DSF / BOSS

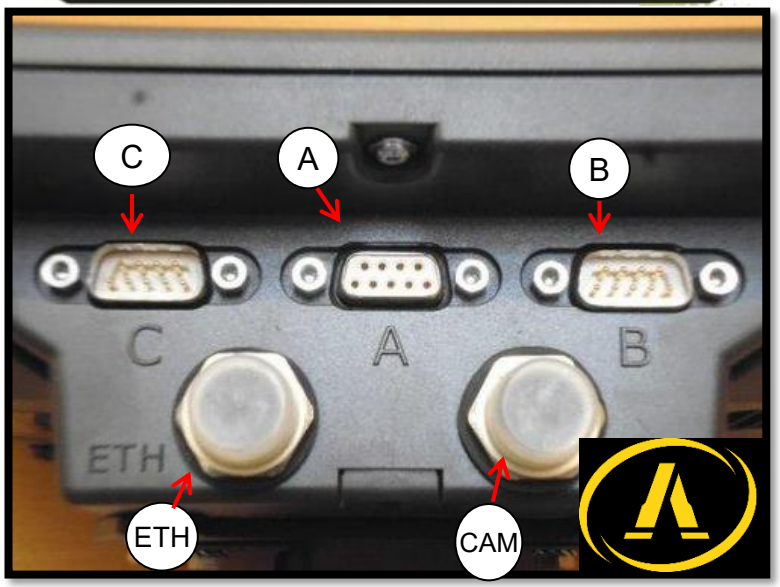
A-Touch

SmartTouch

Version Midi 3
(From March 2026)

1 – A-Touch box Features

1. Switch on/off button
2. Locking button or sreenshot for USB
3. Function butto



1	USB port for: - USB memory device [→ 27]	A	Port A CAN bus port for: - ISOBUS basic vehicle harness [→ 18] - Connection to the tractor CAN bus
C	Port C Serial port for: - GPS receiver [→ 29] - GPS TILT-Module - Lightbar [→ 56]	B	Port B See section: Pin assignment connector B [→ 96]
ETH	ETH port M12 port for: - Ethernet	CAM	CAM port Port for an analog camera
		2	Slot with the SD card

2 – Update

It is important to check the compatibility of the version or configuration with your technician, as well as the configuration of the machine.

1 – Plug the USB, Monitor turn off

Ps: The key should only contain the update files.

2 – Start the monitor, the screen turn on after a few seconds

3 – Press the ME button to go to the files.

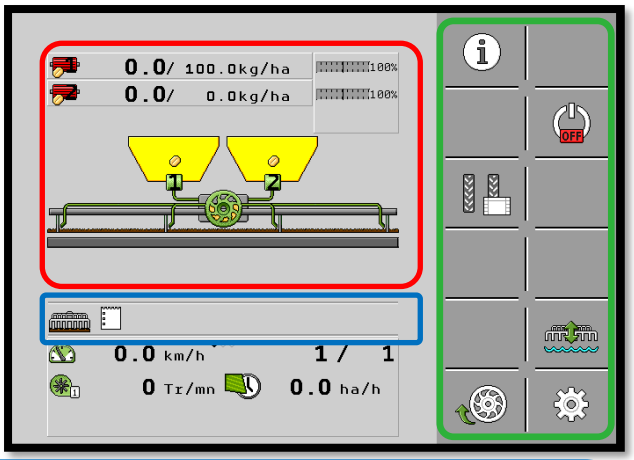
2 – Update

4 – Select the configuration that you wish and press the button ME

5 – Press the ME button when the update is finished and restart the monitor.

3 – Icones => DESIGNATION

Glossary of icons on work page:



Information icons

- Frame lifted
- Frame lowered
- Task control
- Section control
- Hopper alarm
- Working lights
- Pre start
- Wet mode
- Clogging sensor

- Metering units not calibrate
- Metering units calibrate
- Hopper full
- Hopper nearly empty
- Hopper empty
- Frame deactivated (seeder lift)
- Frame activated
- Frame seeding position
- Frame cut by the Section Control or by the user
- Frame cut by the Section Control or by the user
  Seeder lift or speed at 0 km/h

Icone de navigation

- Informations of area
- ON/OFF application
- Parameter of tramline
- ON/OFF Right motor
- ON/OFF Left motor
- Wet mode
- Pre start
- Setting

3 – Icones => DESIGNATION

Glossary of icons:

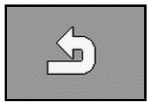
Speed setting

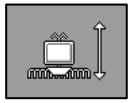
Calibration

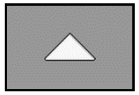

Diagnostic


Setting seeder

Products

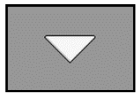

Back


Working width (Frame)


To the top

Configuration access


Next page


To the down

Accessory access (light)


Launching calibration


Confirmation


Record calibration

Dose by the task control

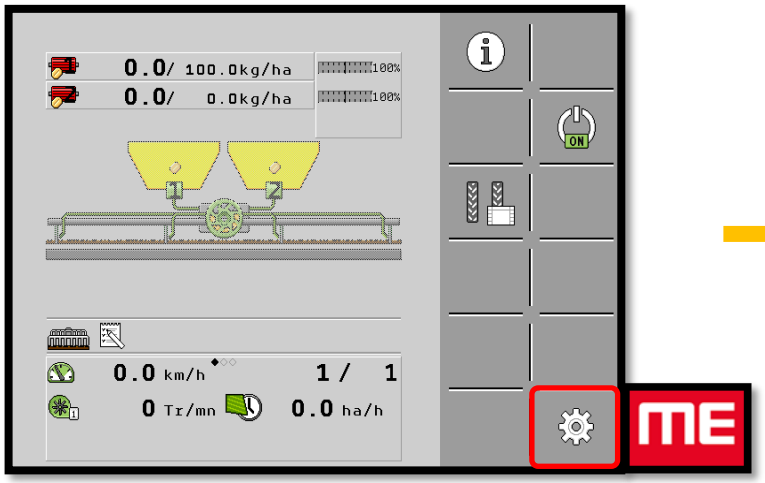

Shut off a product access (hopper)

Shut off a product (hopper)

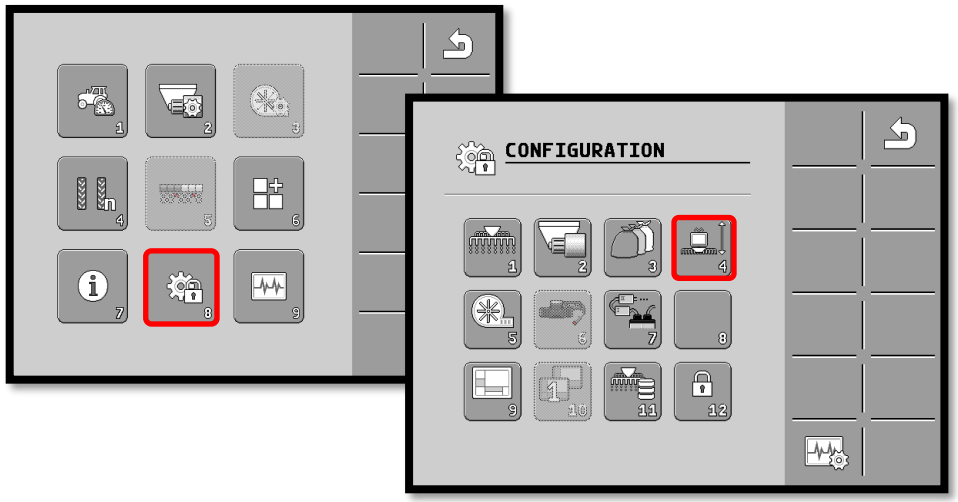
Selection of the VT/TC

4 – Setting CUT OUT + Working Width

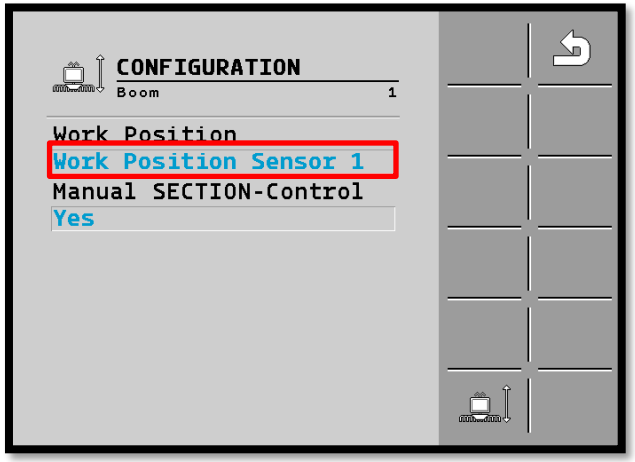
1 – Home page, press ME/setting button:



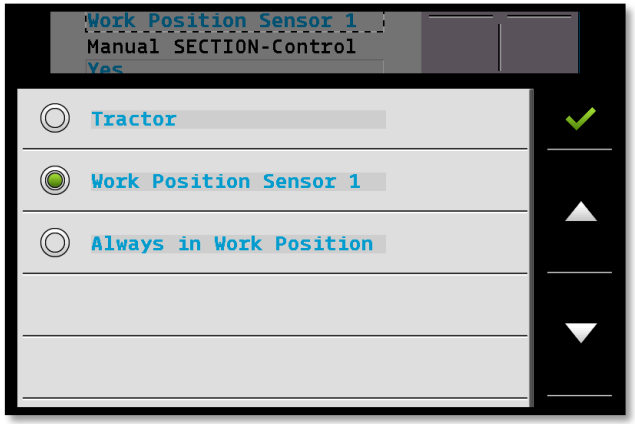
2 – Press Button 8 setting and 4 :



3 – Press the following function to select with which information you want to work

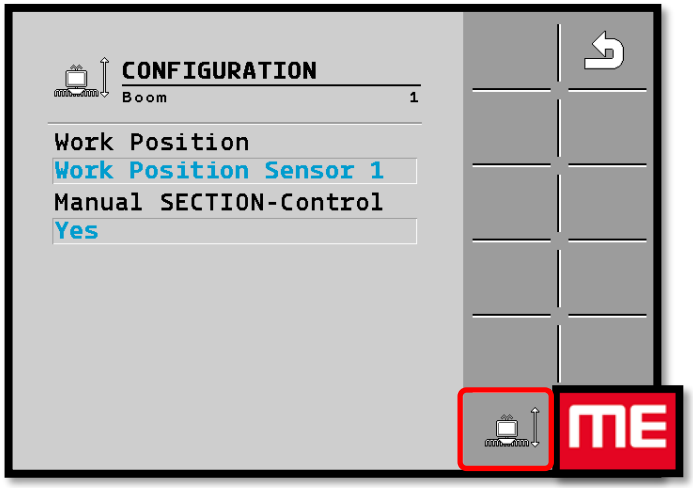


4 – Select the function and confirm:

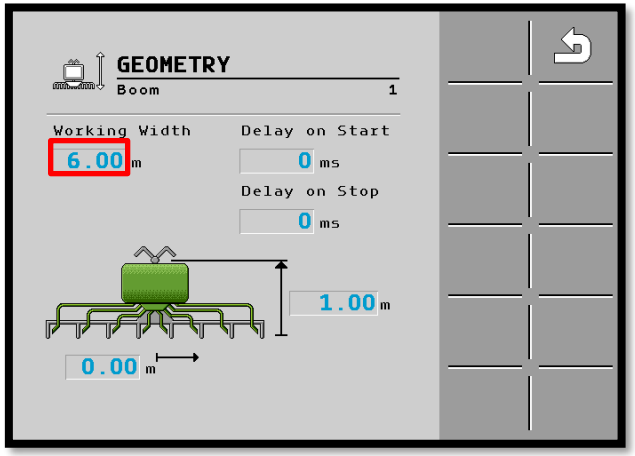


4 – Setting CUT OUT + Working Width

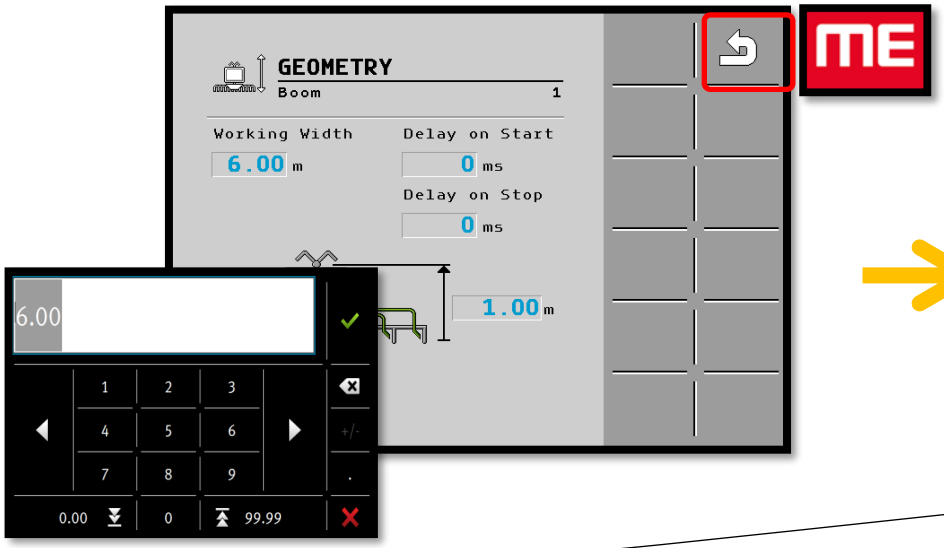
5 – Press ME button to set the width:



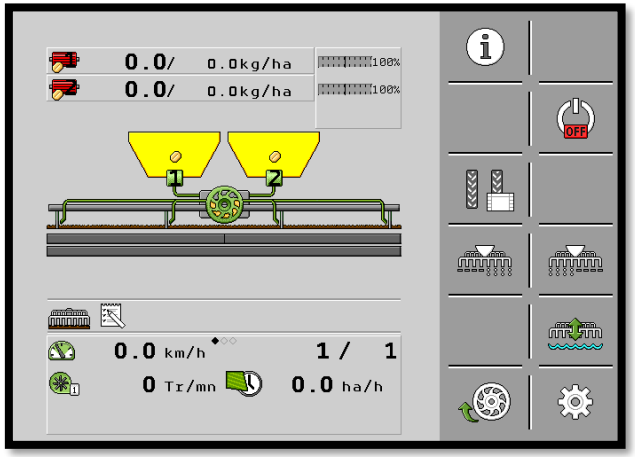
6 – Press on the working width to set this one:



7 – Put the total width, press the back button to go back on a work page.

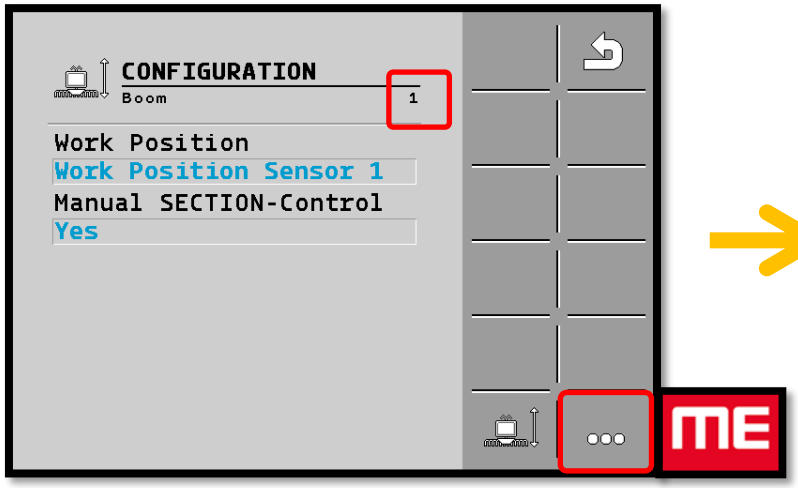


8 – Warning, If the configuration are with 2 beams like under, check the width of the second beam, go to the next step**.**

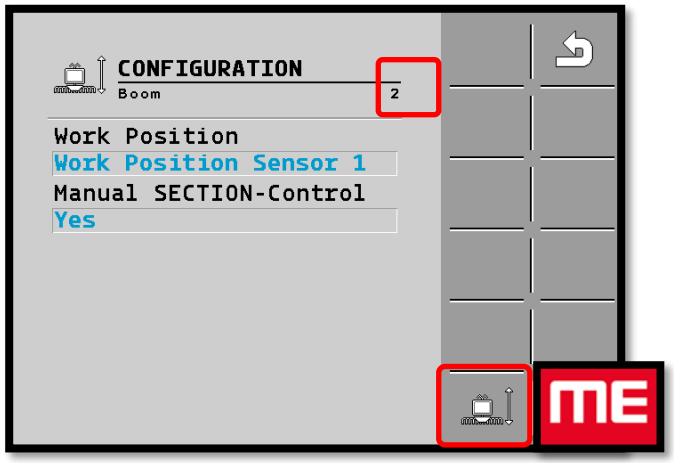


4 – Setting CUT OUT + Working Width

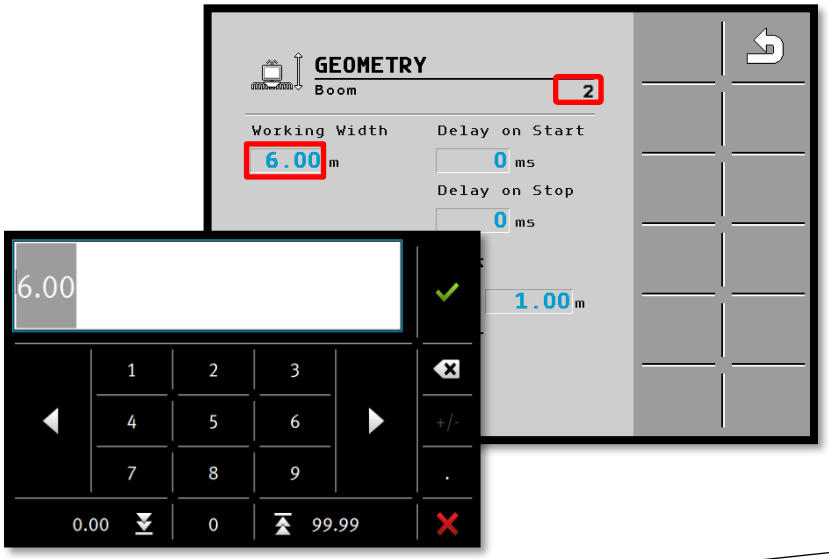
9 – Press ME button to select the frame 2



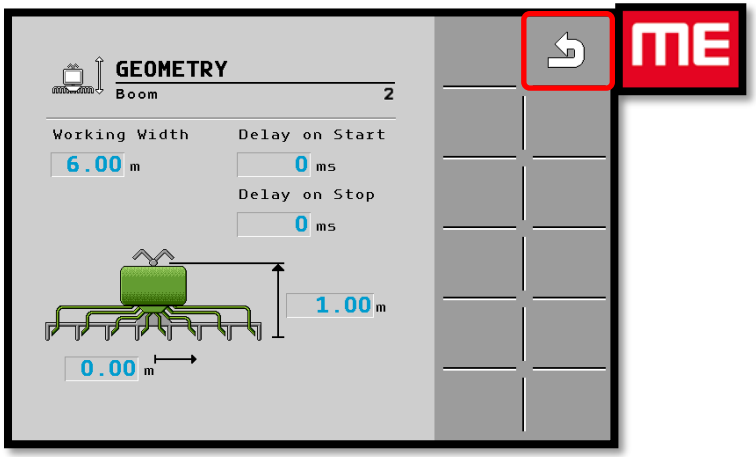
10 – Press ME button to set the width:



11 – Press on the working width to set this one:



12 – Press the back button three times to go back on the work page.

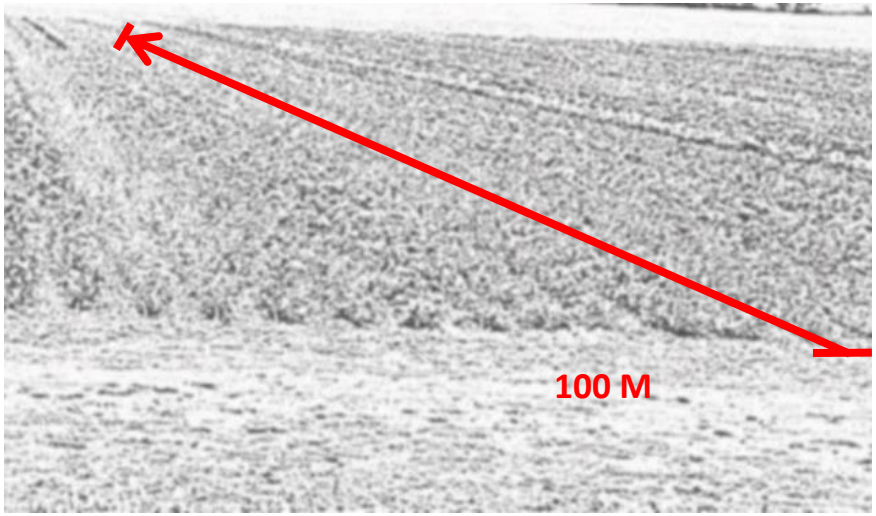


5 – Select and setting speed

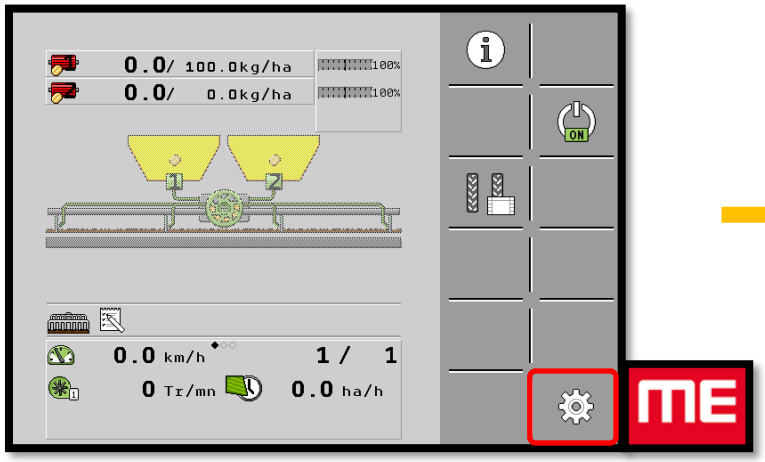
Calibration of the radar

1 - To calibrate the radar, you need to trace 100 m precisely in the field.

2 - Put the machine in working position



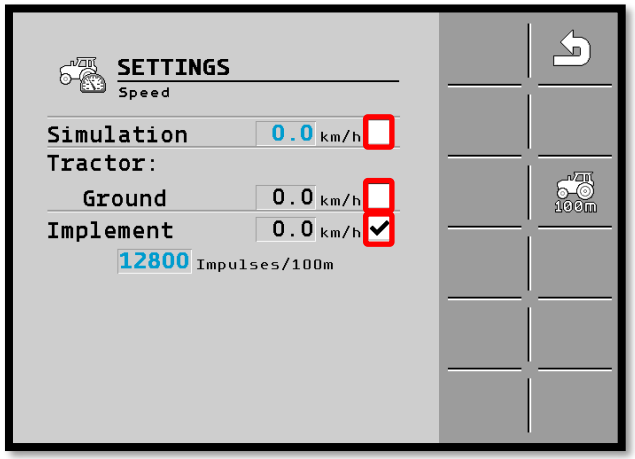
3 – turn on the monitor, and press button ME



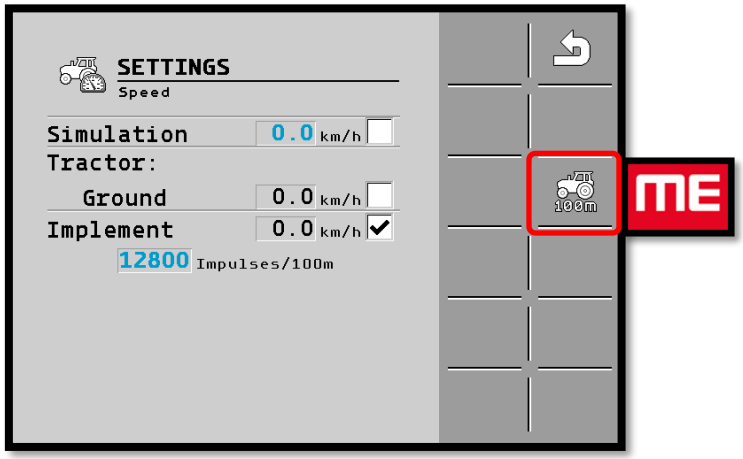
4 – Press the button 1

5 – Select and setting speed

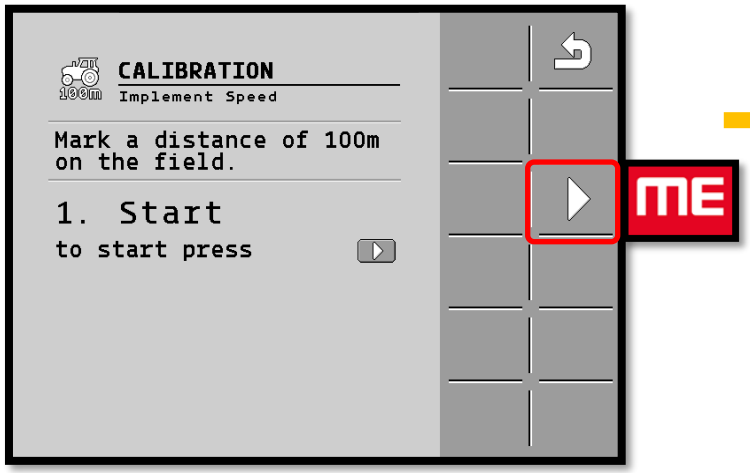
5 – Choose the speed:
- Button 1, simulation
- Button 2 tractor
- Button 3 DGPS or radar



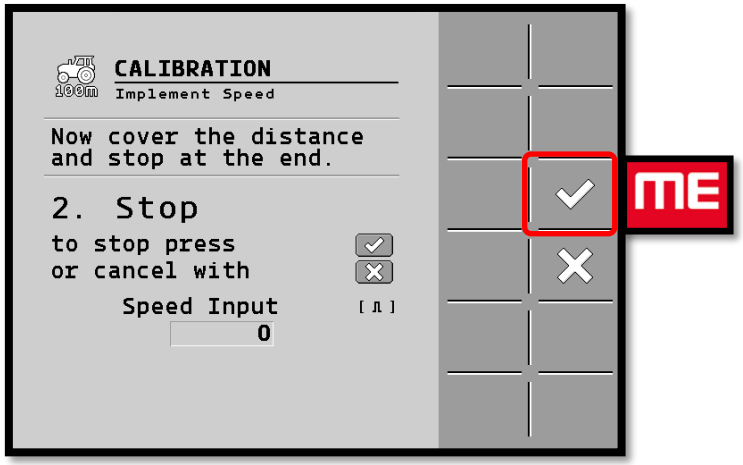
6 – To calibrate the radar, press the ME button now.



7 – Press now the ME button.

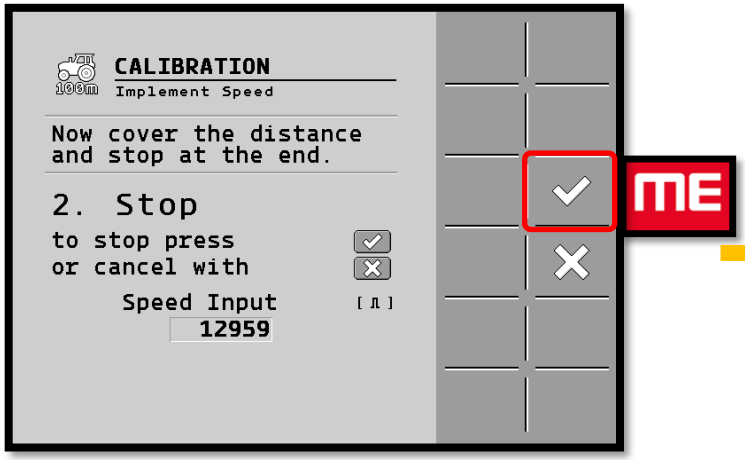


8 – Press the ME button at the end of 100m.

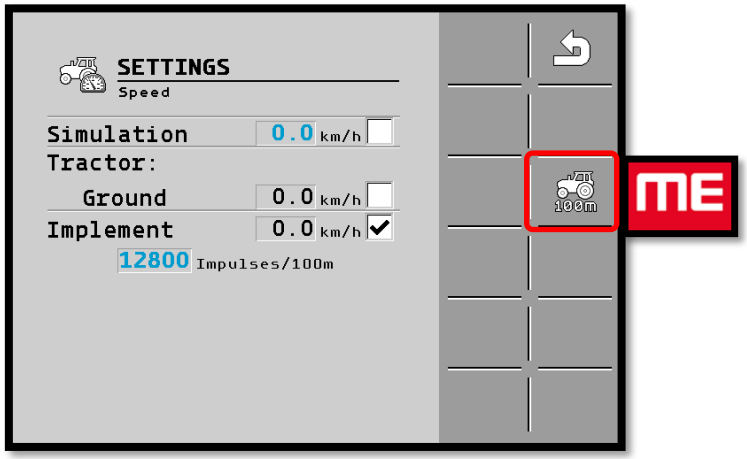


5 – Select and setting speed

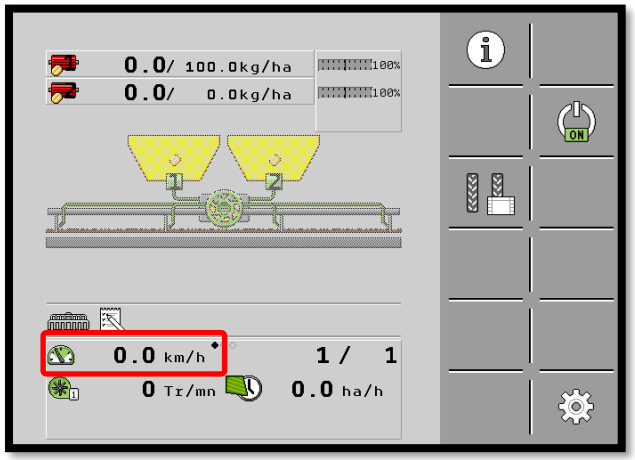
9 – Press now the ME button at the end of 100m



10 – The monitor returns to this page, press the ME button to return to the work page.



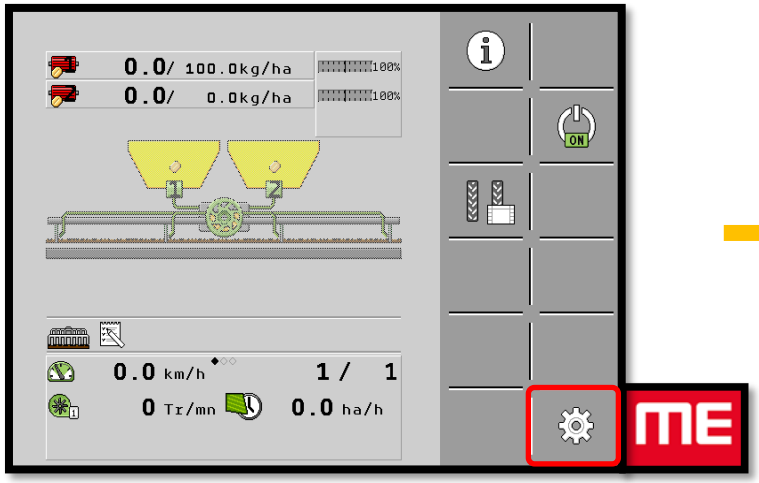
11 – On the home page, check the speed between the monitor and the tractor.



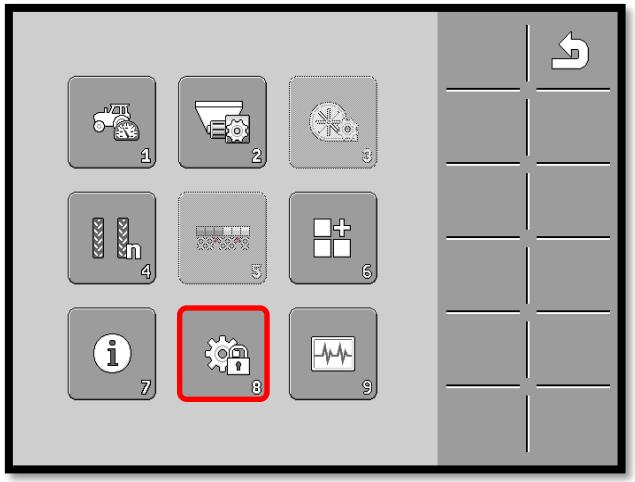
If the speed difference is too big, the operation must be repeated.

6 – Product Data Base

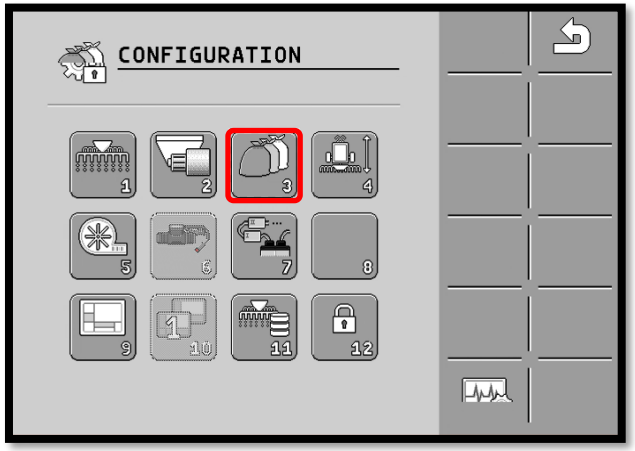
1 – Home page. Press the ME button



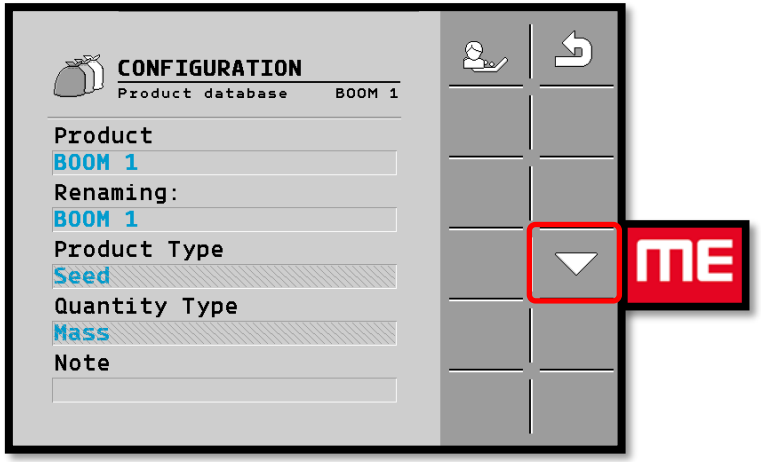
2 – Press the button 8



3 –Press the button 3

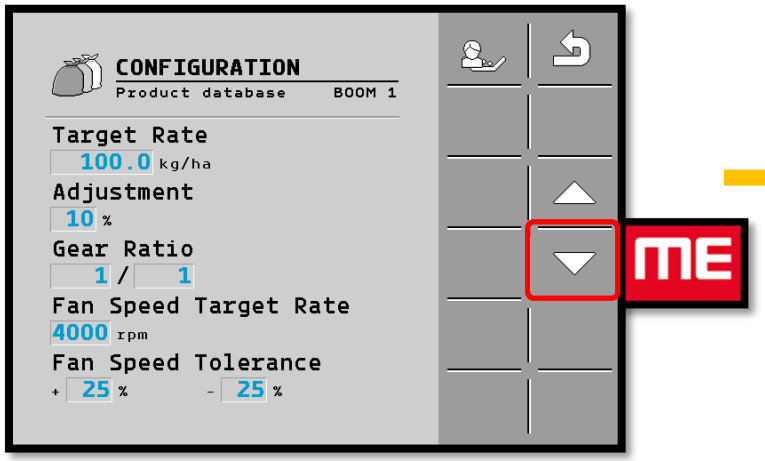


4 –Products configuration, Press the ME button

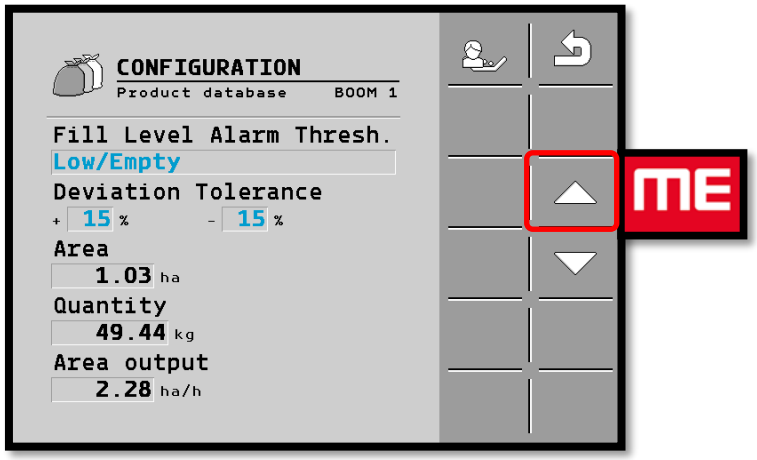


6 – Product Data Base

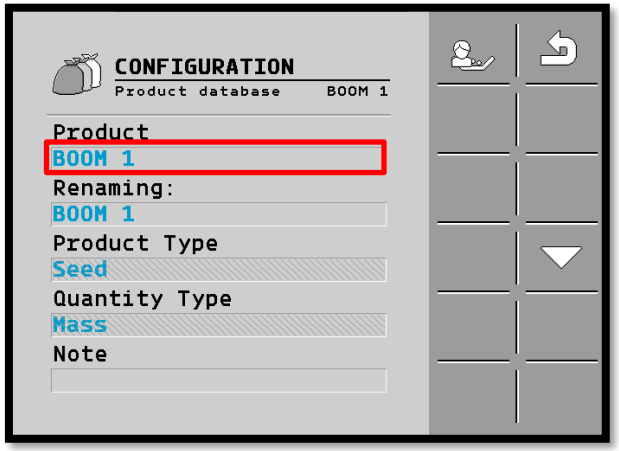
5 – Setting of the product, press the ME button



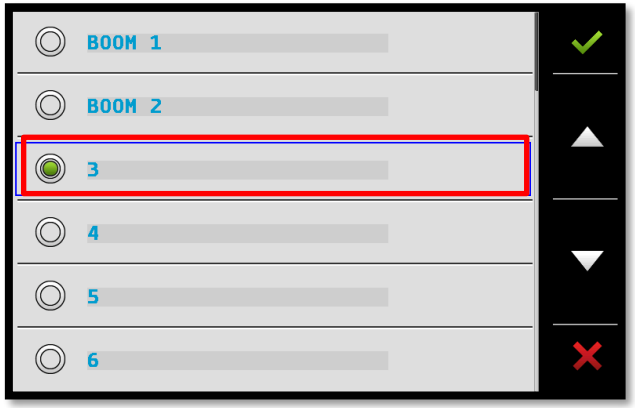
6 – Other page about the products set and products usage information, press 2 time on ME button.



7 – Configuration of a new product.

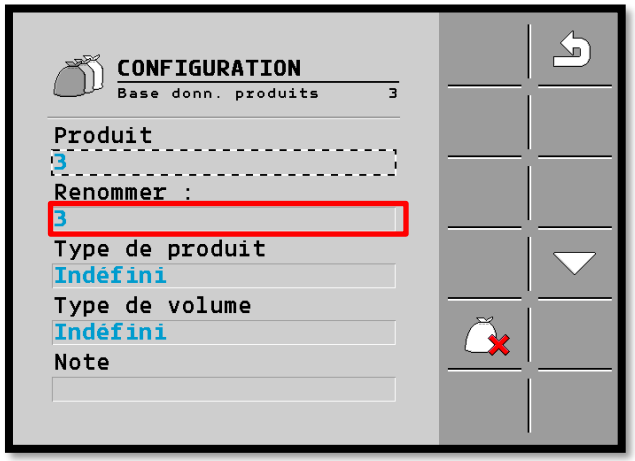


8 – Select the new product, then validated

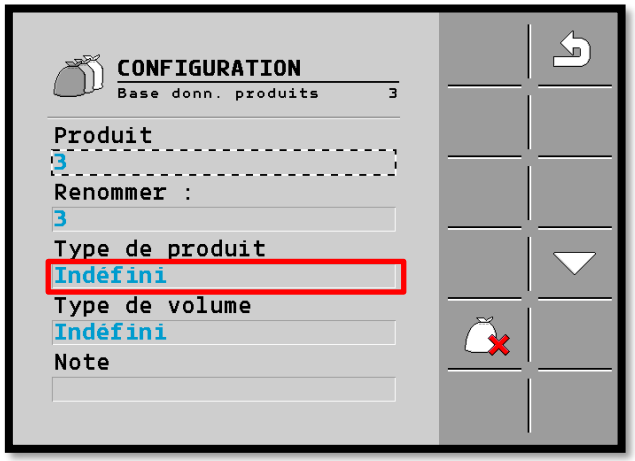


6 – Product Data Base

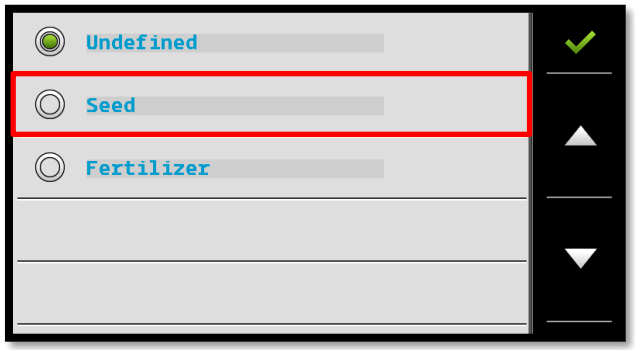
9 – Rename the product



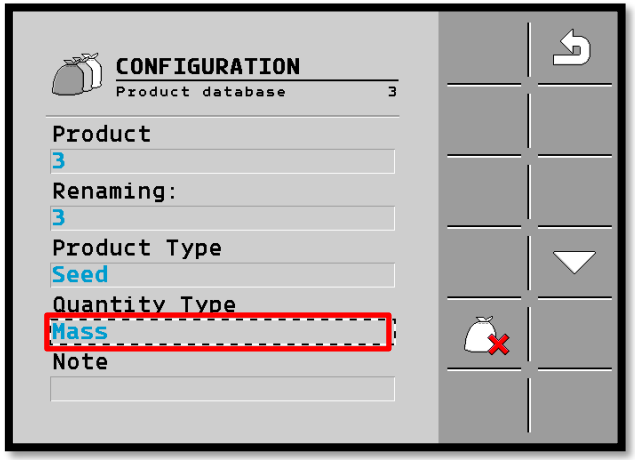
10 – Select a type of product and give a name.



11 – Preferably select “Seed.”

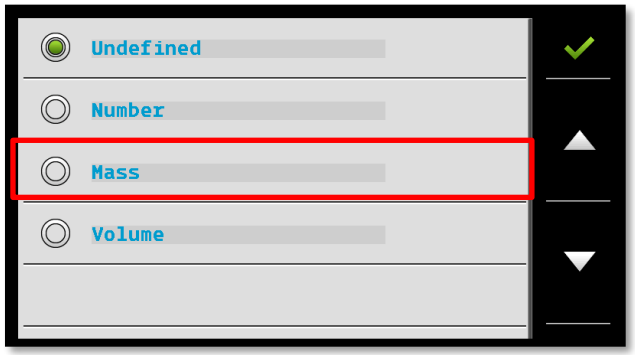


12 – Select the quantity type

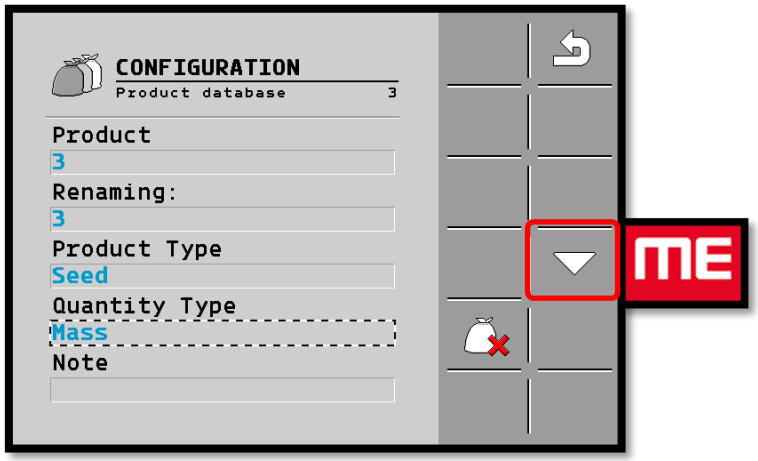


6 – Product Data Base

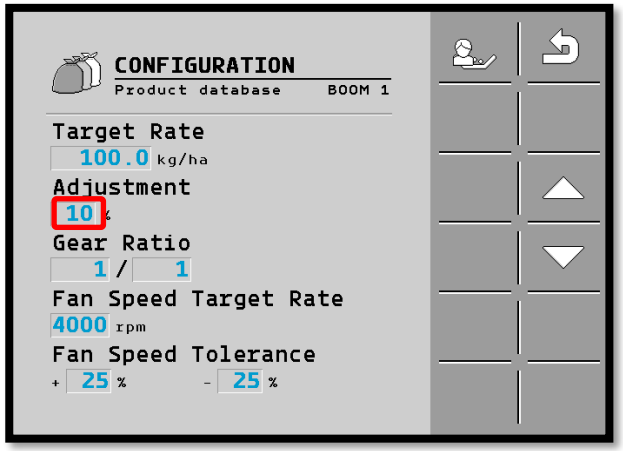
13 – Select the quantity type “Mass”



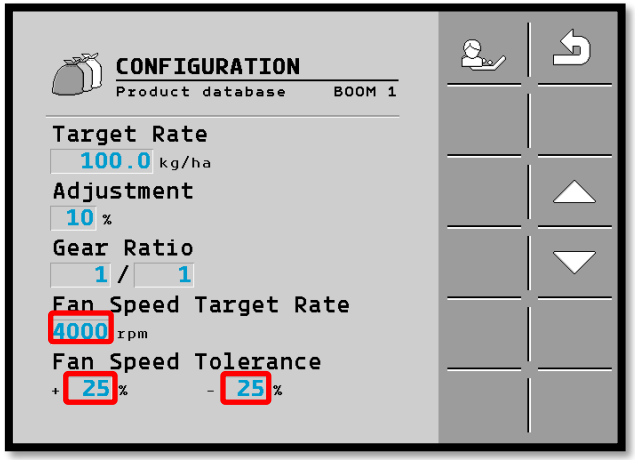
14 – Press on ME button



15 – Adjustment corresponds to the manual modulation level

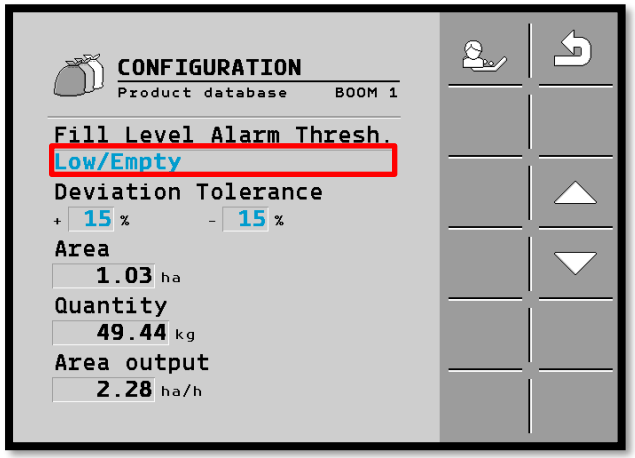


16 – Set the speed setting used
Set the tolerance to +/- 25%



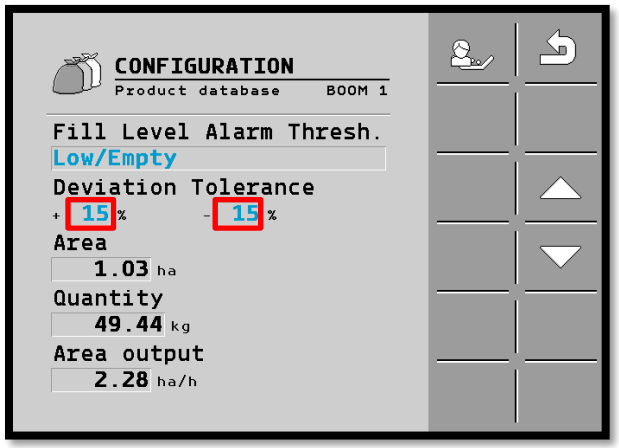
6 – Product Data Base

17 – Sensor of hopper, select the alarm level

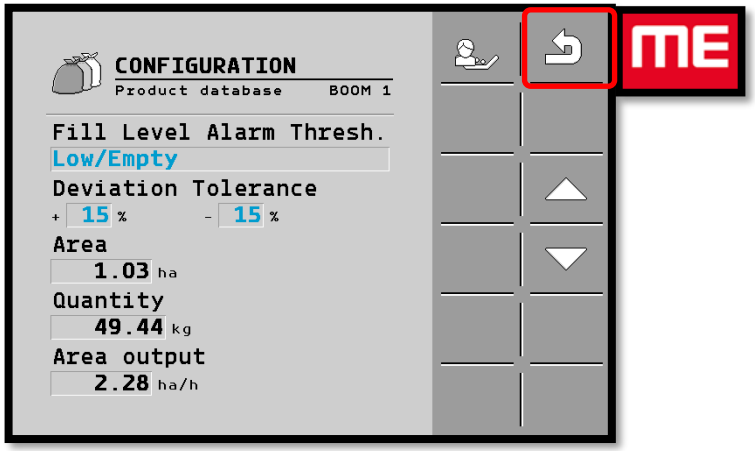


18 – Low/ Empty : both sensors are active
Empty : only the bottom sensor is active
Deactivated: No alarm

19 – Change the acceptable alarm deviation values for the dosing motors to 15%.

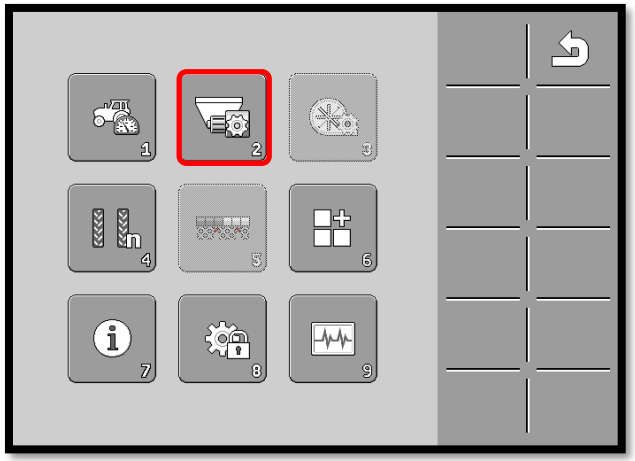


20 – Press 2 time the ME button to register your product.

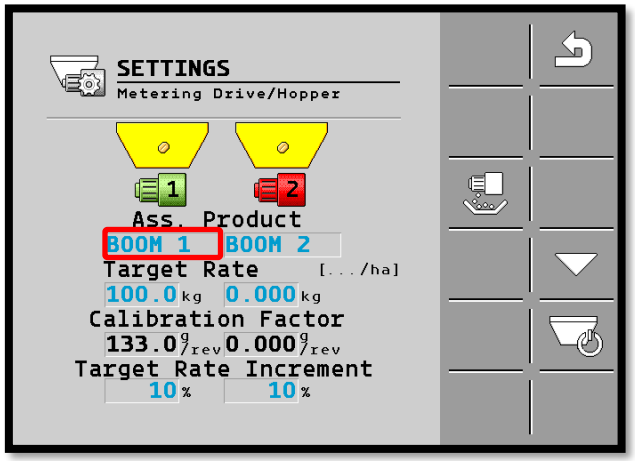


6 –Product Data Base, product/hopper

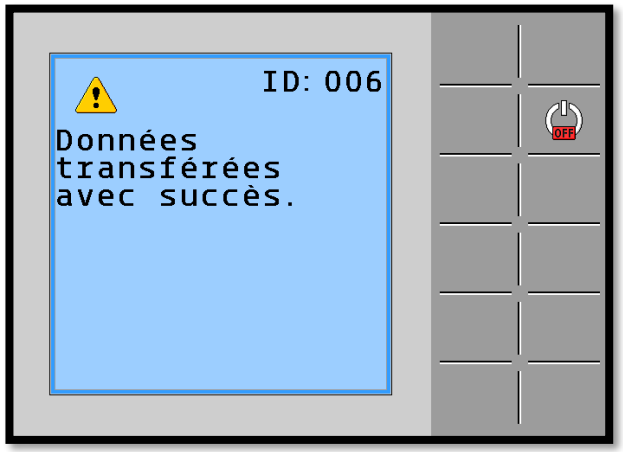
21 – Select the button 2



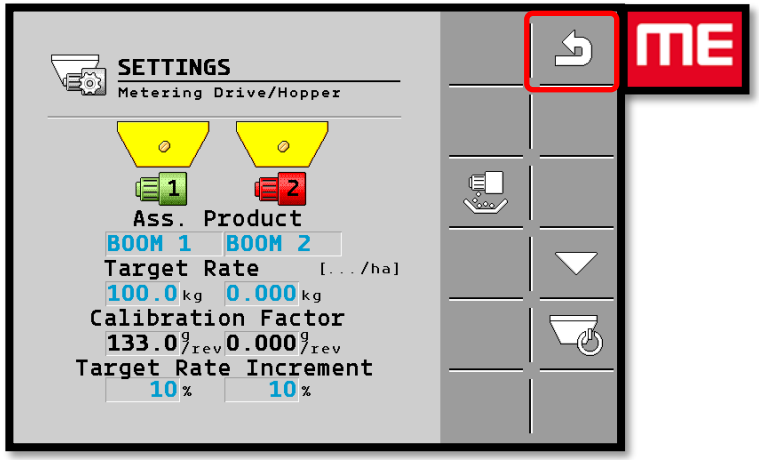
22 – Select the products on the hopper



23 – The configuration has been successfully completed.

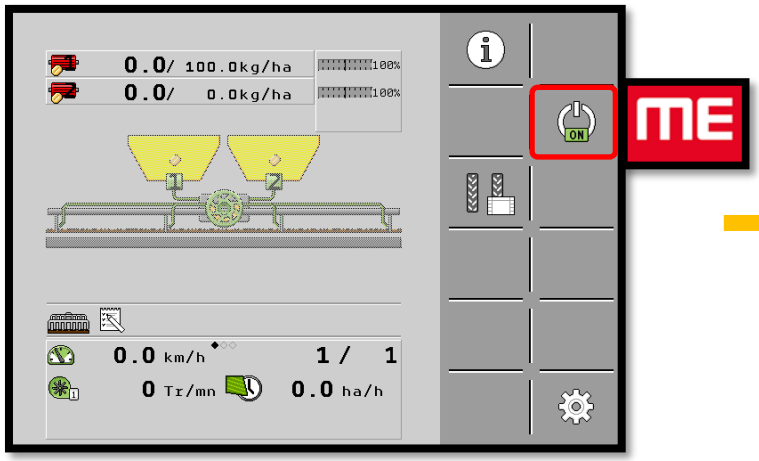


24 – Press the ME button to return to the work page.

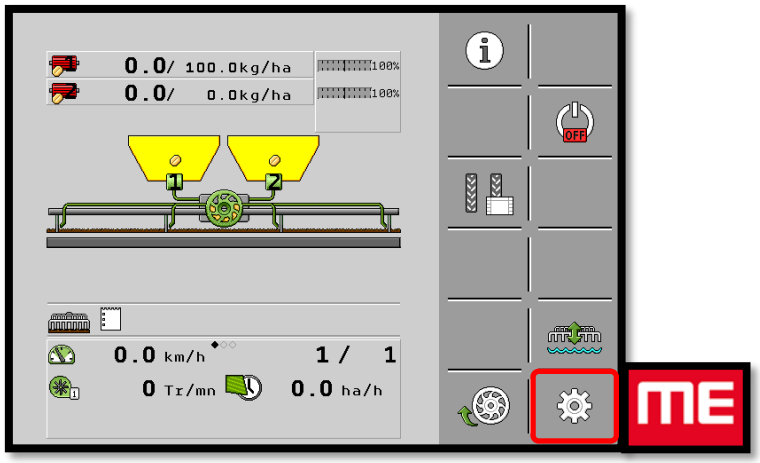


7 – Test flow motor

1 – Activate the seed, press the ME button

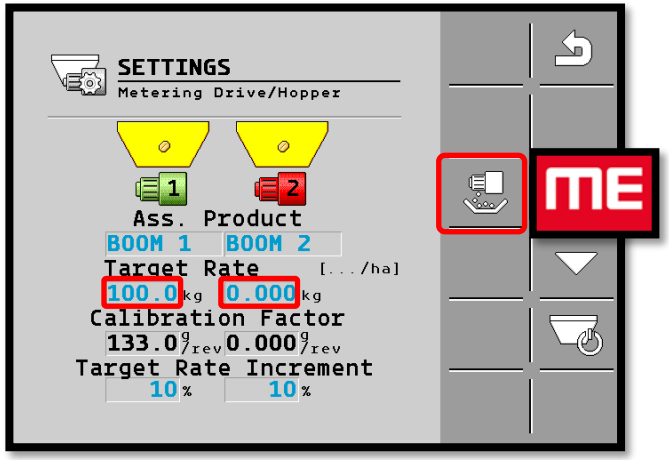


2 – Press the ME button



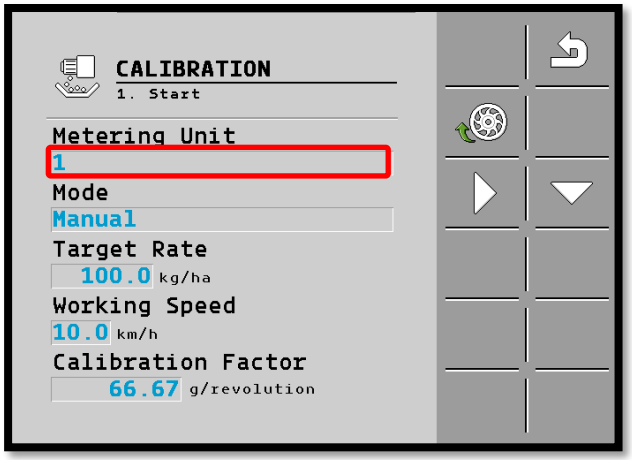
3- Select the button 2

4 – Enter the settings, then press the ME button



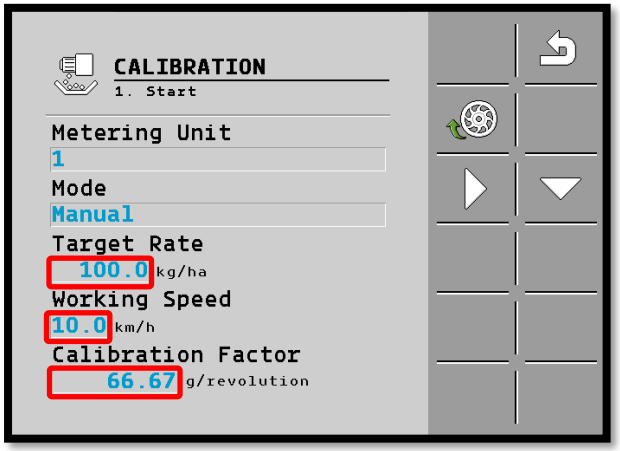
7 – Test flow motor

5 – Choice the metering unit to calibrated

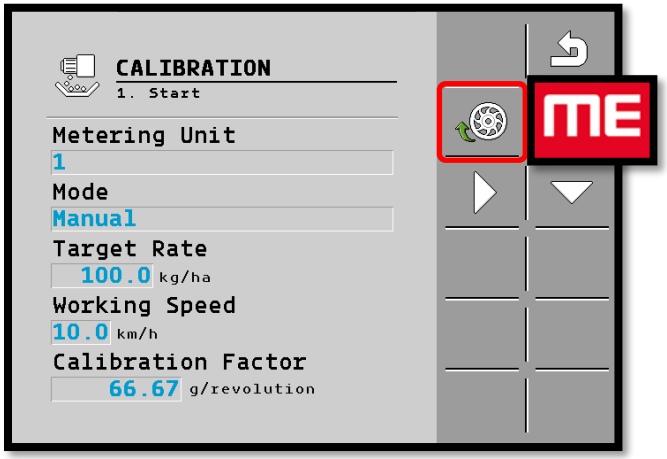


6 – Select the metering unit to calibrated

7 – Enter and verify the information in the red marks. Note: the “Calibration Factor” must not be set to 0 or 9999

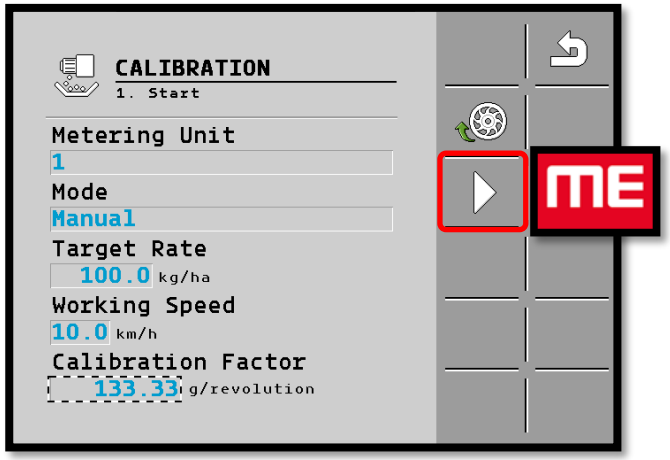


8 – Start the dosing device using the ME button

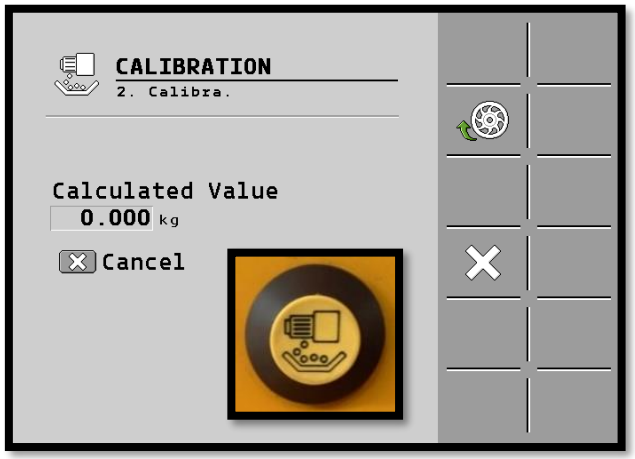


7 – Test flow motor

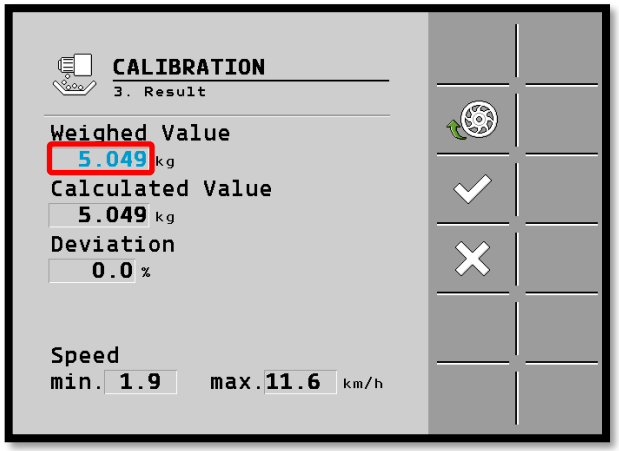
9 – Start calibration mode by pressing the ME button



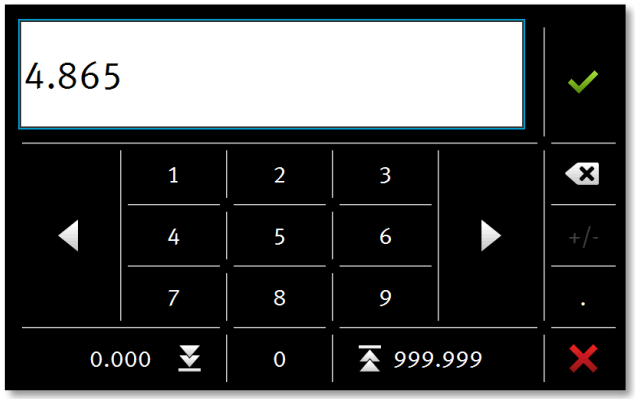
10 – Press the calibration button on the hopper



11 – Change the “Weighted Value” with the result obtained from the weighing.

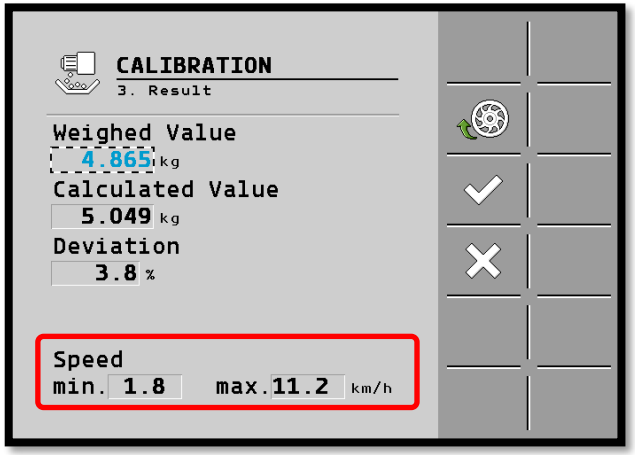


12 – Enter the weight from the scale

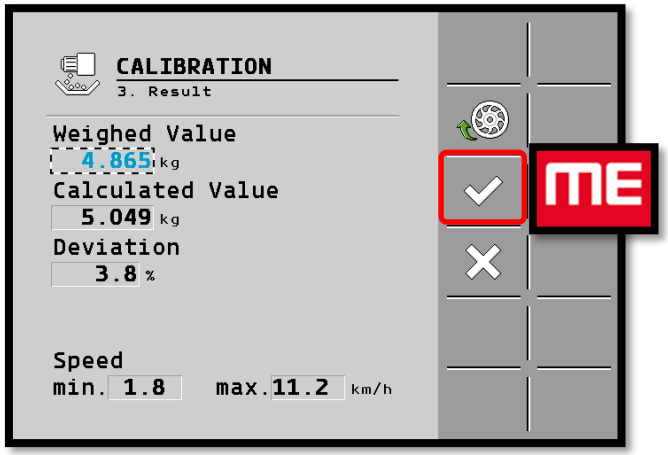


7 – Test flow motor

13 – Check that the minimum and maximum speeds are consistent. An error message may appear during operation. If the drive range is not correct, change the setting on the metering units.



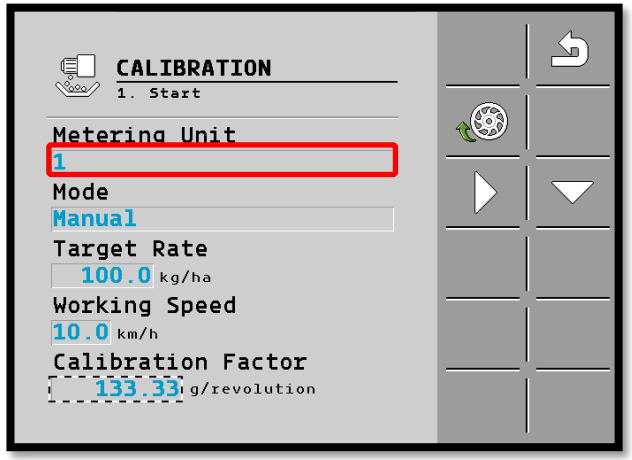
14 – Confirm calibration using the ME button



15 – The calibration factor changes after each test depending on the result got. The operation must be repeated as long as the weight obtained is not close to the weight theoretical (- 5% error).

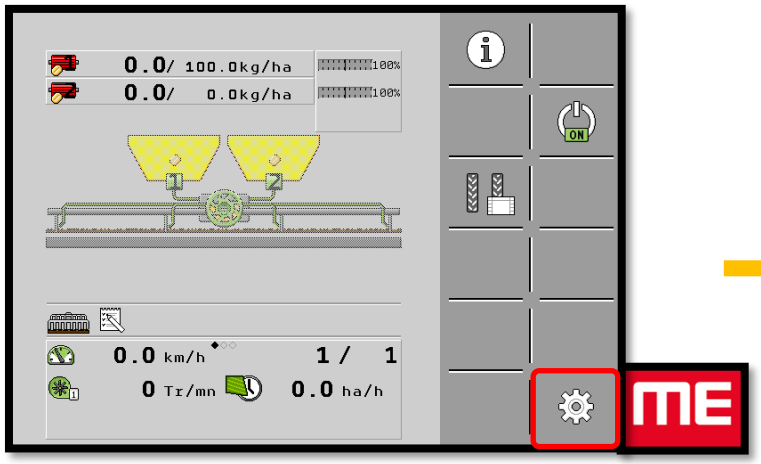
The speeds indicated are the limits of the working range of the distribution according to that configuration, modify it if the work does no match. Repeat the operation for the other engine.

16 – Repeat the procedure from step 5 to calibrate the other metering units.



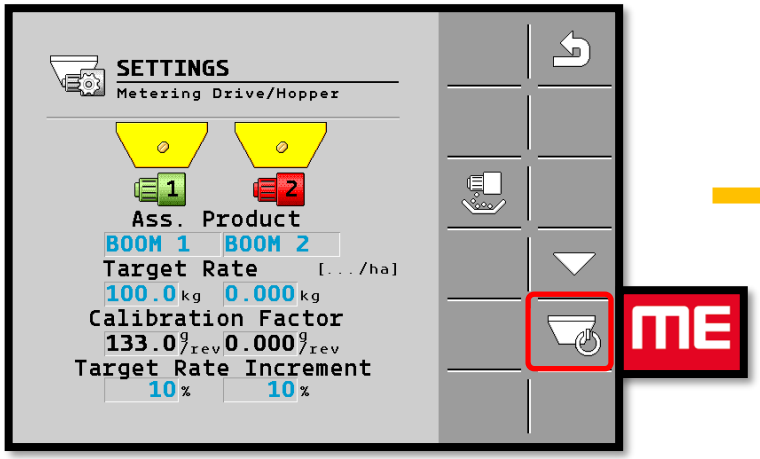
8 – Stop a motor

1 – It is possible to cut a product (a hopper).Press the ME button.

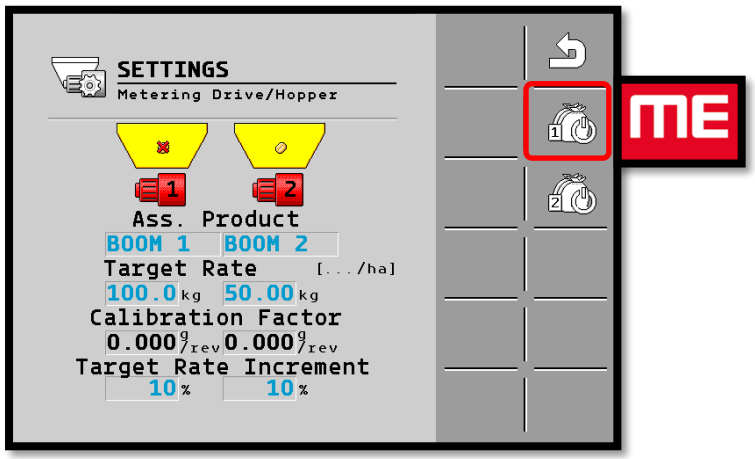


2 – Press the button 2

3 – Press the ME button

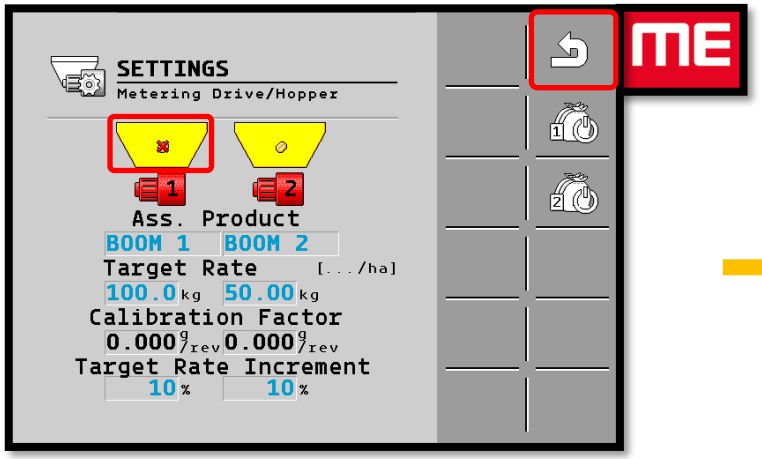


4 – Press the ME button to shut the product

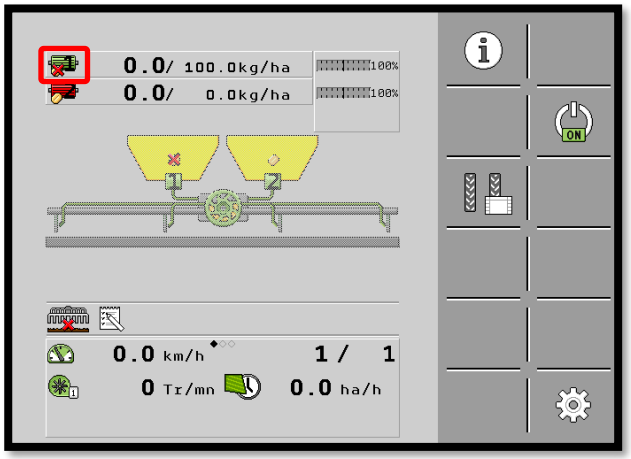


8 – Stop a motor

5 – Product 1 is activated. Press the ME button to return to the work page.

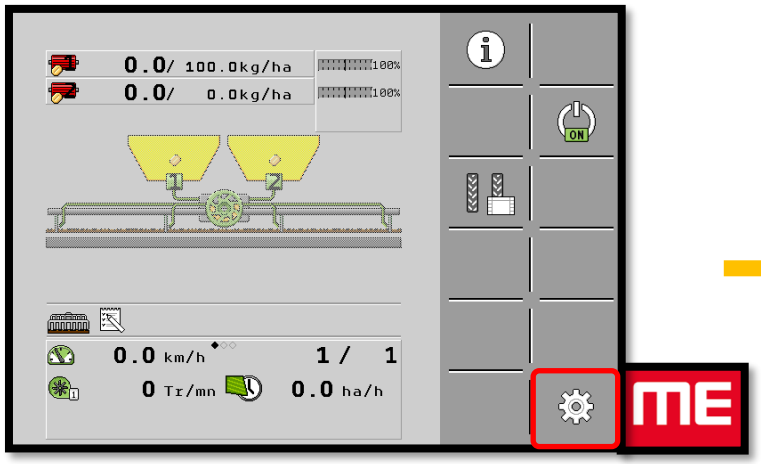


6 – On the work page, we can see the product 1 stop

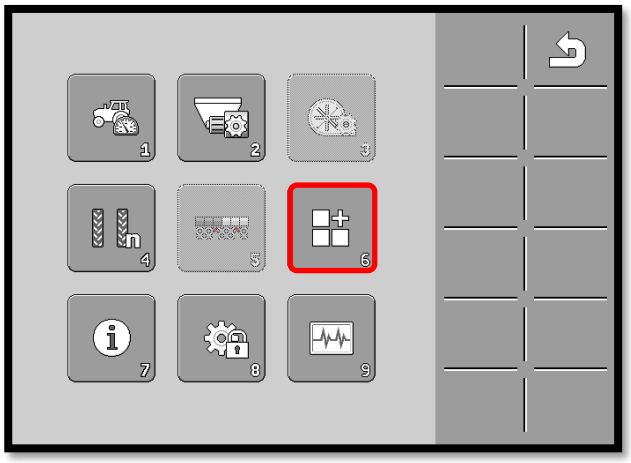


9 – Working lights

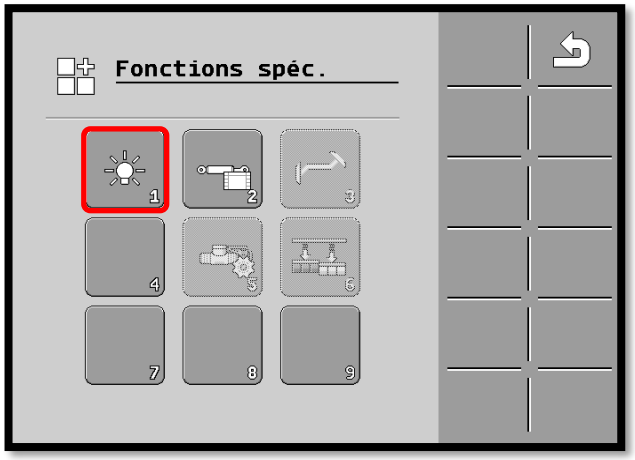
1 – Press the ME button to go to the submenu



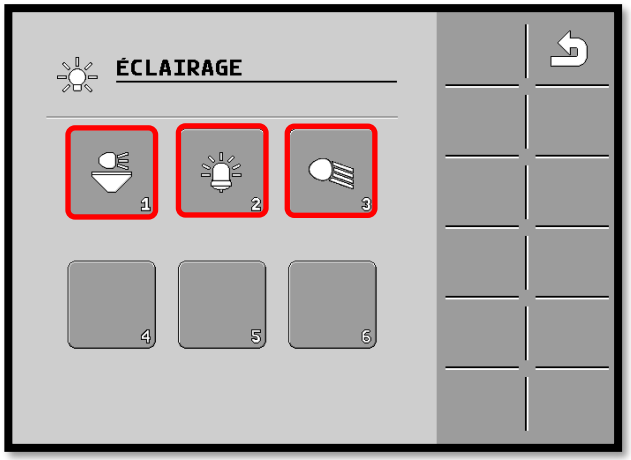
2 – Press the button 6



3 – Press the next button to the light function



4 – Press the button to turn on the lights



10 – Tramlining

Procedure:

Here is how to proceed to chose the rhythm of the appropriate marking:

☒ You know the working width of your seeder.

☒ You know the working width of our sprayer.

1. Choose to start working from the left-hand side or from the right-hand side of the field.

2. Calculate:
   working width of the sprayer / working width of the seeder

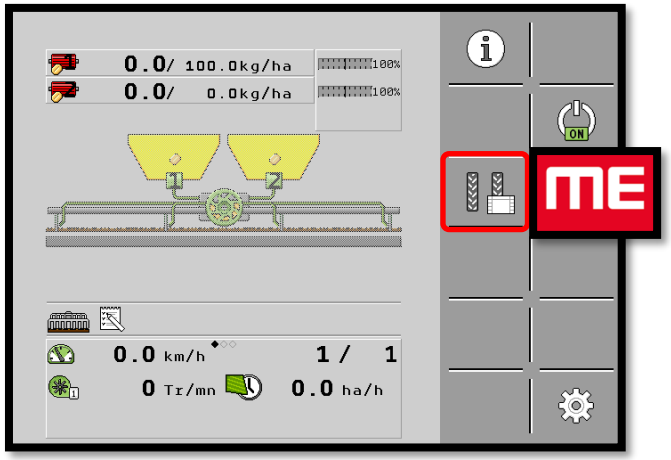
   ex. : 12 : 3 = 4 ; 15 : 3 = 5 or 20 : 3= 6,67

   ⇨ The results beneath are possible:
   pair numbers (2 ; 4 ; 6 ; etc.),
   odd numbers (3 ; 5 ; 7 ; etc.)
   decimal numbers (1,5 ; 4,5 ; 5,33 ; etc.)

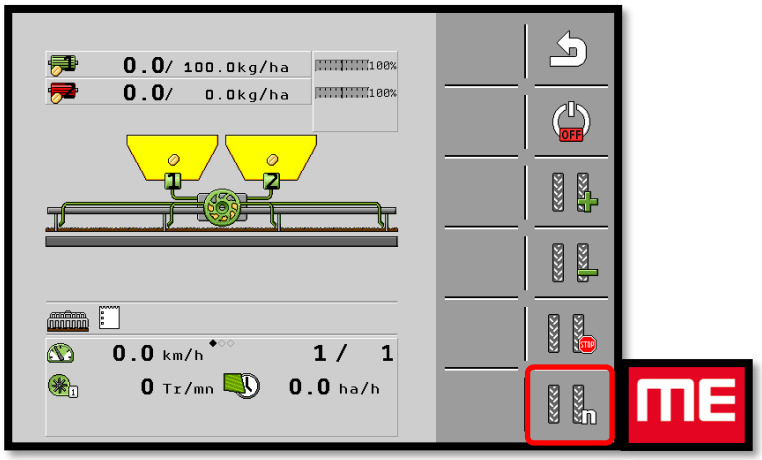
   ⇨ You must choose a different rythm of marking, depending on each result. You will find the results on the instructions of the pneumatic seeder.

10 – Tramlining

1 – On the homepage, Press the ME button

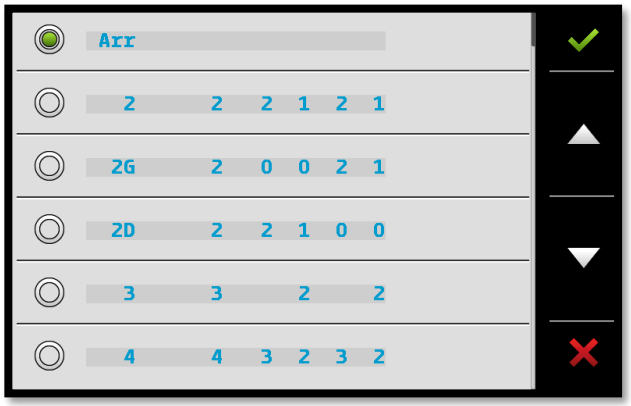


2 – Press the button to program the marking



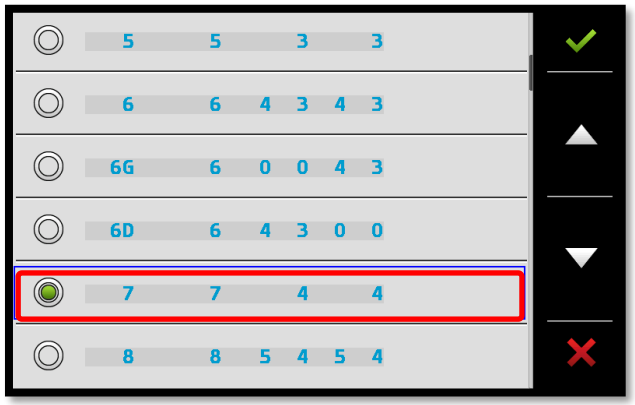
3 – Select on the red mark

4 – Select width and validate pressing on.



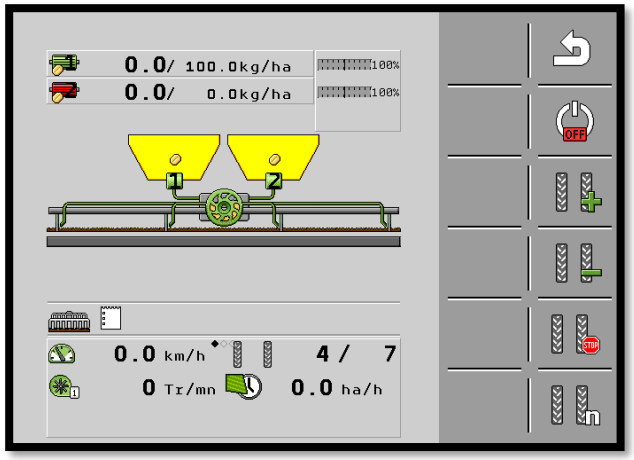
10 – Tramlining / Way of a sprayer in the middle of a seeder way

5 – For a 1st example, we will use a 21m sprayer and a 3m seeder, which makes (21/3 = 7) 7 passages of seeder for 1 passage of sprayer.



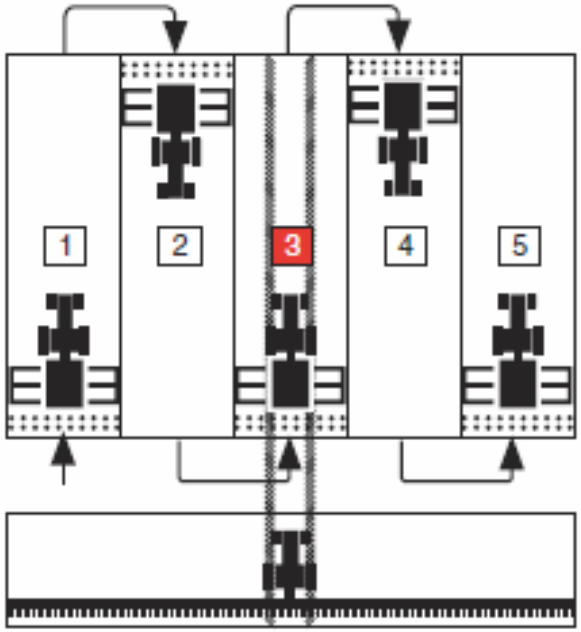
6 – The left- and right-hand side valves will activate themselves at the 4th passage. Press on button.

7 – At the 4th passage, the marking valves will activate themselve



10 – Tramlining / Way of a sprayer in the middle of a seeder way

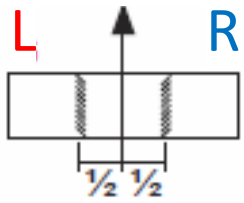
3m seeder with a 15m sprayer
6m seeder with a 30m sprayer



Other example

Control board:

Marker position:

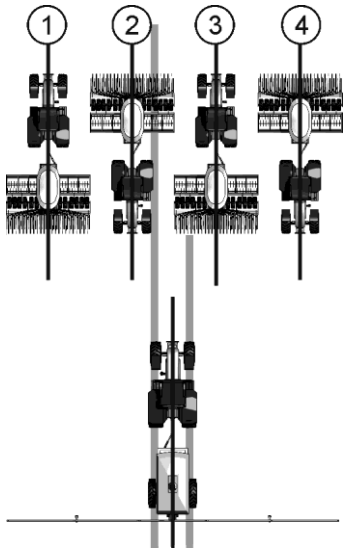


10 – Tramlining / ½ seeder

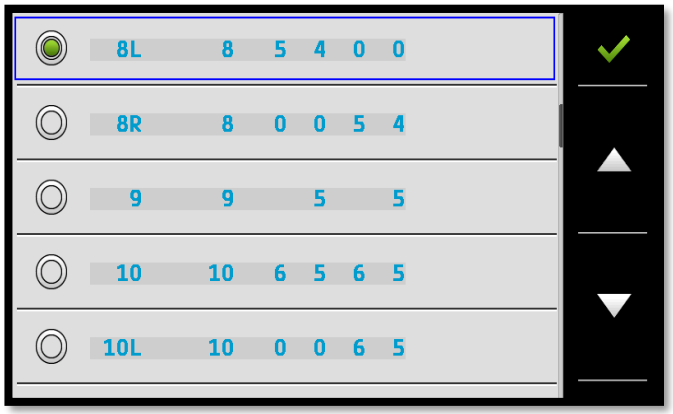
5 bis – Start steps 1 to 4 again. For an example, let's take a 24m sprayer and a 3m seeder (24/3 = 8 passages). In this case, only one valve will be active.

Choose the side of the field you will start to select the right or left valve.
If we start by the left side, we select the left valve.

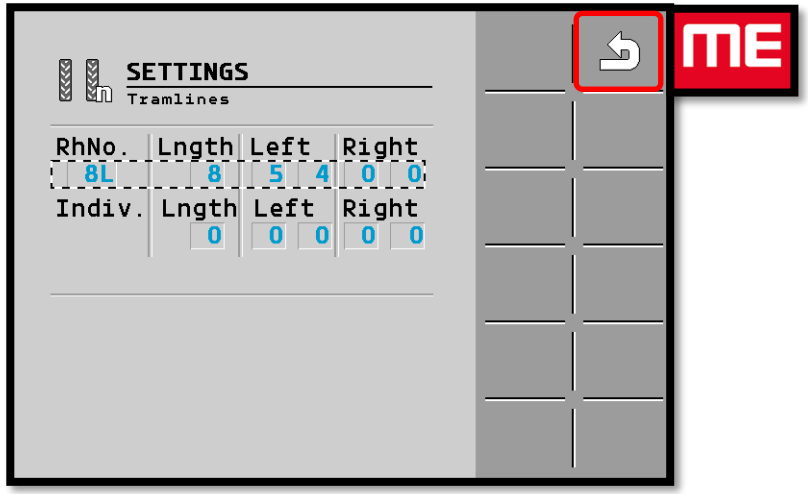
Example



5 bis – Go on line 8G and validate

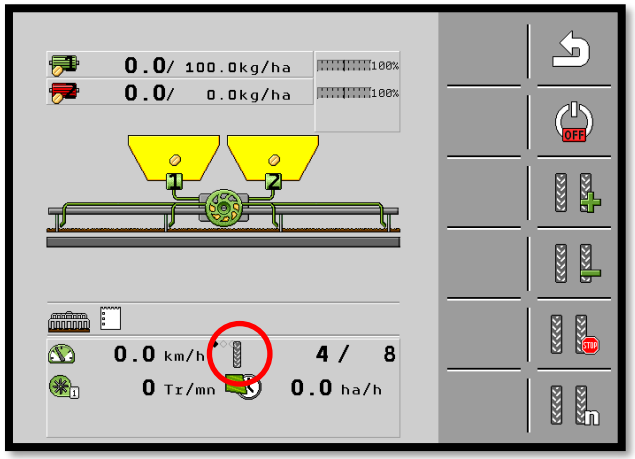


6 bis – The left valve will activate itself at 4th passage and 5th passage. Press the ME button

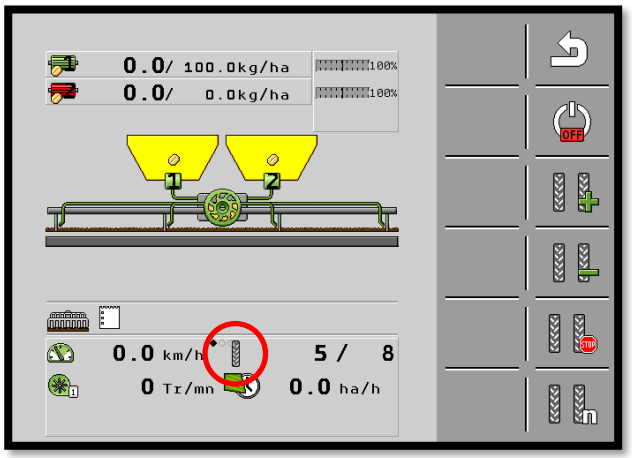


10 – Tramlining / ½ seeder

7 bis At the 4th passage, the left valve activate itself for the first time.

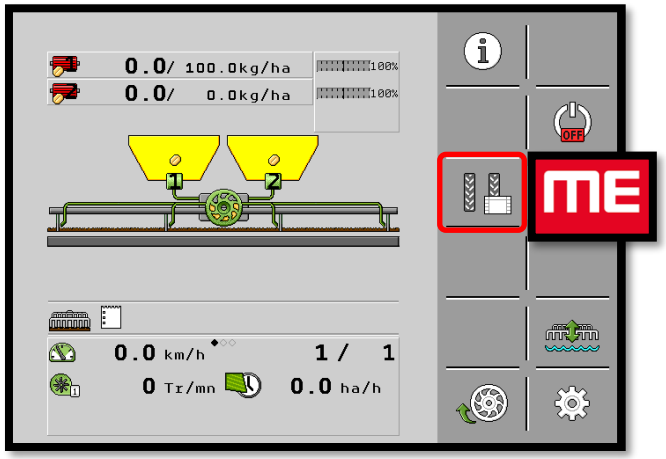


8 – At 5 th passage, the left valve activate itself for the second time.

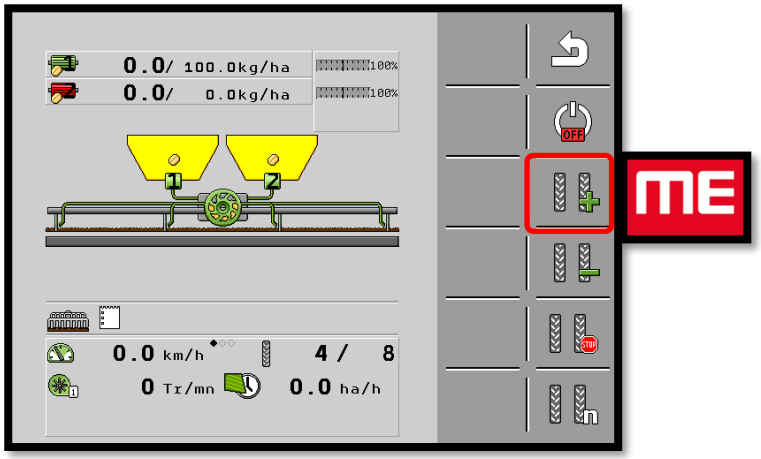


11 – Tramlining / Using

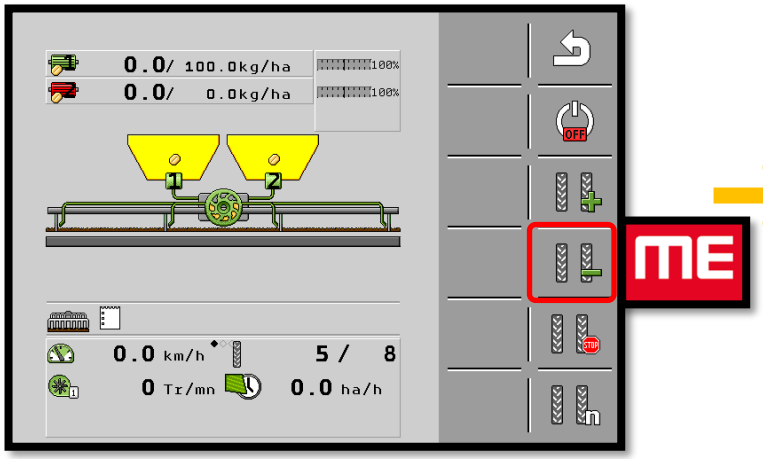
1 – Press the ME button to access at the marking parameter



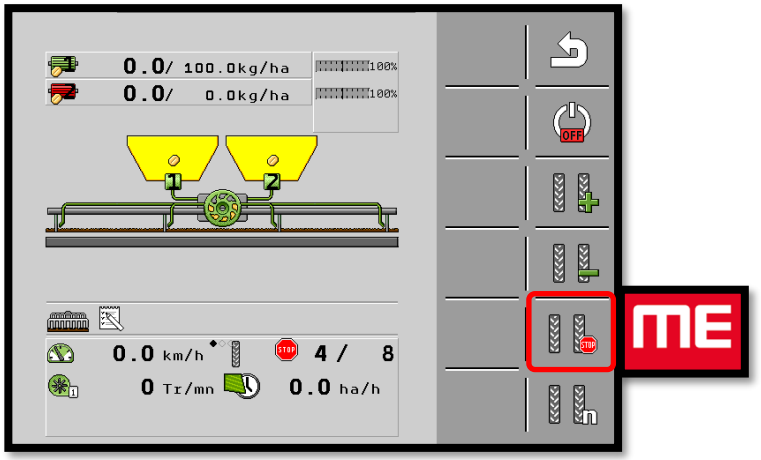
2 – Press the ME button to have an extra passage manually



3 – Press the ME button to have one passage less manually.

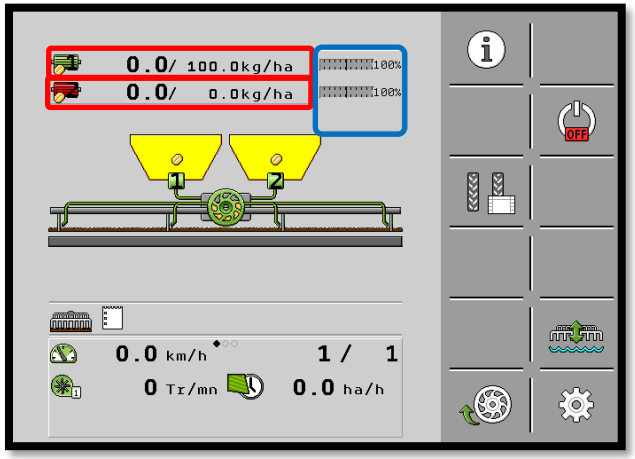


4 – Press the button to stop the marking (in case of lifting, lowered couple of times on the same passage)

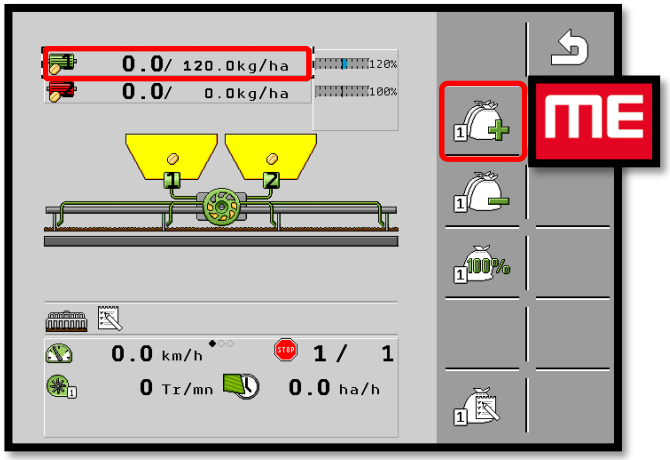


12 – Manual Rate Modulation

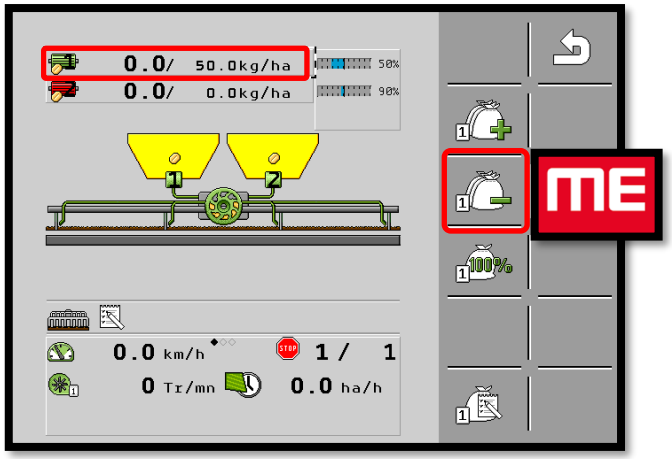
1 – Two solutions of modulation:
- One by the products in RED
- One by all the products in BLUE



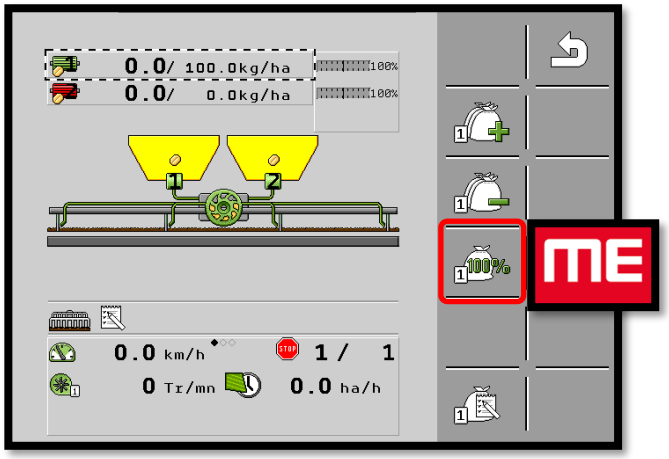
2 – ME button permits to increase temporary the quantity of 10% with each impulsions.



3 – ME button permits to reduce temporary the quantity of 10% with each impulsions.

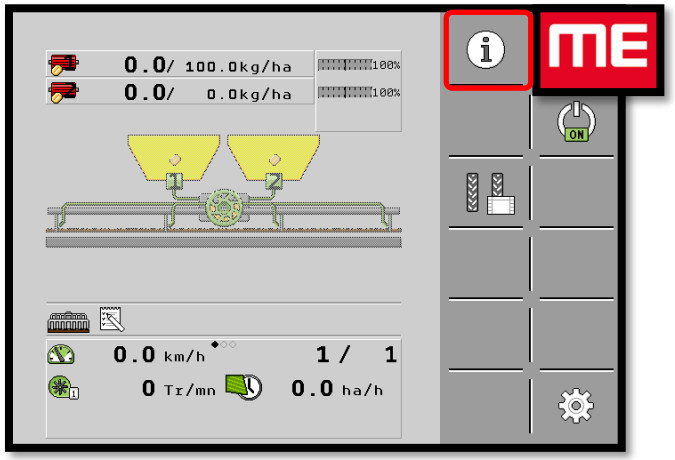


4 – Me button permits to come back to the normal dose

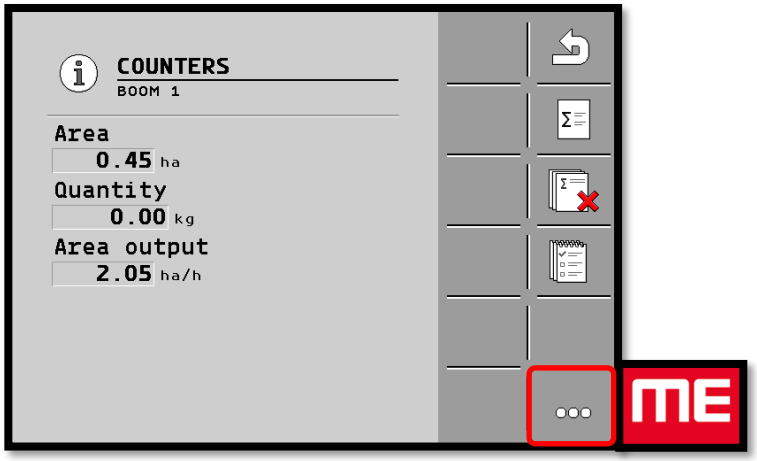


13 – Worked area information

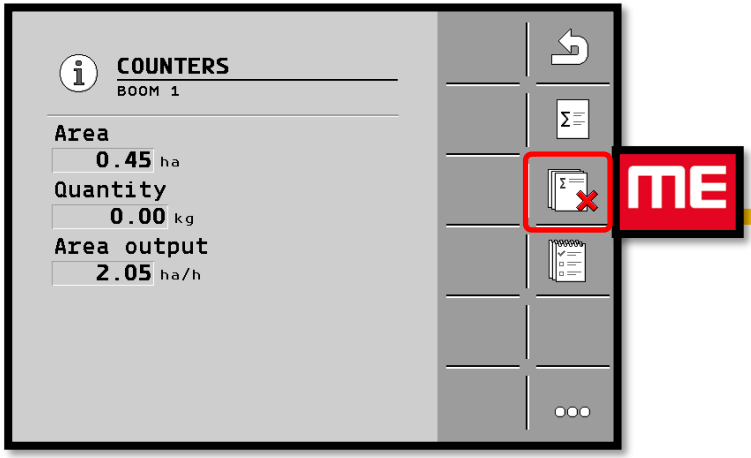
1 – Press the ME button to get the information about the area



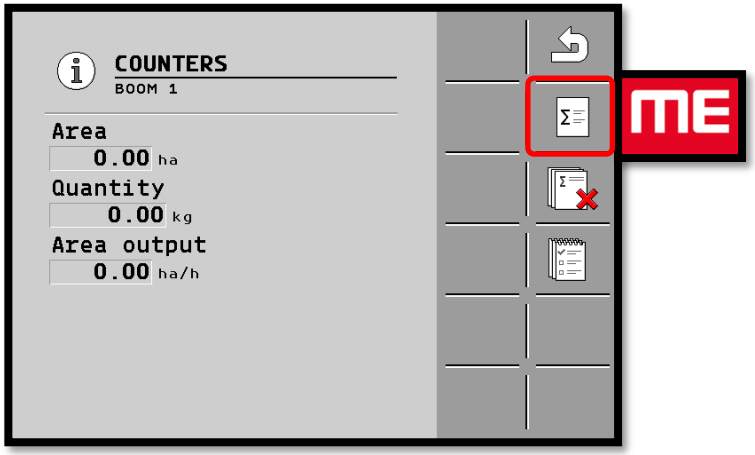
2 – This screen shows the area sown since the product (hopper) was last reset to zero. Press the ME button to access the other products (hoppers).



3 – Press the ME button to reset the counter of the product to 0

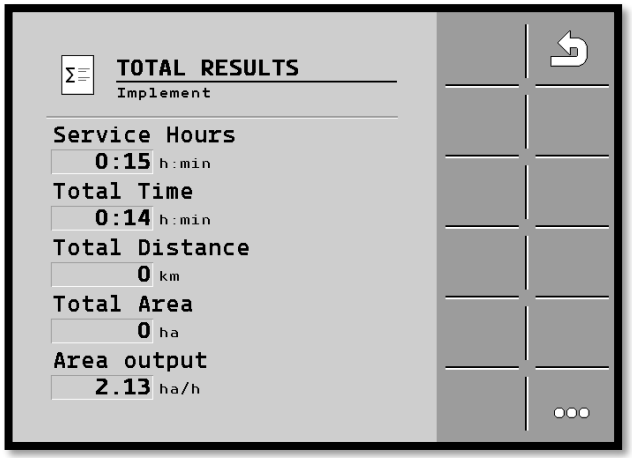


4 – Press the Me button to get the general counter of the machine



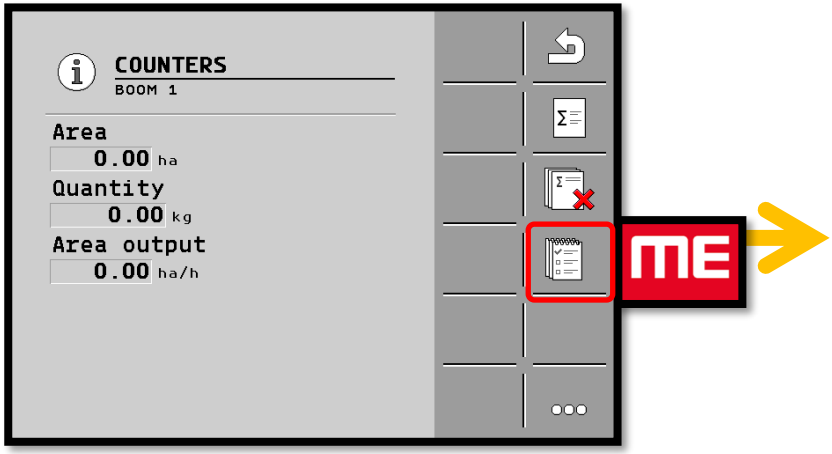
14 – Information area / Missions

On this screen there is the general counter, without reset to 0 possible.

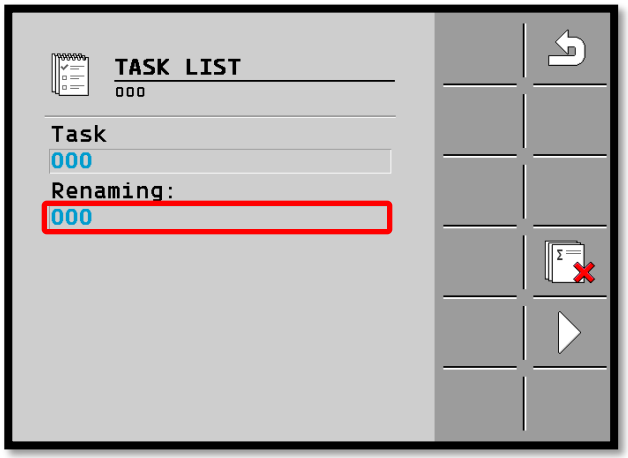


Press the ME button to come back to the last menu

1 - It is possible to have multiple area measurements. To do this, press the ME button.

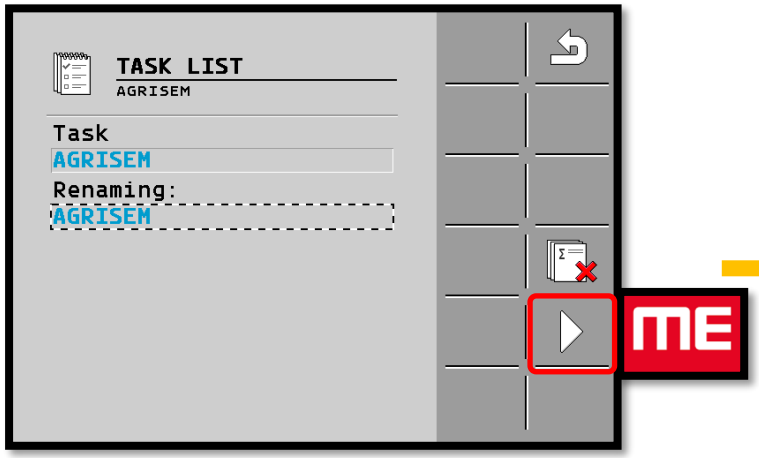


2 - Select “rename” by pressing on it to change the name.

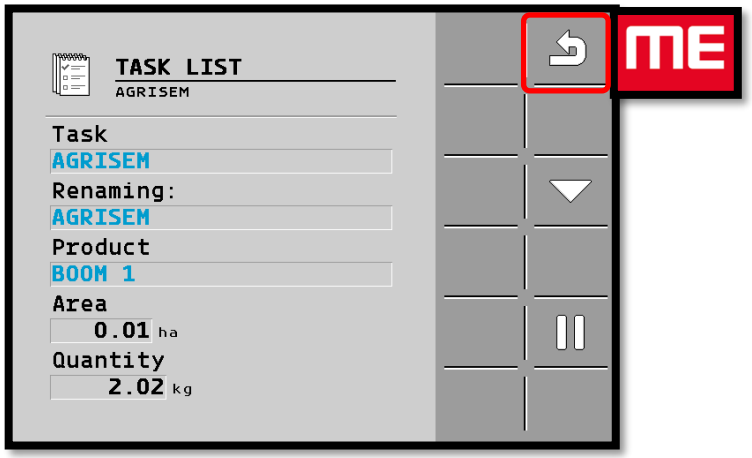


14 – Information area / Missions

3 – Press the ME button to launch the mission

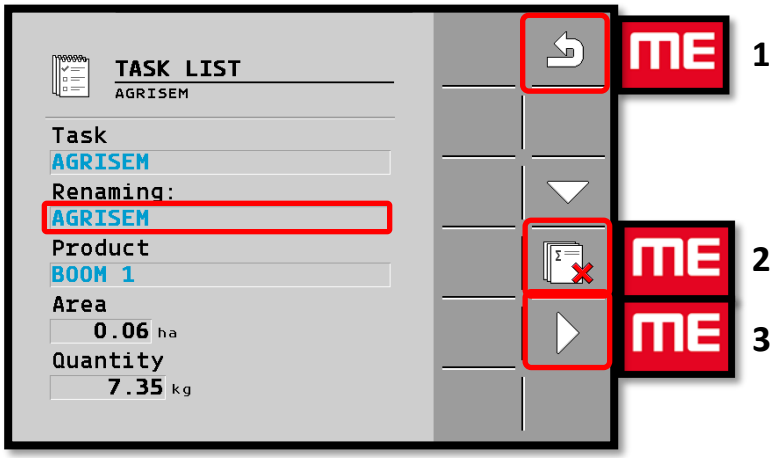


4 – The mission is launched. Press the ME button couple of times to return to the work screen.



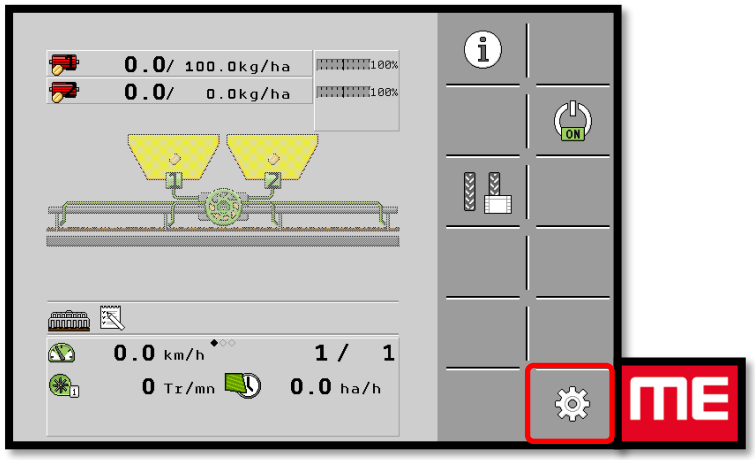
5 – When the mission finish, you can press the ME button to stop

6 – You can restart the task by pressing the ME 3 button, delete by pressing the ME 2 button. Press the ME 1 button couple of times to return to the work screen.

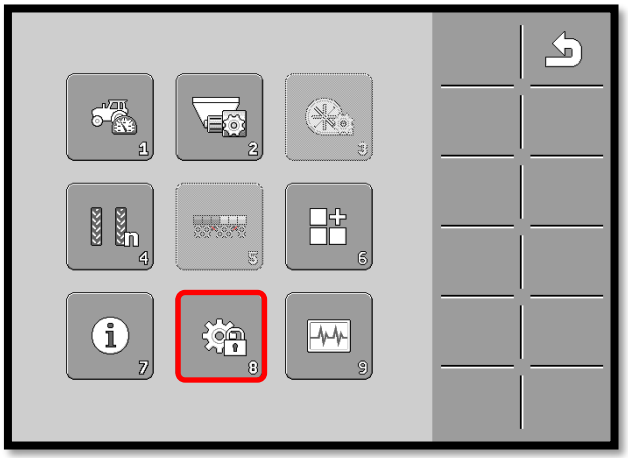


15 – Multi-Setting Mode

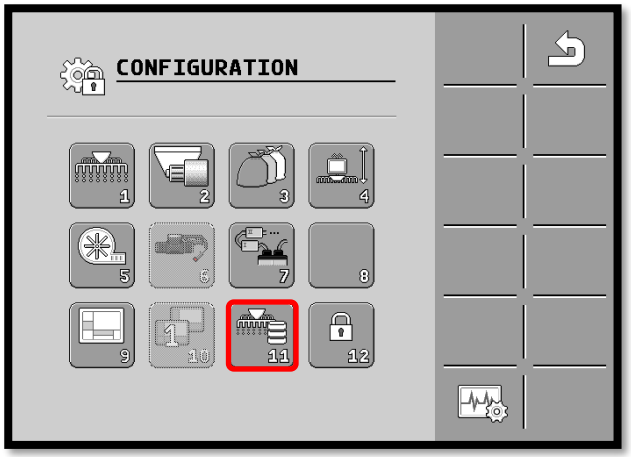
1 – On the home screen, press the ME button



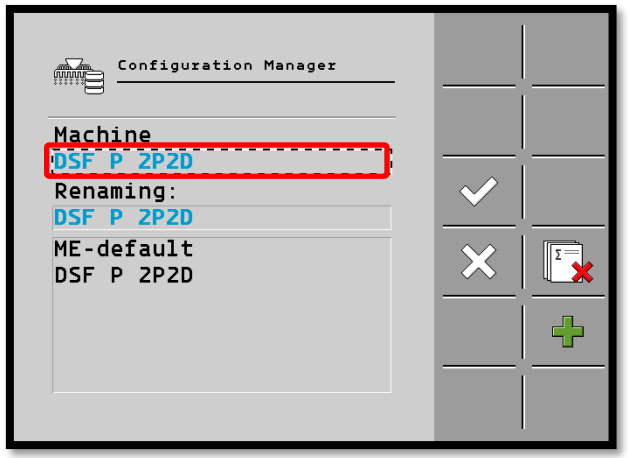
2 – Press on the number 8



3 – Press on the number 11

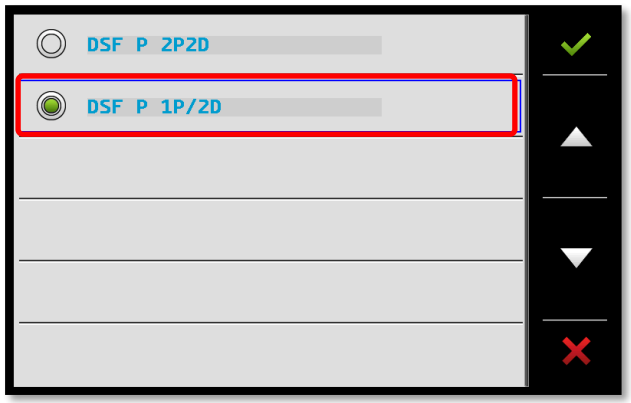


4 – Press the button on the machine to access the different settings.

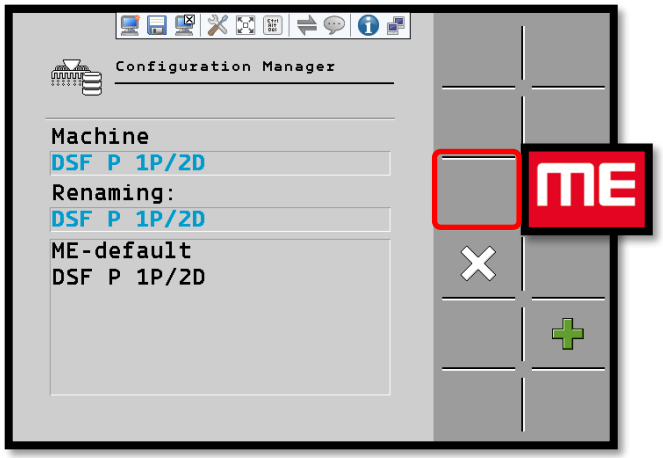


15 – Multi-Setting Mode

5 – Select the desired configuration

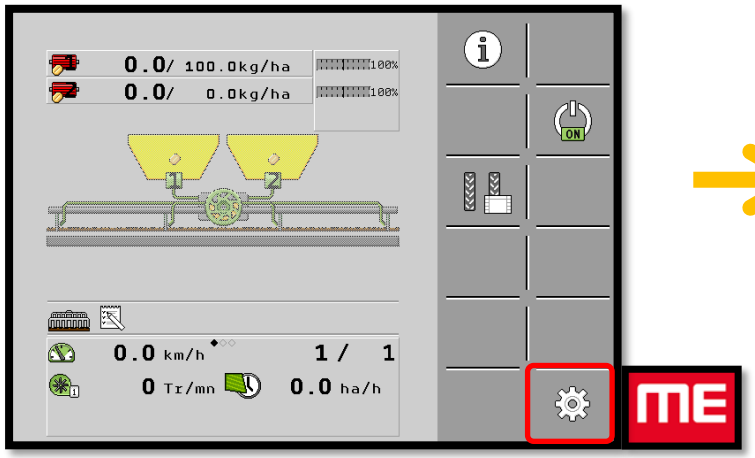


6 – Confirm the configuration, and the box will restart automatically.

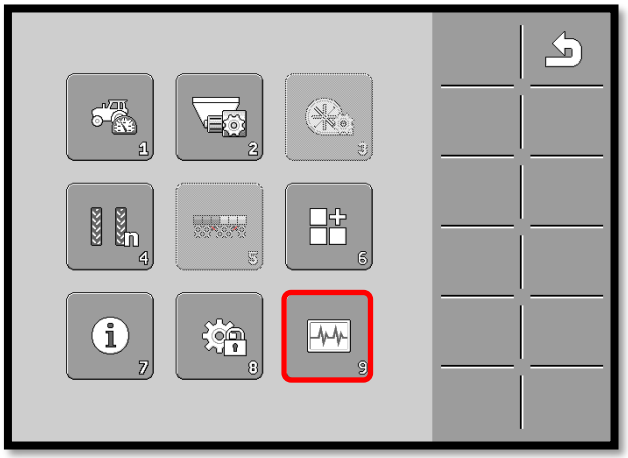


16 – Diagnostic mode

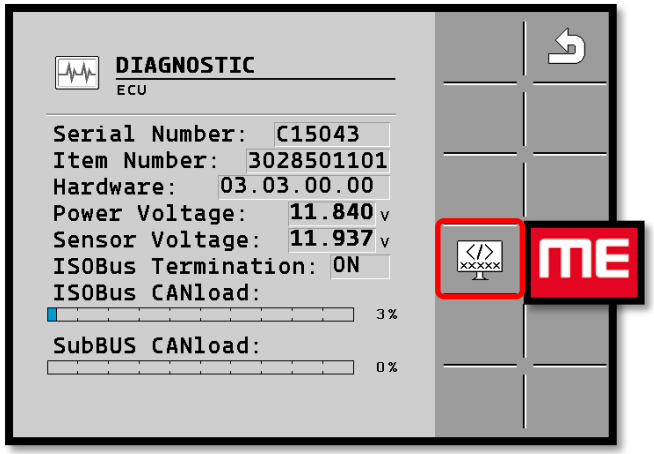
1 – To enter the diagnostic mode, on the main screen, press the ME button



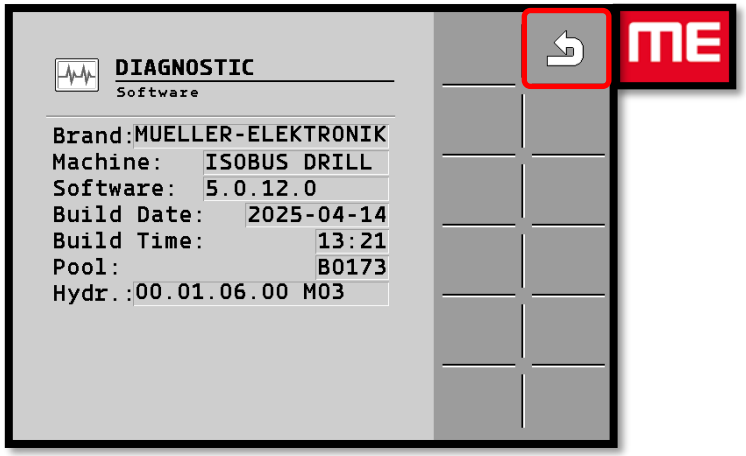
2 – Press the button 9 to enter in the diagnostic mode.



3 – Press the ME button to view the software version.



4 – Press the ME button to return to step 2.

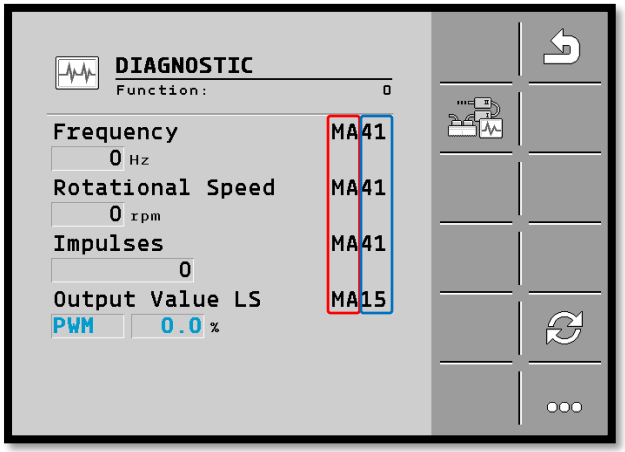


16 – Diagnostic mode

5 – Press the button 8

6 – Press the ME button

7 – First page of the diagnostic menu



Important Information:

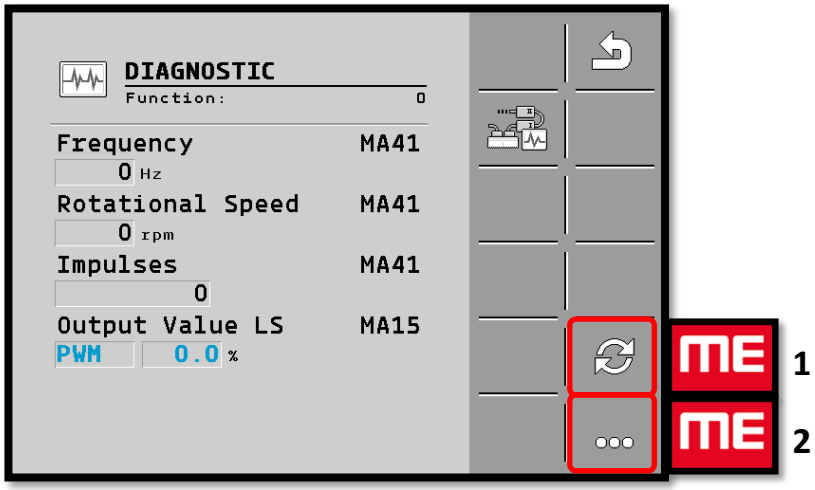
Depending on the machine configuration, the functions may different.

The following designations:
MA: Master ECU (first ECU)
1S: Additional ECU number 1
2S: Additional ECU number 2

The numbers following “MA” in BLUE correspond to the location of the function connection. See the junction box table in section 17.

16 – Diagnostic mode

8 – Press the following button to go to the other pages Function 0

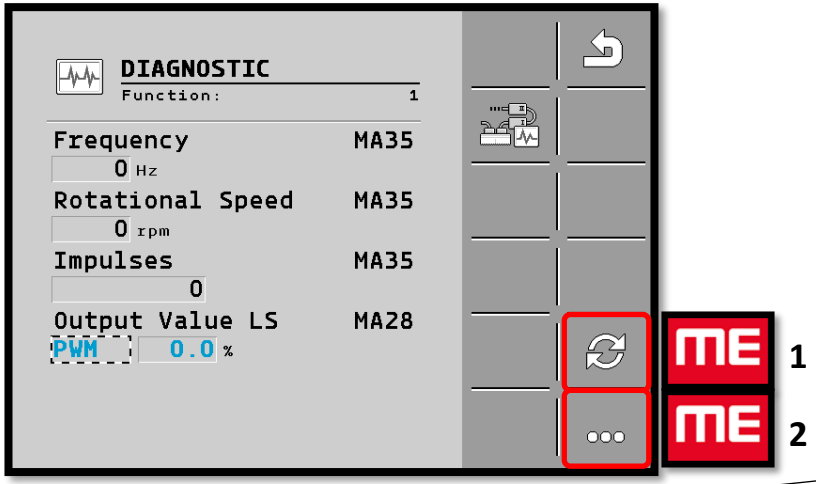


Button 1 : Reset to zero
Button 2 : Next page

MA 15 : Motor 1
MA 41 : Motor 1 (encoder)

PS: To test the motor, put LS out value at 50 %. The motor must turn at 50% of its capacity, so around 1125 Tr/min.

- **Function 1**



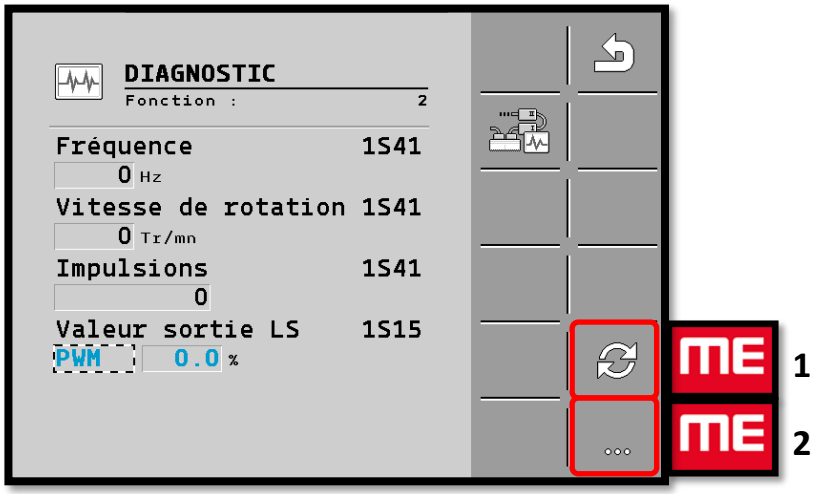
Button 1 : Reset to zero
Button 2 : Next page

MA 28 : Motor 2
MA 35 : Motor 2 (encoder)

PS: To test the motor, put LS out value at 50 %. The motor must turn at 50% of its capacity, so around 1125 Tr/min.

16 – Diagnostic mode

- **Function 2**

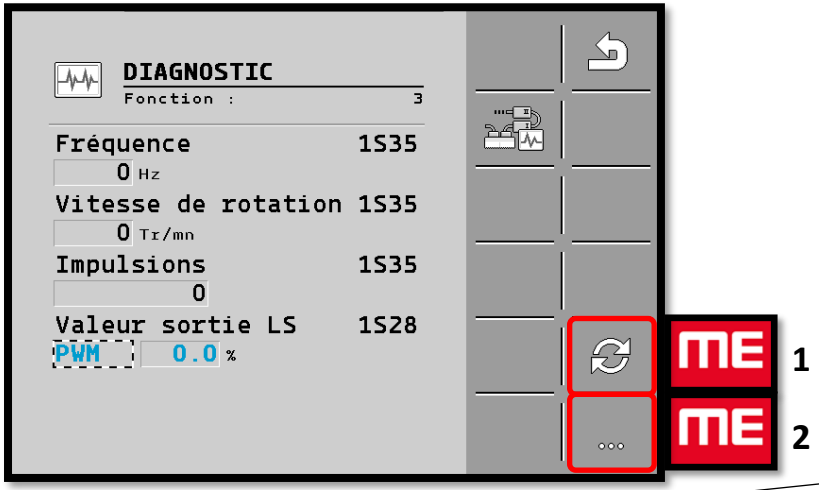


Button 1 : Reset to zero
Button 2 : Next page

MA 15 : Motor 3
MA 41 : Motor 3 (encoder)

PS: To test the motor, put LS out value at 50 %. The motor must turn at 50% of its capacity, so around 1125 Tr/min.

- **Function 3**



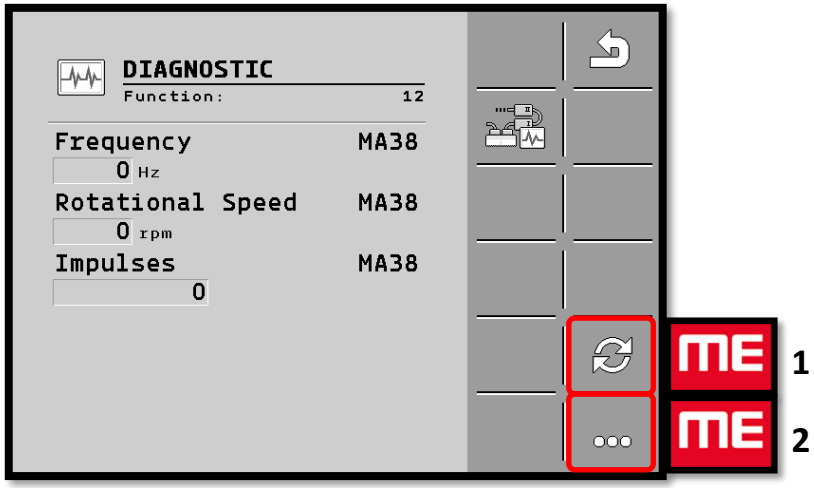
Button 1 : Reset to zero
Button 2 : Next page

MA 28 : Motor 4
MA 35 : Motor 4 (encoder)

PS: To test the motor, put LS out value at 50 %. The motor must turn at 50% of its capacity, so around 1125 Tr/min.

16 – Diagnostic mode

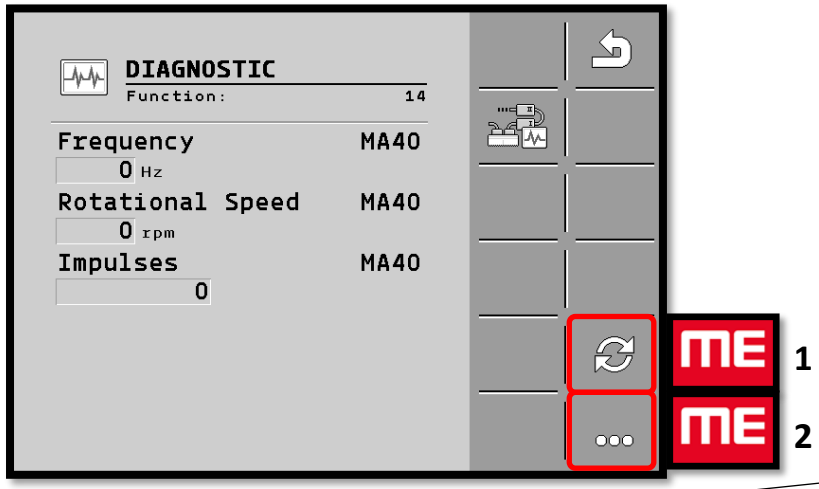
- **Function 12**



Button 1 : Reset to zero
Button 2 : Next page

MA 38 : Fan

- **Function 14**

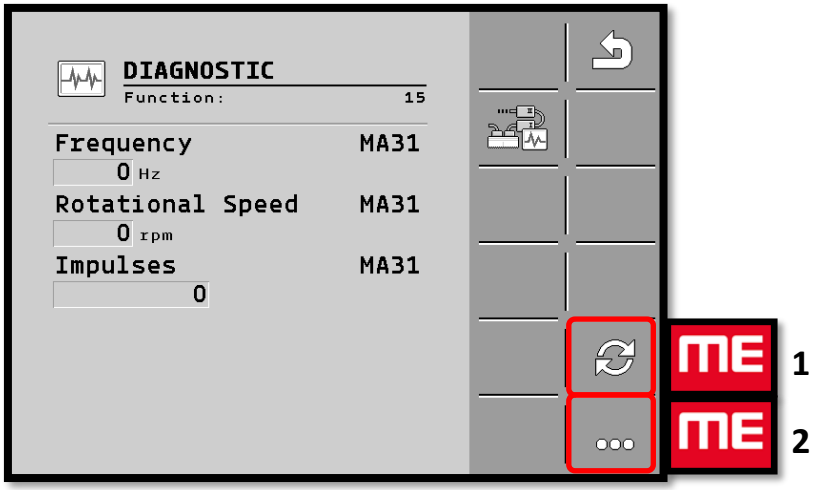


Button 1 : Reset to zero
Button 2 : Next page

MA 40 : Sensor of distribution 1

16 – Diagnostic mode

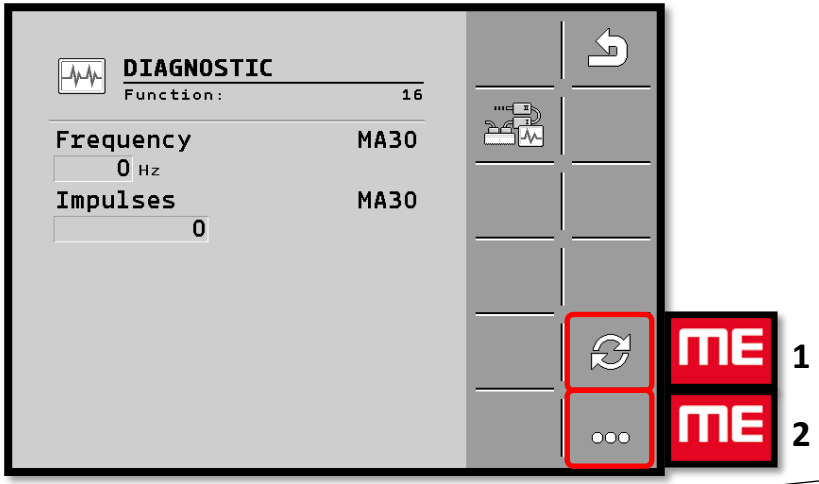
- **Function 15**



Button 1 : Reset to zero
Button 2 : Next page

MA 31 : Sensor of distribution 2

- **Function 16**

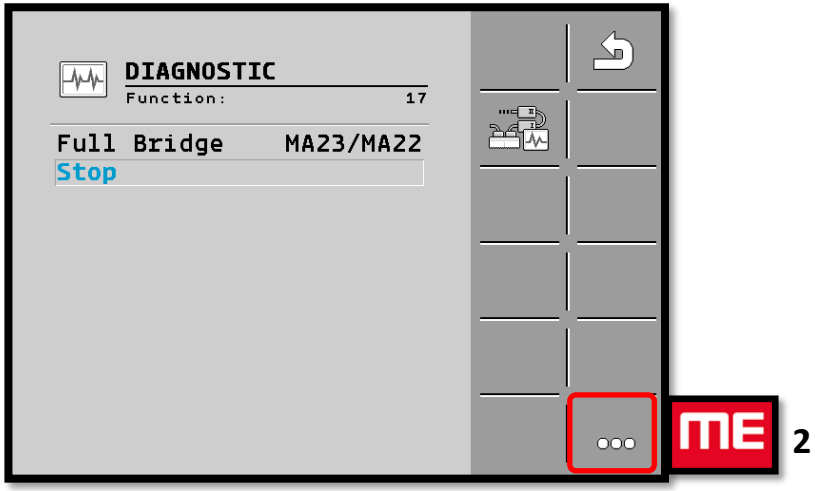


Button 1 : Reset to zero
Button 2 : Next page

MA 30 : Radar or DGPS

16 – Diagnostic mode

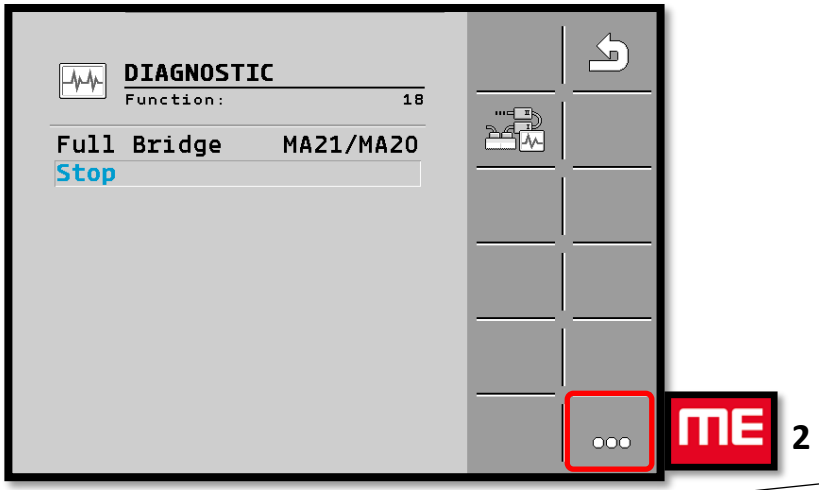
- **Function 17**



Button 2 : Next page

MA 23/MA22 : Tramline left

- **Function 18**

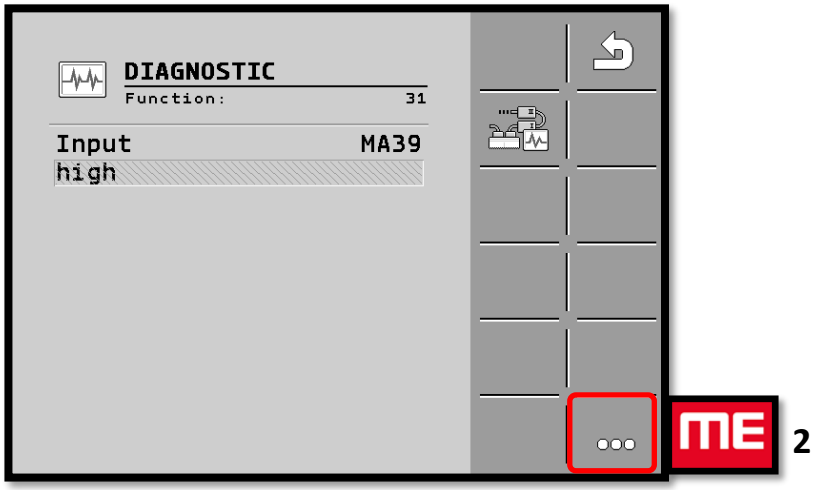


Button 2 : Next page

MA 21/MA20 : Tramline right

16 – Diagnostic mode

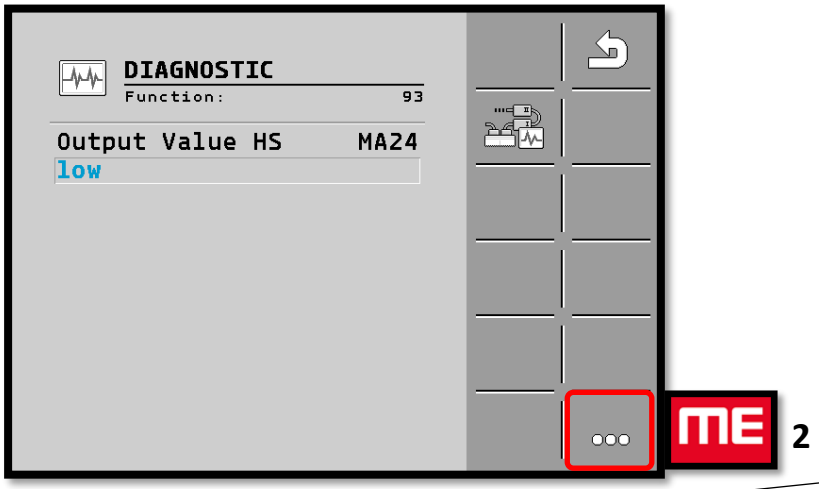
- **Function 31**



Button 2 : Next page

MA 39: Working position sensor

- **Function 93**

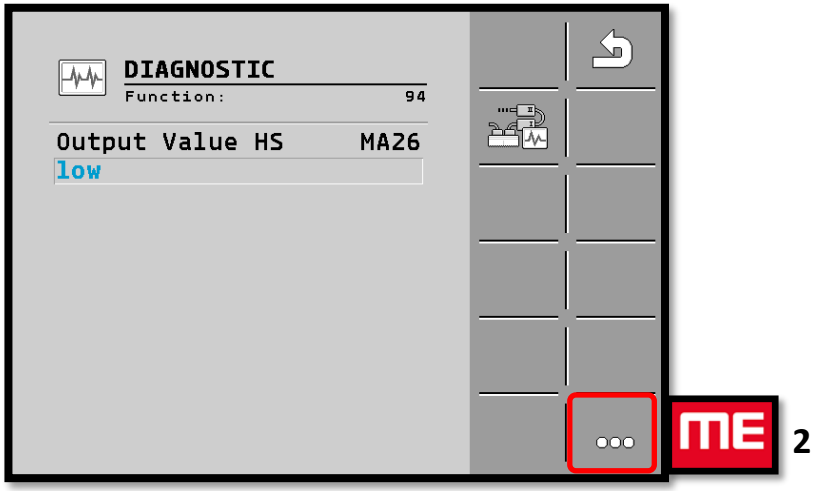


Button 2 : Next page

MA 24 : Hopper lights

16 – Diagnostic mode

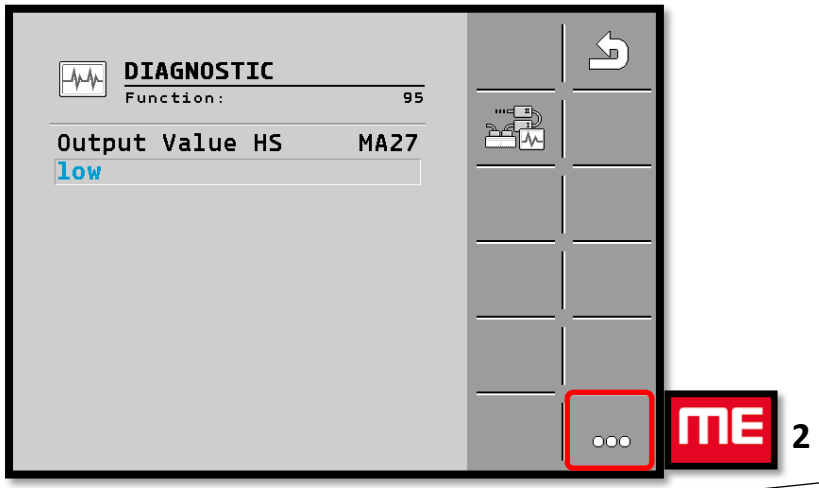
- **Function 94**



Button 2 : Next page

MA 26 : Beacon

- **Function 95**

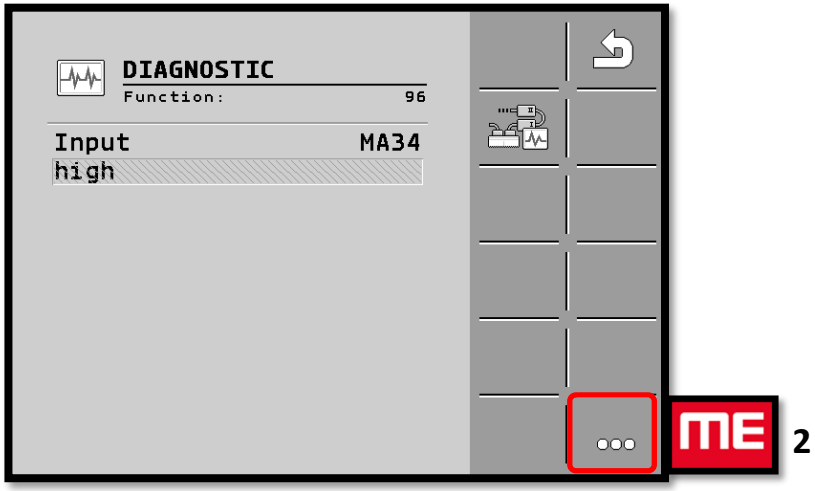


Button 2 : Next page

MA 27 : Work lights

16 – Diagnostic mode

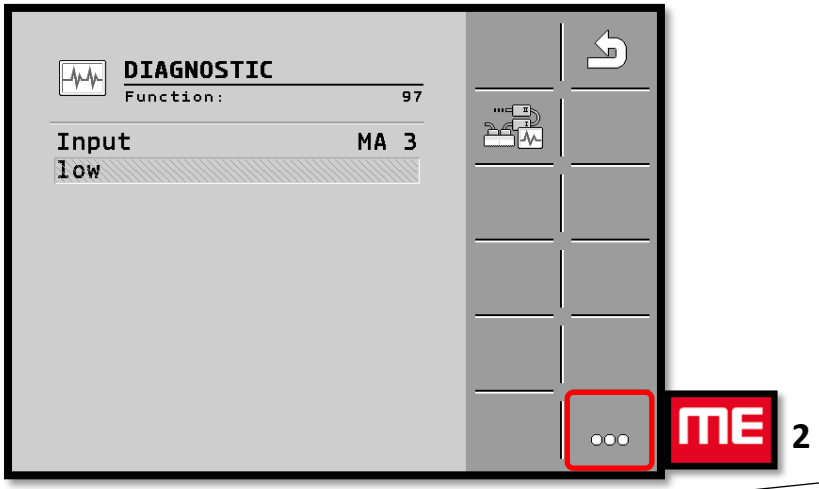
- **Function 96**



Button 2 : Next page

MA 34 : : Calibration button

- **Function 97**

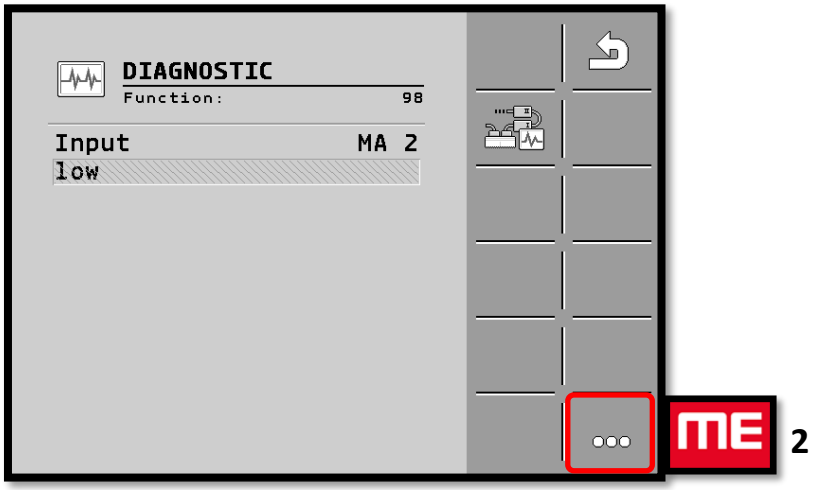


Button 2 : Next page

MA 3 : Hopper sensor Empty level 1

16 – Diagnostic mode

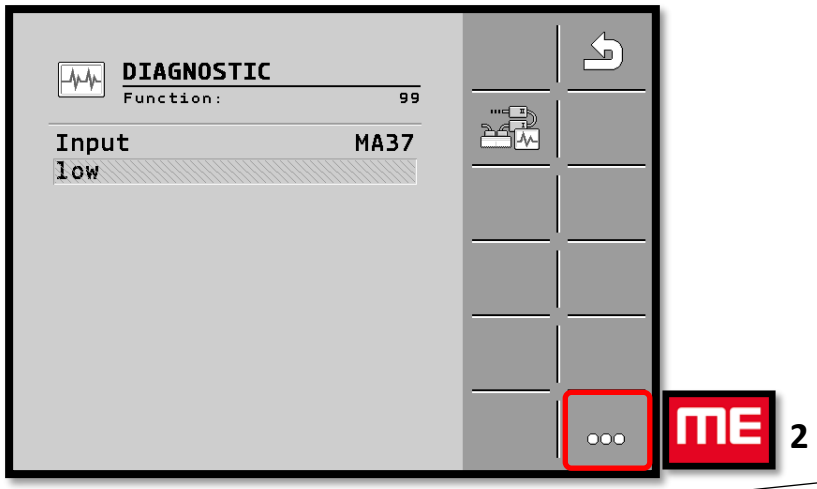
- **Function 98**



Button 2 : Next page

MA 2 : Hopper sensor Empty level 2

- **Function 99**

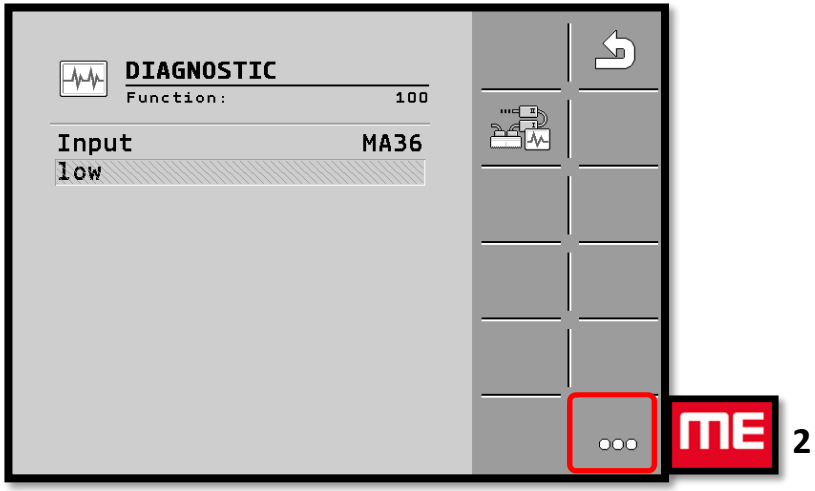


Button 2 : Next page

MA 37 : Hopper sensor Low level 1

16 – Diagnostic mode

- **Function 100**



Button 2 : Next page

MA 36 : Hopper Sensor Low Level 2

- Diagnostic mode is used to check the commands sent by the monitor are correctly received by the various components of the machine, and the information from the sensors is correctly transmitted to the monitor.

17 – Mounting mode = Junction box table

Example of a terminal block to a DSF 1600

Terminal block

ACTIONS

Fuse 15A (GNDL)

GNDL = neutral

12 VL

1 part

Be careful, the terminal block is split into two parts!!!!

A 19 (28)	A 17 (26)	A 15 (24)	A 13 (22)	A 11 (20)	A 9 (13)	A 7 (11)	A 5 (9)	A 3 (7)	A 1 (5)	Fuse of 10A (A1)
Power supply Motor 2 set to A19 and S17* (12v+sig)	Beacon	Hopper lights	Tramline left + (Connect to signal)	Tramline right+(Connect to signal)						

GNDL = neutral

TB

2 part

A 20 (15)	A 18 (27)	A 16 (25)	A 14 (23)	A 12 (21)	A 10 (19)	A 8 (12)	A 6 (10)	A 4 (4)	A 2 (6)	Fuse of 10A (A3)
Power supply Motor 1 set to A20 and S24* (12v+sig)	Working lights		Tramline left + (Connect to signal)	Tramline right+(Connect to signal)						

SENSORS

Fuse of 15A (12VL) | Fuse of 15A (28) | Fuse of 15A (A20) | Fuse of 15A (TB)

S 23 (27)	S 21 (39)	S 19 (24)	S 17 (35)	S 15 (31)	S 13 (20)	S 11 (18)	S 9 (16)	S 7 (4)	S 5 (6)	S 3 (37)	S 1 (36)
	Working position sensor		Motor 2 or 4 (encoder)	Sensor of distribution 2						Hopper sensor Low level 1	Hopper Sensor Low Level 2

12 VE

GNDE = neutral

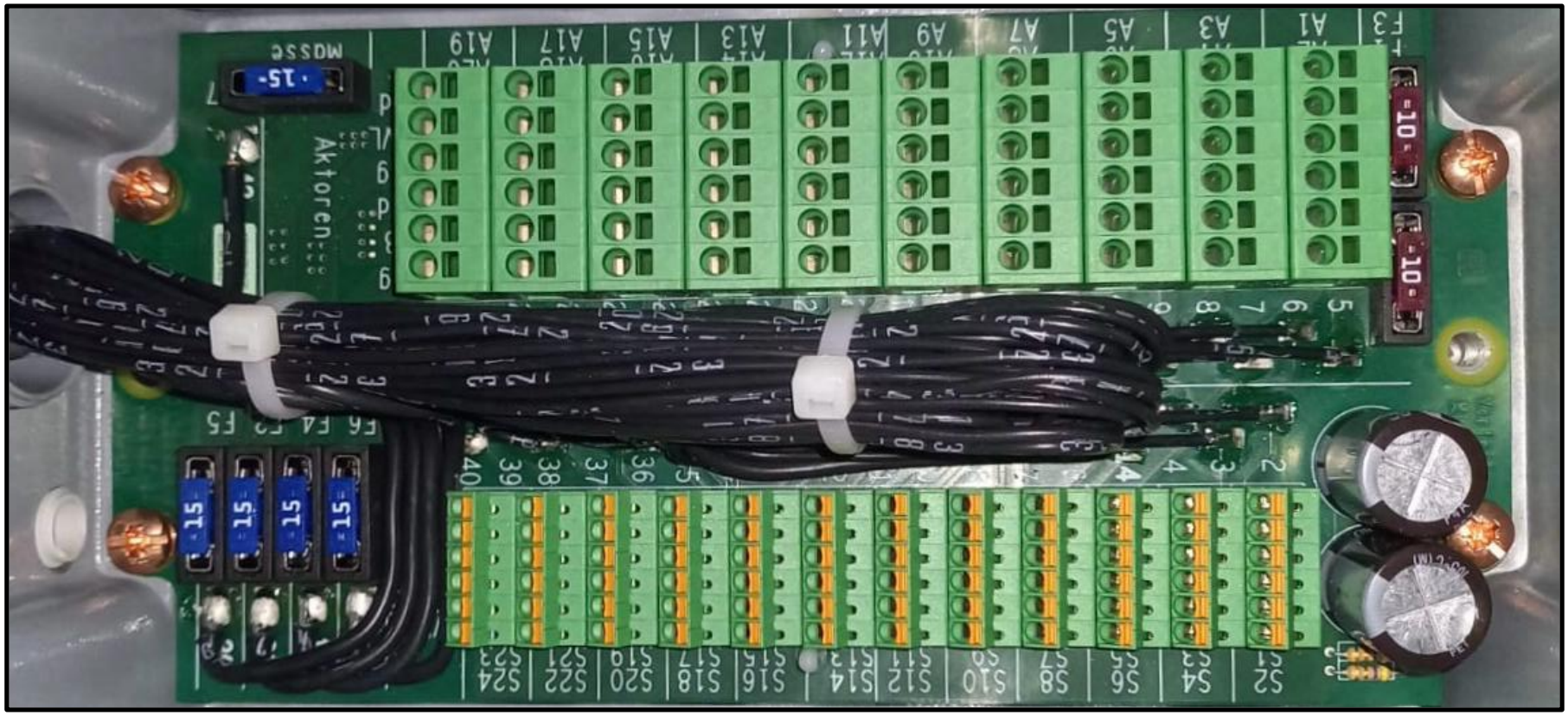
S 24 (41)	S 22 (40)	S 20 (38)	S 18 (23)	S 16 (34)	S 14 (30)	S 12 (13)	S 10 (17)	S 8 (14)	S 6	S 4 (3)	S 2 (2)
Motor 1 or 2 (encoder)	Sensor of distribution 1	Fan speed sensor		Calibration button	Radar or DGPS					Hopper sensor Empty level 1	Hopper sensor Empty level 2

12 VE

GNDE = neutral

Correspondence with diagnostic mode

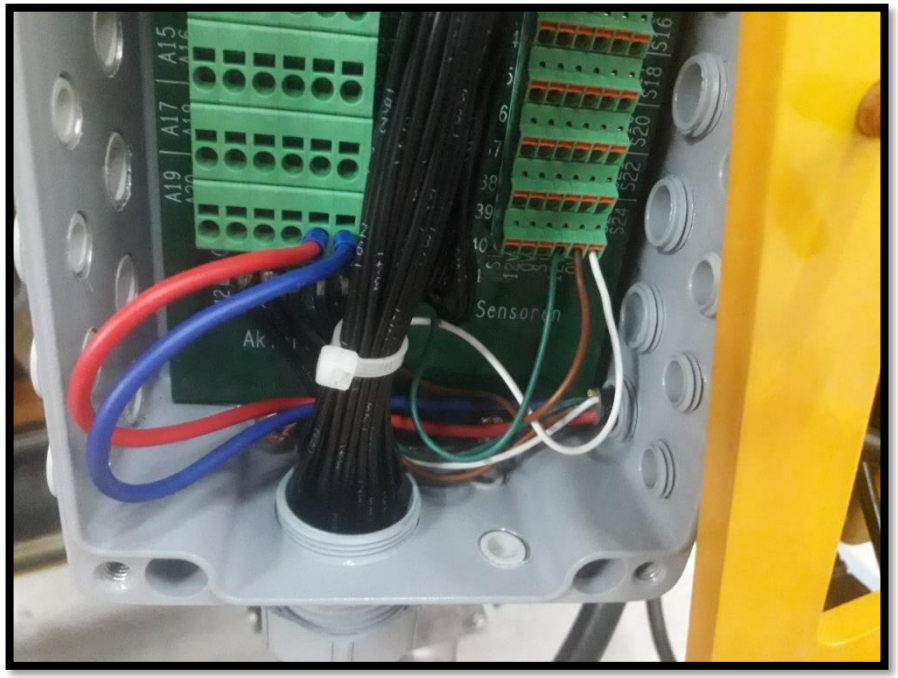
17 – Mounting mode = Junction box table

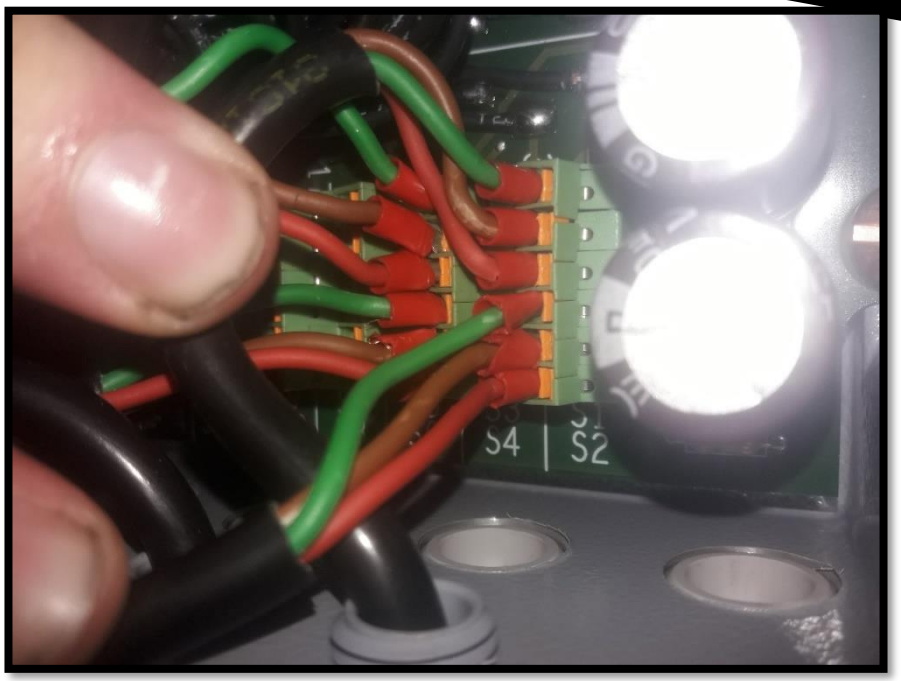


17 – Mounting mode = Junction box table

Collar clamp colors		Designation
WELLOW		Work position sensor
BLUE	RED	Distribution sensor 1
BLUE	BLACK	Distribution sensor 2
WELLOW	GREEN	Hopper high level sensor - Hopper 1
WELLOW	BLUE	Hopper high level sensor - Hopper 2
WELLOW	RED	Hopper low level sensor - Hopper 1
WELLOW	BLACK	Hopper low level sensor - Hopper 2
RED		Fan speed sensor
GREEN		Calibration button
BLUE		Radar or GPS
RED	GREEN	Motor 1
RED	BLACK	Motor 2
WITHE		Working lights

17 – Mounting mode = Junction box table





Take care when connecting the motor wires, they must always be connected in this order:

Green = SIG

Red = 12V

Brown = 12V

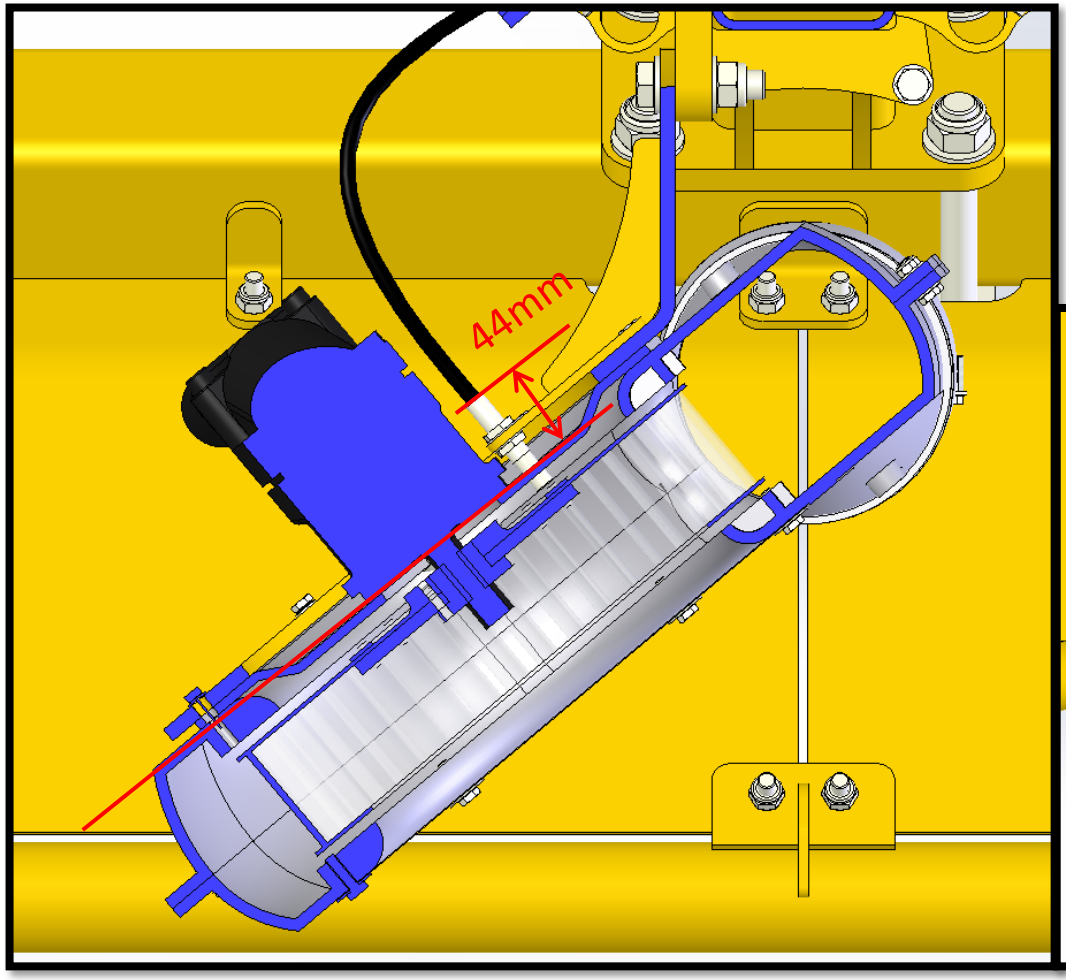
Blue = SIG

Withe = OVE

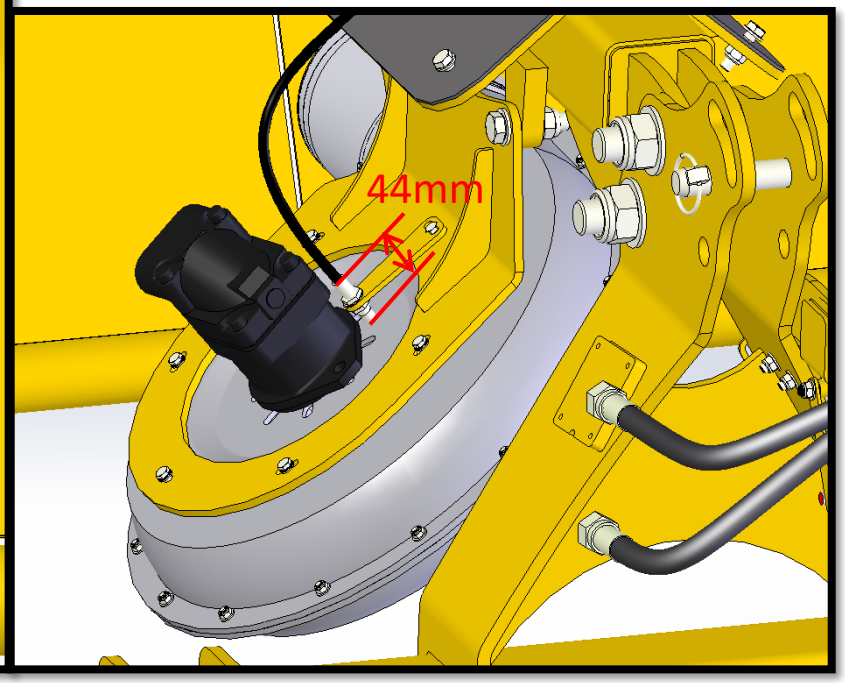
The hopper sensors are connected to S1 and S2

3 Black = SIG	**OR**	**3 Green= SIG**
2 Brown = 12V	**OR**	**2 Brown = 12V**
1 Blue = OVE	**OR**	**1 Red = OVE**

17 – Mounting mode = place of speed sensor



Required clearance = 44 mm From the end of the sensor to the motor mount.



18 – Error messages

Isobus Alarms			
ID	**Alarm text**	**Possible cause**	**Possible solution**
001	System has been stopped. Reboot required.	The connection to a slave job computer has been interrupted. A download manager has been activated.	Restart the job computer.
002	Configuration has been changed. The job computer is rebooting.	The configuration has been changed.	Wait until the job computer has rebooted.
003	Input is too high.	The entered value is too high.	Enter a lower value.
004	Input is too low.	The entered value is too low.	Enter a higher value.
005	Error with the reading or writing of data to the flash memory or EEPROM.	An error has occurred while the job computer was starting.	Restart the job computer.
006	Data has been successfully imported.		
007	Error detected in the configuration.	Faulty configuration.	Check the configuration.
008	Procedure is not allowed while a task is activated in the ISOBUS-TC application.	A task is activated in the ISOBUS-TC application.	Deactivate the task.
009	Speed signal from CAN bus has been lost.	The cable was disconnected.	Check the cable connection.
010	Error with the initialisation of the Control Layer configuration.	There was an error in the Control Layer configuration.	Check the configuration.
011	Several terminals have the same number.	There are several terminals with the same number on the ISOBUS (function instance).	Change the number (function instance) on the terminal.
012	Several TASK-Controllers have the save number.	There are several TASK-Controllers with this number on the ISOBUS.	Change the number.
013	The task list is full.	There are too many tasks in the task list.	Delete task data that is no longer required.
014	The recording of an internal task has been stopped because the product was changed.	The product has been changed during the recording of an internal task.	Select the initial product.

18 – Error messages

015	The task could not be started because a different product was assigned.	A different product is stored in the task than was assigned to the hopper in the configuration.	Check which is the correct product and correct the task or the hopper assignment.
043	Dataset already exists.	An identical dataset already exists.	Check the dataset or change the name.
044	Dataset has errors.	The dataset has an error.	Check the dataset.
045	Dataset not found.	A selected dataset could not be found. You did not performed a calibration for the selected product.	Select a different data set or perform a calibration test for the selected product.
046	Loop overflow.	A conflict has occurred between the database and the implement.	Check the dataset.
047	Database is full.	The database is full.	You must first delete a dataset to be able to save a new one.
060	Entry cannot be adopted. Value has been corrected.	The boom width cannot be divided by the assigned sections.	Check the boom width and the number of sections.

Hydraulics alarms

ID	Alarm text	Possible cause	Possible solution
201	Hydraulic table is not compatible with the configuration.	The hydraulic table does not match with the configuration of the job computer.	Use a different hydraulic table or change the configuration.
202	Hydraulic table is not compatible. All hydraulic functions are deactivated.	The hydraulic table does not match with the configuration of the job computer.	Use a different hydraulic table.
203	Movement of the bout marker is paused. The speed is too low.	The working speed is too low.	Increase the working speed.
204	Bout marker time has not expired yet.	The bout marker time has not expired yet.	Wait until the bout marker time has expired.

18 – Error messages

Regulation alarms			
ID	**Alarm text**	**Possible cause**	**Possible solution**
400	The configured target rotational speed for the fan is invalid. Product: xxxx.	The set target rotational speed is outside of the defined limits of the fan drive for the respective product.	Change the minimum and maximum limit for the target rotational speed of the product.
401	Fan is rotating too slowly.	The current fan speed is lower than the defined value for the “Fan Speed Tolerance” parameter.	Increase the fan speed or change the tolerance limit.
402	Fan is rotating too fast.	The current fan speed is higher than the defined value for the “Fan Speed Tolerance” parameter.	Reduce the fan speed or change the tolerance limit.
403	Pressure is too high.	The pressure of a linear sensor exceeds the value for the “Maximum Value” parameter.	Reduce the pressure or change the “Maximum Value” parameter.
404	Pressure is too low.	The pressure of a linear sensor is below the value for the “Minimum Value” parameter.	Increase the pressure or change the “Minimum Value” parameter.
405	The metering was stopped because the work position was not reached. Raise the machine.	The machine is not in work position.	Raise the machine.
406	The metering unit has been stopped because the machine has not been completely raised. Raise the machine.	The machine has not been completely raised.	Raise the machine.
407	Metering drive is stationary.	The current speed of the metering drive is lower than the minimum speed.	Stop immediately! Remove the cause.
408	Metering shaft is stationary.	The revolution sensor on the metering shaft does not register any metering shaft movement.	Stop immediately! Remove the cause.
410	Metering drive regulation range exceeded.	The current speed of the metering drive is higher or lower than the set speed.	Drive more slowly or faster or install a larger metering roll.
411	Metering drive cannot maintain target rate.	You are driving too fast or too slow. It is not possible to reach the target rate at the current speed.	Drive more slowly or faster, so that the job computer can control the target rate.
412	Application has been stopped because of a critical error.	Another error has occurred. This error always appears in combination with another error.	Fix the related error.
413	Application has been stopped because the forward speed was too high.	The forward speed is too high.	Reduce the driving speed.

18 – Error messages

414	The metering unit has been stopped because the machine has not been completely raised. Raise the machine.	The machine has not been completely raised.	Raise the machine.
415	Fan is rotating too fast. Metering stopped.	The current fan speed is higher than the value of the “Max. Rotational Speed” parameter.	Decrease the fan speed or change the “Max. Rotational Speed” parameter for the fan.
416	Fan is rotating too slowly. Metering stopped.	The current fan speed is lower than the value for the “Min. Rotational Speed” parameter.	Increase the fan speed or change the “Min. Rotational Speed” parameter for the fan.
417	Calibration flap is open. Please close it.	The calibration flap is open although the seeder is currently spreading.	Close the calibration flap.
418	Calibration flap is closed. Please open it.	The calibration flap is closed although a calibration test is currently being performed.	Open the calibration flap.

Machine-specific alarms

ID	Alarm text	Possible cause	Possible solution
602	Connection lost.	The connection to an ERC module has been lost.	Check the cable.
603	Connection disrupted.	The connection to an ERC module has been disrupted.	Check the cable.
604	Supply voltage is too low.	The supply voltage for the ERC modules is too low.	Check the supply voltage and check the vehicle battery.
605	Short circuit	There is a short circuit in the ERC modules.	Check the cable.
606	Open load circuit	An open load circuit has been detected in the ERC modules.	Check the cable and check whether the shut-off clutch is available.
607	Error detected in ERC module.	Faulty configuration.	Check the configuration of the inputs and outputs.
608	No seed flow detected.	The blockage system has not detected any seed flow.	Check the blockage system.
609	Seed flow detected.	Seed flow has occurred in a tramline.	Check the tramline control.

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611	Hopper is low.	There is not enough seed or fertilizer in the hopper.	Fill the hopper.
612	Hopper is empty.	There is no more seed or fertilizer in the hopper.	Fill the hopper.
613	Timeout during section switching.	The switching of the left section is taking too long.	Check if something is stuck.
617	The charger does not work.	There is a malfunction in the alternator of the charger.	Check the alternator of the charger.
618	No product flow detected in active row.	No product flow has been detected in an active row.	Check the product flow, there may be a blockage in one of the supply lines.
619	Excessive product flow detected in active row.	Excessive product flow has been detected in an active row.	Check the calibration.
620	Insufficient product flow detected in active row.	Insufficient product flow has been detected in an active row.	Check the calibration.
621	There is no dataset for this product.	The calibration was not performed yet for the respective product.	Perform a calibration before working with the product.
622	Calibration button is activated.	The calibration button has been activated before the calibration screen has been called up.	Let go of the calibration button.
630	Connection lost.	The connection to an MRC module has been lost.	Check the cable.
631	Undefined Module Index.	A software error has occurred.	Contact Customer Service.
636	No seed during pre fill.	No seed or too little seed was detected during pre-metering.	Ensure that enough seed is available.
638	Motor is at standstill.	The MRC motor is at a standstill.	Check the cable.
639	Current too high.	The MRC motor requires too much current.	Check if something is stuck.
640	Rot. speed not reached.	The MRC module has not reached the required rotational speed.	Check the cable. Check the seeding units.
641	Power voltage too low.	The power voltage on the MRC module is too low.	Check the cable.
642	Electronic voltage too low.	The electronic voltage on the MRC module is too low.	Check the cable.
643	Sensor voltage too low.	The sensor voltage on the MRC module is too low.	Check the cable.

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650	Connection lost.	The connection to the AIRidium® sensor has been disconnected.	Check the cable.
651	Undefined Module Index.	An error has occurred on the AIRidium® module.	You must contact Customer Service.
660	Connection lost.	The connection to the CAN repeater hasbeen disconnected.	Check the cable.
663	Voltage is too low.	The voltage is lower than the pre-set minimum supply voltage.	Check the cable and the power supply.
664	Error detected in PLANTirium® sensor. Degree of conta. too high.	The sensor is soiled. The sensitivity does not match the selected product.	Clean the sensor and/or change the sensitivity in the product.
665	Error detected in PLANTirium® sensor. Sensor transmit. defective.	The sensor transmitter is defective.	Check the cable on the sensor.
666	Error detected in PLANTirium® sensor. Supply voltage undercut.	The minimum supply voltage has been undercut.	Check the cable.
667	Error detected in PLANTirium® sensor. LIN bus communication error	A LIN bus communication error has occurred. The sensor does not receive messages from the LIN bus.	Check the cable.
668	Working speed is outside the speed range..	The working speed is too high or too low.	Make sure that you are in the speed range that was determined during calibration.
669	Error detected in PLANTirium® sensor. Connection lost.	The connection to the PLANTirium® sensor has been disconnected.	Check the cable on the sensor.
670	Error in blockage system. Error: Sensor:	An error has occurred in the blockage system.	Check the blockage system.
671	Error in blockage system.	An error has occurred in the blockage system.	Check the blockage system.
672	Product flow detected in inactive row.	Product flow has been detected in an inactive row.	Check the shut-off.
680	Connection lost.	The connection to the monitoring/control module has been disconnected.	Check the cable.

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681	Undefined Module Index.	A non-configured monitoring/control module has been found.	Check the number of configured or connected modules.
686	Supply voltage is too low.	The supply voltage on the monitoring/control module is too low.	Check the cable.
688	Target rate is out of reach. Coulter pressure	The required target rate for the linear actuator has not been reached.	Check the linear actuator for blockage.
689	Target rate is out of reach. Working depth	The required setpoint for the linear actuator has not been reached.	Check the linear actuator for blockage.
690	Error detected in CAN repeater. 5 V - Voltage faulty.	The CAN repeater is faulty.	You must contact Customer Service.
691	Error detected in CAN repeater. 3.3 V- Voltage fa	The CAN repeater is faulty.	You must contact Customer Service.
692	Error detected in CAN repeater. 2.5 V- Voltage fa	The CAN repeater is faulty.	You must contact Customer Service.
693	Error detected in CAN repeater 12 VE- Voltage fa	The electronic voltage source is faulty.	Check the cable.
694	Error detected in CAN repeater. 12 VL- Voltage fa	The power voltage source is faulty.	Check the cable.
695	Error detected in CAN repeater. Error in AD conversion.	The CAN repeater is faulty.	You must contact Customer Service.
696	Error detected in CAN repeater. Error in address assignment.	An error was detected during the address teach-in procedure.	Check the cable.
697	Error detected in CAN repeater. Error in the parameter block.	The CAN repeater is faulty.	You must contact Customer Service.
698	Transmission of the log file has started. Message, when finished.		
699	Transmission of the log file completed.		

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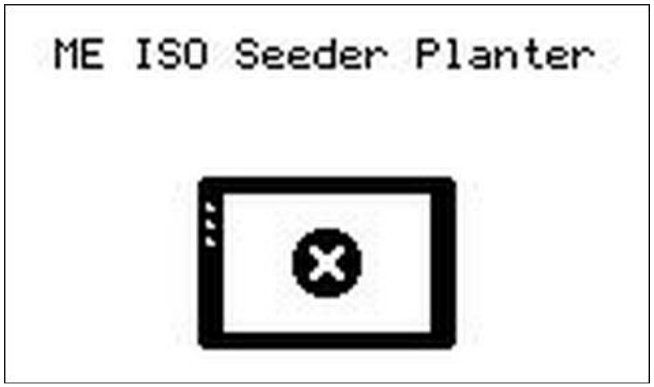

ID	Meaning
18	Undefined error occurred.
19	There is not enough available storage on the terminal.
20	The resolution of the width for function icons is too low (less than 60 pixels).
21	The resolution of the high for function icons is too low (less than 32 pixels).
22	The number of physical or virtual function icons is too low (less than 8).
23	The terminal does not support the color depth of 256 colors.
024 /02 5	The resolution of the terminal for screens is too low (less than 200 pixels).
26	Input and output configuration seems to be wrong.
27	A critical error has occurred during the initialization.