

Translation of the Original Operator's Manual **GREEN FIT**

Using the GREEN FIT Controller
Software Version 1.2.12

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1 General Information

This chapter contains general information about the manufacturer, the manual and the product.

1.1 Manufacturer's Information

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1.2 Reading and Observing the Manual

Please precisely observe and comply with all information and instructions in this manual to avoid personal injury or damage to property.

In case of problems in understanding parts of this manual or for other support, please contact Reichhardt.

Please also note that there are other manuals that are required, depending on the work to be carried out.

Installation Manual GREEN FIT

Personnel concerned with the installation, commissioning, servicing or temporary operation of GREEN FIT for one of these purposes must have read this manual and comply with all information within.

Service Manual GREEN FIT

Personnel concerned with calibration of GREEN FIT have to comply with all information given in the service manual.

Operator's Manual GREEN FIT

Personnel concerned with operation of GREEN FIT have to comply with all information given in the operator's manual.

The operator's manual is an integral part of the steering system and must be passed on after sale to the new owner of the system.

Operator's Manual AutoTrac™

Persons using GREEN FIT must comply with all information given in the John Deere AutoTrac™ Operator's Manual. The operator's manual is supplied with the GreenStar terminal. If necessary, it can also be accessed via Service ADVISOR™.

1.3 Understanding the Manual

Dimensions

The dimensions in this manual correspond to the metric system. Manuals in English language do also consider the imperial system if required.

Directions

The directions "right" and "left" are generally to be understood from the driver seat in the direction of travel.


Figures

The figures shown in this manual only serve for reference. Figures may deviate according to different software versions and different hardware equipment.

Language

This manual is possibly available in other languages. For further information, please contact us via phone or email.

1.4 Safety Messages

This is a safety alert symbol: 

When you see this symbol on the vehicle or in this manual, be alert to the potential for personal injury. Please also observe the blue notice boxes for a proper and damage-free procedure.

DANGER

The signal word DANGER is used with the safety alert symbol to identify a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING

The signal word WARNING is used with the safety alert symbol to identify a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION

The signal word CAUTION is used with the safety alert symbol to identify a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE

The signal word NOTICE indicates important information that, if disregarded, can result in property damage or malfunction of GREEN FIT or the vehicle. Follow these instructions to ensure long life and proper functionality of GREEN FIT and the vehicle.

1.5 Warranty and Liability

Warranty or liability claims shall be applicable according to the general terms and conditions of Reichhardt GmbH Steuerungstechnik. You can find the general terms and conditions at www.reichhardt.com.

Reichhardt will not assume any liability for damages resulting from an improper use.

Use of not approved Accessories and Spare Parts

Only accessories and spare parts approved by Reichhardt may be used for GREEN FIT. These are specifically designed for GREEN FIT and meet high standards in terms of safety and reliability.

Reichhardt expressly points out that accessories and spare parts not approved by Reichhardt must not be used with Reichhardt systems. Otherwise, the safety and operational readiness of the system might be impaired. Furthermore, malfunctions of the system may lead to personal injury or property damage.

Reichhardt will not assume any liability for the use of not approved accessories or spare parts.

Unauthorized Modifications of GREEN FIT

Any changes to the system which have not expressly been authorized by Reichhardt shall void all warranty claims as well as any liability of Reichhardt for possible malfunctions of the system. Additionally, the EU Declaration of Conformity (CE marking) or other regulatory approvals might become ineffective. This also applies for removal of factory-applied seals or sealing paint.

1.6 Service and Repair

If you have any questions concerning GREEN FIT as well as the ordering of system supplements or spare parts, please contact your dealer or the manufacturer.

Always notify the dealer or Reichhardt immediately in case of damage to the product.

1.7 Cleaning and Storage

Never use a high pressure cleaner to clean the components. Use only a moist cloth for cleaning purposes.

To extend the service life, you should ensure over the winter, or if the components are not installed on a vehicle, that all parts of the system are stowed and stored together with all screws and required accessories. Avoid moisture and wet conditions as well as places with high temperatures next to ventilation systems, radiators, engines and devices that generate heat.

Avoid storing the components next to windows or skylights through which heat is generated by solar radiation.

1.8 Disassembly and Disposal

The system should be dismantled by qualified personnel (e.g. dealers or Reichhardt service personnel). To avoid environmental damage during disassembly and disposal, the following points must be observed:

- GREEN FIT components must be disassembled and sorted according to material characteristics.
- Obtain information on how to dispose of the single components from your relevant municipality or waste management facility. Some of the components shall be subjected to a special waste treatment.
- Dispose of all components according to applicable regulations.

2 For your own Safety

Please read the safety instructions carefully and completely. Persons installing, commissioning, maintaining, calibrating or operating GREEN FIT must know and comply with the safety instructions. Failure to observe the safety instructions can result in personal injury and property damage and result in the loss of any claims for damages.

Besides the given instructions in this manual, please also follow the instructions in other related manuals from Reichhardt and John Deere as well as the regionally applicable regulations for occupational health and safety, accident prevention and road traffic.

2.1 Intended Use

The sole purpose of GREEN FIT is to connect the John Deere AutoTrac™ components to an existing steering equipment interface or to a hydraulic valve supplied by Reichhardt for the use of John Deere AutoTrac™, in accordance with the intended use of AutoTrac™.

Any other use shall be deemed unintended and is therefore prohibited.

Furthermore, the Following shall apply:

The intended use also includes compliance with the operating conditions as well as the maintenance and servicing provisions specified by Reichhardt.

For damage resulting from unintended use, Reichhardt will not accept any liability. The risks of an unintended use shall be borne solely by the user.

The individual components of GREEN FIT must not come into contact with chemicals such as acids, lyes, oils, lubricants or aggressive substances from petrol chemistry.

2.2 Requirements for Operating and Service Personnel

Persons who install GREEN FIT on their own must have completed the necessary technical vocational training. In addition, personnel concerned with installation, calibration, commissioning, maintenance or operation of GREEN FIT must fulfill the following minimum requirements:

- They understand how the vehicle works and may drive it (have a valid driving license of the respective vehicle).
- They are physically and mentally fit enough to control the vehicle and to operate the system.
- They must not be under the influence of medication, alcohol or drugs which may impair their ability to react in any way.
- They have received instruction from Reichhardt or by Reichhardt trained personnel.
- They have read and understood this and other related manuals completely, understand how the system works and can carry out work on the vehicle and system safely and can recognize and avoid possible dangers and risks related to the work to be carried out by them.

2.3 Safety Instructions for Installation and Service

Installation and servicing require that the sequences are known.

If technically possible, measurements, installation and servicing work concerning GREEN FIT must always be carried out with the vehicle fully at standstill and with the engine switched off. The operator of the vehicle must ensure that the vehicle cannot be started unintentionally or against prior arrangement by unauthorised persons and that the vehicle cannot roll away and thereby people can be harmed. As necessary, remove the ignition key.

Also comply with the following installation and servicing regulations:

- Keep the workplace clean and dry.
- Do not work in potentially explosive atmospheres.
- Appropriately use and properly dispose of cleaning agents, substances and materials.
- When operating the vehicle, please be mindful of components which may have become hot.
- Use a ladder or platform to be able to install, remove or maintain components in elevated positions. Make sure that you are standing in a stable and sure position and your hands cannot slip off.
- Do not take measurements or carry out installation or maintenance work in elevated positions in wet or icy weather conditions.
- Please consider the safety instructions regarding electrics (see Chapter 2.4) and hydraulics (see Chapter 2.5).
- Replace any worn or damaged parts.
- Report or repair any damage immediately.
- Always make sure that all parts are in a sound condition and have been installed properly. Electrical cables should not be pulled over sharp edges. This can damage the cables.
- Look out for damaged or incorrectly installed electrical lines. These may cause severe electric shocks.
- Obtain parts to be replaced (hoses, screws, brackets, etc.) only via Reichhardt, to ensure proper function and safety of the vehicle and GREEN FIT.

2.4 Safety Instructions on Electrics

When performing works on the electrical system of the vehicle, you need to disconnect the power supply of the vehicle for safety reasons. Switch off the battery master switch. If there is no switch or if you want to perform welding works on the vehicle or works in the vicinity of the battery, you need to disconnect the battery.

The battery may represent a danger due to electrical currents, short circuit with high current, leaking battery acid or an explosion. This could result in severe burns or corrosion. Always take the battery in and out of operation properly.

When removing and installing the battery, the following precautions must be observed:

- Remove jewelry and other metallic objects.
- Use tools with insulated handles.
- Do not place any tools or metallic objects on the battery.
- Disconnect the NEGATIVE terminal first and then the POSITIVE terminal (see Fig. 1).
- Always place the battery horizontally on a clean surface.
- When inserting the battery, fix it with the bracket provided for this purpose.
- Connect the POSITIVE terminal first and then the NEGATIVE terminal.
- When installing additional equipment, make sure that there will be no contact with other metallic objects.

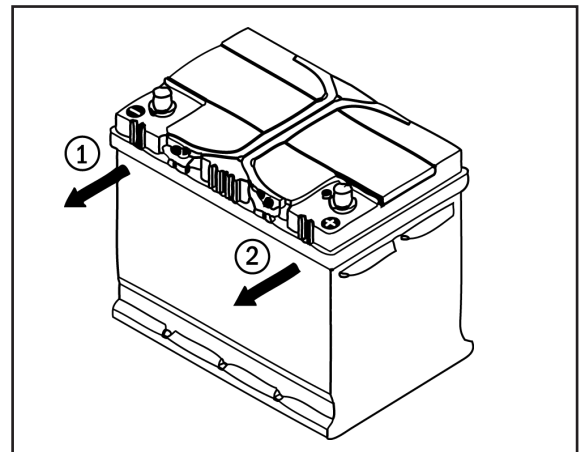


Fig. 1: Disconnecting the battery

2.5 Safety Instructions for Hydraulics (for Hydraulic Steering Systems)

During operation of the vehicle at high pressure, hydraulic oil can leak from defective or insecurely attached hose lines and lead to serious skin injuries or wound infection. Please seek immediate medical attention in the event of an accident. If hydraulic oil has penetrated into the skin, this must be surgically removed within a few hours.

Please follow the safety provisions below if you wish to carry out work on the hydraulic system:

- Release the pressure in the system.
- Position collecting vessels under the hydraulic connections in order to collect any hydraulic oil leaking during work and therefore avoid danger of slipping and environmental damage.
- Connect the hydraulic components properly to the vehicle.
- Check whether all line connections have been firmly tightened before building the pressure back up.

Never try to feel or seal leak points in hoses with your hands. Maintain a sufficient distance, protect yourself and your hands and use suitable tools to search for the location of the leak.

Damaged hose lines must not be repaired nor be put together from old, already used components. Replace old, worn or damaged hose lines immediately by components approved by Reichhardt.

The period of use for hydraulic hoses should not exceed six years (operational life including a maximum of two years of storage time). Different guideline values may apply for hoses and lines made from thermoplastics.

2.6 Safety Instructions for Commissioning and Operation

Steering systems must not be used on public roads and pathways. Prior to road travel, disable the vehicle steering control interface or steering activation switch (if equipped) as well as the AutoTrac™ system.

Observe and comply with the instructions and warnings in the John Deere AutoTrac™ Operator's Manual.

3 GREEN FIT Application

Using the software of the GREEN FIT controller, you can make vehicle-specific settings and read out information on the system.


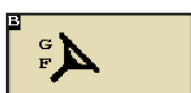

NOTICE

The figures shown in these instructions have been created on a GreenStar terminal GS3 2630 using software version 3.36.1073.

3.1 GREEN FIT Icon and its different Statuses

The GREEN FIT application is represented by a button with “GF” labeling and a steering wheel icon (see Fig. 2).

Depending on the status, the button can have different colors:

- 
(Button is red): An error occurred. Steering is disabled.
- 
(Button is beige): Steering is switched on and ready for activation of the automatic steering.
- 
(Button is green): Automatic steering is enabled. The vehicle is actively steered.

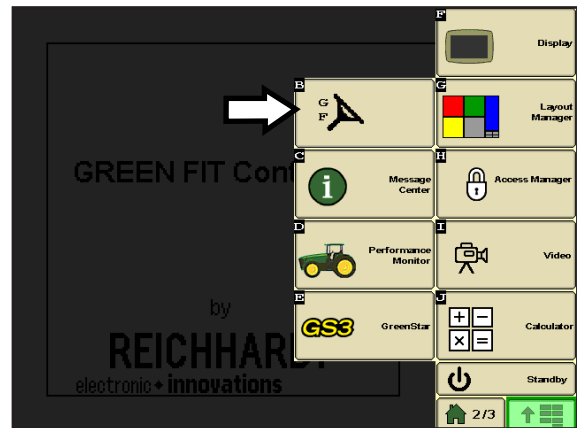


Fig. 2: GREEN FIT icon in the GreenStar terminal

3.2 Warning Messages

When starting up the terminal and whenever an error occurs, warning messages are issued by GREEN FIT (see for example Fig. 3).

Please refer to the list of error codes (see Chapter 4), to find out how to proceed in such a case.

Press the ESC key (I) to hide the error message.



Fig. 3: Warning screen

3.3 Start Screen

As soon as the application has been fully loaded and there are no errors, the start screen is displayed (see Fig. 4).

Tap the wrench key (F) in order to get to the main menu.

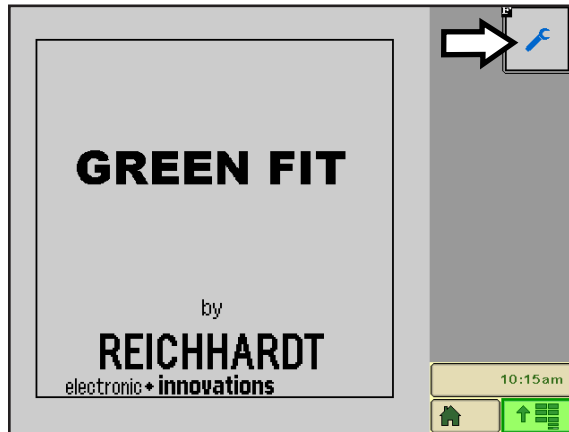


Fig. 4: Start screen

3.4 Main Menu

The following menu points are available in the main menu (see Fig. 5):

- A: Teach menu
- B: Terminal configuration
- C: Diagnostics
- D: System information
- E: Unlock system (unlock code)*

* The activation of the software is reserved exclusively for authorized technical personnel.

Tap one of the symbols to access the corresponding menu. Use the ESC key to get back to the upper level menu.

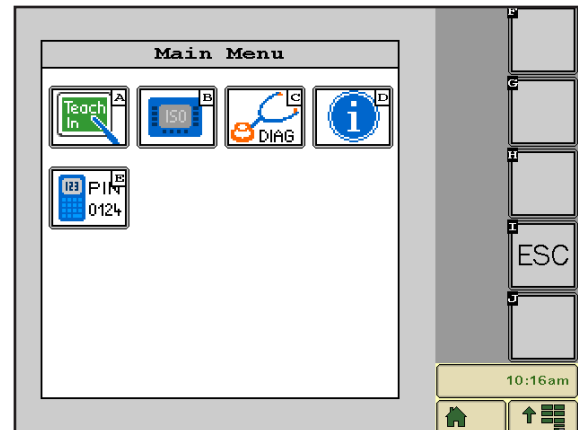


Fig. 5: Main menu

3.5 Teach Menu

⚠ WARNING

Risk of injury due to deactivation of the automatic steering!
 If you open the Teach menu during the automatic steering process, automatic steering is immediately stopped. The vehicle will move forwards without being steered.
 Before any travel, go back to the main menu or the start screen of the application using the ESC key. Call up the Teach menu only when the vehicle is at a standstill.

In the Teach menu, you can set and read out vehicle-specific parameters.

Tap the Teach In symbol (A) in the main menu (see Fig. 6) to open the Teach menu.

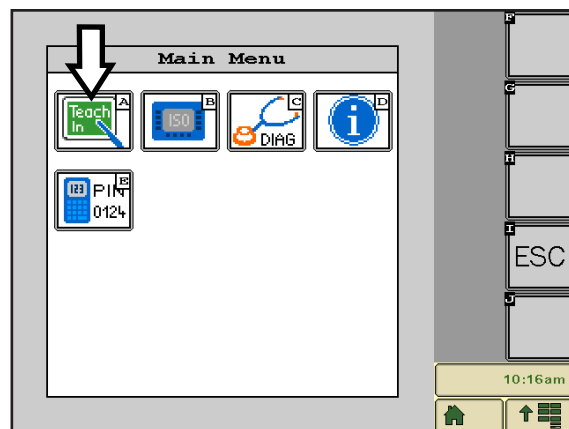


Fig. 6: Accessing the Teach menu

The Teach menu consists of further submenus (see Fig. 7):

- Teach vehicle code (A)
- Basic Settings (M)

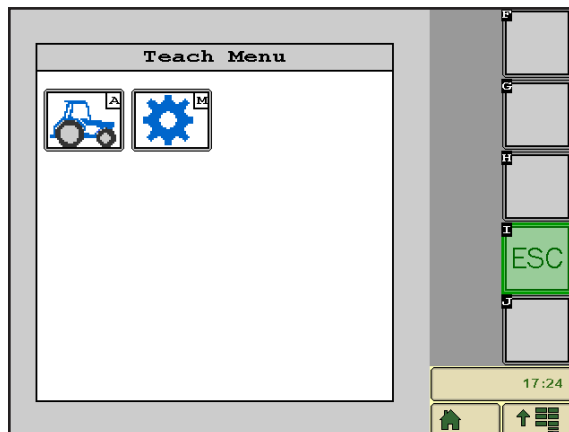


Fig. 7: Teach menu

3.5.1 Detect Vehicle Code

In the vehicle code menu, you can read out the vehicle code and rename the vehicle.

With the vehicle code vehicle-specific parameters are set in the system. These include the vehicle dimensions.

Tap the tractor symbol (A) in the Teach menu (see Fig. 8) to open the vehicle code menu.

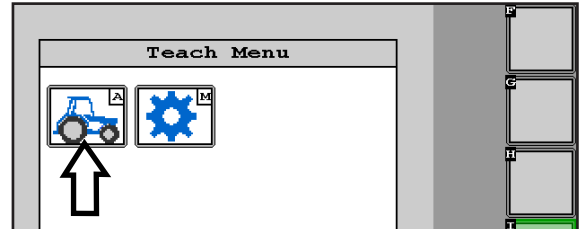


Fig. 8: Accessing the vehicle code menu

Rename the Vehicle

In the field under “Vehicle” (see Fig. 9 - 1), the vehicle designation will be displayed.

Using the pen symbol (see Fig. 9 - 2), you can rename the selected vehicle. Enter the name via the displayed keypad and save it afterwards by clicking the OK button (see Fig. 10).

Detecting the Vehicle Code

The vehicle code can be found in the four text fields (see Fig. 9 - 3). The code cannot be changed. The code is necessary for service purposes.

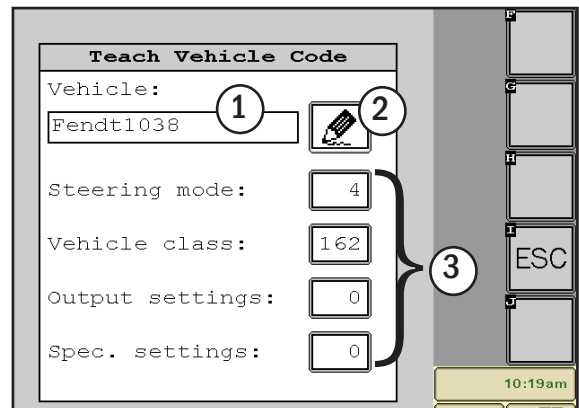


Fig. 9: Entering the vehicle code

Save Changes

To accept a name change, you must press the OK button again in the vehicle code menu. A menu for saving the changes will appear (see Fig. 11).

Using the arrow keys, select the floppy disk symbol (left side) and tap OK to confirm the saving.

Using the arrow keys, select the crossed-out floppy disk symbol (right side) and tap OK to cancel the saving process.

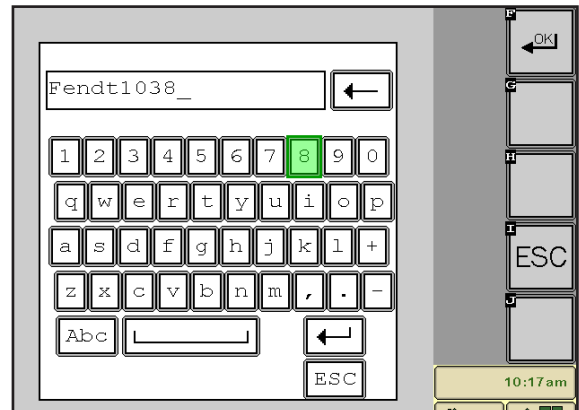


Fig. 10: Rename vehicle

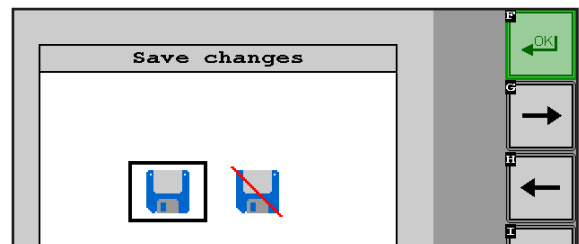


Fig. 11: Save changes

3.5.2 Teach Basic Settings (ISOBUS Delay Time)

In the basic settings you can set the delay time of the power supply for ISOBUS devices after the ignition is switched off. This ensures that the John Deere terminal shuts down correctly, even if the vehicle does not provide a standard delay time.

Tap the gear symbol (M) in the Teach menu to call up the basic settings (see Fig. 12).

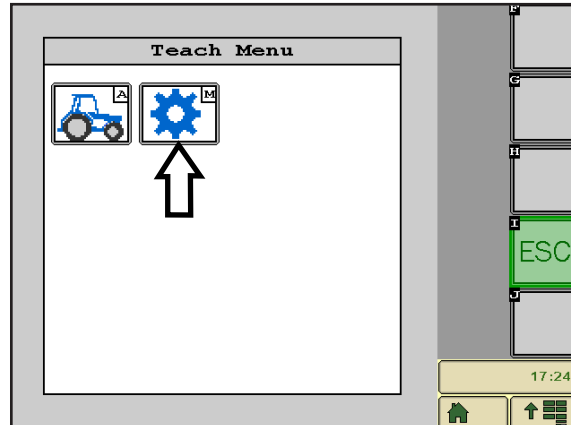


Fig. 12: Accessing the “Teach basic settings” menu

Select the desired delay time via the field under „ISO Maintain Power“ (see Fig. 13).

A setting of 60 seconds is recommended for vehicles without standard delay time.

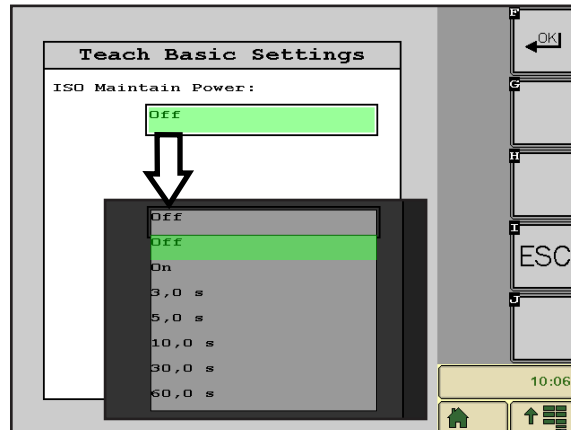


Fig. 13: Setting delay time

3.6 Terminal Configuration

In the terminal configuration, among other things, you can select a VT (virtual terminal) for the display of GREEN FIT.

Tap the VT symbol (B) in the main menu (see Fig. 14) to open the terminal configuration.

The terminal configuration is arranged on two pages which you can scroll using the arrow keys.

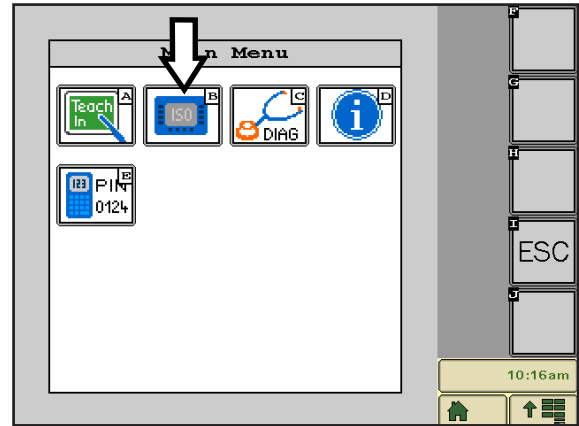


Fig. 14: Select terminal configuration

On the first page, you can make the settings described in the following (see Fig. 15).

- Data mask scaling (Centered, Full): Adaptation of the data mask to the resolution of the terminal. By default, “Centered” is selected (see Fig. 15 and Fig. 16).
- Volume: percent value for system volume.

The language settings and units of the terminal are automatically used.

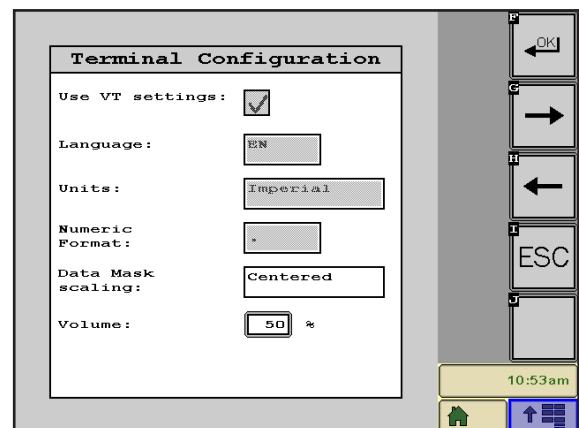


Fig. 15: Terminal configuration – page 1

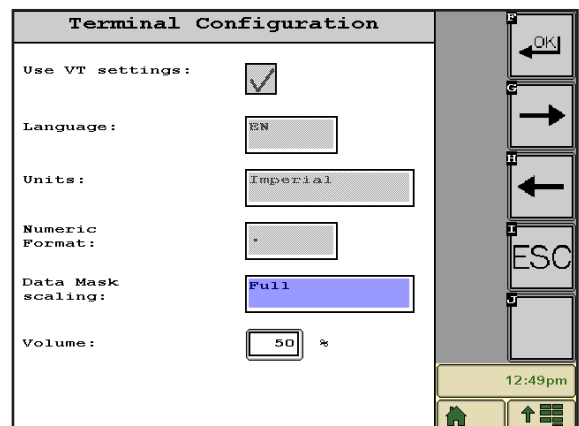


Fig. 16: Data mask scaling „Full“

On the second page, you can make the settings described in the following (see Fig. 17).

- VT use of: Selection of the CAN bus (CAN bus 1, CAN bus 2). A selection between several CAN busses is only possible if the messages are received on CAN bus 2 and if this is permitted by the vehicle code.

- Change VT: Press the select button to select the terminal on which GREEN FIT shall be loaded (active VT) from several available VTs.

By repeatedly tapping the “Next” button, the different selection options (active and available VT) can be displayed (see Fig. 18). Save the desired option by keeping the OK button pressed for several seconds. The application is automatically closed and loaded to the selected terminal.

- Time to wait for selected VT: The interval the GREEN FIT application waits until it selects another terminal if the selected one is not available.

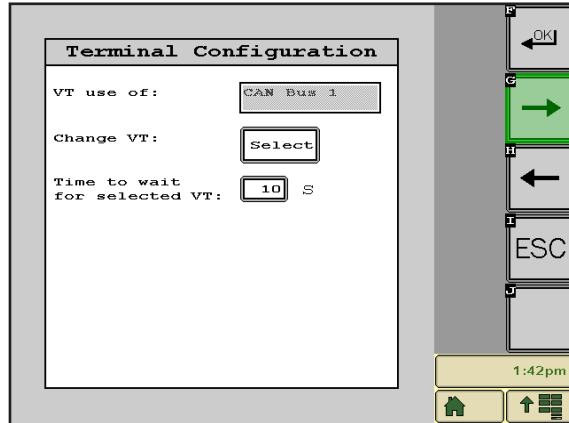


Fig. 17: Terminal configuration – page 2

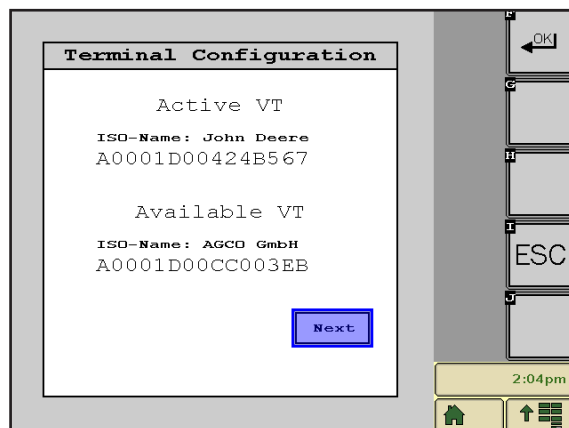


Fig. 18: Select VT

3.7 Diagnostics

The diagnostics menu provides you with an overview of the current state of the system. Additionally, it supports you in locating malfunctions.

Tap the diagnostics symbol (C) in the main menu (see Fig. 19) to open the diagnostics menu.

The diagnostics is arranged on five pages which you can scroll using the arrow keys:

- Inputs
- GPS
- System
- Error history
- Hardware/software information

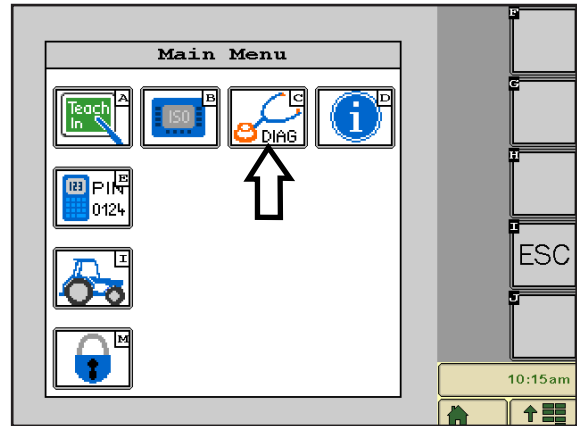


Fig. 19: Accessing diagnostics

Inputs

Overview of the states of the signal inputs (see Fig. 20).

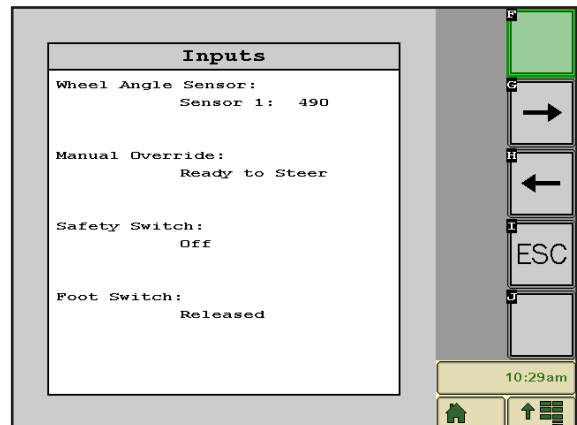


Fig. 20: Diagnostic page "Inputs"

GPS

Overview of the current and set GPS data (see Fig. 21).

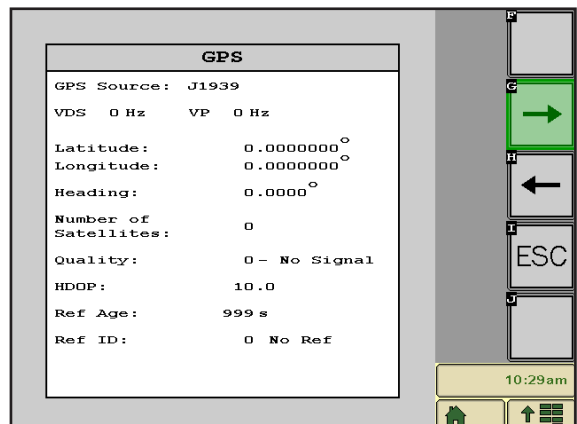


Fig. 21: Diagnostic page "GPS"

System

Overview of the current operating status of GREEN FIT (see Fig. 22).

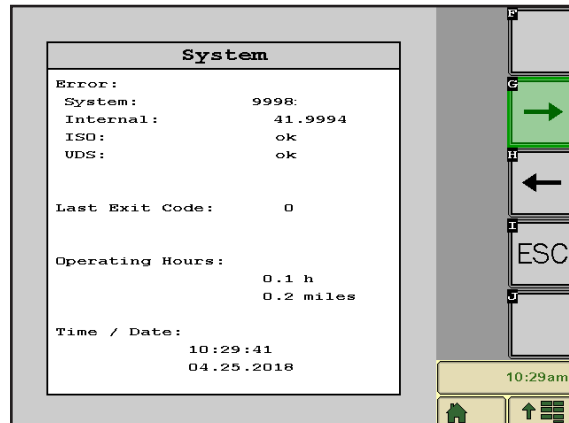


Fig. 22: Diagnostic page “System”

Error History

The last 20 occurred in the system are recorded in the error history. This information can be used for diagnostic purposes.

Tap on the arrow below the table (see Fig. 23), to navigate through the error history.

Groups of persons who calibrate the system (e.g. dealers or Reichhardt service personnel) can reset the error memory. For this purpose, the unlock code of security level 2 must be entered.

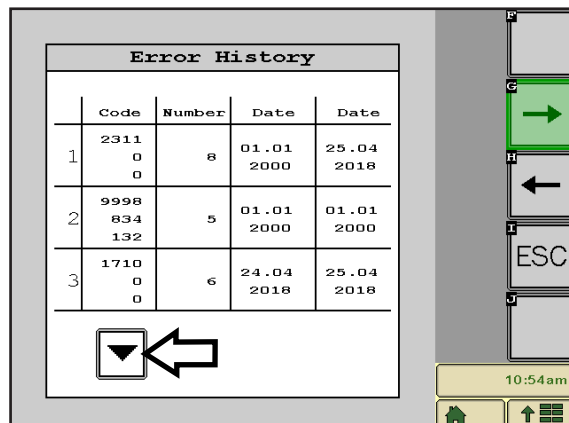


Fig. 23: Diagnostic page “Error history”

Hardware/Software Information

Overview of the hardware and software used and its status (see Fig. 24).

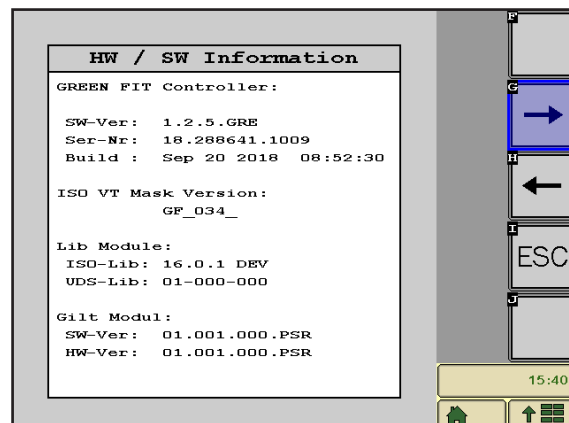


Fig. 24: Diagnostic page “Hardware/software information”

3.8 System Information

The “System information” provide details about the service partner responsible for you.

Select the i symbol (D), to access the system information (see Fig. 25) and display the service partner (see Fig. 26).

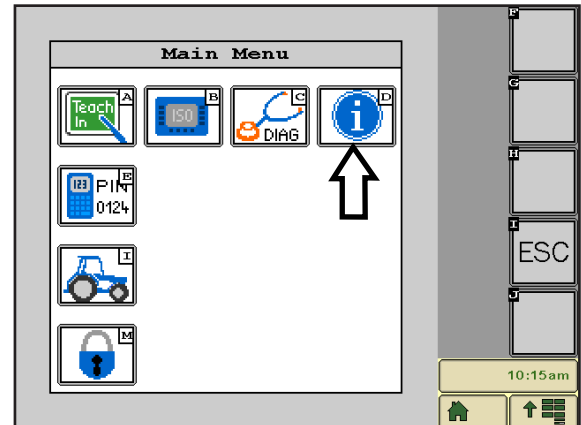


Fig. 25: Accessing system information

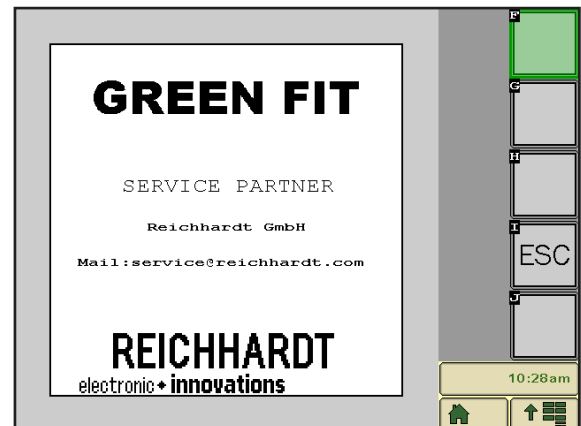


Fig. 26: Service partner

4 Error List

Error-No.	Level	Description	Cause	Troubleshooting
100	24	no receiver is correctly connected	<ul style="list-style-type: none"> - open wire between GPS-receiver and GREEN FIT Controller - fuse B6.1 or B6.2 defective - no power at receiver 	<ul style="list-style-type: none"> - check cables from GREEN FIT Controller to GPS-receiver - check fuses in the GREEN FIT Controller - check the signals from the GPS receiver to be evaluated (NMEA 0183, NMEA 2000, J1939 GPS)
101	24	no reception of GPS signals	<ul style="list-style-type: none"> - wrong wires are connected - wrong baudrate 	<ul style="list-style-type: none"> - check cable between GPS-receiver and GREEN FIT Controller - check settings of GPS-receiver
102	24	poor reception of GPS signals	<ul style="list-style-type: none"> - no free view to the sky - objects (trees, houses etc.) disturb the reception 	move to an open area
106	24	already receiving GPS signals, but these need to be examined	GPS receiver has not yet properly started	<ul style="list-style-type: none"> - Wait until the GPS receiver starts properly - move to an open area
114	24	message J1939 VP is not received	wrong settings of the GPS-receiver	check the GPS-receiver settings
115	24	message J1939 VDS is not received	wrong settings of the GPS-receiver	check the GPS-receiver settings
119	24	GPS receiver lost RTK quality	GPS receiver switched to lower gps quality than RTK	check reference age
120	24	GPS receiver lost DGPS quality	GPS receiver switched to lower gps quality as DGPS	check reference age
121	24	GPS update rate is too slow	wrong settings of the GPS-receiver	check the GPS-receiver settings
1000	0	No signal from angle sensor.	<ul style="list-style-type: none"> - Short circuit in cable. - Open wire in cable. - Sensor is defective. - Contacts of connectors are opened. 	<ul style="list-style-type: none"> - Inspect angle sensor. - Check cables from GREEN FIT Controller to wheel angle sensor. - If all connections are good, replace wheel angle sensor. - Check contacts of connectors.
1001	1	Angle sensor does not work correctly.	<ul style="list-style-type: none"> - Axis is driven to block. - Mechanism or suspension of wheel angle sensor defective. - A new wheel angle sensor was assembled incorrectly. - An obstacle prevents the movement of the axis. 	<ul style="list-style-type: none"> - Check mechanism of wheel angle sensor. - For new angle sensors, the sensor has to be calibrated through the „teach-in“ page.
1002	0	Angle sensor – teach data invalid.	-	Teach angle sensor.

Error-No.	Level	Description	Cause	Troubleshooting
1010	0	No signal from 2nd angle sensor.	<ul style="list-style-type: none"> - Short circuit in cable. - Open wire in cable. - Sensor is defective. - Contacts of connectors are opened. 	<ul style="list-style-type: none"> - Inspect 2nd angle sensor. - Check cables from GREEN FIT Controller to wheel angle sensor. - If all connections are good, replace wheel angle sensor. - Check contacts of connectors.
1020	13	cabin door is open	<ul style="list-style-type: none"> - cabin door is open - open wire in cable - door switch is defective - contacts of connectors are opened 	<ul style="list-style-type: none"> - close cabin door - check cables from GREEN FIT Controller to door switches - check door switches - check contacts of connectors
1021	13	Safety Switch error	Safety Switch state is in error.	Contact Reichhardt support.
1040	12	Pressure sensor – open wire	<ul style="list-style-type: none"> - Pressure sensor is defective. - Open wire in cable. - Bolted connection of pressure sensor is not correct. - Contacts of connectors are opened. 	<ul style="list-style-type: none"> - Pressure sensor is defective. - Open wire in cable. - Bolted connection of pressure sensor is not correct. - Contacts of connectors are opened.
1041	12	Pressure sensor – short circuit	<ul style="list-style-type: none"> - Pressure sensor is defective. - Short circuit in cable. - Bolted connection of pressure sensor is not correct. - Contacts of connectors are closed. 	<ul style="list-style-type: none"> - Inspect pressure sensor. - Check cables from GREEN FIT Controller to pressure sensor. - Check bolted connection of pressure sensor. - Check contacts of connectors.
1042	12	Steering wheel was not turned.	Since last disengaging steering wheel was not turned.	Turn steering wheel, release and re-engage.
1350	23	speed is too fast	vehicle speed is too fast	reduce speed and activate system again
1351	23	no speed information from „ISO GBSD“	tractor ECU doesn't support this speed message	change setting of speed signal source
1352	23	no speed information from „ISO WBSD“	tractor ECU doesn't support this speed message	change setting of speed signal source
1353	23	invalid speed information	<ul style="list-style-type: none"> - source of speed information is invalid - no messages received from source of speed 	change setting of speed signal source
1354	23	constant speed is active	<p>for testing, constant speed is activated</p> <div style="background-color: #ff9900; padding: 5px; text-align: center; font-weight: bold;">⚠ WARNING</div> <div style="background-color: #e0e0e0; padding: 5px;"> <p>Risk of injury! Once the steering system is engaged, the axle is driven and the wheels can move. Ensure that no persons are in the danger zone and drive with the utmost care.</p> </div>	<ul style="list-style-type: none"> - change setting - contact Reichhardt support
1355	23	speed too high for engaging	current speed is too high	reduce speed for engagement

Error-No.	Level	Description	Cause	Troubleshooting
1356	23	no speed information from "NMEA_2000"	no NMEA_2000 speed information available	change setting of speed signal source
1357	23	speed is out of range	- speed is too slow - speed is too fast	- speed up - reduce speed
1358	23	speed – configuration invalid	CAN bus 2 can not used	- Select CAN bus 1
1500	5	Lock valve left – open wire	- Lock valve is defective. - Open wire in cable. - Contacts of connectors are opened.	- Inspect lock valve. - Check cables from GREEN FIT Controller to lock valve. - Check contacts of connectors.
1501	5	Lock valve left – short circuit	- Lock valve is defective. - Short circuit in cable. - Contacts of connectors are closed.	- Inspect lock valve. - Check cables from GREEN FIT Controller to lock valve. - Check contacts of connectors.
1502	5	Lock valve right – open wire	- Lock valve is defective. - Open wire in cable. - Contacts of connectors are opened.	- Inspect lock valve. - Check cables from GREEN FIT Controller to lock valve. - Check contacts of connectors.
1503	5	Lock valve right – short circuit	- Lock valve is defective. - Short circuit in cable. - Contacts of connectors are closed.	- Inspect lock valve. - Check cables from GREEN FIT Controller to lock valve. - Check contacts of connectors.
1550	4	Steer valve – left open wire	- Steer valve is defective. - Open wire in cable. - Contacts of connectors are opened.	- Inspect steer valve . - Check cables from GREEN FIT Controller to steer valve. - Check contacts of connectors.
1551	4	Steer valve – left short circuit	- Steer valve is defective. - Short circuit in cable. - Contacts of connectors are closed.	- Inspect steer valve. - Check cables from GREEN FIT Controller to steer valve. - check contacts of connectors.
1552	4	Steer valve – right open wire	- Steer valve is defective. - Open wire in cable. - Contacts of connectors are opened.	- Inspect steer valve. - Check cables from GREEN FIT Controller to steer valve. - Check contacts of connectors.
1553	4	Steer valve – right short circuit	- Steer valve is defective. - Short circuit in cable. - Contacts of connectors are closed.	- Inspect steer valve. - Check cables from GREEN FIT Controller to steer valve. - Check contacts of connectors.
1555	6	Steer valve – lockout active (PVED-CLS)	Any condition on vehicle side is not ok.	- Check vehicle specific feature. - All states in work mode.
1710	8	no power at relay input side	- fuse defective - power supply is not switched on	- check fuses to GREEN FIT Controller and at power input - check power is switch on

Error-No.	Level	Description	Cause	Troubleshooting
2200	28	Footswitch error	<ul style="list-style-type: none"> - Footswitch defective. - Short circuit in cable. - Footswitch engaged too long or stuck. 	<ul style="list-style-type: none"> - Check footswitch - Check cables from GREEN FIT Controller to footswitch
2201	28	Activation switch error	Engage switch is in error.	contact Reichhardt support
2202	28	Activation switch stuck	Engage switch pressed to long or switch sticks.	contact Reichhardt support
2300	21.21	Challenger MT 700/800 – hydraulic lockout switch engaged	the hydraulics are locked out by switch.	check hydraulic lockout switch
2301		Challenger MT 700/800 – communication error	<ul style="list-style-type: none"> - poor CAN connection - activate ISO implementation level 3 on the Challenger screen (A-B series) 	<ul style="list-style-type: none"> - check cables from GREEN FIT Controller to Challenger ISOBUS. - verify correct vehicle code entered - activate ISO implementation level 3 on the Challenger screen (A-B series)
2310	21	ISO Fendt communication – error CAN bus 1	there's no information from CAN bus	contact Reichhardt support
2311	21	ISO Fendt communication – error CAN bus 2	there's no information from CAN bus	contact Reichhardt support
2312	21	CASE Combine – communication error	No connection to CASE Combine	contact Reichhardt support
2313	21	CASE Combine – System lock	System is locked by armrest switch	Unlock system by pressing and holding armrest switch
2314	21	CASE Combine – no message from GREEN FIT	CASE controller does not receive messages from GREEN FIT	contact Reichhardt support
2315	21	ISO AGCO Combine – communication error CAN bus 1	GREEN FIT doesn't receive information from CAN bus	contact Reichhardt support
2316	21	ISO AGCO Combine – communication error CAN bus 2	GREEN FIT doesn't receive information from CAN bus	contact Reichhardt support
2317	21	ISO AgriFac – communication error	GREEN FIT doesn't receive GMS messages	contact Reichhardt support
2318	21	ISO AgriFac – communication error	GREEN FIT doesn't receive vehicle / joystick messages	contact Reichhardt support
2319	21	ISO Steering-Controller – communication error	there are no messages from the steering controller	contact Reichhardt support
2320	21	ISO Challenger Tractor MT 675 C – communication error CAN bus 1	the steering is disengaged by switch	check switch
2321	21	ISO Challenger Tractor MT 675 C – communication error CAN bus 2	there's no information from CAN bus	contact Reichhardt support
2322	21	ISO AGCO Windrower – communication error CAN bus 2	GREEN FIT doesn't receive information from CAN bus	contact Reichhardt support
2323	21	ISO AGCO Windrower – communication error from GREEN FIT	Windrower has not detected GREEN FIT.	contact Reichhardt support
2334	21	ISO AGCO Windrower – not ready to use	Windrower is not moving forward	drive forward in gear 1 or 2
2325	21	ISO Challenger Tractor 900 C – communication error	there's no information from Challenger 900 C	contact Reichhardt support
2326	21	Claas ATP – Authentication error	An error occurred during authentication.	<ul style="list-style-type: none"> - perform a GREEN FIT restart - contact Reichhardt support

Error-No.	Level	Description	Cause	Troubleshooting
2327	21	Claas ATP – not ready to use	Connection to the ATP module is not yet complete.	contact Reichhardt support
2328	21	Claas ATP – no GMS message	No GMS message is received from the ATP module.	contact Reichhardt support
2329	21	Claas ATP – no life message	No life message is received from the ATP module.	contact Reichhardt support
2330	21	CLAAS XERION – communication error	GREEN FIT doesn't receive any information from XERION	check cables from GREEN FIT controller to vehicle 2. CAN bus
2335	21	CLAAS LEXION – communication error	GREEN FIT doesn't receive any information from LEXION	check cables from GREEN FIT controller to vehicle 2. CAN bus
2336	21	CNH Tractor – communication error	GREEN FIT doesn't receive any information from tractor.	check cables from GREEN FIT controller to vehicle 2. CAN bus
2340	21	Krone Big X / Big M communication error	GREEN FIT doesn't receive any information from Krone.	contact Reichhardt support
2341	21	Amazone Sprayer Pantera	No communication	contact Reichhardt support
2342	21	Kubota Tractor	No communication	contact Reichhardt support
2343	21	Miller Nitro – Auto-Steer-Ready	No communication	contact Reichhardt support
2344	21	Horsch Sprayer	No communication	contact Reichhardt support
2345	21	Rostselmash Torum Combine – communication error CAN bus 1	GREEN FIT doesn't receive information from CAN bus	contact Reichhardt support
2346	21	Rostselmash Torum Combine – communication error CAN bus 2	GREEN FIT doesn't receive information from CAN bus	contact Reichhardt support
2347	21	Valtra Tractor – communication error CAN bus 1	GREEN FIT doesn't receive information from CAN bus	contact Reichhardt support
2348	21	Valtra Tractor – communication error CAN bus 2	GREEN FIT doesn't receive information from CAN bus	contact Reichhardt support
2349	21	Rostselmash Torum – Current gear is not correct	Current gear is not correct	shift gears
2350	21	2. CAN bus communication error	poor CAN connection	check cables from GREEN FIT Controller to vehicle 2. CAN bus
2351	21	TerraGator – 1. CAN bus communication error	poor CAN connection	check cables from GREEN FIT controller to vehicle 1. CAN bus
2352	21	TerraGator – 2. CAN bus communication error	poor CAN connection	check cables from GREEN FIT controller to vehicle 2. CAN bus
2353	21	TerraGator – no valid rear axle position	no information about rear axle position	contact Reichhardt support
2356	21	CNH ISO Claas 3 – not ready to use	authentication is in process	Wait until authentication is completed.
2370	21	Vehicle communication error	GREEN FIT does not receive any vehicle specific CAN messages	contact Reichhardt support
2380	21	AUX Function – Connection lost	- Joystick has been turned off - Communication to joystick interrupted	Check joystick
2381	21	AUX Function – Wrong settings	Function ID is invalid	contact Reichhardt support
2382	21	AUX Function – Duplicated Function ID	Function ID is duplicated	contact Reichhardt support
2383	21	AUX Function – Assignment Rejected	VT has any other issue	contact Reichhardt support

Error-No.	Level	Description	Cause	Troubleshooting
2384	21	AUX Function – No Response from VT	VT has not response the assignment.	contact Reichhardt support
2385	21	AUX Function – Function ID not supported	ISO-Lib doesn't support a function ID.	contact Reichhardt support
2386	21	AUX Function – Different Types	Function type and input types are not the same.	contact Reichhardt support
2387	21	AUX Function – Can not stored	Assignment can not be stored.	contact Reichhardt support
2388	21	AUX Funktion – Input Unit	Input Unit invalid	contact manufacturer of input unit
2389	21	AUX Funktion – Input Unit	Function from input unit are invalid	contact manufacturer of input unit
2390	21	AUX Funktion – Unknown error	Any other error	contact Reichhardt support
2410	21	engagement denied by krone machine	operator tried to engage by footswitch or terminal	operator has to engage by joystick
3001	22	vehicle code for vehicle 1 is invalid	wrong vehicle code is set up, or no vehicle code entered	dial in a valid vehicle code for vehicle 1
3010	22	Left axle position is not calibrated	left axle position is not calibrated	teach left axle position
3011	22	Center axle position is not calibrated	center axle position is not calibrated	teach center axle position
3012	22	Right axle position is not calibrated	right axle position is not calibrated	teach right axle position
3013	22	Current controller is not calibrated.	Current controller is not calibrated.	Teach current controller.
3014	22	Pressure sensor is not calibrated.	Pressure sensor is not calibrated.	Teach pressure sensor neutral position.
3017	22	GPS receiver height is not calibrated	GPS receiver height is not calibrated	teach mounted height of GPS-receiver
3018	22	GPS receiver offset left/right is not calibrated	GPS receiver offset left/right is not calibrated	teach left and right offset of GPS-receiver center position
3019	22	GPS receiver look ahead is not calibrated	GPS receiver look ahead is not calibrated	teach look ahead of GPS-receiver
3020	22	Joystick is not calibrated	Joystick is not calibrated	teach analog signal center position for joystick
3030	22	Travel Direction is not set correctly	Teach value of "axle type" and "travel direction type" doesn't match. When travel direction is "sensor + gps" then axle type has to be "wheel angle sensor".	<ul style="list-style-type: none"> - change axle sensor type - change travel direction type
3050	22	No ISO-VT present	No ISO-VT connected or switched on.	check cables from GREEN FIT controller and ISO-VT.
4000	21	No communication to Terra Variant	no CAN information is received from Terra Variant	<ul style="list-style-type: none"> - check cables from GREEN FIT controller to Terra Variant - check vehicle code
4010	21	No communication to Kubota M7 VCU1	no CAN information is received from M7 VCU1	check cables from GREEN FIT controller to Kubota Tractor
4011	21	No communication to Kubota M7 VCU2	no CAN information is received from M7 VCU2	check cables from GREEN FIT controller to Kubota Tractor
4012	13	Invalid resume switch state with Kubota M7	invalid resume switch state	<ul style="list-style-type: none"> - check cables from GREEN FIT controller to M7 VCU2. - check resume switch

Error-No.	Level	Description	Cause	Troubleshooting
4013	13	Invalid resume switch state with Kubota M7	invalid resume switch state	- check cables from GREEN FIT controller to M7 VCU2. - check resume switch
4020	21	Braud - Field / Road Switch	status road is active	engage field status
4021	21	No communciation to Braud	no sensor readings	contact Reichhardt support
4022	21	No communciation to Braud	no speed readings	contact Reichhardt support
4023	21	No communciation to Braud	no safety switch readings	contact Reichhardt support
4024	21	No communciation to Braud	no switch field/road switch readings	contact Reichhardt support
4030	21	Oxbo 8840 - communication error	no sensor readings	contact Reichhardt support
4031	21	Oxbo 8840 - System locked	system is locked by vehicle	unlock system by vehicle
4032	21	Oxbo 8840 - communication error	no safety flags readings	contact Reichhardt support
4033	21	Oxbo 8840 - communication error	no status readings	contact Reichhardt support
4034	21	Oxbo 8840 - No communication	no connection to vehicle	check CAN bus connection
9000	22	invalid Hardware	the hardware used is not compatible for this software	contact Reichhardt support
9001	22	terminal Version is too old	software update from GREEN FIT Controllers	update the terminal with the latest software version available
9002	22	No steering mode is selected	- There is no steering mode selected. - A time limited license has expired.	- Select a steering mode. - contact Reichhardt support
9050	22	battery power lost before system shut down completely	- battery / switched power wiring not correct - software issues	- system has no battery power or proper switch - contact Reichhardt support
9060	22	field/road switch	- Not in field position - Switch is defective	check switch position
9100	29	EEPROM write error	- EEPROM is defective - EEPROM is busy	contact Reichhardt support
9101	29	EEPROM read error	- EEPROM is defective - EEPROM is busy	contact Reichhardt support
9102	29	check EEPROM data	older software is updated	check all parameters and settings
9103	29	EEPROM values changed automatically	after software update it is sometimes necessary to set parameters to default	check parameters
9104	29	EEPROM value(s) out of range	a parameter was out of range and set to default	contact Reichhardt support
9105	29	vehicle offsets not taught	after software update new vehicle offsets need to be taught	teach vehicle offsets
9106	29	EEPROM too small	EEPROM is too small for software	contact Reichhardt support
9107	29	EEPROM read error	Data is to be stored while it is being read	contact Reichhardt support
9108	29	EEPROM write error	Data is to be read while it is being written.	contact Reichhardt support

Error-No.	Level	Description	Cause	Troubleshooting
9200	22	Direction of traveling is unknown	After startup or in case of failure is the direction of travel unknown	<ul style="list-style-type: none"> - Drive vehicle till direction of travel is known. - Check setup, type of detection for direction of travel.
9991	22	task 1 runtime error	task 1 requires too much time	contact Reichhardt support
9992	22	task 2 runtime error	task 2 requires too much time	contact Reichhardt support
9993	22	task 3 runtime error	task 3 requires too much time	contact Reichhardt support
9994	22	task 4 runtime error	task 4 requires too much time	contact Reichhardt support
9996	31	Error UDS - Lib	An error has occurred within the UDS Lib	contact Reichhardt support
9997	22	USER stack overflow	USER stack size is too small.	contact Reichhardt support
9998	31	internal calculation errors	function has some problems	contact Reichhardt support
9999	31	error ISO Lib	within the ISO Lib an error has occurred.	Please note the "Error ISO"-Number. This can be seen from the diagnostic menu. Send this number to the Reichhardt support