



CR7/CR12 QUICK START GUIDE

116-8000-017 REV. B2

User manual



DISCLAIMER

WARNING!

- The safety instructions contained in the manuals of the tractor or implements must be complied with at all times.
- Always switch off the tractor before installing or repairing hydraulic and electrical components of the SBGuidance system.
- It is strictly prohibited to use the CR7/CR12 system on public roads.
- It is strictly prohibited to leave a driving vehicle unattended when the CR7/CR12 system is switched on. The driver is always responsible for the direction and course of the vehicle.
- To prevent injury or fire, replace defective fuses only with fuses of the same type and amperage.
- The SBGuidance the operating system is not able to detect and avoid obstacles. If there is an obstacle in your path, you will always need to take action for it to be avoided.
- Only allow authorized/qualified persons to operate the system. Authorized/qualified persons are defined as: persons who have read and understood the manual, have been given instructions by a product specialist, and who are both physically and mentally fit and able to operate the system.
- The system contains moving parts! Make sure the immediate environment is clear of people before operating the system.
- In case of system failure or breakdown switch of the tractor and disconnect the electrical power source to avoid further damage. Contact your dealer for further instructions on how to repair your system.
- Always wear personal protective equipment when operating/adjusting/repairing the system outside of the tractor cab.
- In order to prevent power surges from occurring, always start the machine first, before initiating the SBGuidance control system.

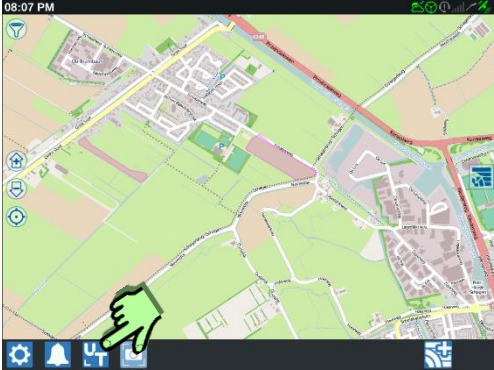
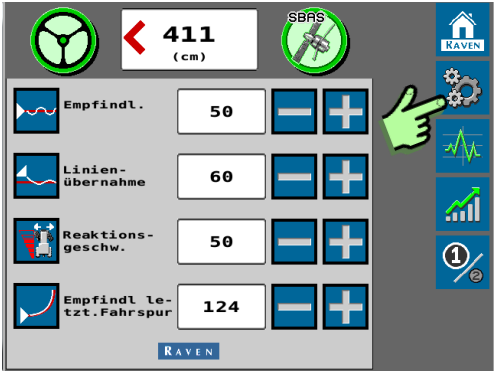
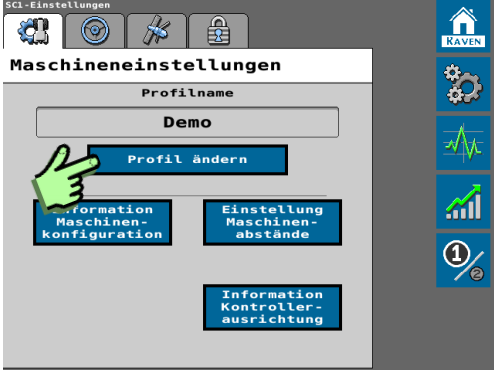
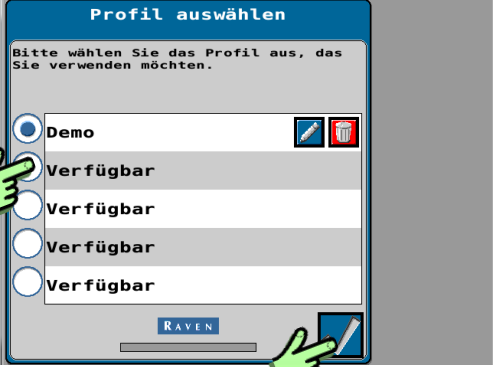
PAY ATTENTION!


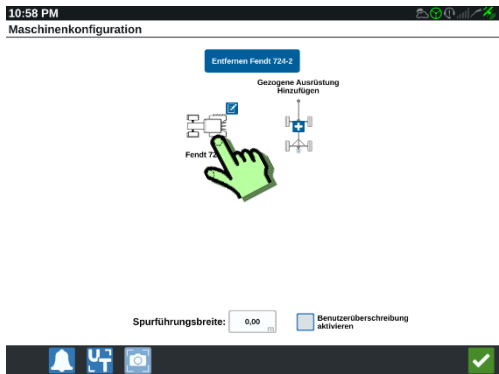
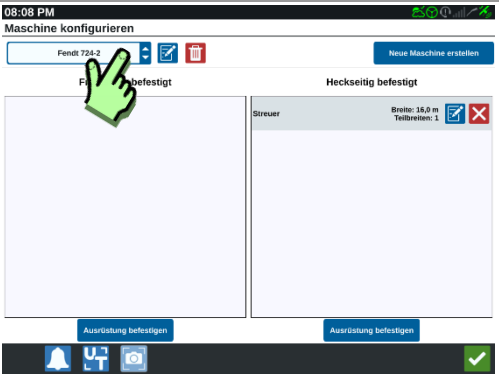
- Only touch the touch-screen with your finger or by using a special touch-screen stylus/pen. Operating the touch-screen with sharp objects may cause permanent damage to the screen.
- Always consult your supplier as to which products are best suited first before cleaning the touch-screen with chemicals or alcohol.
- If the terminal is not used for a long period, better remove the terminal from the tractor and store in a heated environment. This will extend the life span of the electronic components.
- To prevent theft, it is better to not let the terminal and GPS-antenna unattended in the tractor on the field.

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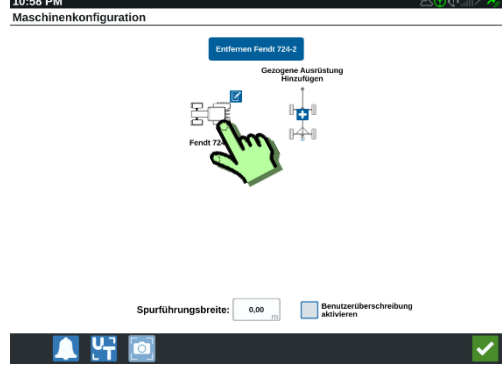
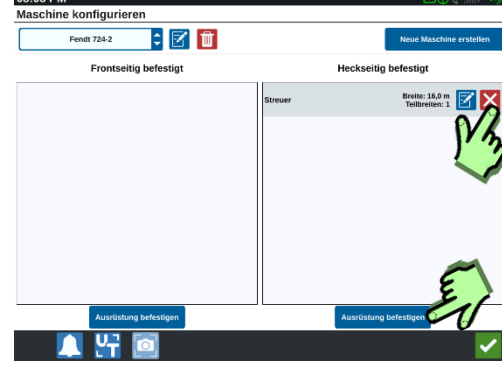

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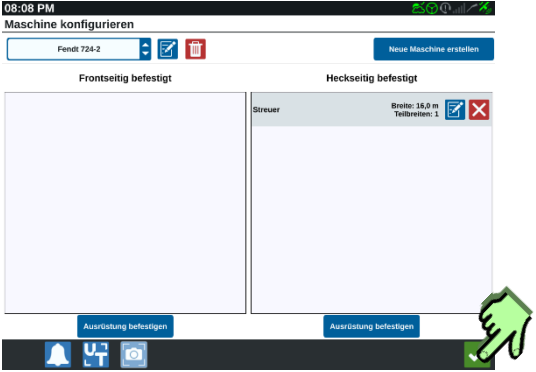
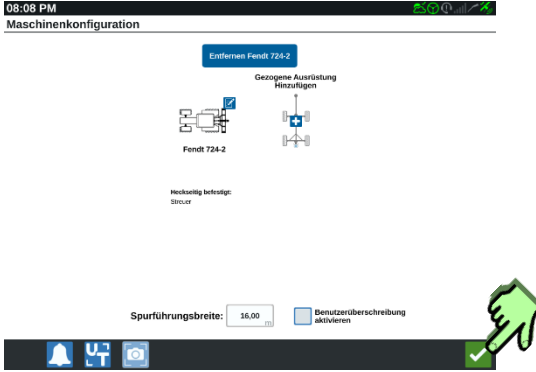

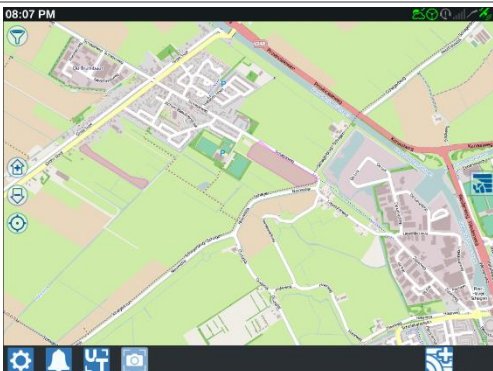
1 HOW TO CHANGE BETWEEN DIFFERENT TRACTORS

#	Beschrijving	Afbeelding
01	If the tractor profile has to be changed. Open the UT with the the UT widget.	
02	Press the gear icon. "Machine settings".	
03	Press the bar: change profile.	
04	When you have selected the correct profile, confirm the chosen profile by pressing the checkmark. It is possible that the antenna will be restarted. The UT can be closed by pressing the green checkmark at the bottom left.	

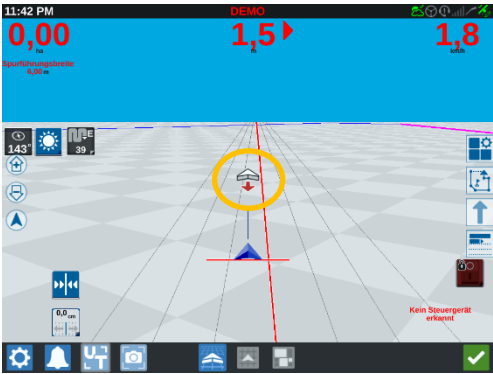
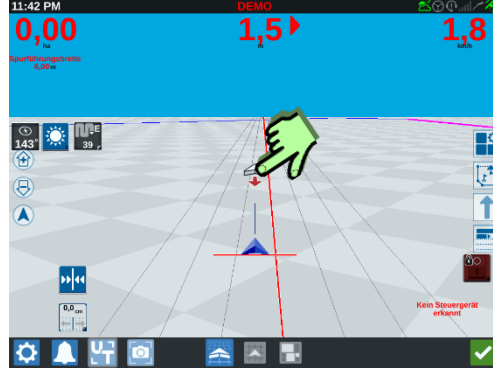
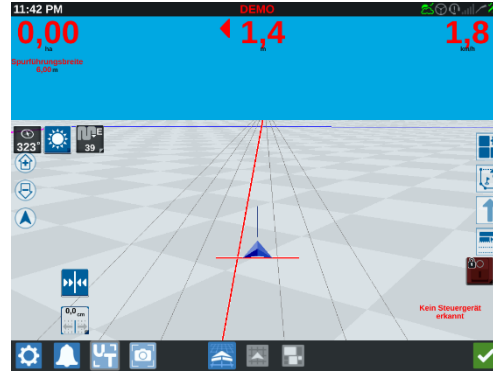
<p>05</p>	<p>Press settings (the gear icon at the bottom left), and then press Machine (the tractor icon).</p>	
<p>06</p>	<p>Press the configured tractor. A different type of machine must also be loaded inside the machine garage.</p>	
<p>07</p>	<p>Select the correct tractor from the dropdown menu.</p>	

2 SELECT IMPLEMENT


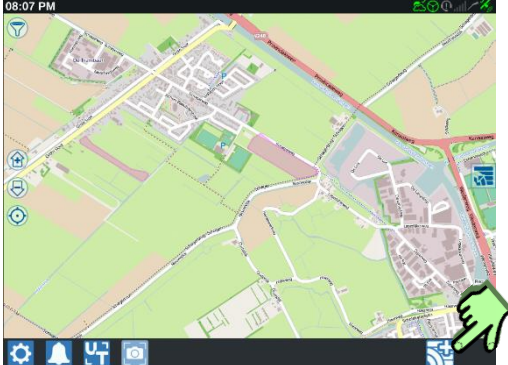
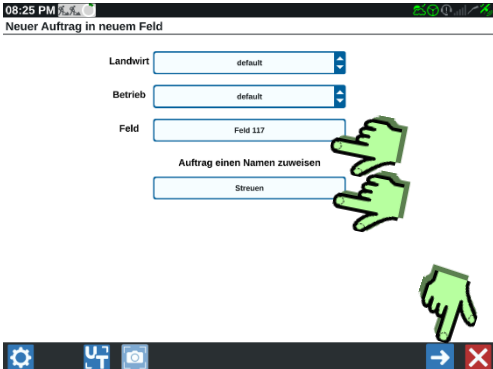
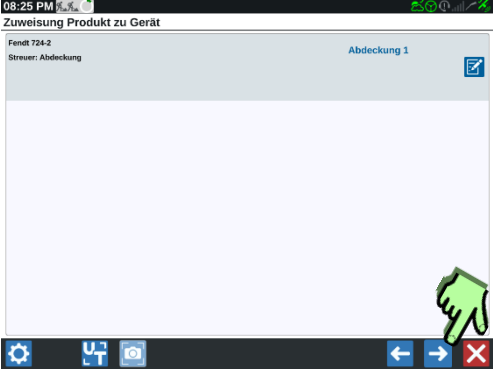
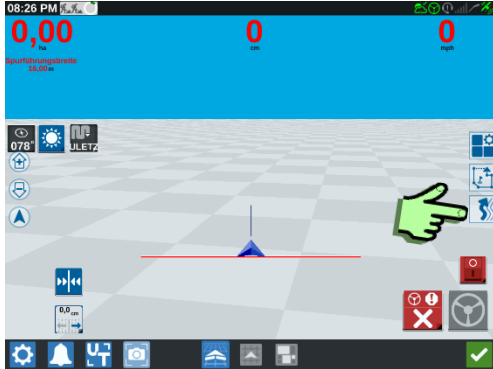
#	Beschrijving	Afbeelding
08	<p>Press settings (the gear icon at the bottom left), and then press Machine (the tractor icon).</p>	
09	<p>Press the configured tractor. A different type of machine must also be loaded inside the machine garage.</p>	
10	<p>There are two options, front and rear mounted implements. An overview is provided over the current mounted implemts. To unmount a mounted machine: Press the red cross behind the machine.</p> <p>At the bottom of both sections is a button "mount equipment". Press it to mount the equipment on the desired side. Multiple implements can be mounted.</p>	
11	<p>After pressing the mount equipment button it is possible to switch between the already created machines. Select the machine you want and confirm with the green check mark at the bottom right.</p> <p><i>If a new machine needs to be created; press "create new equipment"</i></p>	

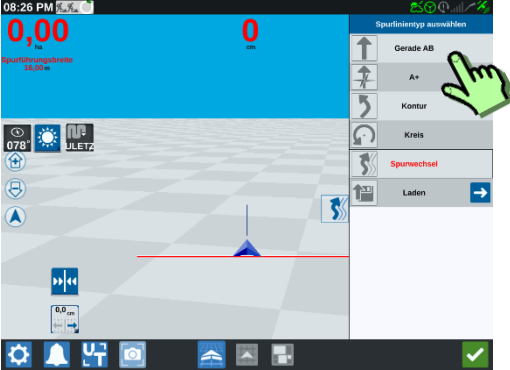
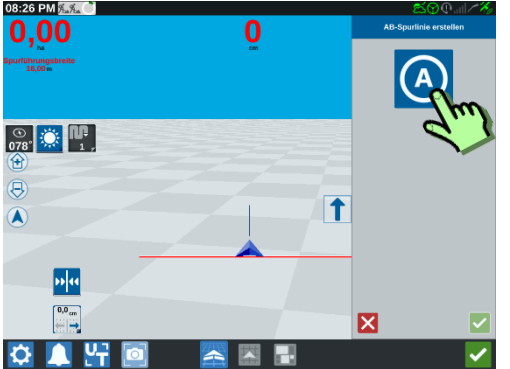
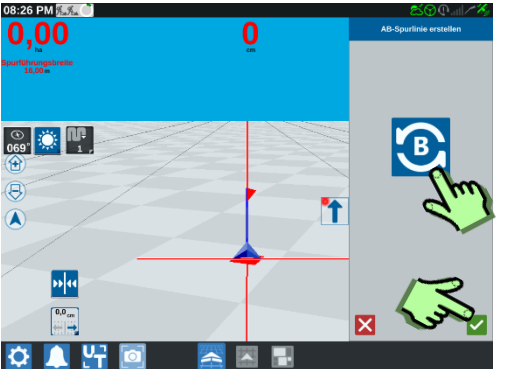
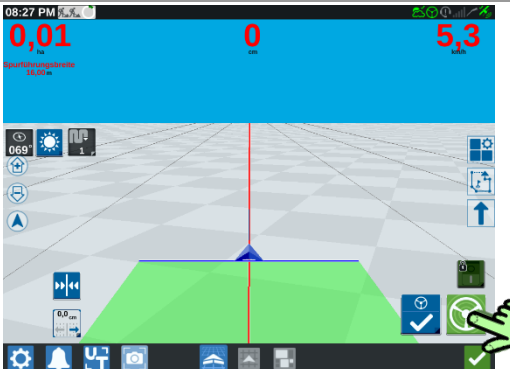
	<p><u>Note:</u></p>	
<p>12</p>	<p>Currently the “spreader” is mounted with a working width of 16 meters divided in one section. Working width is the distance that will be created between the various guidance lines. Press the green checkmark finish the configuration.</p>	
<p>13</p>	<p>An overview of the current selected tractor and implement is provided. Press the green check mark to confirm.</p>	
<p>14</p>	<p>The machine has been configured, press the green check mark again to return to the main screen.</p>	
<p>15</p>	<p>New lines (AB Lines): Chapter 4</p> <p>Loading field: Chapter 6</p> <p>New Field (create boundaries): Chapter 10</p>	

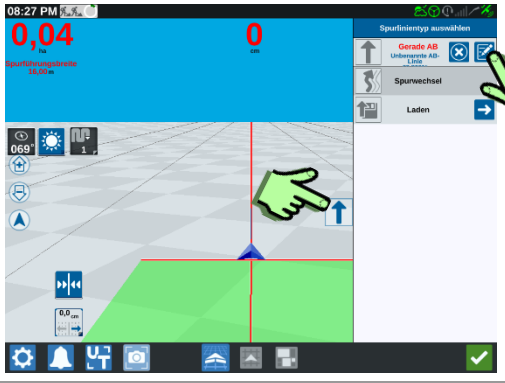
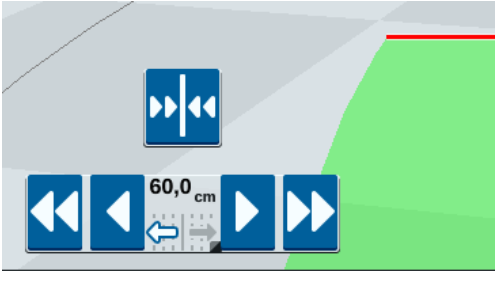
3 DRIVE DIRECTION

#	Beschrijving	Afbeelding
16	<p>It is possible that the direction is not recognized correctly (forwards/backwards).</p> <p>You can recognize it by the white arrow that appears in the middle of the screen.</p>	
17	<p>When driving forward and the white arrow is visible (the system thinks you are driving backwards) press as you drive forward on the white arrow and it will disappear.</p>	
18	<p>The white arrow is gone, the system knows the correct direction of driving again.</p>	
19	<p><u>Note:</u></p>	

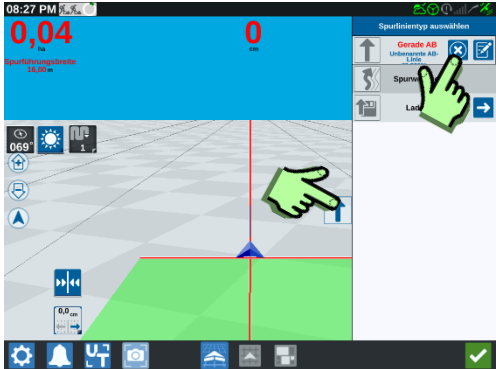
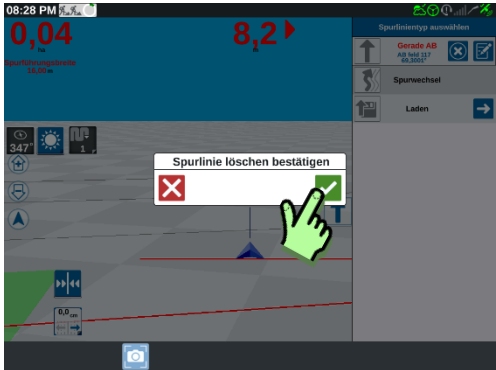
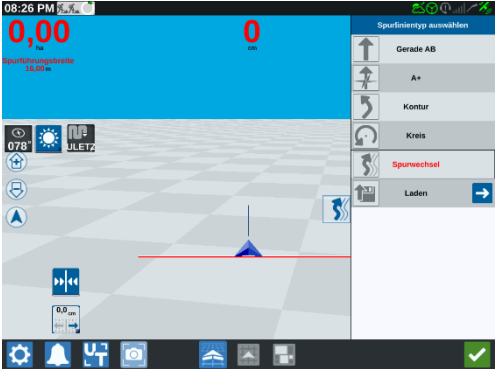
4 NEW FIELD + CREATE NEW LINE

#	Beschrijving	Afbeelding
20	<p>Press on icon: "New field + New line".</p> <p>When the list of fields is open, first close it. After this the icon will appear.</p> 	
21	<p>Enter a field name, task can also be renamed (Field name + current date and time is the default name).</p> <p>Press to next page.</p>	
22	<p>An overview of the tractor and attached machine.</p> <p>Press to next page.</p> <p>If the machine configuration is not correct; Reference back to Chapter 2.</p>	
23	<p>Now we've created a new field. A new guidance line can now be created by pressing "lines".</p>	

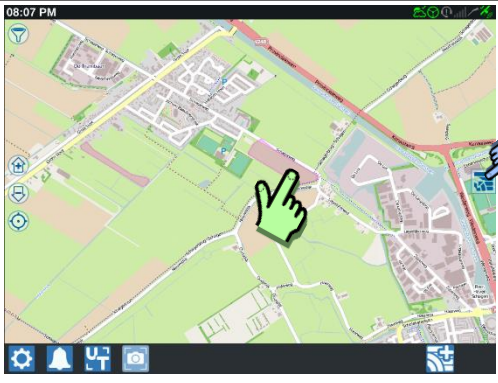



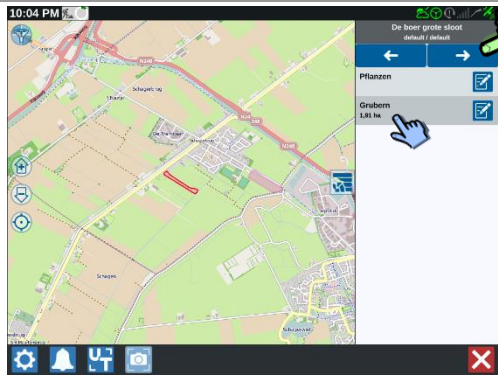
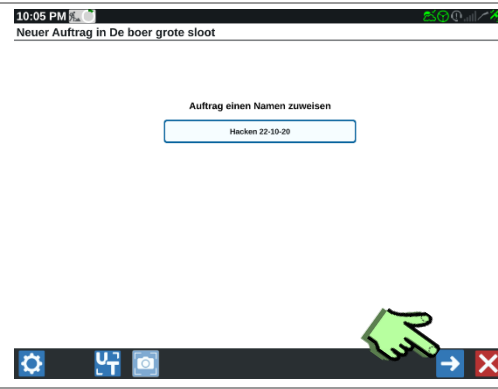
	<p><u>Note:</u></p>	
<p>24</p>	<p>Now press AB line, to create an A-B line.</p> <p><i>Press A+ to enter an existing direction.</i></p> <p><i>Press on Curve when you want to create a bend or pendulum.</i></p>	
<p>25</p>	<p>Press "A" when you want to set the A point.</p>	
<p>26</p>	<p>Drive to the other side of the field, press "B" when you want to set the B point.</p> <p>After pressing "B", press the green check mark this will confirm your line.</p>	
<p>27</p>	<p>Automatic steering can now be activated by pressing the steer icon.</p>	

<p>28</p>	<p>It is still possible to name the A-B line, making it easy to find and load later.</p>	
<p>29</p>	<p>Change the position of the line (shift or center the line).</p>	

5 ADD SECOND LINE OR ADD MULTIPLE LINES

#	Beschrijving	Afbeelding
30	<p>Open the tab "lines" (press the arrow on the right, then the tab opens).</p> <p>Deactivate the loaded line by pressing the X.</p>	
31	<p>Don't worry, the line won't be deleted.</p> <p>By confirming, the line is deactivated and saved. Go back to "load" to use the line again.</p>	
32	<p>Now create desired line. (AB, A+, Curve).</p>	
33	<p><u>Note:</u></p>	

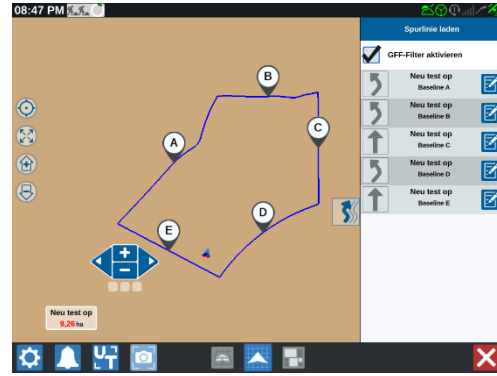
6 LOAD FIELD

#	Beschrijving	Afbeelding
34	<p>Simply press an existing field on the map in the background.</p> <p>Or</p> <p>Open via the overview of all fields and press the desired field.</p>	
35	<p>Tip! By pressing the filter, the order of the fields can be changed. (distance= the closest field will be the first in the list).</p>	
36	<p>Now you will see an overview of the existing tasks in the desired field.</p> <ul style="list-style-type: none"> • Create a new task in the existing field; press the right arrow.  • Continue in existing task; then press the open task.  	
37	<p>When a new task is chosen, you can also rename that task.</p> <p>Press the indicated arrow.</p>	



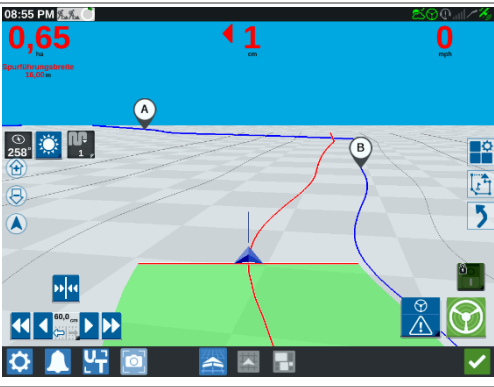
	<p><u>Note:</u></p>	
<p>38</p>	<p>An overview of the tractor and the attached implement is provided.</p> <ul style="list-style-type: none"> Is the implement correct? Then move on. Is the implent wrong? Then go back to machine garage. (Chapter 2). 	
<p>39</p>	<p>Task is loaded, we are now in the field.</p> <p>A guidance line can now be created, press the "line" icon to continue.</p>	
<p>40</p>	<p>Press "load" if you want to use previously created lines.</p> <p>Create new line » chapter 4 step 24.</p>	
<p>41</p>	<p>Load line (Field boundary, AB, A+, Curve).</p>	

42






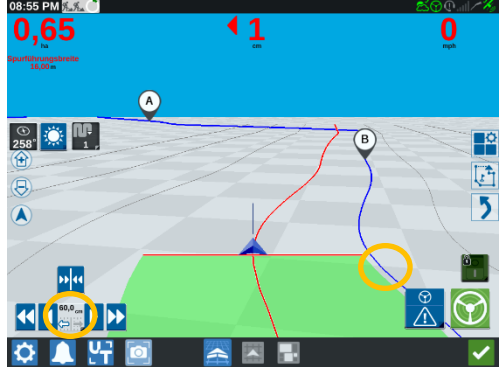
Select the region you want to base your guidance lines off.



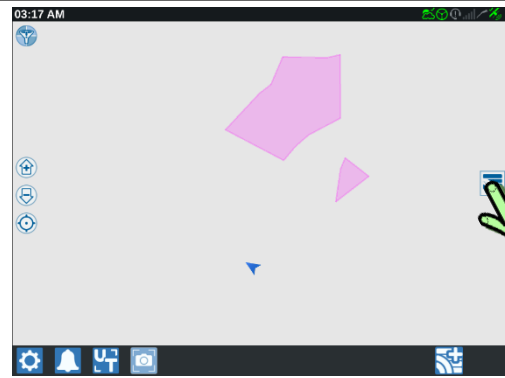
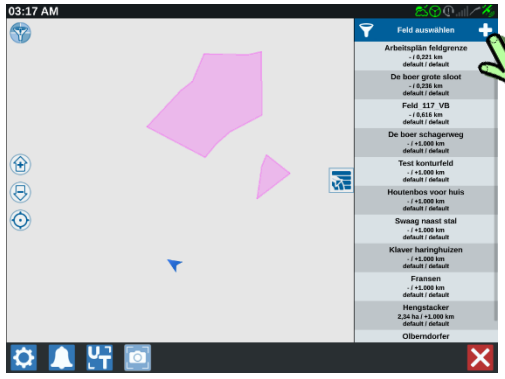

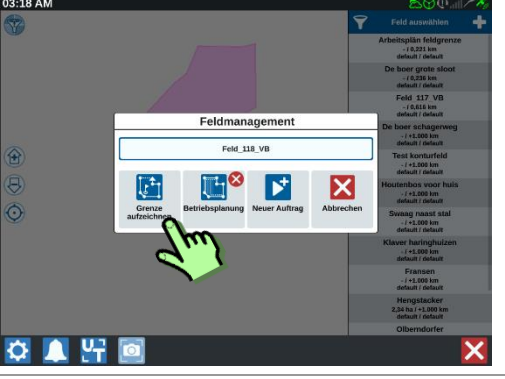
7 SWITCHING BETWEEN THE LINES

#	Beschrijving	Afbeelding
43	<p>To switch between existing operation lines (e.g. from edge line to headland line) Press the line icon. </p> <p>And then on "load". </p>	
44	<p>Select the guidance line.</p>	
45	<p>The desired line will be loaded.</p>	
	<p><u>Note:</u></p>	

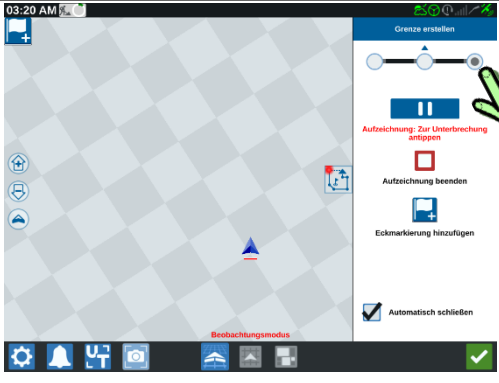
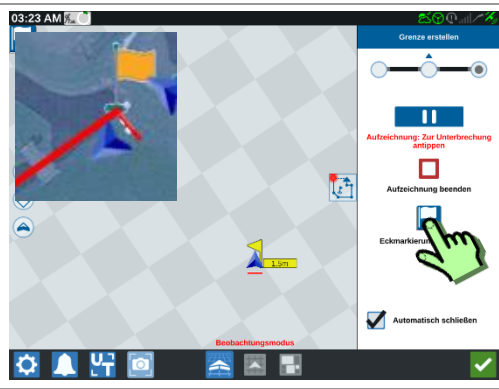
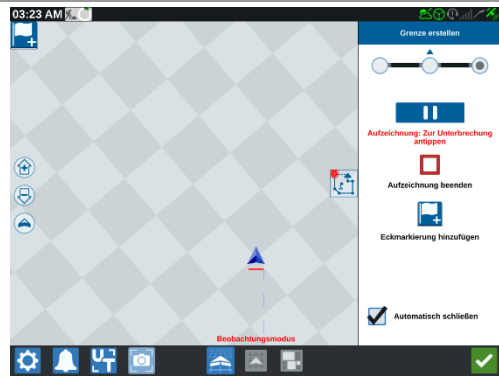

8 SHIFT THE POSITION OF THE LINE

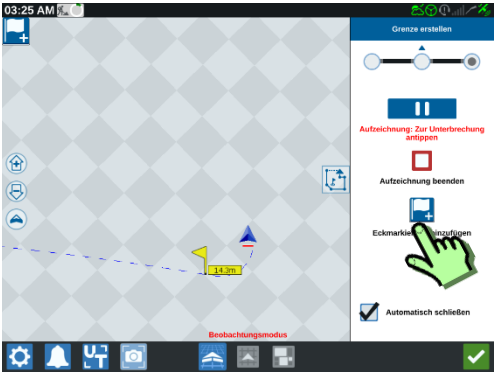

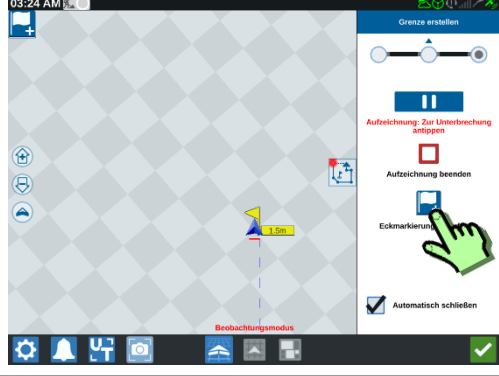
#	Beschrijving	Afbeelding
46	<p>Two ways to change the line position.</p> <ol style="list-style-type: none"> Shift with a set distance. Left or right (example 10cm).  Line centering: guidance line will be placed directly underneath the machine.  	
47	<p>If you want to change the distance the line needs to be shifted (example from 10cm to 20cm), press and hold the icon.</p>	
48	<p>Now set the desired values and then confirm with the green check mark.</p>	
49	<p>The center of the widget displays the distance the guidance line has been shifted from the original line.</p>	

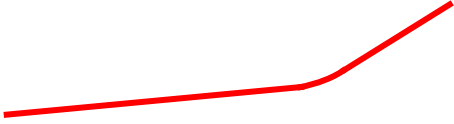
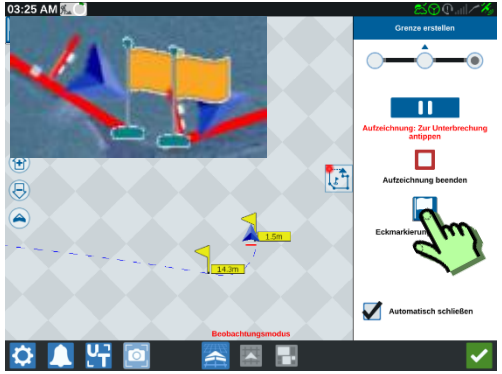
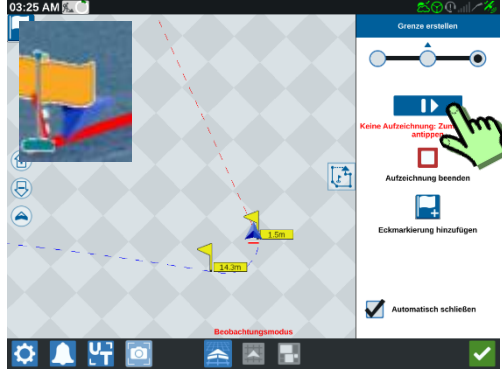
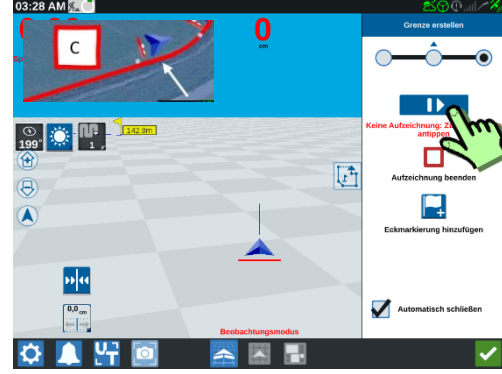
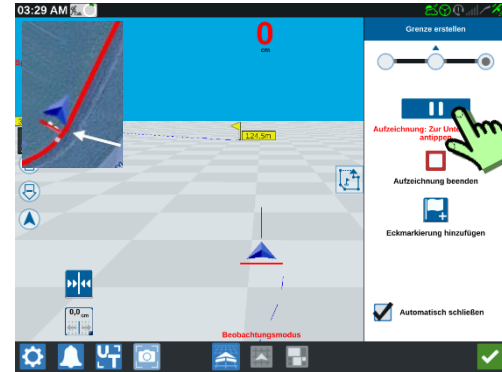
9 NEW FIELD: RECORD FIELD BOUNDARY

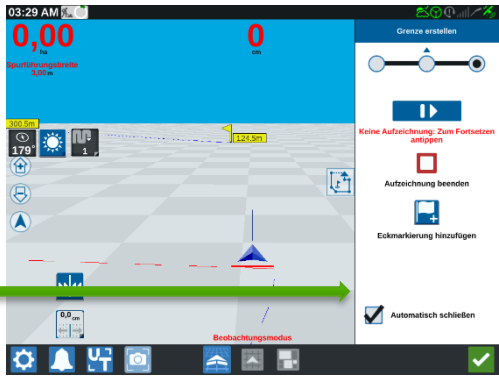
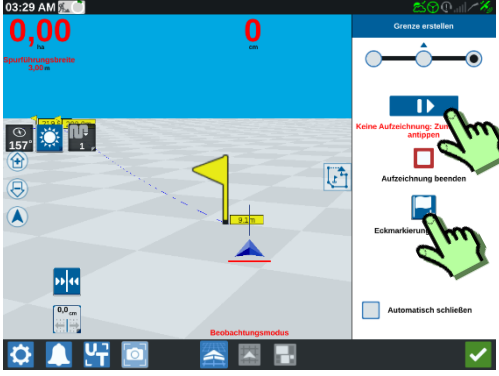
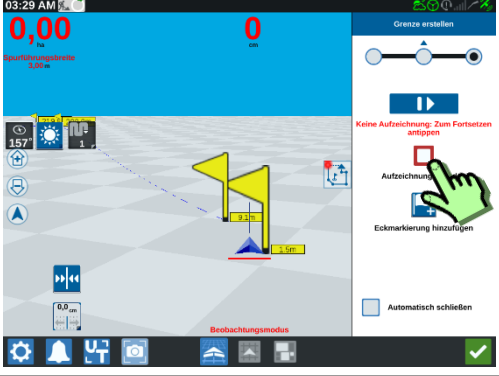
#	Beschrijving	Afbeelding
50	Press "fields".	
51	Press "+".	
52	Give the field a name and confirm this.	
53	Press "record field boundary".	



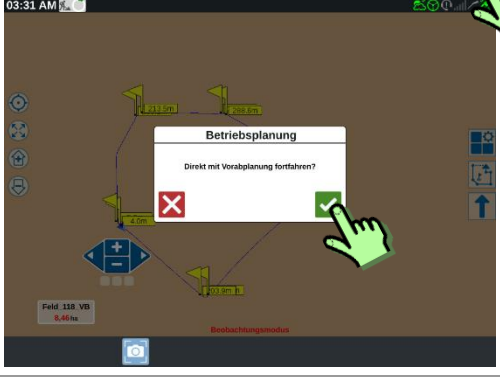
10 RECORD FIELD BOUNDARY

#	Beschrijving	Afbeelding
54	<p>Choose on which side of the machine the field boundary should be recorded.</p> <p>The size of the implement is used as guidance width. Is the right implement mounted? See chapter 2.</p> <p>Also see the example of a field chapter 16.</p>	
55	<hr style="border: 2px solid red; width: 350px; margin-bottom: 10px;"/> <p>Select the side on which the field boundary should be recorded.</p> <p>Drive to the first corner of the field and press "add corner flag".</p>	
56	<p>Now drive to the other side of the field until the end of the boundary.</p> <p>Without pressing anything!</p>	
57	<p>At the end press "add corner flag".</p>	

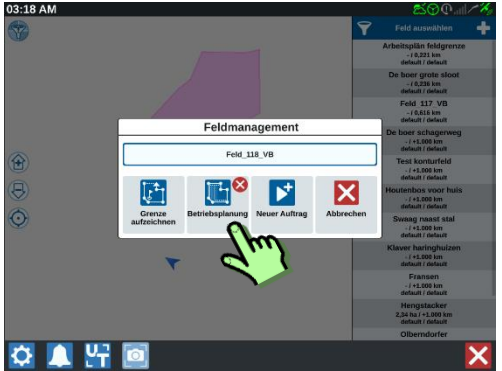
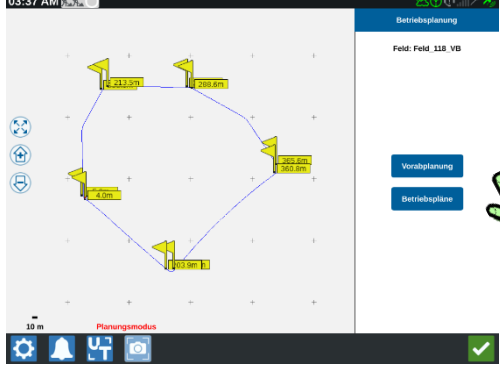
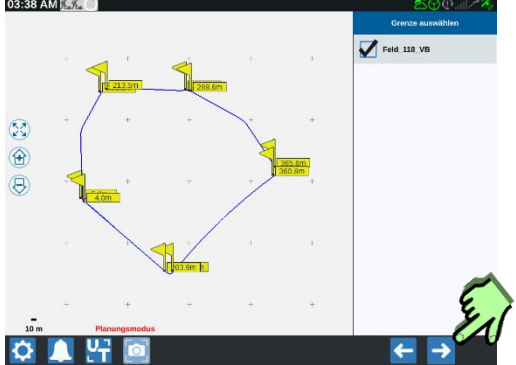
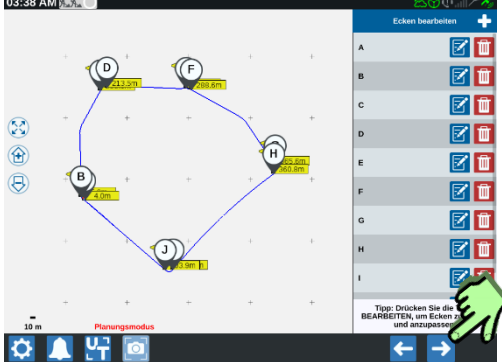
#	Beschrijving	Afbeelding
58	Turn the tractor in the other direction.	
59	<p>Now press "Add corner flag" again. There's a double flag in the corner now.</p> <p>By using 2 corners flags for each corner of the field the direction of the boundary will be 100% accurate.</p> <p>Each start and end point of an workline needs a flag.</p>	
60	Do this accurately along the entire field.	
61	<u>Note:</u>	

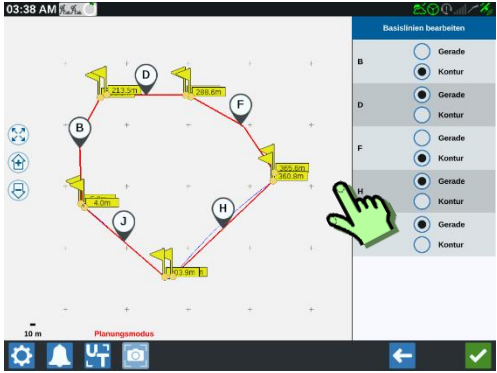
#	Beschrijving	Afbeelding
62	<p>When a side of a field contains a curve:</p> <p>Start by pressing "Add corner flag". This is the beginning of the line.</p> 	
63	<p>Now press "pause".</p> <p>If the recording is paused nothing will be recorded but when the recording is restarted a straight line will be drawn between the point where the recording was paused and where it was resumed.</p>	
64	<p>Start the recording of the curve.</p>	
65	<p>Pause the recording of the curve to create another straight line.</p>	

#	Beschrijving	Afbeelding
66	<p>Continue to the end point.</p> <p>Always turn off automatic closing field (remove check mark) !</p>	
67	<p>At the end of the line, add another "corner flag".</p>	
68	<p>Field boundary is set, now press the icon "stop".</p>	
69	<p><u>Note:</u></p>	

#	Beschrijving	Afbeelding
70	Confirm the end of the recording.	
71	With the green check mark you confirm the created field and name of the field.	
72	Continue to pre-planning. Pre-planning enables you to adjust the field boundary.	
73	<u>Note</u>	

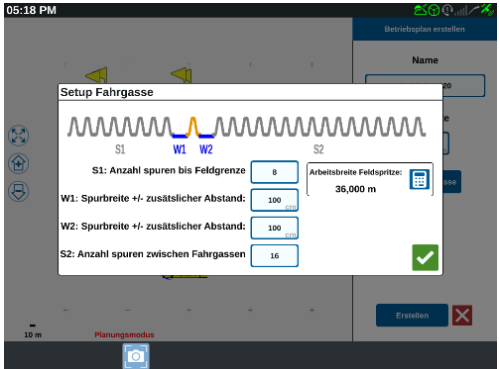
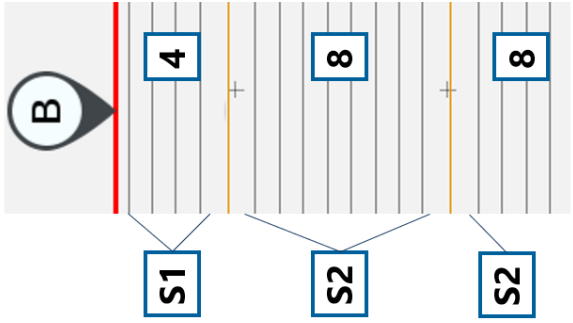
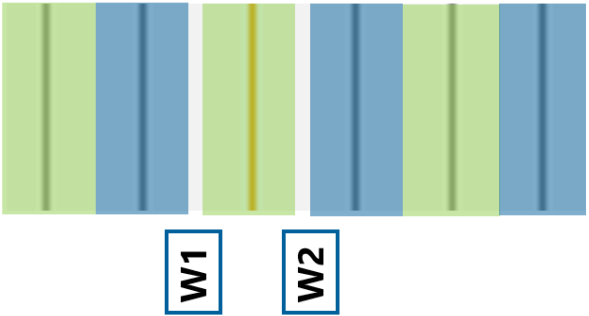
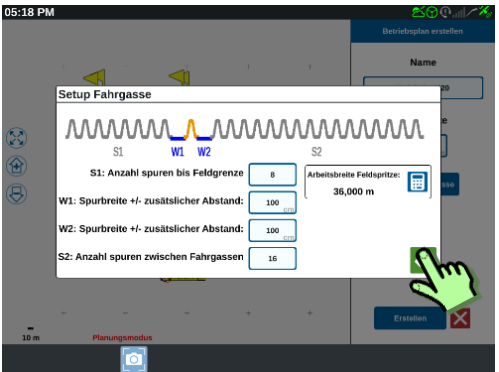
11 PRE-PLANNING OPERATION

#	Beschrijving	Afbeelding
74	<p>You will be automatically redirected to the next page when the field boundary is created</p> <p>When a Shapefile is imported, press the imported field and then "pre-planning".</p>	
75	<p>If the pre-planning button is blue it has not yet been done.</p> <p>When pre-planning is green it has already been performed.</p> <p>Pre-planning can be adjusted but it might cause your "Operation plans" to be deleted.</p>	
76	<p>Press next page.</p>	
77	<p>Optionally, corners can be moved, removed or added here.</p> <p>We have already indicated the corners in the field boundary, so we now don't have to do anything on this page.</p> <p>You can press through to the next page.</p>	

#	Beschrijving	Afbeelding
78	<p>Select which lines should be made straight or stay contour lines.</p> <p>Lines D, H and J will be made straight and F and B remain contour lines.</p>	
79	<p><u>Note:</u></p>	


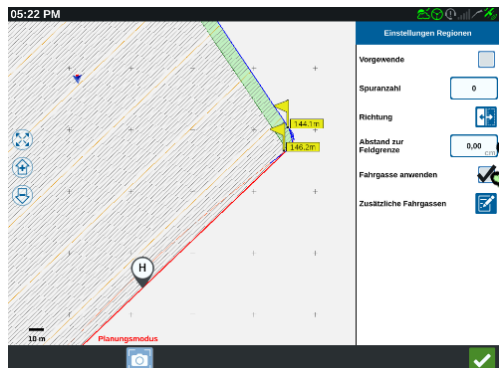
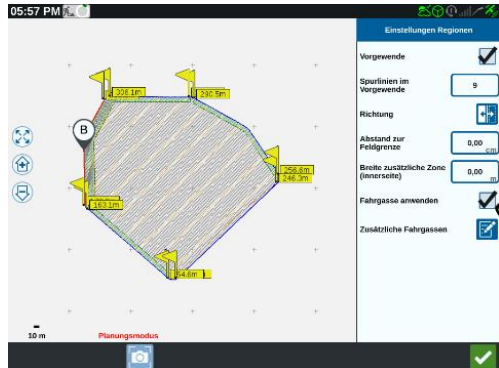
12 OPERATIONS

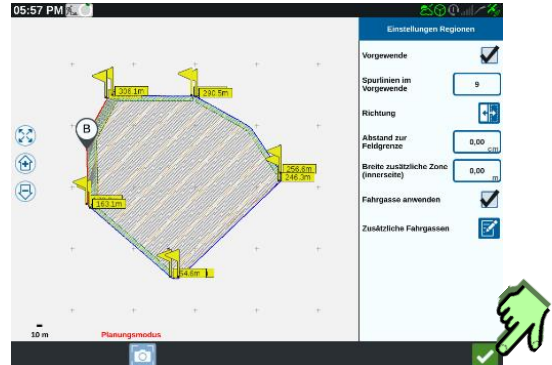


#	Beschrijving	Afbeelding
80	<p>You will now be automatically redirected to the operation when pre-planning is complete.</p> <p>When a new operation plan needs to be created, press the "right arrow".</p>	
81	<p>Now press "operation planning".</p>	
82	<p>Now press "operation planning".</p>	
83	<p>Enter a name for the field and the desired working width.</p>	

#	Beschrijving	Afbeelding
84	<p>Press tramline configuration to add and configure the tramlines.</p>	
85	<p>S1: Number of lines from field boundary to first tramline. W1: More or less space at the tramline, on the left W2: More or less space at the tramline, on the right. S2: Number of lines between tramlines.</p>	
86	<p>When you have a working width of 3 meter and the additional width for the tramlines is set at 50cm on both sides (W1 and W2) the tramline will be 4 meters wide.</p> <p>When you start planting with a 3 meter machine, a part remains unprocessed to the left and right of the spray track.</p>	
87	<p>Press the green check mark to confirm the pattern.</p>	

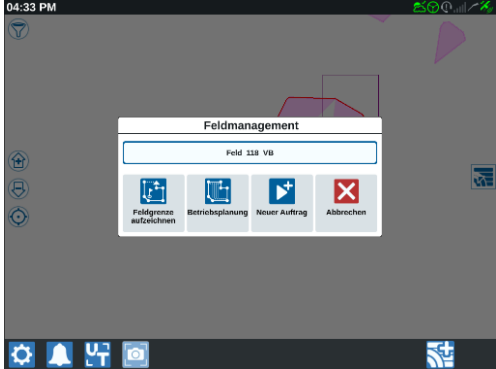
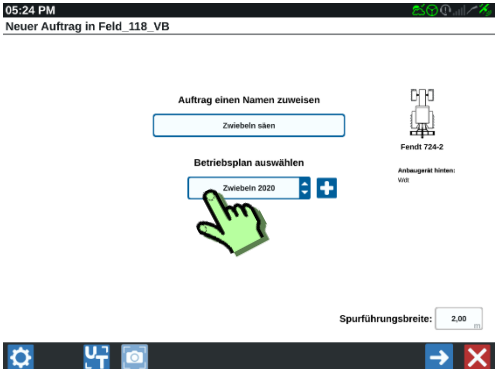
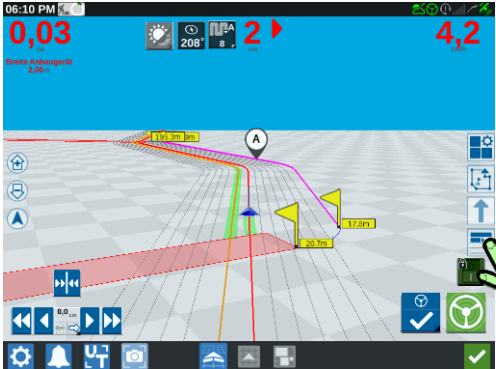

#	Beschrijving	Afbeelding
88	Press "Create".	
89	The region that is selected will automatically be your main line. The set pattern is filled in over the entire field.	
90	A negative distance from the field boundary can be added when the pattern has to be started to the left or right of the line.	
91	The second region that is selected will automatically be indicated as the headland.	

13 EDIT REGIONS


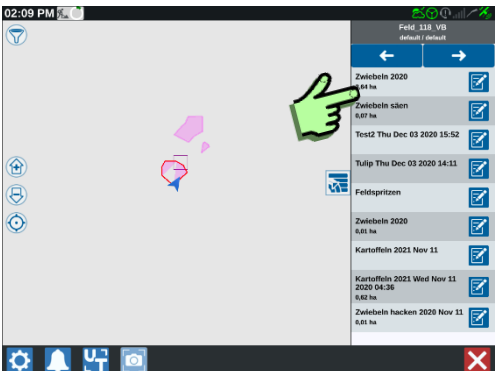
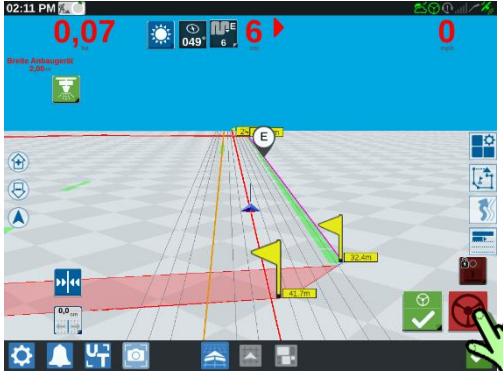
#	Beschrijving	Afbeelding
92	Adjustments can also be made to the other regions, press the adjust icon.	
93	Direction: The headlands can be made on the other side of the region.	
94	Distance to field boundary: extra distance between the first guidance line and the field boundary.	
95	Extra width (zone): Add extra distance to the inside of the line.	

#	Beschrijving	Afbeelding
96	Green check mark to confirm the operation.	
97	<p>The other regions that are selected will immediately receive the same tramline settings.</p> <p>You can also make manual adjustments yourself.</p>	
98	Press the green check mark to confirm	
99	Green check mark to confirm. (or add another operation at the top right)	

14 NEW TASK + START OPERATION

#	Beschrijving	Afbeelding
100	Now press "New job"	
101	When an operation needs to be loaded: press the bar under "Select operation", the desired operation can be chosen.	
102	The main line is loaded immediately at startup. To switch between lines, press the "Edit" button.	
103	Here it is possible to select another line.	

15 TASK + RELOAD OPERATION

#	Beschrijving	Afbeelding
104	Press the desired field.	
105	Press one of the tasks you want to load or the operation you want.	
106	The operation can be resumed.	
107	<u>Note:</u>	

16 EXAMPLE OF BUILDING A BOUNDARY

1. This line (A) becomes a straight line: Create a corner point at point 1. Continue to do nothing.
2. Drive to point 2. This is the end of the line. Press again on corner point. There will be a straight line created.
3. Then turn the tractor parallel to line b. Press on corner at the starting point.
4. This too is a straight line. Point 3 is corner, at the end (4) press corner again.
5. Line C is different: this is a line like this: straight, curve, straight. To record this as always. Press corner point at the start of line (5). Then immediately press pause (6).
6. when pause is pressed, no line will be recorded. Recording 'pauses' until the point where we are pressed again to record. A straight line is then created between those points. Drive the part without recording (with pause active) to the start of the curve.
7. press 'record' here (the pause button changes into the record button).
8. At the end of the curve, 'pause' is pressed again. The curve is in it, the last part must be straight again. So pause is active.
9. At the end of the line you press again on record: The part from the end of the curve to here is created as a straight line.
10. Press directly on add vertex. This is the end of the line.
11. Add corner point.
12. Add corner point.
13. Field boundary recording is complete. Press 'stop recording'.
14. Confirmed recording and proceed with pre-planning.

