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Manual

for

agriOS

Software-Release 2.0.0.x



Table of contents

Table of contents.....	1
Copyright notice.....	2
Safety instructions.....	3
1 Overview and functions.....	4
2 Settings/data transfer	6
3 Work.....	7
3.1 Create new order list.....	8
3.2 Delete order list.....	8
3.3 Rename order list.....	9
4 Settings	9
4.1 General	9
4.1.1 Language	9
4.1.4 Volume	10
4.1.5 Colour.....	10
4.1.6 Installing TeamViewer	10
4.1.7 Touch calibration (only applicable to FZ-G1 and CF 19).....	10
4.2 Connection.....	10
4.2.1 GPS.....	10
4.2.2 GSM.....	11
4.2.3 WLAN (only in conjunction with FZ-G 1 and CF 19).....	11
5 Data transfer import/export.....	12
5.1 Import of data/export of data.....	12
6 Programmes	13
7 Update	13
8 Service.....	13
9 Working with application cards	13
9.1 Importing shape files (application maps) from third-party providers.....	14

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Jahnatal in June 2024

Safety instructions

The Agricon T 1000 or the agriBox (hereinafter referred to as "terminal") with the "agriOS" software is used to operate agricultural equipment equipped with controllable application devices. Intended use also includes compliance with the operating and maintenance conditions specified by the manufacturer.

The manufacturer/distributor is not liable for any damage to persons or property resulting from non-compliance with the safety instructions. All risks arising from improper use are borne solely by the user. The relevant accident prevention regulations and other generally recognised safety, industrial, medical and road traffic regulations must be observed. Unauthorised modifications to the device exclude any liability on the part of the manufacturer/distributor.

Read the following safety instructions carefully before using the product for the first time.

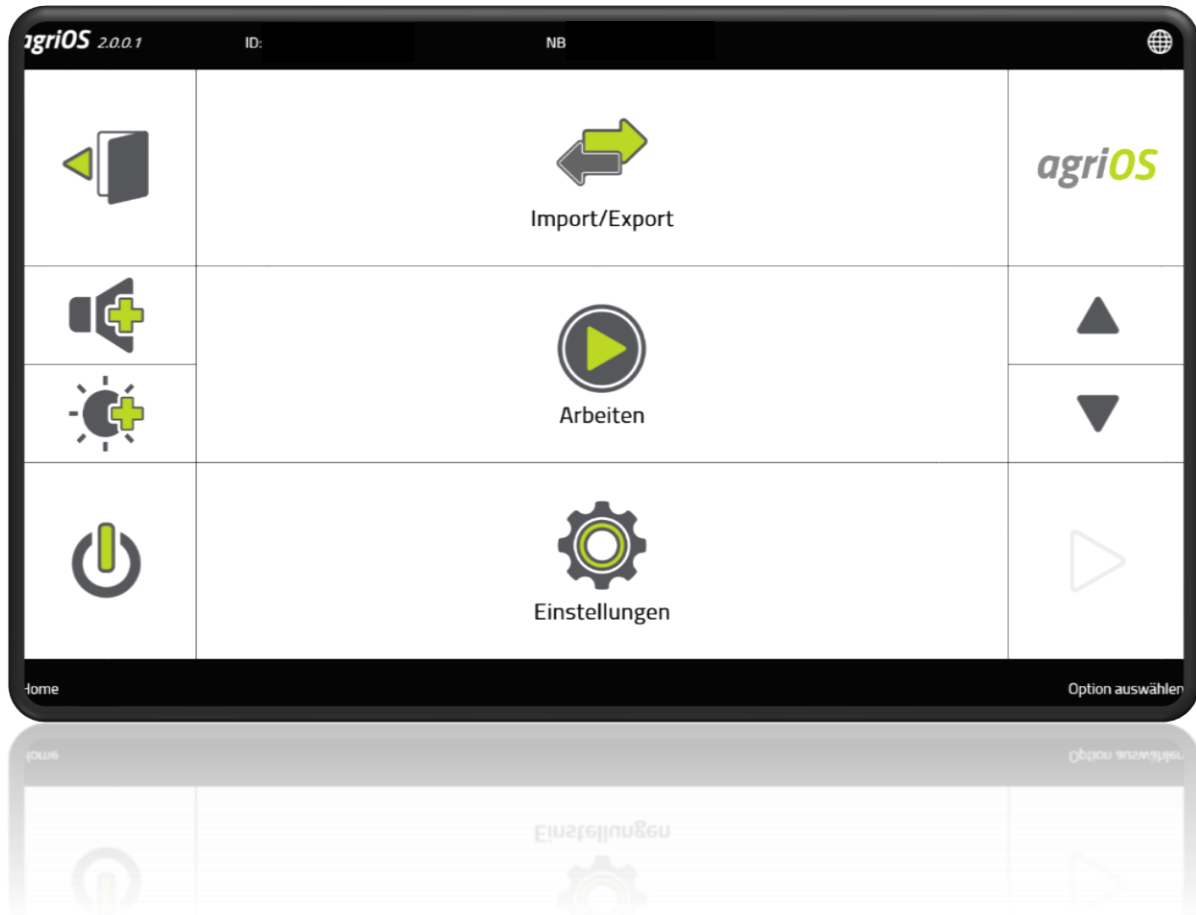
- Do not operate the terminal while driving in traffic. Stop to operate it.
- Before servicing or repairing the tractor unit, always disconnect the connection between the tractor unit and the terminal.
- Before charging the tractor unit battery, always disconnect the connection between the tractor unit and the terminal.
- Always disconnect the power supply to the terminal before welding on the tractor or on an attached or mounted device.
- Do not make any unauthorised modifications to the product. Unauthorised modifications or unauthorised use can impair your safety and affect the service life or function of the product. All modifications that are not described in the product documentation are unauthorised.
- The product does not contain any parts that require maintenance/repair. Do not open the housing.

Read the operating instructions for the agricultural appliance and handle the data you generate with care.

1 Overview and functions

agriOS enables the user to manage sensor data easily. The operating screen consists of a central content area (centre), navigation and action buttons (right and left) and information bars (top and bottom).

Main menu illustration



Active buttons are shown in colour. Depending on the application type, it is possible that buttons have no function. In this case, these buttons are greyed out.

The header in the start menu shows, from left to right, the agriOS version number, the customer number "ID", the **device name** and the active internet connection. The service employee can connect to the terminal with remote access via the device name.

The footer shows, from left to right, the menu level, the page number of the content area and information on the expected action.

The content area can be operated using the navigation buttons (Up, Down, Next, Back) or touch inputs.



Job lists and sensor data can be exchanged with agriPORT via *import/export*. Data transfer via USB stick is also possible.



Use *Work* to access the PF-Box sensor programme by selecting an order list.



Individual agriOS parameters can be customised in *Settings*.



Navigation button *Up* for content area



Navigation button *Down* for content area



Navigation button *Next*



Navigation button *back*



Select/edit function key



Add function key



Delete function key



Main menu function key



Log out function key



Volume function button



Brightness function button



Switch off function button (FZ-G 1 and CF 19)



WLAN information symbol (FZ-G 1 and CF 19) *



Information symbol active Internet connection*



GPS information symbol*, agriBox only

* If there is a small cross at the bottom left, in front of the symbol, the respective function is not active.

2 Settings/data transfer

Select the type and medium for the data transfer under **Settings > Data transfer**.



The following options are available for data transfer:

- PF-Box USB
- agriPORT
- Archive USB - only export possible

*Note: **All exported log files** are automatically saved in the Archive USB folder for security reasons. If the data is exported from the Archive folder to the USB stick, it is permanently removed from the device. The export cannot be selected; the entire contents of Archive USB are ALWAYS saved to the USB stick. The export cannot be reversed!*

Archive data is read from the D:\Archive folder.



Task lists from the agriPort or task lists created directly on the terminal are stored in the folder D:\SensorData\[name of the task list] after import.

Make sure that you have an Internet connection for importing and exporting with agriPORT or that an appropriate USB stick is connected. All order lists for import must be available as *.zip files. When sending from agriPort, the zip files are generated automatically.

Proceed as follows to import data:

Switch to the main  menu of agriOS via .



Select  **Import/Export**, select the desired message confirms the **import** then **Import**. Select order list, then  successful import

Note:



Select the files to be read in or out. You can select or deselect individual or all files. The files are sorted in descending order according to the last modification date.

3 Works

agriOS requires the selection of a task list for working with sensors or prescription maps. All task lists imported from agriPORT are automatically available for selection.



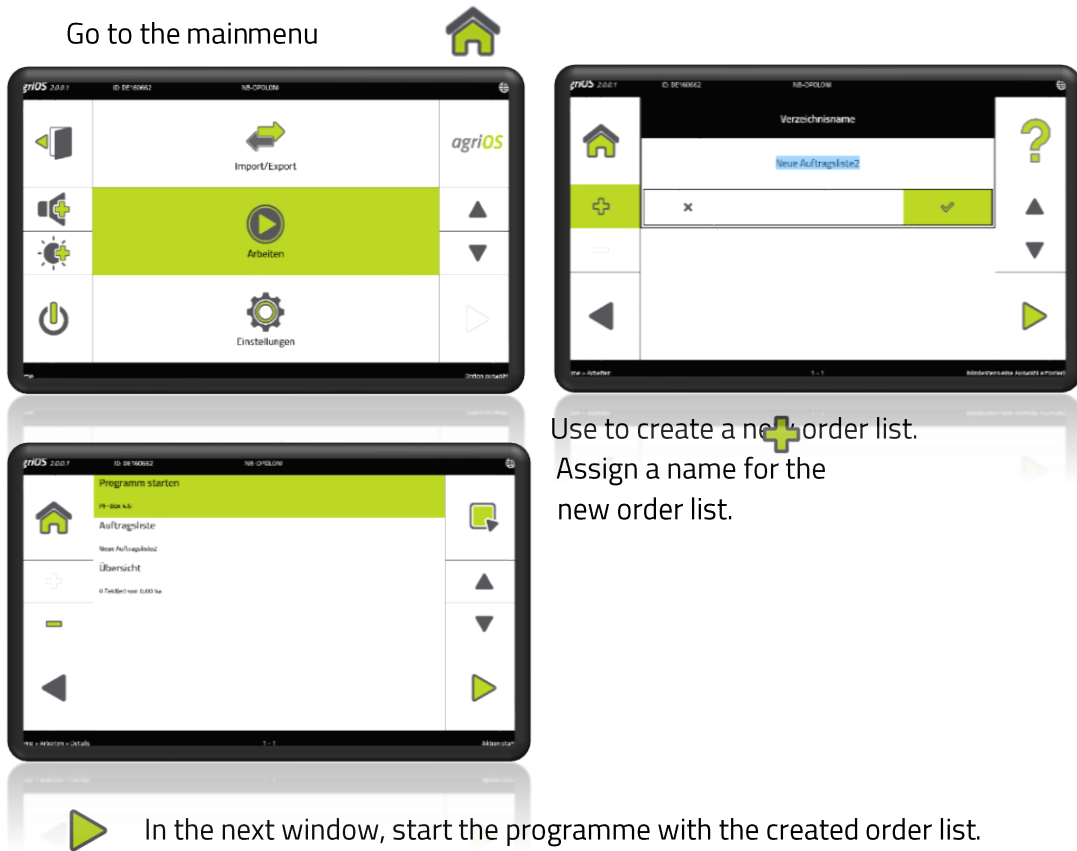
Switch to the main menu of agriOS.



Select "Work", in the next window select a new order list or select "Continue order list" and start the programme.

If no task list from the agriPORT is available for the upcoming measure, you must create a new task list directly on the terminal using the agriOS software.

3.1 Create new order list



3.2 Delete order list

If task lists are no longer required in agriOS, they can be deleted. Deletion is only possible if the task list to be deleted no longer contains any sensor data (*.log). **Deletion is only possible if the tasks =log files have been exported beforehand.**



Switch to the main menu of agriOS.

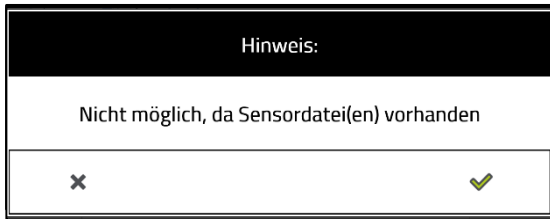


Select *work*.

Select the order list that is no longer required.



Delete the order list.



In this case, go to the main menu and export the orders.

Only then can the order list be deleted!

3.3 Rename order list



Switch to the main menu of agriOS.

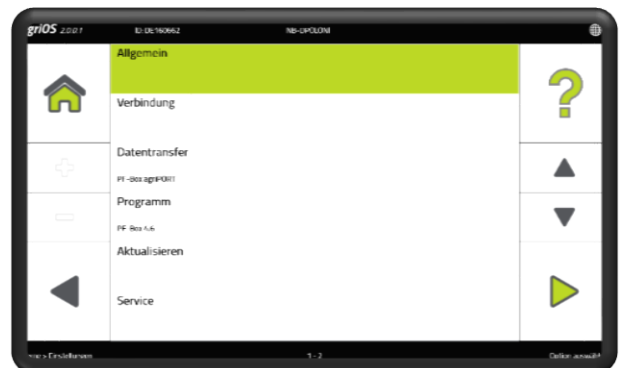
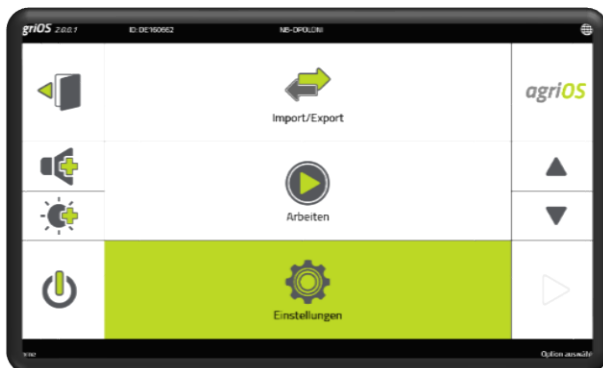


Select *work*.

Click on an order list to rename it, then click again in the next window.

Enter the new name.

4 Settings



4.1 General

4.1.1 Language

Here you can change the language.

4.1.2 Font size

Here you can adjust the font size for your screen, for large text max. (50), for small text (max. 20).

4.1.3 Brightness

The brightness control is realised via profiles. The brightness control in the main screen is a toggle switch that activates the minimum (0) or maximum (100) profile.

4.1.4 Volume

The volume control is realised via profiles. The volume control in the main screen is a toggle switch that activates the minimum (0) or maximum (100) profile.

4.1.5 Colour

You can switch between two colour schemes.

4.1.6 Install TeamViewer

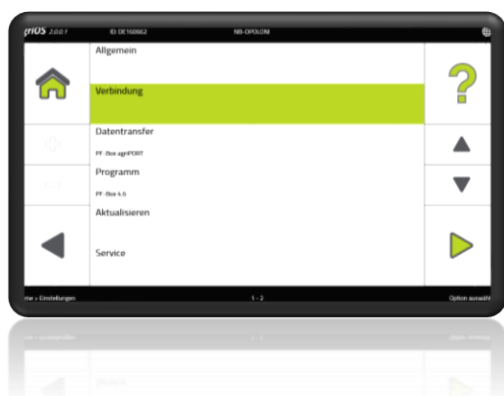
The service employee can support you in operating the agriOS software and the sensor software online via TeamViewer. **The software is already installed and functional on delivery. You will be informed if a software update is necessary. Activating this function without a direct request will cause the system to crash!**

4.1.7 Touch calibration (only applicable to FZ-G1 and CF 19)

Touch calibration can be used to optimise screen inputs. The system's own calibration programme is called up for this purpose. Follow the instructions in the programme for calibration.

4.2 Connection

All settings under this menu item are made by the service staff. The explanations here are for your information only. **Independent changes can lead to malfunctions.**



4.2.1 GPS

agriOS offers the option of configuring the GPS receiver available in agriBOX for multiple use in conjunction with GPS splitter software. The GPS signal can thus be made available to several applications. The settings are already made and functional on delivery. ***The GPS accuracy is not sufficient for the current section control systems on the market.***

This function is not available for the T 1000 / FZ-G1 / CF19 terminals.

4.2.2 GSM

This menu item shows whether there is a connection to the mobile network.

4.2.3 WLAN (only in conjunction with FZ-G 1 and CF 19)

agriOS offers the option of establishing a WLAN connection. Make sure that you are in the reception area of a WLAN network and that you know the password.

All available Wi-Fi networks are displayed here. The status bar of each network visualises the signal strength [x out of 100] and the connection status [connected, not connected].

To set up a WLAN, select the appropriate network.

Enter the security key under *Password*.

Use the *Next* button to establish the connection.

The WLAN function is indicated in agriOS by the WLAN icon in the information bar, depending on the signal strength.



Use the *Delete* button to delete the WLAN settings of the relevant network.

agriOS automatically establishes the connection to the network with the highest signal strength and a valid password at startup.

Note: The WLAN connection is favoured by the system over the GSM connection. If both connection types are available at the same time, Internet access is realised via WLAN.

5 Data transfer import/export



With agriOS, task lists/application maps can be imported and log files exported. The type of data transfer is defined in the **Settings > Data transfer** menu. The following transfer types are supported:


- PF-Box USB - Data transfer with **USB stick**
- PF-Box agriPORT - Data transfer by e-mail from/to **agriPort**
- Archive USB - only download of already exported log files to USB stick

The selected data transfer can be carried out in the main screen via the **Import/Export** button.


The settings for **agriPORT** import/export are already made and functional on delivery.

5.1 Import of data/export of data



Tick which order lists you want to import, then press .

The order lists are imported.

To export, set from which order lists you want to export, then press continue. Now select the log files to export and press  to export them.

6 programmes

agriOS supports several PF-Box programmes for working with sensors. Earlier versions not listed here have been discontinued and are no longer supported.

- *PF-Box 4.5 [FZ-G1, CF19, T 1000] - Software frozen, no more updates*
- *PF-Box 4.5 ISOBUS [agriBOX] - Software frozen, no more updates*
- **PF-Box 4.6 [FZ-G1, CF19, T 1000] - current software**
- **PF-Box 4.6 ISOBUS [agriBOX] - current software**

We recommend that you always work with the latest PF box (highest version number).

The settings for the current PF box are already made and functional on delivery. Changes should only be made in co-operation with a service employee.

7 Refresh

agriOS offers the option of online software updates. To do this, make sure that you have an internet connection.



Switch to the agriOS *settings*.

Select *Refresh*.

agriOS establishes a connection to the Agricon update server and checks for available updates. If an update is available, you will be offered to update the system. Upon confirmation, the required files are downloaded, the system is updated and you may be prompted to restart the system. **The current software version is already installed and functional on delivery. If an update is necessary, you will be informed by us or the service employee will carry out the update via remote maintenance.**

8 Service

Under this menu item, a service employee can dial into the Windows operating system. Dialling in is done by entering a password. **The user does not need to make any changes to the Windows operating system, which can lead to functional restrictions or even a system crash.**

9 Working with application cards

You can process application maps with the PF-Box software. The following formats are possible

- **PF-Box 4.5/4.6**
 - o **Maps in PF-Box format (x.rst)** are output as standard in agriPORT

- **Maps in third-party format (x.grd)**, maps created by third-party providers
- **Shape file format (x.shp, x.shx, x.dbf)**, can be output from agriPORT or generated by third-party providers

If prescription maps are generated and output in PF-Box format or shape format in agriPORT, they are imported via the Internet or the order lists are copied from the portal to a USB stick and then read in accordingly.

PF-Box format maps (*.rst) are automatically linked directly to the field in the PF-Box.




Shape files must be assigned to the field in the PF box.

9.1 Importing shape files (application maps) from third-party providers

Please note that a shape application map always includes three files, abc.shx, abc.shp, abc.dbf. Some GIS programmes also output additional files, e.g. abc.prj. However, these are not required for use in the PF box and do not need to be copied to the USB stick. You can also copy several application maps to the stick. If you want to read in three maps, for example, 9 individual files are required!

Place the Shape application maps in a folder and copy it to a USB stick.

The name of the folder is "Shape" as an example

1. Insert the USB stick into the terminal
2. Create a new order list under  Work with
3. Select new order list and start PF-Box 4.6
4. Then go to  "General settings" -> Data directory -> Click on  and select the USB stick and then the directory with the application card "**Shape**" (here as an example) and go back via the large green button with the white triangle (press twice)
5. Go to Select order (right) and click on a field (or create a new field) and then click on Edit (bottom right)
6. Then click on Grid map in the overview and select the corresponding application map
7. Click on the green box at the bottom to return to the main screen in the PF box
8. Click on Cards at the bottom right, then on Application card (top left)
9. If you only want to test and are not on the field, switch off "Position" at the top left. The map will then also be displayed if you are not on or near the field.
10. The map is now displayed and you can start the application by pressing START