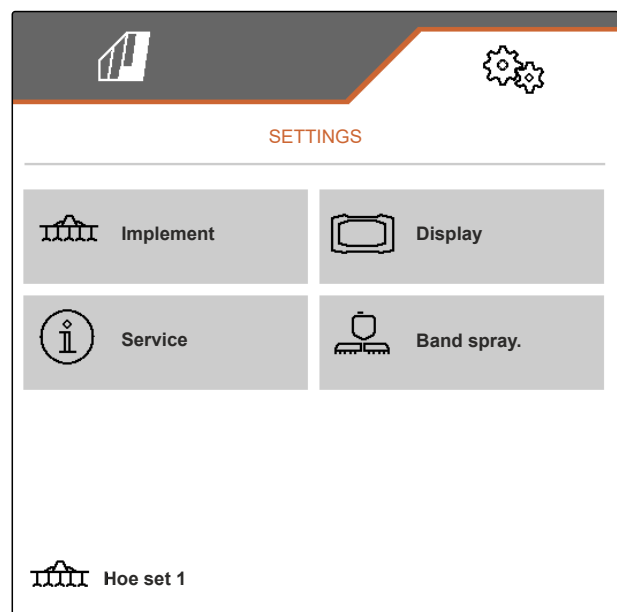
5.1 Switch between the Field menu and the Settings

CMS-T-00006280-A.1

- To switch to the Field menu,
select .

or

- To switch to the settings,
select .



CMS-I-00004395



5.2 Switch to the previous menu

CMS-T-00000805-C.1

- Select  on the button bar.

5.3 Scrolling through the menus and button bar

CMS-T-00000806-B.1

- To scroll through the menus in the settings,
select .
- To scroll through the button bar,
select .

Entering the settings

6

CMS-T-00006288-B.1

6.1 Configuring the source for the speed signal

CMS-T-00006626-B.1

6.1.1 Using the ISOBUS speed signal

CMS-T-00000843-F.1

To control the implement, a speed signal is required. The speed signal that is determined by the sensors on the tractor and provided to the implement through the ISOBUS can be used for this.

1. In the "Settings" menu, select "Implement" > "Speed".

Only existing sources will be shown. If, for example, a speed is not available from "Radar (tractor)", this selection option will also not be offered.

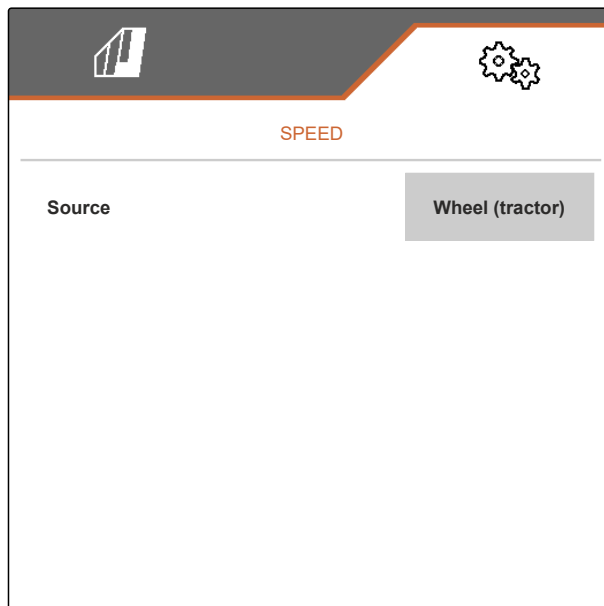
2. Under "Source", select "Radar (tractor)", "Wheel (tractor)" or "Satellite (NMEA2000)".



NOTE

Inaccurate sources for the speed signal cause faulty control.

3. Check the accuracy of the utilised source for the speed signal.



CMS-I-00006151

6.2 Configuring the working position sensor

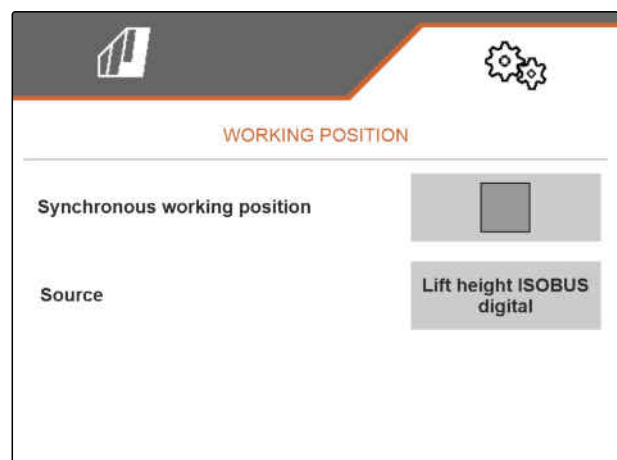
CMS-T-00006628-B.1

6.2.1 Configuring digital working position sensors

CMS-T-00008913-A.1

The working position sensor determines whether the implement is in working position. When the implement is in working position, the work is documented and the hoe units are activated. When the implement is moved out of the working position, the documentation is stopped and the hoe units are deactivated.

1. In the "Settings" menu, select "Implement" > "Working position".
2. Under "Source", select "Lift height ISOBUS digital".



CMS-I-00002902

6.2.2 Configuring analogue working position sensors

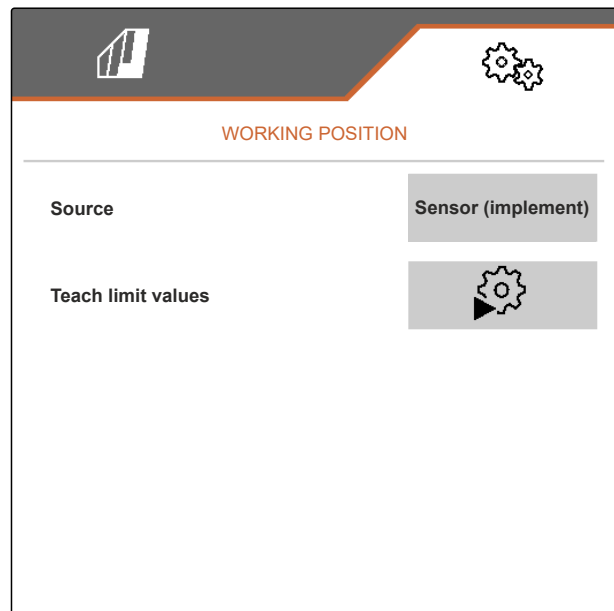
CMS-T-00006629-B.1

The working position sensor determines whether the implement is in working position. When the implement is in working position, the work is documented and the hoe units are activated. When the implement is moved out of the working position, the documentation is stopped and the hoe units are deactivated. To determine when the implement is in working position, the limit values must be taught-in.

1. In the "Settings" menu, select "Implement" > "Working position".

Only existing sources will be shown. If, for example, "Lift height ISOBUS analogue" is does not exist, this selection option will also not be offered.

2. Under "Source", select "Sensor (implement)" or "Lift height ISOBUS analogue".
3. Follow the instructions on the display under "Teach-in limit values".



CMS-I-00004504

6.3 Configuring ISOBUS




CMS-T-00006310-B.1

6.3.1 Configuring the buttons for Section Control

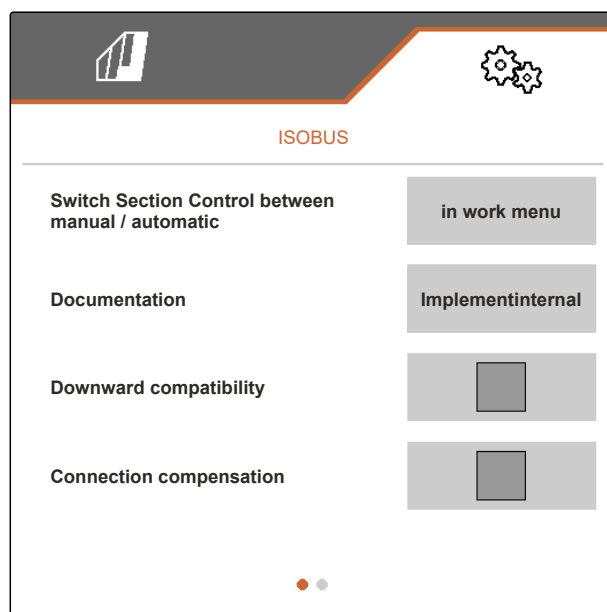
CMS-T-00006315-B.1

For Section Control, you can define whether Section Control can be switched on and off in the Work menu of the ISOBUS software or on the control terminal.

Possible settings:

- "In the GPS menu"
 - Section Control can only be switched on and off via the control terminal. The  icon in the status bar of the Work menu is only a display.
- "In the Work menu"
 - Section Control can be switched on and off in the Work menu with the  button in the button bar or with the  icon in the status bar. Section Control can also be switched on and off via the control terminal.

1. In the "Settings" menu, select "Implement" > "ISOBUS".
2. Under "Switch Section Control Manual / Automatic", select the desired position.



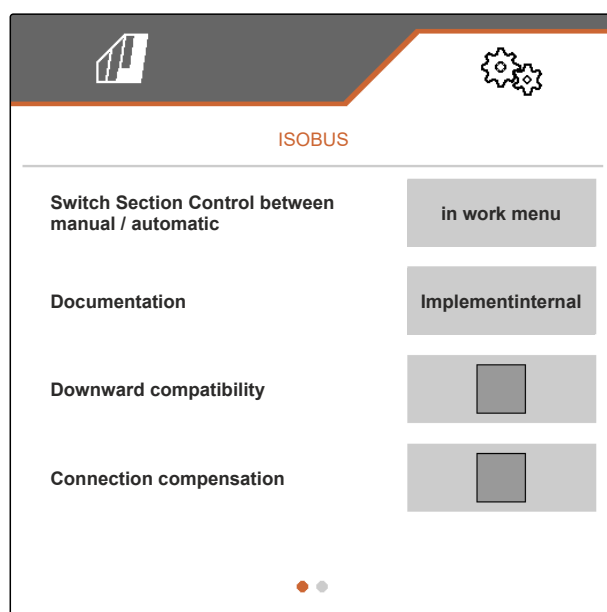
CMS-I-00004591

6.3.2 Setting the storage locations for the documentation

CMS-T-00006313-B.1

The storage location defines whether the documentation is saved on the implement's job computer or on the control terminal.

1. In the "Settings" menu, select "Implement" > "ISOBUS".
2. Under "Documentation", select the desired storage location.



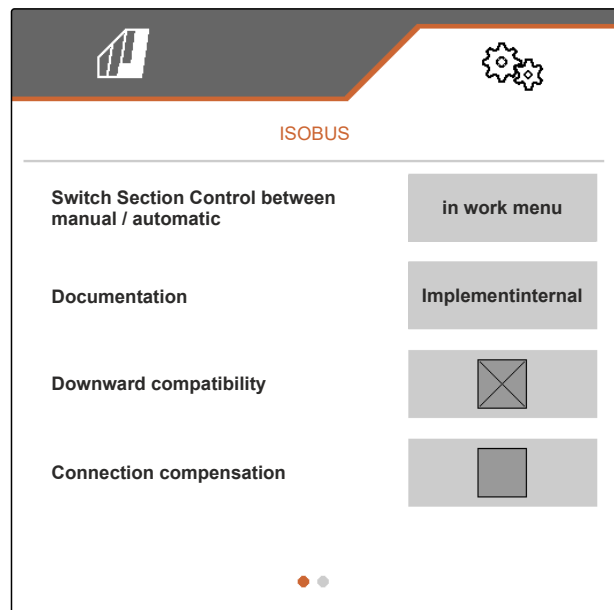
CMS-I-00004591

6.3.3 Switch on downward compatibility

CMS-T-00006316-B.1

When downward compatibility is activated, the implement can also communicate with older control terminals in terms of the ISOBUS version and is reliably detected by these control terminals.

1. In the "Settings" menu, select "Implement" > "ISOBUS".
2. If the implement is not detected by the control terminal, activate "Downward compatibility".



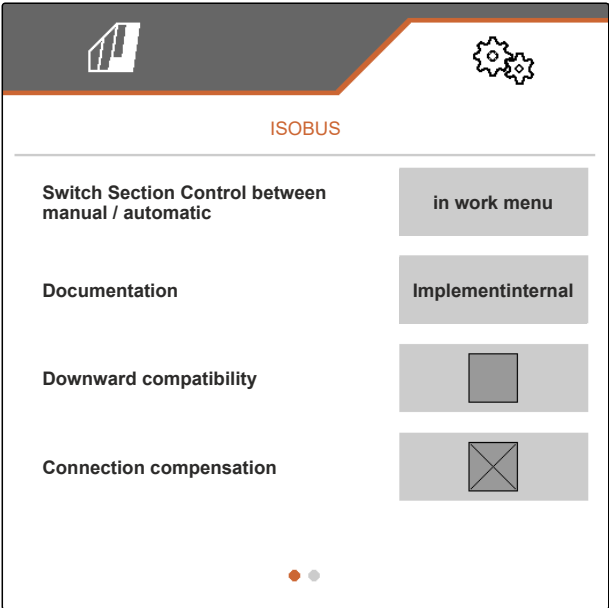
CMS-I-00004601

6.3.4 Switching on the bout connection compensation

CMS-T-00008763-A.1

When working with Section Control with small row spacings and poor GPS accuracy, there can be an undesired effect that the side parallelograms are constantly lifted and lowered in alternation. Activating the bout connection compensation prevents this effect by switching each of the two side parallelograms together with its neighbouring parallelogram.

- 1. In the "Settings" menu, select "Implement" > "ISOBUS".
- 2. If fluttering of the side parallelograms occurs while working with the implement, activate the "Bout connection compensation".



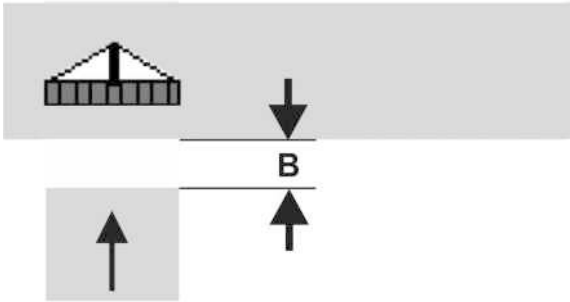
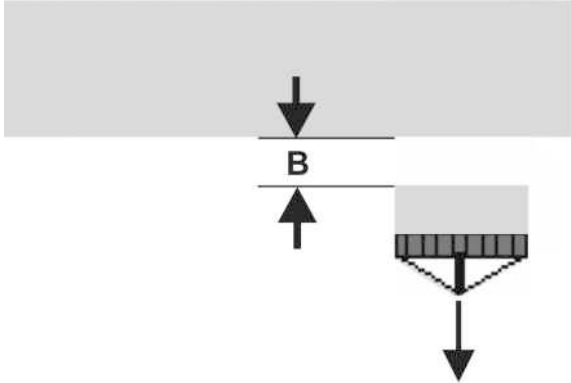
CMS-I-00005992

6.3.5 Configuring Section Control


CMS-T-00006311-B.1

When the implement is controlled per Section Control, it takes a few hundred milliseconds until the implement responds. These delays can cause overlaps or unworked areas. The switching times compensate for these delays when switching on and off.

Switch-off delay	Switch-on delay
Switching off when entering a worked area	Switching on when moving off a worked area
(A) Length of the overlap	

Switch-off delay	Switch-on delay
Switching off when entering a worked area	Switching on when moving off a worked area
	
(B) Length of the unworked area	

1. In the "Settings" menu, select "Implement" > "ISOBUS".

2. Scroll to the second page of the menu with .

3. *If overlaps are produced when entering a worked area,*
increase the switch-off delay

or

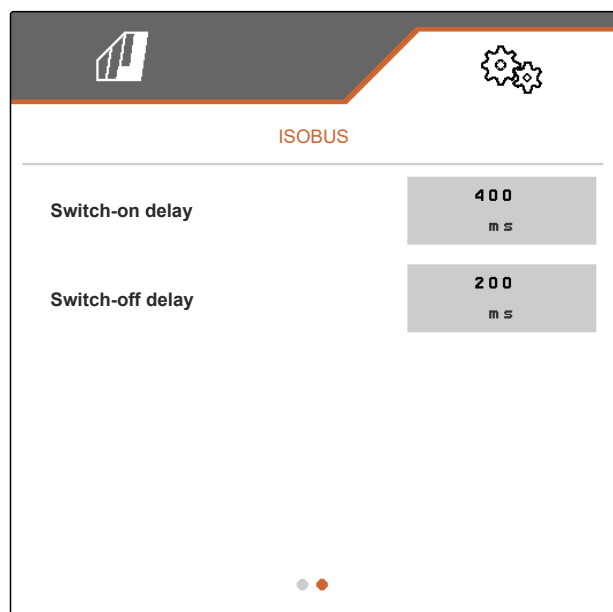
If unworked areas are produced when entering a worked area,
reduce the switch-off delay

or

If overlaps are produced when moving off a worked area,
reduce the switch-on delay

or

If unworked areas are produced when moving off a worked area,
increase the switch-on delay.



CMS-I-00004596

6.4 Setting the display

CMS-T-00006318-B.1

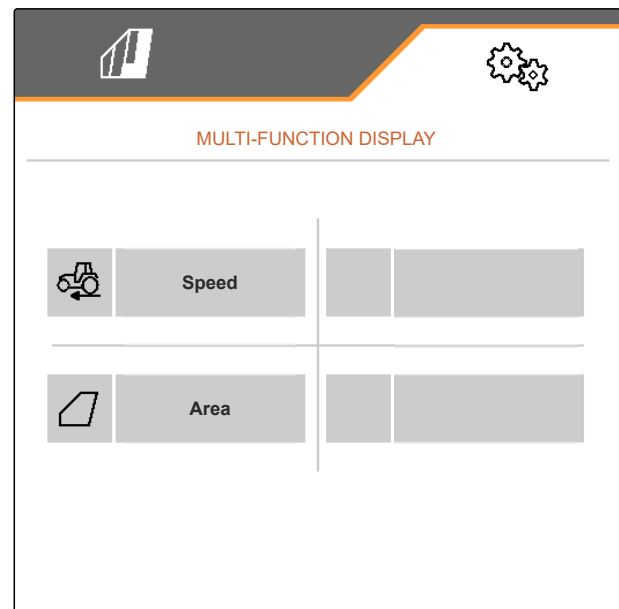
6.4.1 Changing the multi-function display

CMS-T-00006319-B.1

4 different values can be displayed in the Work menu on the multi-function display. The following table contains all of the available values.

Value	Explanation
Speed	Current speed in km/h
Area	Worked area in hectares
Distance counter	Driven distance in metres

1. In the "Settings" menu, select "Display" > "Multi-function display".
2. To change a display, select the desired display.
➔ A list with the available values will be displayed.
3. Select the desired value from the list.
4. Confirm the selection.



CMS-I-00000679

6.4.2 Configuring the assignment of the Work menu button bar

CMS-T-00006320-B.1

The assignment of the Work menu button bar can be configured. To do so, an overview of all functions is shown on the left side and the button bar is shown on the right side. Functions that are already used have an orange checkmark in the overview of all functions.


6 | Entering the settings

Setting the display

1. In the "Settings" menu, select "Display" > "Work button assignment".

2. Select the desired function from the overview of all functions.

➔ The selected function will be framed in black.

3. In the button bar, use  to scroll to the page where the button to be assigned should be located.

4. Select the desired button in the button bar.


➔ The selected key is assigned to the selected function.

5. Assigning other keys

or

Confirm the assignment with 

or

reject the assignment with .



CMS-I-00004681


6.4.3 Assigning the control terminals


CMS-T-00006321-B.1

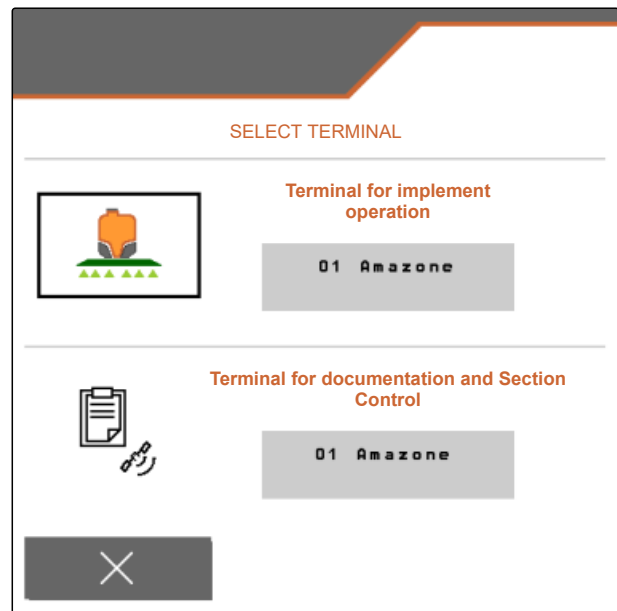
If multiple terminals are connected, the terminals can be assigned for implement operation, documentation, and Section Control. If only one control terminal is connected, this control terminal is automatically assigned.

1. In the "Settings" menu, select "Display" > "Select terminal".

2. Under "Terminal for implement operation" and "Terminal for documentation and Section Control", select the desired control terminal from the list.

3. Confirm the selection with 
or

Discard the selection with .



CMS-I-00004608

6.4.4 Configuring the day/night mode

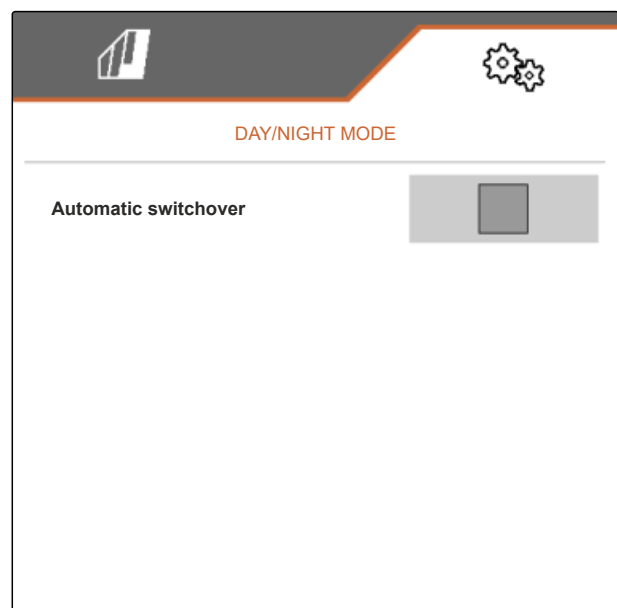
CMS-T-00006322-A.1

Switching between day mode and night mode can be done manually or the display can switch automatically between day mode and night mode. If automatic switching is activated, the switch points for switching to day mode and night mode can be configured.

1. In the "Settings" menu, select "Display" > "Day/night mode".

2. If you want automatic switching between day mode and night mode, activate "Automatic switching".

➔ The settings for automatic switching will be shown.

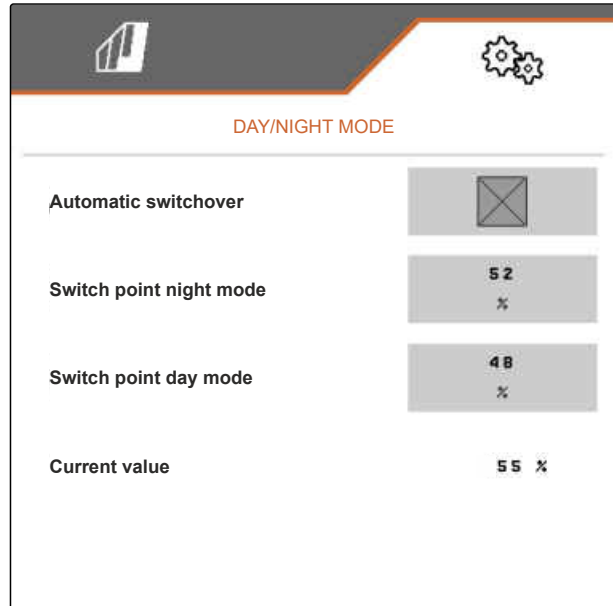


CMS-I-00004613

Under "*Current value*", the current ambient brightness is shown in percent.

The percent values under "*Night mode switch point*" and "*Day mode switch point*" indicate the current value for the ambient brightness at which the display switched to the corresponding mode.

3. When an ambient brightness has been reached at which the display should switch to night mode, enter the percent value under "*Current value*" for "*Night mode switch point*".
4. When an ambient brightness has been reached at which the display should switch to day mode, enter the percent value under "*Current value*" for "*Day mode switch point*".



DAY/NIGHT MODE	
Automatic switchover	<input type="checkbox"/>
Switch point night mode	52 %
Switch point day mode	48 %
Current value	55 %

CMS-I-00004612

Managing profiles

7

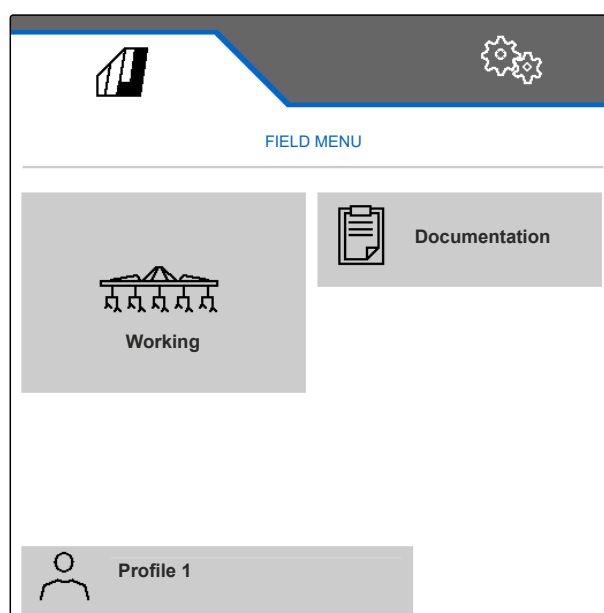
CMS-T-00006443-B.1

7.1 Creating a new profile

CMS-T-00006445-B.1

In a profile, all of the user-related settings are saved. In the delivery condition, a profile has already been configured. The configured profile is named *"Profile 1"*.


1. At the bottom left of the Field menu, select the button that shows the active profile.

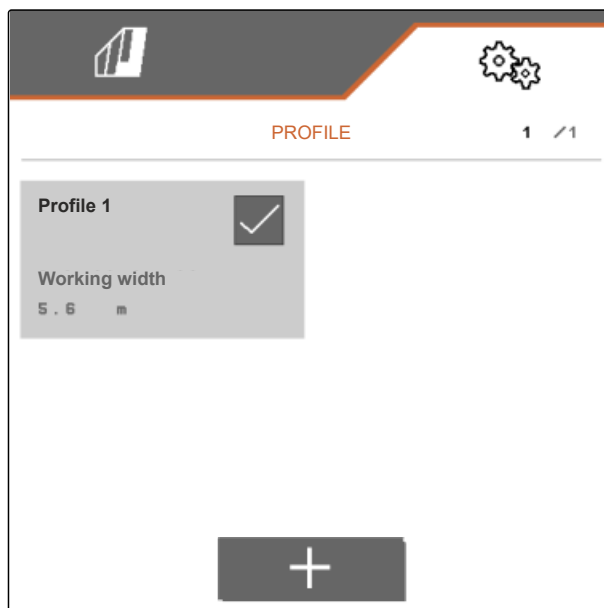


CMS-I-00004309

2. select .

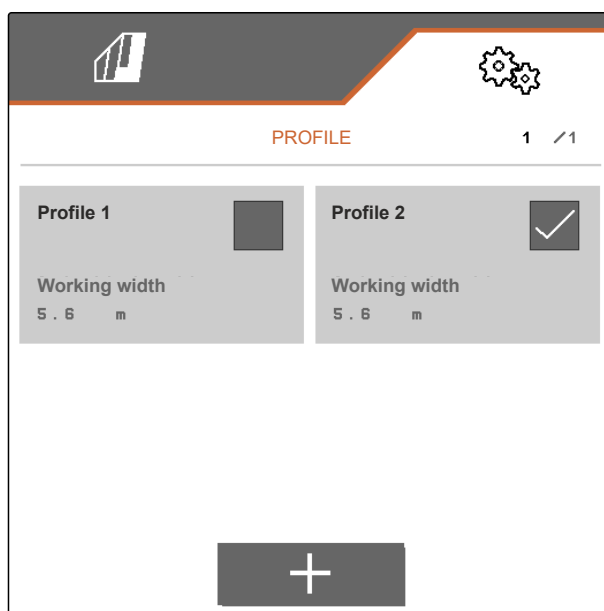
or

Call up an existing profile and select .



CMS-I-00004636


➔ A new profile has been created and activated.



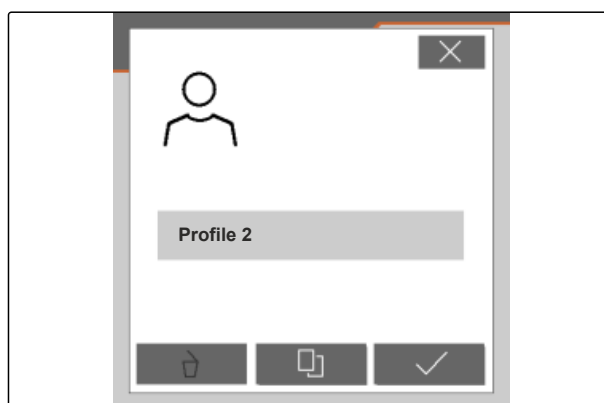
CMS-I-00004637

3. Select the newly created profile.

4. Enter the profile name.

5. Confirm the entry with .

➔ The new profile is named.



CMS-I-00004639

7.2 Activating a profile

CMS-T-00006444-B.1

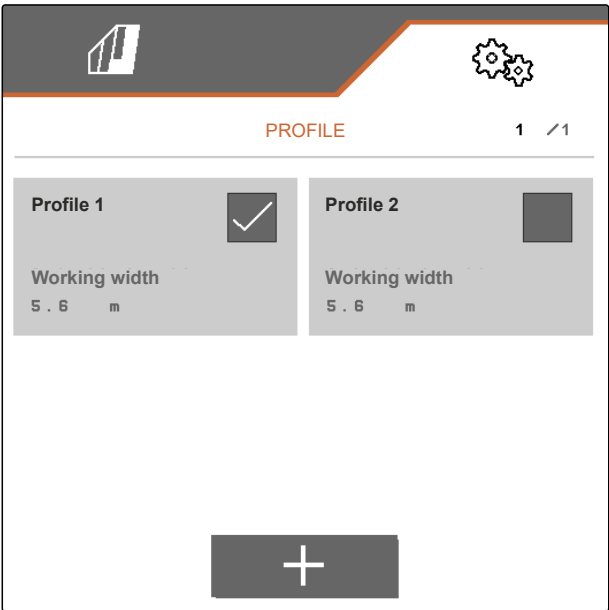
If there is more than one profile, a profile other than the active profile can be activated.

1. At the bottom left of the Field menu, select the button that shows the active profile.



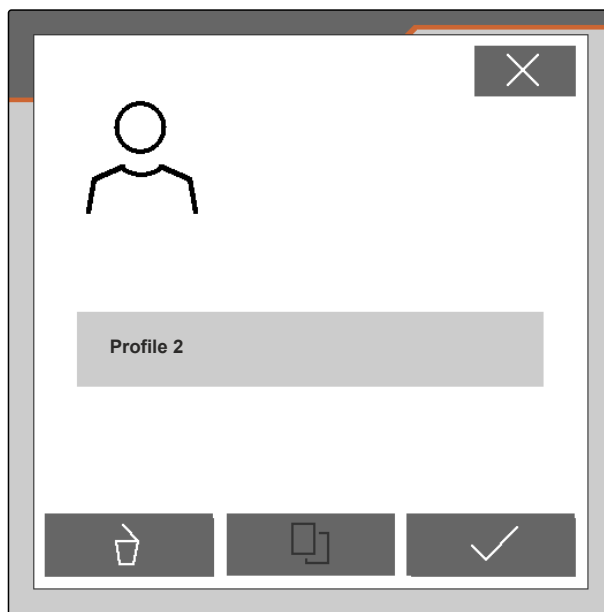
CMS-I-00004309

2. Select the desired profile.



CMS-I-00006010

3. Activate the profile with ✓.

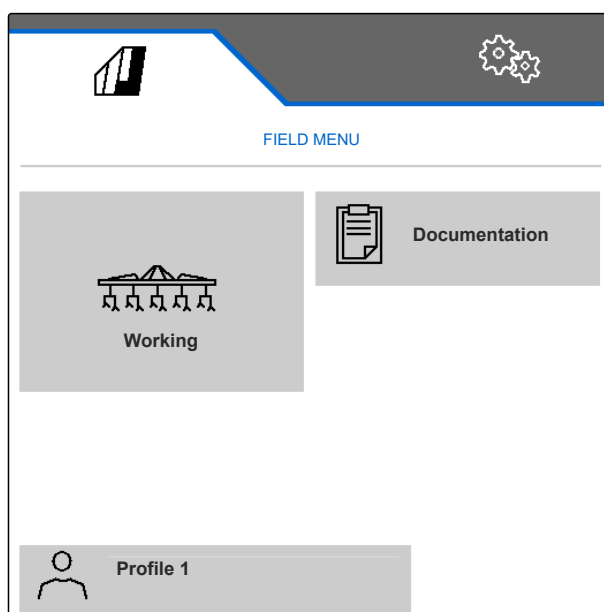


CMS-I-00004641

7.3 Renaming profiles

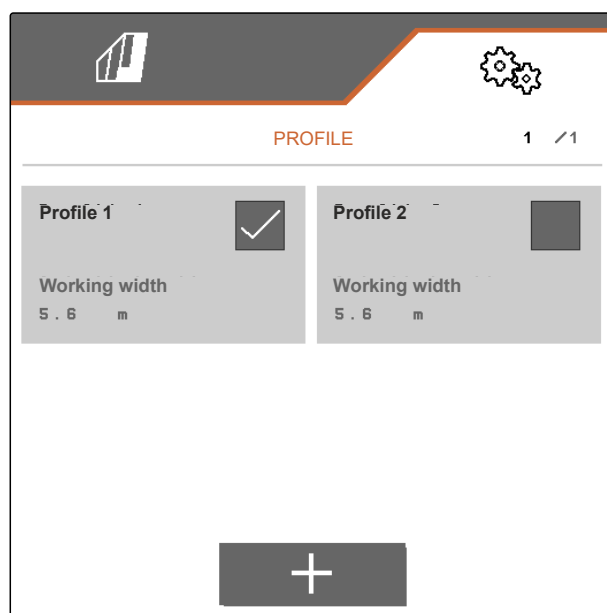
CMS-T-00006583-B.1

1. At the bottom left of the Field menu, select the button that shows the active profile.



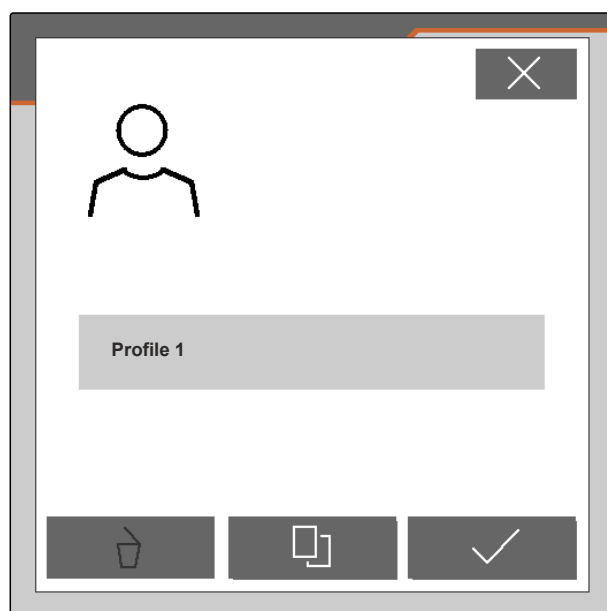
CMS-I-00004309

2. Select the desired profile.



CMS-I-00006010

3. Enter the profile name.
4. Confirm the entry with ✓.



CMS-I-00006011

7.4 Deleting profiles

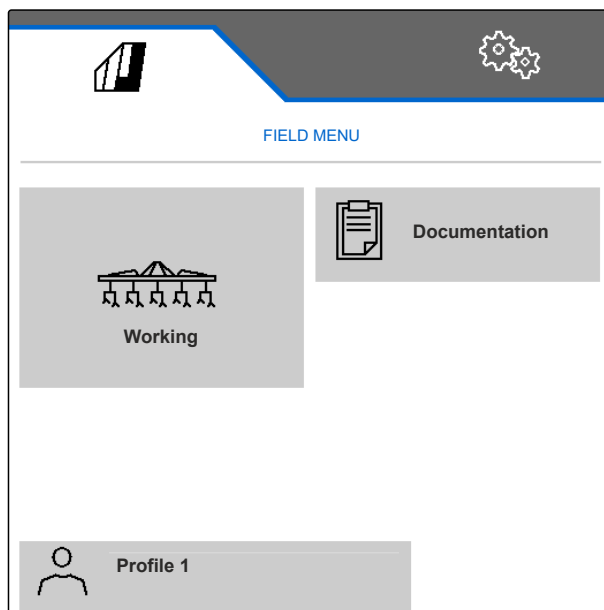
CMS-T-00006585-B.1

Only deactivated profiles can be deleted. A last activated profile must always exist and cannot be deleted.

7 | Managing profiles

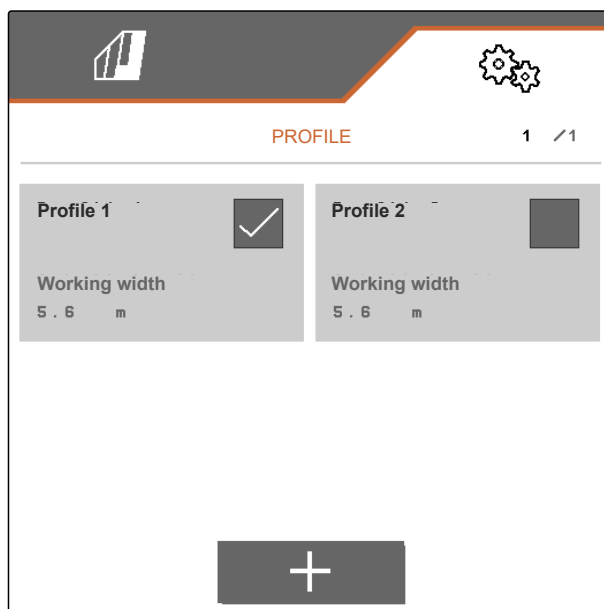
Deleting profiles

1. At the bottom left of the Field menu, select the button that shows the active profile.




CMS-I-00004309

2. Select the desired profile.



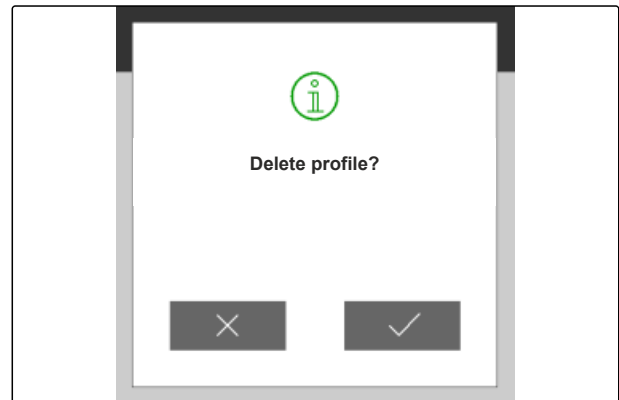
CMS-I-00006010

3. select .



CMS-I-00004641

4. Confirm deleting with .



CMS-I-00004650

Managing and configuring implement profiles

8

CMS-T-00008757-A.1

8.1 Managing implement profiles


CMS-T-00008758-A.1

In an implement profile, all of the settings that apply for a specific implement combination are saved. In the delivery condition, an implement profile has already been configured. The configured implement profile is named "Hoe set 1". A maximum of 4 implement profiles can be created. When a new implement profile has been created, it must then be configured.

1. To call up the implement profile management, in the "Settings" menu, select "Implement" > "Implement profile".

2. select .

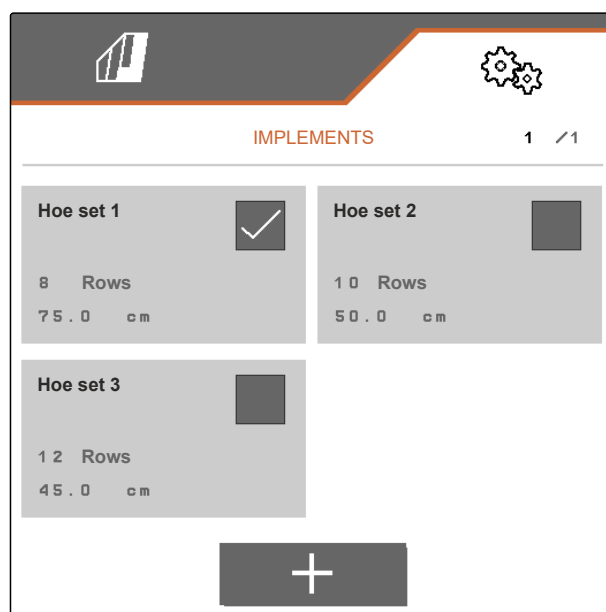
3. To create a new implement profile,

select 

or

To activate, rename or delete an implement profile,

select the desired implement profile from the overview and proceed in the same way as described in the section "Activating a profile", see page 29, "Renaming a profile", see page 30, or "Deleting a profile", see page 31.



CMS-I-00006012

8.2 Configuring an implement profile

CMS-T-00008759-A.1

8.2.1 Adjusting the rows

CMS-T-00008778-A.1


1. As described in the "Managing implement profiles" section, activate the implement profile for which the rows should be adjusted, see page 34.
2. In the "Settings" menu, select "Implement" > "Implement profile".
3. Enter the number of rows under "Number of rows".

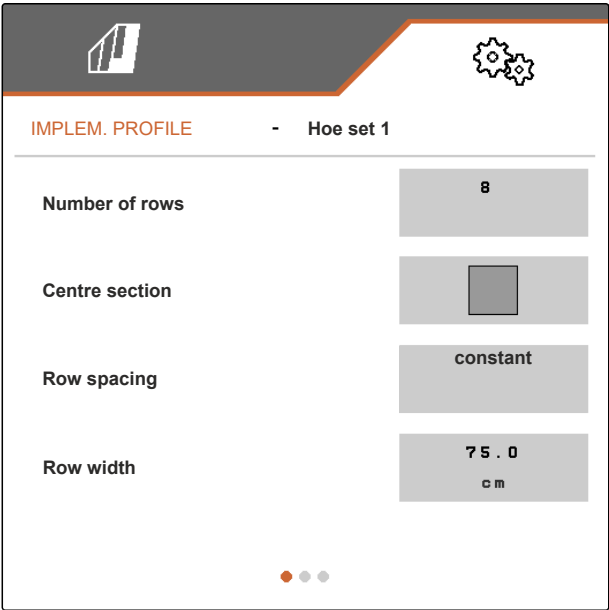
NOTE

The number of rows is always one less than the number of parallelograms installed on the implement.


4. Under "Row spacing", select "Constant" or "Variable".
5. If "Constant" was selected under "Row spacing", enter the value for the row width in cm under "Row width", otherwise continue with the next step.

NOTE


If "Centre section" was activated, the "Row spacing" and "Row width" can be found on the second page of the menu, which can be scrolled to with .

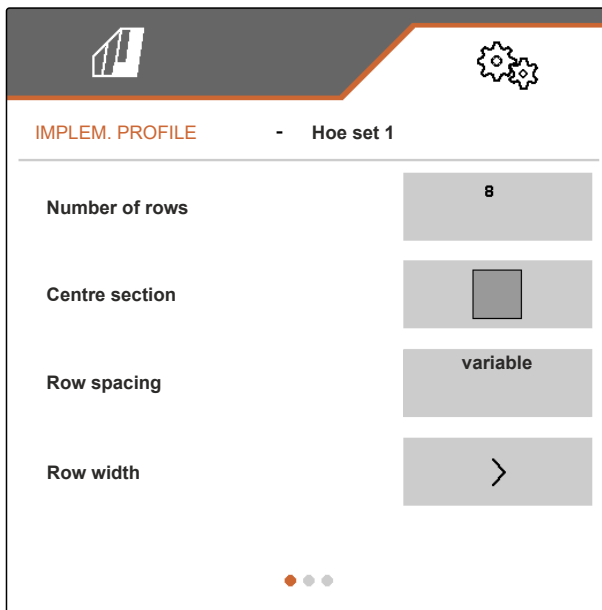


IMPLEM. PROFILE - Hoe set 1



Number of rows	8
Centre section	
Row spacing	constant
Row width	75.0 cm

CMS-I-00006016

6. If "Variable" was selected under "Row spacing",
select  under "Row width".




IMPLEM. PROFILE - Hoe set 1

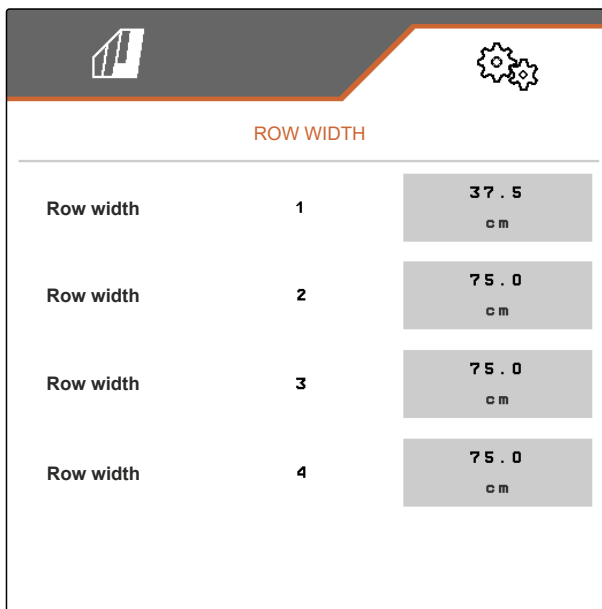
Number of rows	8
Centre section	
Row spacing	variable
Row width	

CMS-I-00006015

7. Under "Row width 1" to "Row width 4", enter the respective values for the row width in cm.

8. If the number entered under "Number of rows" is greater than 3,

scroll to the next page of the menu with .




ROW WIDTH

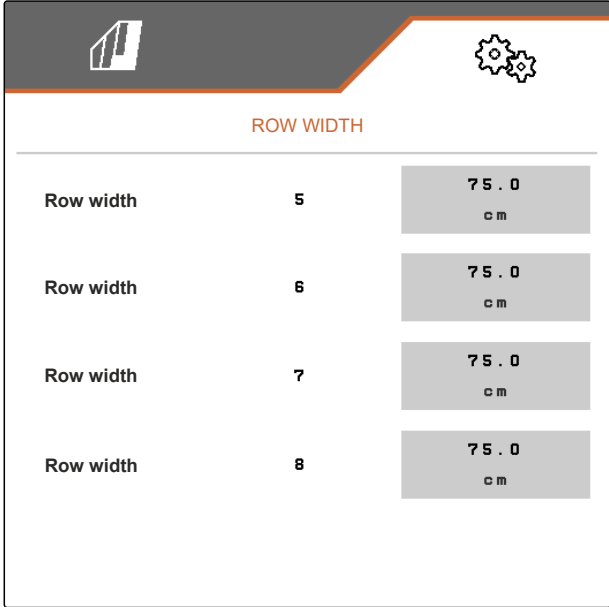
Row width	1	37.5 cm
Row width	2	75.0 cm
Row width	3	75.0 cm
Row width	4	75.0 cm

CMS-I-00006014

9. Under "Row width 5" to "Row width 8", enter the respective values for the row width in cm.

10. If the number entered under "Number of rows" is greater than 7,

scroll in the same way with  and enter the values until all of the row widths have been set.



ROW WIDTH		
Row width	5	75.0 cm
Row width	6	75.0 cm
Row width	7	75.0 cm
Row width	8	75.0 cm

CMS-I-00006013

8.2.2 Activating and adjusting the centre section

CMS-T-00008779-A.1

Activating and adjusting the centre section causes the parallelograms on the centre segment of the implement slide rail not to be or remain lifted when folding the implement, rather they will be or remain lowered. Activation and adjustment must be performed if the hoeing machine belongs to the product types KPP-LSC 6 x 75, KPP-LSC 8 x 75 track 1500, KPP-LSC 12 x 45 or KPP-LSC 12 x 50.

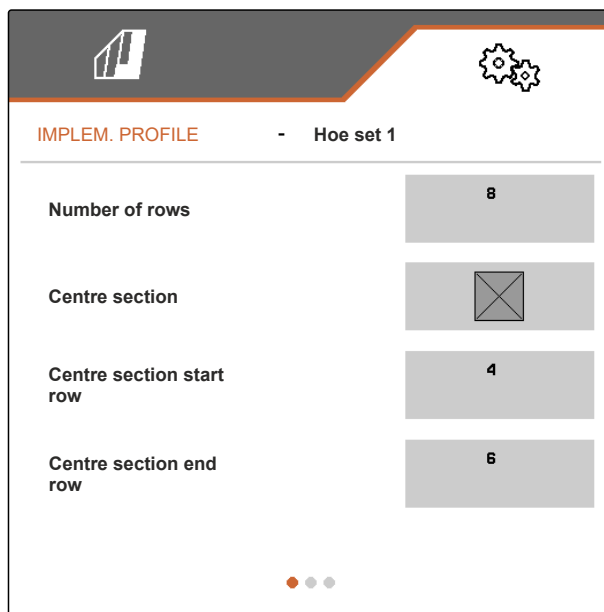
1. If the implement belongs to the product types KPP-LSC 6 x 75, KPP-LSC 8 x 75 track 1500, KPP-LSC 12 x 45 or KPP-LSC 12 x 50, activate the implement profile in which the centre section must be activated and adjusted as described in the "Managing implement profiles" section, see page 34.
2. In the "Settings" menu, select "Implement" > "Implement profile".

3. Activate "Centre section".

➔ The "Centre section start row" and "Centre section end row" will be shown.

4. Under "Centre section start row", indicate the parallelogram that represents the first parallelogram of the centre segment, counting from the outer left in the direction of travel.

5. Under "Centre section end row", indicate the parallelogram that represents the last parallelogram of the centre segment, counting from the outer left in the direction of travel.



CMS-I-00006019


8.2.3 Adjusting the valve setting times

CMS-T-00008799-A.1

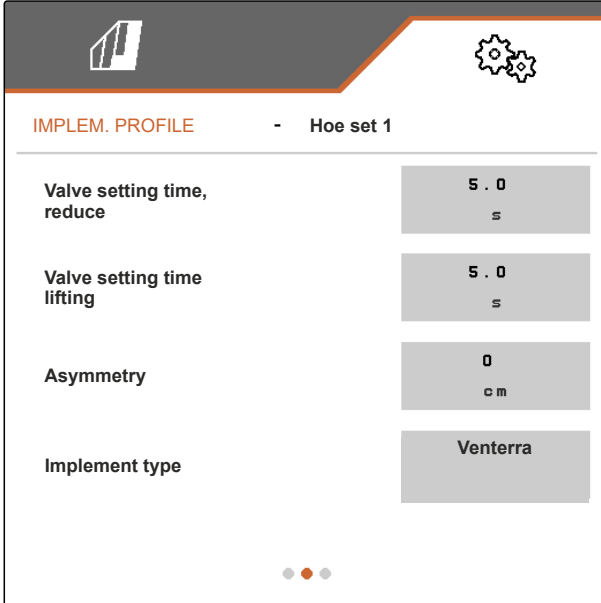
With the valve setting times, an implement equipped with hydraulically lifting parallelograms can be adjusted to the output of the tractor's hydraulic oil pump. The valve setting times control how long the valves of the hydraulic oil lines to the parallelograms remain open after a pulse has been issued to lift or lower the parallelograms. Adjusting the times ensures that the flow of hydraulic oil is maintained until the parallelograms have completely reached the end position when lifting or lowering.

1. As described in the "Managing implement profiles" section, activate the implement profile for which the valve setting times should be adjusted, see page 34.

2. In the "Settings" menu, select "Implement" > "Implement profile".

3. Scroll to the second page of the menu with .

4. *To adjust the valve setting time for lowering the parallelograms,*
enter the value for the time in s under "Valve setting time for lowering".
5. *To adjust the valve setting time for lifting the parallelograms,*
enter the value for the time in s under "Valve setting time for lifting".




CMS-I-00006095

8.2.4 Adjusting the asymmetry

CMS-T-00008870-A.1


If the implement has an asymmetrical layout, the offset of the implement relative to the tractor centre axis must be entered.

1. As described in the "Managing implement profiles" section, activate the implement profile for which the asymmetry should be adjusted, see page 34.
2. In the "Settings" menu, select "Implement" > "Implement profile".
3. *If "Centre section" is not activated on the first page of the menu,*

scroll to the second page of the menu with 

or

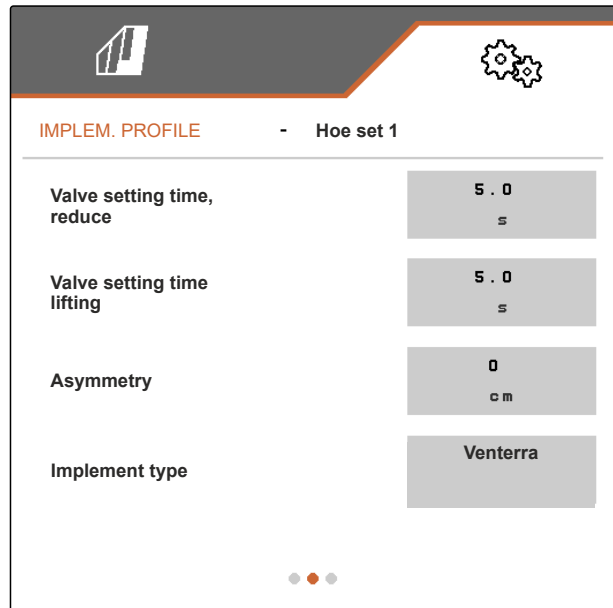
If "Centre section" is activated on the first page of the menu,

scroll to the third page of the menu with .

4. *If the implement is offset to the left of the tractor centre axis viewed in the direction of travel,*
enter the offset to the left with a negative value in cm under "Asymmetry"

or

If the implement is offset to the right of the tractor centre axis viewed in the direction of travel,
enter the offset to the right with a positive value in cm under "Asymmetry".



IMPLEM. PROFILE - Hoe set 1	
Valve setting time, reduce	5.0 s
Valve setting time lifting	5.0 s
Asymmetry	0 cm
Implement type	Venterra


CMS-I-00006095

8.2.5 Setting the implement type

CMS-T-00008871-A.1


In the implement profile, information must be entered about the implement type.

1. As described in the "Managing implement profiles" section, activate the implement profile in which information on the implement type should be entered, see page 34.
2. In the "Settings" menu, select "Implement" > "Implement profile".
3. *If "Centre section" is not activated on the first page of the menu,*

scroll to the second page of the menu with 

or

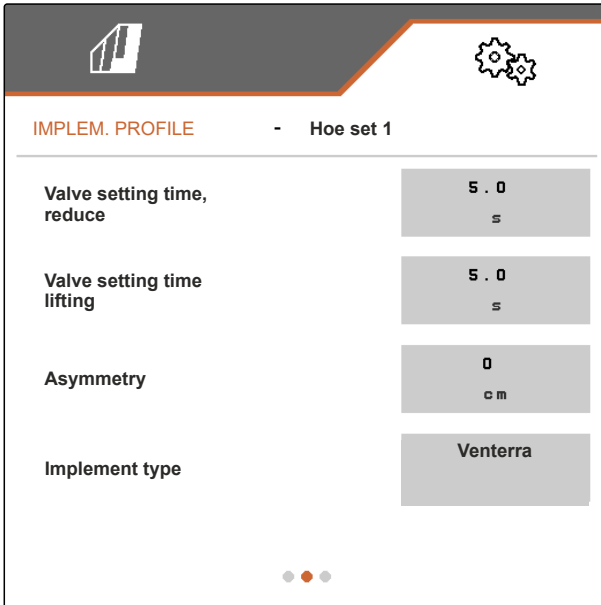
If "Centre section" is activated on the first page of the menu,

scroll to the third page of the menu with .

4. If the implement belongs to the Ventera product type, select "Ventera" under "Implement type"

or

If the implement belongs to the SCHMOTZER product type, select "SCHMOTZER hoeing machine" under "Implement type".




IMPLEM. PROFILE - Hoe set 1

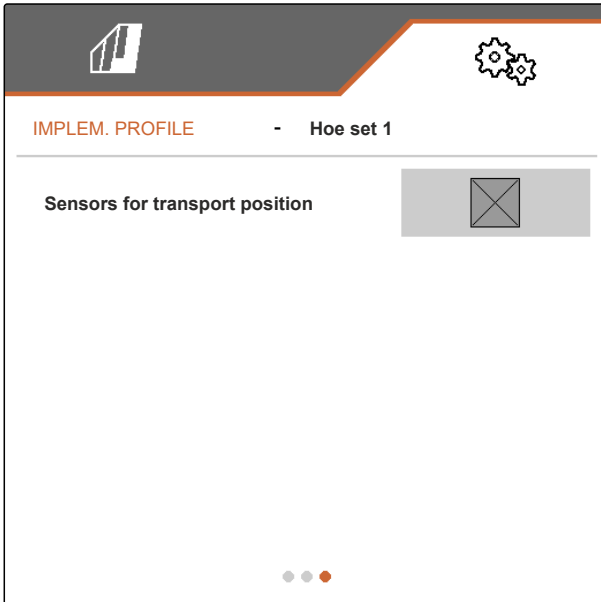
Valve setting time, reduce	5.0 s
Valve setting time lifting	5.0 s
Asymmetry	0 cm
Implement type	Ventera

CMS-I-00006095

5. If the third page of the menu is not yet displayed,

scroll to the third page of the menu with .

6. If the implement belongs to the Ventera product type, activate the "Sensors for transport position" or leave them activated, otherwise deactivate them or leave them deactivated.



IMPLEM. PROFILE - Hoe set 1

Sensors for transport position	<input checked="" type="checkbox"/>
--------------------------------	-------------------------------------

CMS-I-00006096

Working

9

CMS-T-00006287-B.1



9.1 Hoeing

CMS-T-00006063-B.1



REQUIREMENTS


- ✓ Profile is selected, see page 27
- ✓ Settings are made, see page 16
- ✓ Implement profile is selected and configured, see page 34
- ✓ The implement is error free
- ✓ The implement is in working position
- ✓ For Section Control: Section Control is activated on the control terminal

1. In the Field menu, call up "Work".
2. As shown in the following section "Switching parallelograms manually", activate all of the parallelograms that are required for hoeing operation and deactivate all of the parallelograms that are not required for hoeing operation.
3. Move all of the activated parallelograms into working position with  ON/OFF.
4. *If you want to work with Section Control,* switch on Section Control with .
5. Drive at a constant speed.


9.2 Switching the parallelograms manually





CMS-T-00006296-B.1





The parallelograms can be activated and deactivated manually from right to left or from left to right.


The selection of the  button affects the activated and deactivated parallelograms as follows:





- The activated and lifted parallelograms will be lowered simultaneously.
- The activated and lowered parallelograms will be lifted simultaneously.
- The deactivated parallelograms remain lifted.
- When all of the parallelograms of the implement are deactivated and lifted, all of the parallelograms of the implement will be activated and lowered simultaneously.





When the implement was switched on with ,

the selection of the , ,  and  buttons affects the parallelograms as follows:


- By selecting  and , all of the lifted and deactivated parallelograms will be activated and lowered from left to right or from right to left.
- By selecting  and , all of the activated and lowered parallelograms will be lifted and deactivated from left to right or from right to left.

When the implement was switched off with ,

the selection of the , ,  and  buttons affects the parallelograms as follows:


- By selecting  and , all of the lifted and deactivated parallelograms will be activated and remain lifted from left to right or from right to left.
- By selecting  and , all of the lifted and activated parallelograms will be deactivated and remain lifted from left to right or from right to left.

- *To activate the parallelograms from left to right,*

select  in the Work menu


or

To activate the parallelograms from right to left,

select  in the Work menu


or

To deactivate parallelograms from left to right,

select  in the Work menu

or

To deactivate parallelograms from right to left,

select  in the Work menu.

Documenting work

10

CMS-T-00006640-B.1

10.1 Calling up the documentation

CMS-T-00006641-B.1

- In the Field menu, select *"Documentation"*.
- ➔ A table with the values for the active documentation is shown in the menu. The left column shows the total values, and the right column shows the daily values.



NOTE

The worked area is calculated based on the total working width of the implement. Switched-off rows are not taken into account.

The screenshot shows a user interface for 'DOCUMENTATION' with a sub-header 'Documentation 1'. It contains a table with two columns: 'Total' and 'Daily'. The table has two rows: 'Worked area' (represented by a parallelogram icon) and 'Working time' (represented by a clock icon). The values in the table are all '0.0'. There is a button with a right arrow and '0' next to the table.

	Total	Daily
	0.0 ha	0.0 ha
	0.0 h	0.0 h

CMS-I-00004655

Symbol	Meaning
	Worked area
	Working time

10.2 Resetting the daily counter to 0

CMS-T-00000757-C.1

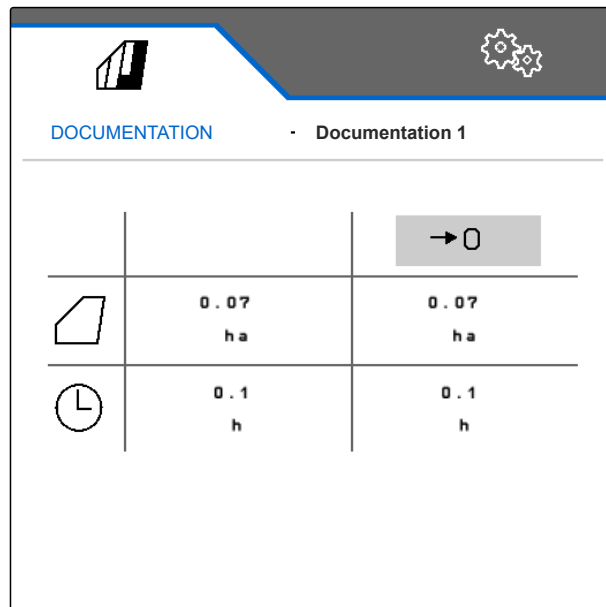
If you want to work on a different field, the daily counter for the documentation can be reset to 0.



NOTE

The total values for the selected documentation are maintained.

1. In the Field menu, select "Documentation".
2. select $\rightarrow 0$.



		$\rightarrow 0$
	0.07 ha	0.07 ha
	0.1 h	0.1 h

CMS-I-00000714

10.3 Managing the documentation

CMS-T-00009445-A.1

The values for the active documentation are shown in the overview. When working with the implement, the values for the active documentation are updated.

1. To call up the documentation management, select "Documentation" in the Field menu.

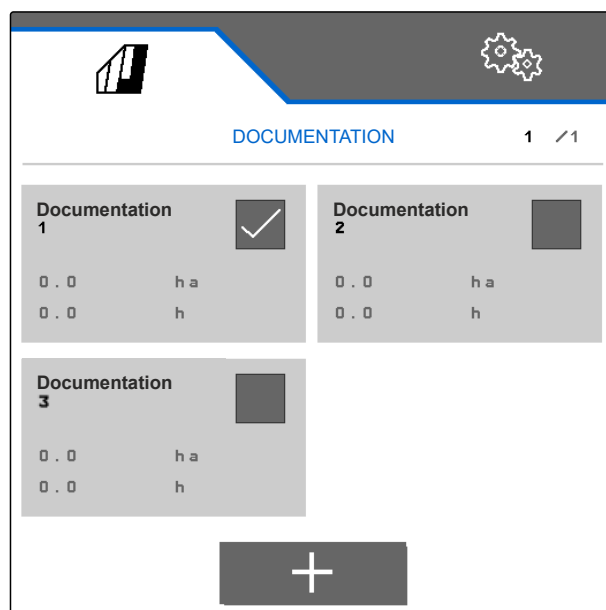
2. select

3. To create a new documentation,

select

or

To activate, rename or delete a documentation, select the desired documentation from the overview and proceed in the same way as described in the section "Activating a profile", see page 29, "Renaming a profile", see page 30, or "Deleting a profile", see page 31.



DOCUMENTATION		1 / 1
Documentation 1		Documentation 2
0.0 ha		0.0 ha
0.0 h		0.0 h
Documentation 3		
0.0 ha		
0.0 h		

CMS-I-00006107

Calling up information

11

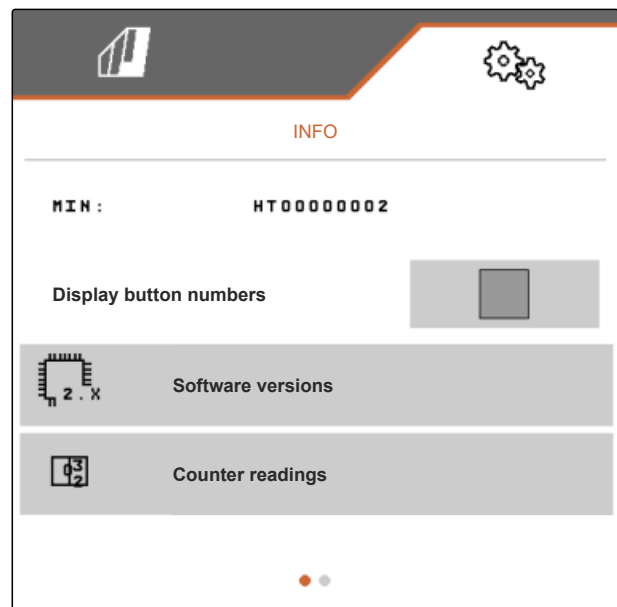
CMS-T-00006324-B.1

11.1 Showing the button numbers

CMS-T-00006437-B.1

The buttons on the button bar can be numbered.
When talking to service technicians on the phone, it is easier to make clear references to the buttons.

1. In the *"Settings"* menu, select *"Service"*.
2. Activate *"Show button numbers"*.



CMS-I-00004622

11.2 Displaying the software versions

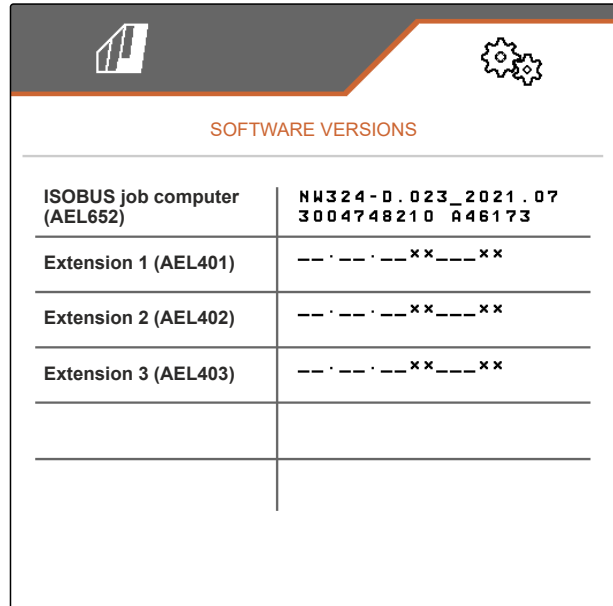
CMS-T-00006436-B.1

The job computers are listed in the left column of the table. In the right column, the software versions installed on the job computers are shown.

11 | Calling up information

Calling up the counter readings for the implement

- In the "Settings" menu, select "Service" > "Software versions".



SOFTWARE VERSIONS	
ISOBUS job computer (AEL652)	NW324-D.023_2021.07 3004748210 R46173
Extension 1 (AEL401)	-- . -- . -- xx -- xx
Extension 2 (AEL402)	-- . -- . -- xx -- xx
Extension 3 (AEL403)	-- . -- . -- xx -- xx

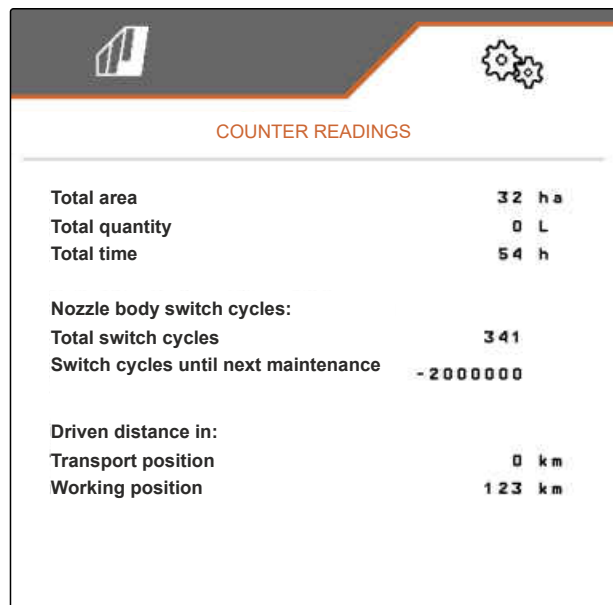
CMS-I-00004623

11.3 Calling up the counter readings for the implement

CMS-T-00006434-B.1

The current total counter readings for the implement can be called up.

- In the "Settings" menu, select "Service" > "Counter readings".



COUNTER READINGS	
Total area	32 ha
Total quantity	0 L
Total time	54 h
Nozzle body switch cycles:	
Total switch cycles	341
Switch cycles until next maintenance	-2000000
Driven distance in:	
Transport position	0 km
Working position	123 km

CMS-I-00004624



11.4 Calling up the error memory

CMS-T-00006435-B.1

The error messages are shown in the error memory.

The error messages are numbered. Beside the error code, the operating hour at which the error occurred is shown.

The error memory can be cleared.

1. In the "Settings" menu, select "Service".
2. Scroll to the second page of the menu with .
3. Select "Call up the error memory".
4. To clear the error memory, select .



Error memory		
ECU operating hours:		7 : 31
The last 50 messages are saved. For information on the error number, refer to the operating manual.		
No.	Error code	Operation. hours
01	F1 5223	7 : 27
02	F1 0000	0 : 00
03	F1 0000	0 : 00
04	F1 0000	0 : 00
05	F1 0000	0 : 00
06	F1 0000	0 : 00
07	F1 0000	0 : 00
08	F1 0000	0 : 00
09	F1 0000	0 : 00
10	F1 0000	0 : 00

CMS-I-00004625

11.5 Displaying the ISOBUS network

CMS-T-00006433-B.1

All of the participants in the ISOBUS network can be determined and displayed.

1. In the "Settings" menu, select "Service".
2. Scroll to the second page of the menu with .
3. Select "ISOBUS network".
4. To update the list of participants, select .

ISOBUS network			
These participants were detected in the ISOBUS:			
Adr.	Function	Manufacturer	No.
85h	Weeder	Schmotzer	1
F2h	Non Virtual Term.	AMAZONE	2
F0h	Tractor ECU	AMAZONE	1
F7h	Task Controller	AMAZONE	1
26h	Virtual Terminal	AMAZONE	1
81h	Key Pad	AMAZONE	1

CMS-I-00004626

Troubleshooting

12

CMS-T-00006567-B.1

Error code	Errors	Cause	Solution
F15006	After exiting the diagnosis mode, all automatic functions are reactivated! Move away from the implement!	Exiting the diagnosis mode.	▶ None required.
F15040	The source selected for the forward speed is not available! Select an existing source!	The previously used source for the speed signal is no longer available.	▶ Select a different available source for the speed signal.
F15086	Section Control cannot be activated!	The preconditions for activating Section Control have not been met.	▶ Check if the implement is activated. ▶ Check if Section Control is activated on the terminal. ▶ Check if working position sensor works properly. ▶ Check if the GPS signal is available.
F15093	Supply voltage not reached	Pre-tension is too low.	▶ Check battery voltage of the tractor. ▶ Check wiring to the implement.
F15156	Hoe set working position sensor has failed!	No signal available from the working position sensor for the working position on the hoeing machine.	▶ Check whether the signal light on the working position sensor is lit when the implement is folded. ▶ Check the wiring harness on the working position sensor. ▶ Check the working position sensor.

Error code	Errors	Cause	Solution
F15157	Hoeing set transport position sensor has failed!	No signal available from the transport position sensor for the transport position on the hoeing machine.	<ul style="list-style-type: none"> ▶ Check whether the signal light on the transport position sensor is lit when the implement is folded. ▶ Check the wiring harness on the transport position sensor. ▶ Check the transport position sensor.
F15191	Check the working position sensor!	No signal available from the working position sensor on the sliding frame.	<ul style="list-style-type: none"> ▶ Check whether the previously selected signal source is available. ▶ Check the wiring harness on the working position sensor on the sliding frame. ▶ Check the working position sensor on the sliding frame.
F15220	Job computer extension unit 1 has failed!	Communication with the extension computer 1 has been interrupted.	<ul style="list-style-type: none"> ▶ Check the extension wiring harness. ▶ Restart the implement.
F15221	Job computer extension unit 2 has failed!	Communication with the extension computer 2 has been interrupted.	<ul style="list-style-type: none"> ▶ Check the extension wiring harness. ▶ Restart the implement.
F15222	Job computer extension unit 3 has failed!	Communication with the extension computer 3 has been interrupted.	<ul style="list-style-type: none"> ▶ Check the extension wiring harness. ▶ Restart the implement.
F15223	Implement is not completely folded. Check the condition of the implement.	The implement has not reached the transport position.	<ul style="list-style-type: none"> ▶ Check whether the implement is completely folded. ▶ Check whether the transport position sensor switches. If this is the case, the LED is lit.
F15224	Road travel detected, implement is automatically deactivated.	Activated implement is moving faster than 20 km/h.	<ul style="list-style-type: none"> ▶ Drive slower.

Appendix

13

CMS-T-00006438-B.1

13.1 Other applicable documents

CMS-T-00006441-B.1

- Operating manual of the hoeing machine
- Operating manual of the control terminal
- Operating manual of the sliding frame

Directories

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