SBGuidance 4.2.0

Software operation

Performing perfection.

Performing perfection.

Preface

This operating manual is intended for those persons who are competent to operate the SBGuidance software. The operating manual contains important information and instructions that must be complied with when setting up, operating and servicing the SBGuidance system. This operating manual must therefore be read and understood by competent persons BEFORE the system is set up and must always be kept in the close vicinity of the machine.

The greatest possible care has been taken in the compilation of the manual. However, Raven Europe accepts no liability for any errors or incomplete information contained in this document.

Remarks or queries can be submitted to:
service-eu@ravenind.com

Neither Raven Europe nor any of its suppliers may be held liable for any injury or damage to property that may arise from the use of the system SBGuidance System.

The installed SBGuidance system produces less than 70 dBA.

In this manual several terms are used that are intended to draw attention to particular aspects of the SBGuidance system and its operation.

Tip:
Provides recommendations on how certain activities can be performed much easier.

Please note!
Indicates certain problems that the user should take note of.

Caution!
Indicates that the machine can be damaged.

Warning!
Indicates a risk of injury.

Disclaimer

Warning!
The safety instructions contained in the manuals of the tractor or implements must be complied with at all times.

Warning!
It is strictly prohibited to use the SBGuidance system on public roads.

Warning!
It is strictly prohibited to leave a driving vehicle unattended when the SBGuidance system is switched on. The driver is always responsible for the direction and course of the vehicle.

Warning!
To prevent injury or fire, replace defective fuses only with fuses of the same type and amperage.

Warning!
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.

Warning!
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.

Warning!
The system contains moving parts! Make sure the immediate environment is clear of people before operating the system.

Caution!:
In case of system failure or breakdown switch of the tractor and disconnect the electrikcal power source to avoid further damage. Contact your dealer for further instructions on how to repair your system.

Caution!:
Always wear personal protective equipment when operating/adjusting/repairing the system outside of the tractor cab. .

Caution!:
In order to prevent power surges from occuring, always start the machines first, before initiating the SBGuidance control system.

Caution!:
Only touch the touch-screen with your finger or with a special touch screen stylus. Sharp objects may cause irreparable damage to the touch screen.
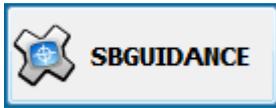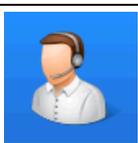
Please note!:
Only clean the touch screen using a damp cloth. Never use caustic or other aggresive substances.

Please note!:
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.

Please note!:
To prevent theft, it is better to not let the terminal and GPS antenna unattended in the tractor on the field.
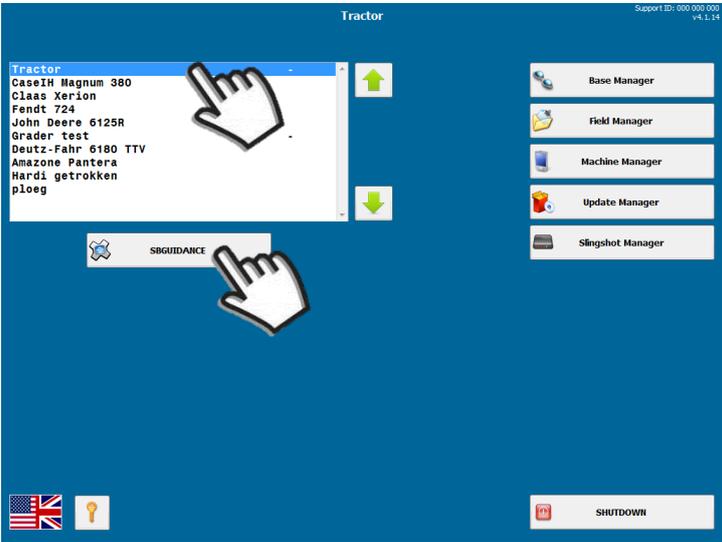
Performing perfection.

Choose functionality SBGuidance

Choose from the list below which functionality you want
to use. When the functionality is not in the list, see the
general user manual SBGuidance. You can find this
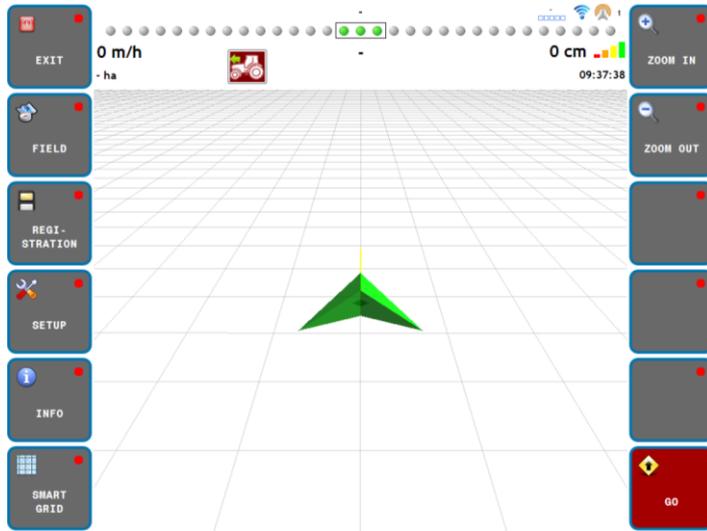manual on the Raven Europe website, or ask your dealer.

Chapter	Functionality	Description	Button
1	Start up terminal and SBGuidance	Starting up the system and the software	SBGUIDANCE
2	Load field and drive	Loading a field and operation that have already been created.	LOAD
3	New field	Creating a new field	NEW FIELD
4	New operation	Creating a new operation	NEW OPERATION
5	Shift work line and change work width	Editing a field/operation that has already been created	EDIT
6	Settings tractor	Checking and/or changing general settings that affect the steering of the tractor or machine	SETUP
7	Remote support	The possibilities for support regarding to the GPS system.	

1. Start up terminal and SBGuidance

Step	Description	Figure
1	Press the power button.	
2	A warning screen opens, press '' I agree '' to continue.	
3	The Loader screen opens, select the correct machine profile and press SBGUIDANCE. Refer to the SBGuidance General User's Guide for using the remaining applications (export/import fields, update the system etc.)	
4	SBGuidance has started now.	

Performing perfection.
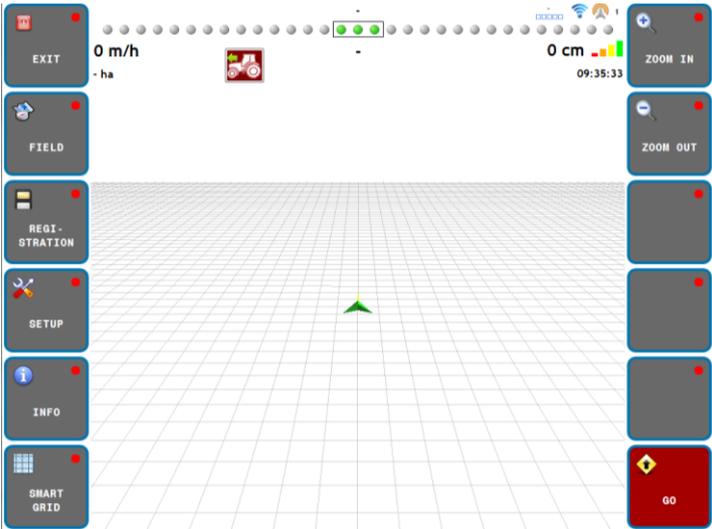
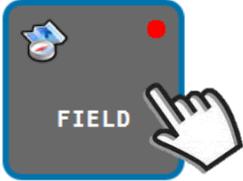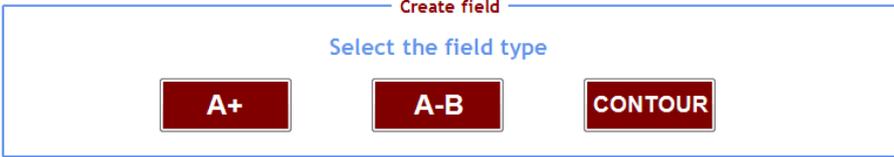| **5** | Check if the system is ready to use on the screen. When the arrow in the center of the screen (virtual tractor / machine) is green, the system is ready to use. |

Performing perfection.

2. Load field and drive

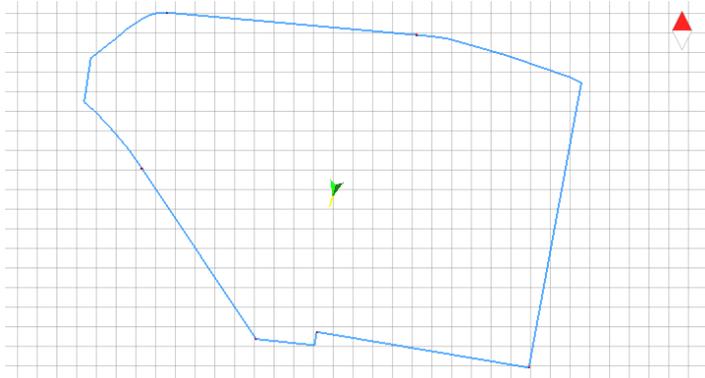| Step	Description	Figure
1	Press on Field.	
2	Press on Load.	
3	Select the field you want to load. Then press the right arrow.	
4	Select the operation you want to perform. If the desired operation does not appear in the list, go to Chapter 4 step 1 to create a new operation.	
5	Press Ready at the top left of the screen.	
6	When you press the GO button, the automatic steering is activated. Turn off the control by pressing the button again or by turning the steering wheel. Green = activated. Red = deactivated.	
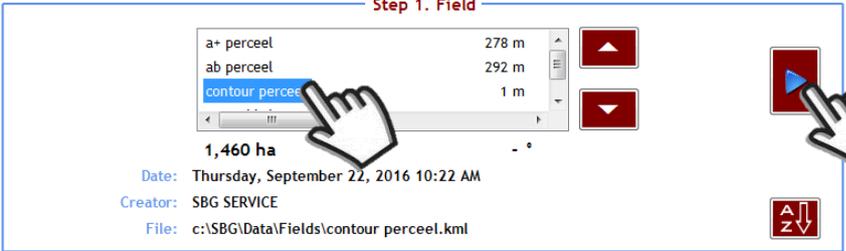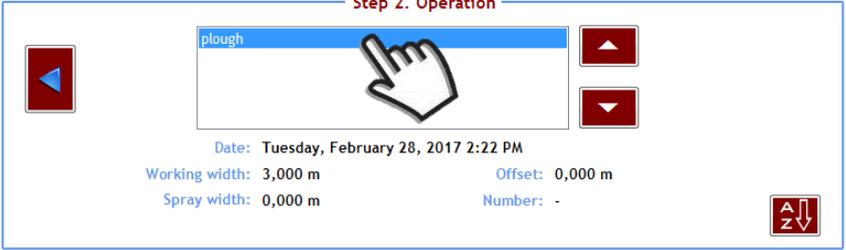
Performing perfection.

Performing perfection.

3. New field

Step	Description	Figure
1	Press on Field.	
2	Press on New Field.	
3	Select field type.	**Create field** Select the field type **A+** **A-B** **CONTOUR**
4-1 **A+**	Stand on the starting point and press A.	
4-2 **A+**	Enter the driving direction by filling in a value between 0.000 and 360.000 degrees. It is also possible to drive a few meters and then look at the average GPS direction to determine the direction. Then press the button with the value on it.	**Create field: A+** Latitude: 00° 00' 0,00" N Longitude: 000° 00' 0,00" E Height: 0,00 m Direction: 0,000° ◀◀ 35,9 GPS direction
4-3 **A-B**	Stand on the starting point and press A. Drive to the other side of the field and press B. The distance between A and B must be at least 20 meters. But when you drive to the other side of the field it will give you the highest accuracy.	
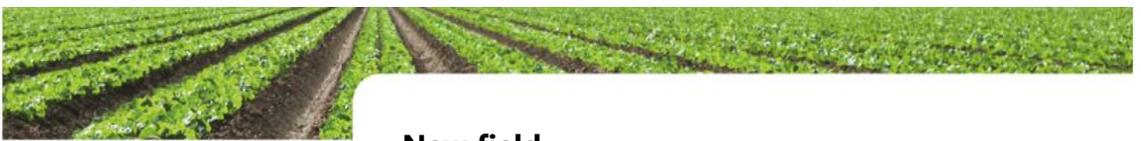
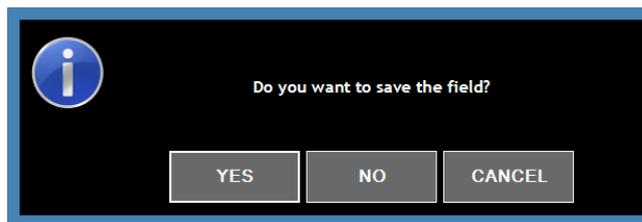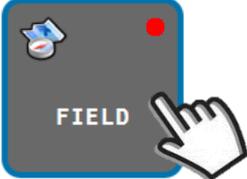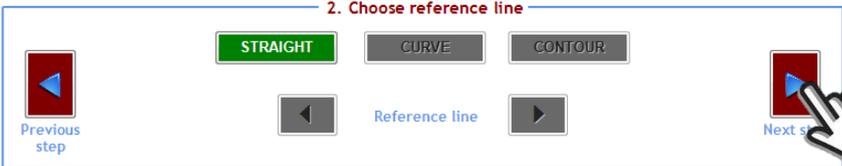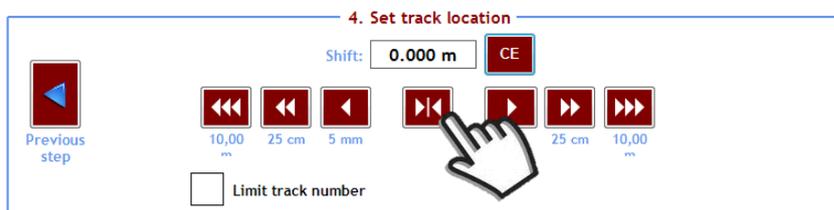|		
4-4 CONTOUR	Refer to the SBGuidance General User's Guide for creating a contour plot.	
5	Press on Ready.	
6	Press Yes to save the field. You must enter a name. Make sure this is a clear name that you can recognize the next time.\n\nBy pressing No, the field is saved as a temporary field. The temporary field will be lost when a new temporary field is created (not saved again).	
7	Then press New Operation at the bottom of the screen or Back in the upper left of the screen to create an operation on the newly created field. In this case, proceed to step 2 of Chapter 4.	

Performing perfection.

4. New operation

Step	Description	Figure
1	Press on Field.	
2	Press on new operation.	
3	Select the desired field on which you want to create an operation and press Next Step.	
4	The desired reference line is requested now, it is already listed on Straight. Press next step.	
5	Adjust the working width by pressing on the width and entering a distance here.\n\nPress next step.	
6	If desired, set a spray width to create spray paths.\n\nIf you want to apply spray paths, press the cross behind Spray path. The next screen opens.\n\nThe number 4 in the example represents the number of worklines to the	
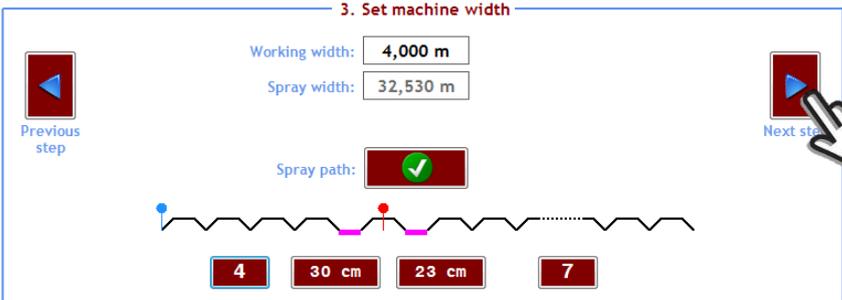
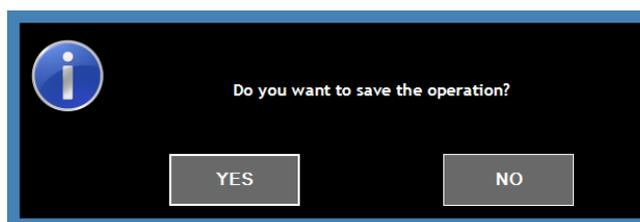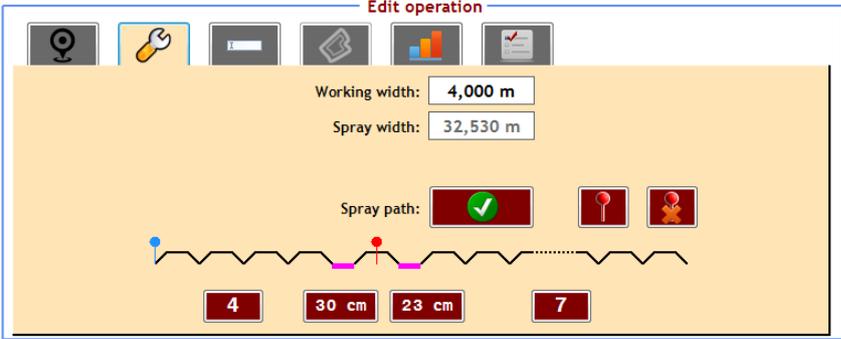|		
	first spray path. Use the two middle buttons (30 cm) to enter additional space to the spray path.	
7	If desired, shift the worklines to the correct location by pressing the left or right buttons. Pressing the button right below the number sets the AB line directly underneath the machine.	
9	Press Ready at the top left of the screen.	
10	Press Yes to save the operation. You must enter a name. Make sure this is a clear name that you can recognize the next time. By pressing No the operation will not be saved.	
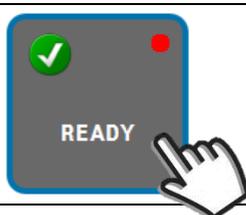
Performing perfection.

5. Shift work line and change work width

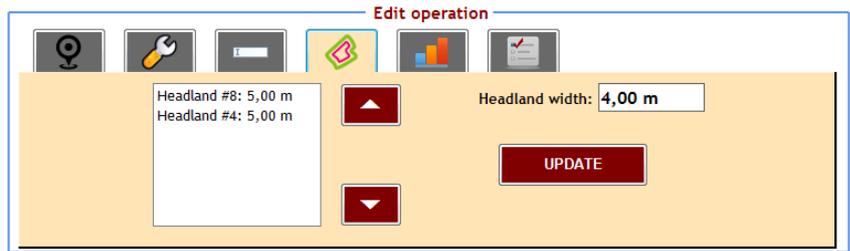| Step	Description	Figure
1	Press on Field.	
2	Press on Edit.	
3	In the window that appears, the working line can be shifted. When you change this, all worklines in this field wil be shifted. By pressing the middle button (below the number) the working line will be located directly below the tractor.	
4	In this screen the working width can be changed. Also adjustments regarding to spraying paths can be done here.	
5	In this screen, you can change field and operation data.	
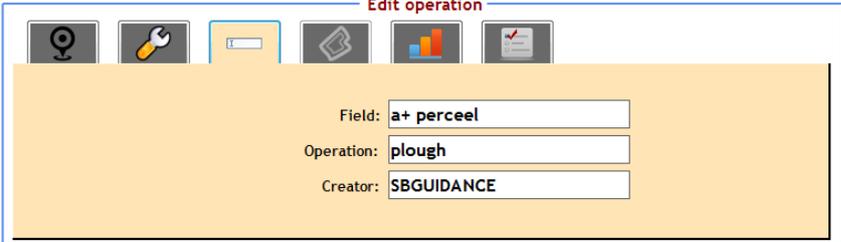
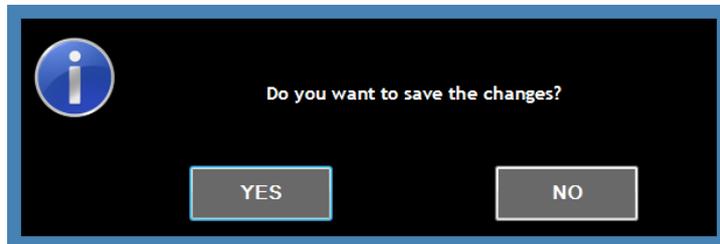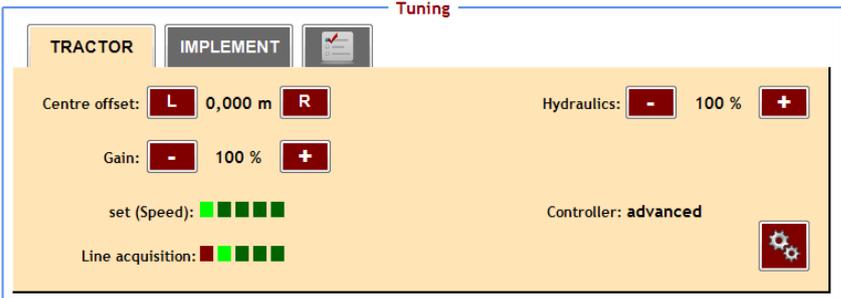| 6 | In this screen, the width of headland zones can be changed when they are present. | |
	Select the headland which you want to change and fill in a different number. Then press Update.	
7	Press Back at the top left of the screen.	
8	You get the question if the changes should be saved.	

Performing perfection.

6. Settings tractor

Step	Description	Figure
1	Press on Setup.	
2	The settings page will open. Choose whether you want to check/change the tractor or implement settings. If you only use tractor steering, it is not possible to open the implement setup page.	
3	With the center offset, the center of the tractor is shifted so the connection between the working lines changes. The left connection distance becomes **narrower** if you tap on **L** and **wider** if you tap on **R** (if you tap on L the tractor moves further the left).	
4	If the vehicle steers towards the line too slowly, without overshooting the line, increase the **Gain** in 20% increments until the steering becomes too aggressive. When the steering becomes too aggressive, reduce the gain by 20%.	
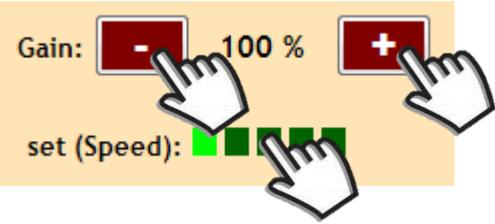
The **Gain** can be adjusted separately for five speed ranges. The **Set (speed)** indicator shows the active speed range by means of a bright green box. Tap on the indicator to open the input screen. The gain for each range can now be changed when the vehicle is stationary
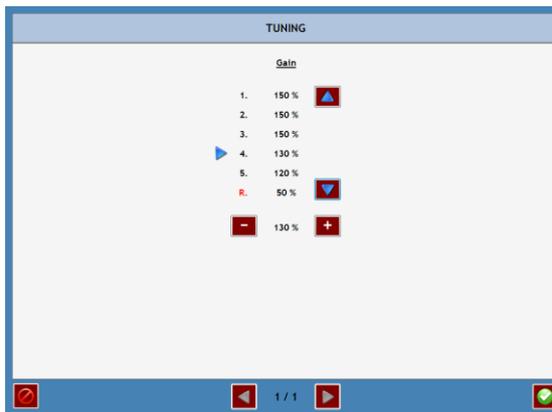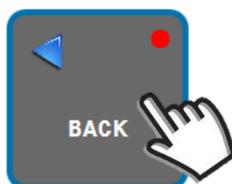
| | 5 | With "Line acquisition" you can choose how quickly the tractor steers towards the line. This is particularly important if auto steer is activated while the tractor is some distance from the guidance line. **First cube (red)**, drive quickly towards the line. **Fifth cube**, drive slowly towards the line. |

6 Press Back at the top left of the screen.

The settings are automatically saved.

Performing perfection.

7. Remote support

Step	Description	Figure
	If you have any questions about using the system, please refer to the SBGuidance General User Manual. This can be found on the website www.raveneurope.com Go to Support > User manuals to download it. You did not find the answer you are looking for? Please contact your dealer.	
	If you have any problems with the system, please contact your dealer. It is important to have a Support ID or Session ID first. See the steps below.	
1	Press on Info.	
2	Press on System.	
3	Press on Version.	

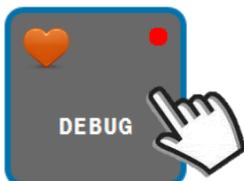*Performing perfection.*

4	The Support ID is displayed in the window. Name this when contacting your dealer.	System information Software ID: 4.2.877 Terminal ID: T040-9987 Support ID: 998 877 877 Hardware ID: A088-B420-8F11
	Is the Support ID 9x 0 proceed to step 5.	
5	Press Debug and press the Remote Support button. This is the button with the 'support engineer'. (4th tab)	DEBUG
6	Press the red dot button, a Session ID will appear if there is an internet connection. Name this when contacting your dealer.	Diagnose Status: SUPPORT_ACTIVE Session ID: 58687 Viewers: -

Performing perfection.

Notes

Notes

Performing perfection.

Notes

Performing perfection.

Performing perfection.