



IQUU 3.0 Operations Manual

For Operation with Fendt 9 Series Tractors



Autonomous Ag

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1161 Calder Alternative Highway

Lockwood, VIC, 3551

Table of Contents

1. About this guide	3
1.1. Liability	3
2. About iQuus	4
2.1 How iQuus works	4
2.2 Important Safety Information	5
2.3 Startup and shut down	5
2.4 Force shutdown	6
2.5 Before each use of iQuus	6
3. Part overview	9
3.1 System Overview	9
3.2 System states	10
4. Using iQuus	10
4.1 Selecting/creating a profile	10
4.2 Main	11
4.3 Recording a route	12
4.4 Save route	12
4.5 Open route	12
4.6. Edit actions	13
4.7. Edit route	16
4.8. Close route	17
4.9. Playback route	17
4.10. Stop plan	18
4.11. Emergency stop	18
4.12. Manual control	18
4.13. Overtake	18
4.14. Generic output	19
5. Other Settings	19
5.1. GPS	19
5.2. Vehicle	20
5.3. Notifier	21
5.4. Playback settings	22
5.5. Remote Assistance	23
6. Failures	24
6.1 Location of fuses	24
6.2 Temporarily disable iQuus	25
7. Frequently Asked Questions	26
8. Known Faults	27

1. About this guide

This starter guide is for individuals responsible for operating an iQuus system. It provides essential instructions for commissioning, operating, and maintaining the system. Please read this guide thoroughly before you begin.

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1.1. Liability

While we have made every effort to ensure the accuracy of this document, Autonomous Ag and GPX Solutions are not responsible for any errors or omissions. We also accept no liability for damages arising from the use of the information provided in this document.

Autonomous Ag and GPX Solutions are not liable for any incidental or consequential damages, loss of expected benefits, work stoppages, data loss, or data corruption resulting from the use or inability to use this system or any of its components. We are also not responsible for any modifications or repairs made outside our control, or for any damage caused by insufficient system maintenance.

Like all wireless and satellite signals, the availability and accuracy of navigation and correction services (such as GPS, GNSS, SBAS, etc.) can be affected by various factors. Therefore, Autonomous Ag and GPX Solutions cannot guarantee the accuracy, reliability, continuity, or availability of these services. We also cannot guarantee that the iQuus system or other products, which rely on these signals, will function in all conditions. Autonomous Ag and GPX Solutions assume no responsibility for using these signals or services for purposes other than those specified.

2. About iQuus

The iQuus system is designed to transform a modern agricultural machine into a (semi-) autonomous vehicle. The machine can still be operated manually by the user without any issues. When automation is desired, the user can activate the iQuus system to perform tasks autonomously.

The iQuus system operates by first recording a route using precise GPS points. Once recorded, this route can be replayed with various settings applied, such as hitch position, engine RPM, hydraulics, and PTO controls. Recording the route in advance allows for immediate verification that it is a logical and drivable path.

The iQuus system can control the following machine and implement functions:

- Hitch control
- Hydraulics (electronically controlled valves)
- Rear PTO
- Engine RPM
- Speed
- Seat switch
- External inputs and outputs

Please note that iQuus can only operate functions that the user can manually control. If a function is unavailable due to a tractor malfunction or incorrect tractor settings, iQuus will also be unable to operate it.

2.1 How iQuus works

The iQuus system operates as follows:

- The GNSS receiver calculates the tractor's exact position and sends it to iQuus.
- The tablet records and replays routes and controls the steering controller
- Pressing the road switch activates iQuus, allowing it to take control of the tractor.
- The tablet sends all command inputs to the Vehicle Drive Module (VDM).
- The VDM manages the machine controls, enabling iQuus to operate the tractor.
- The Automatic Brake Module slows the tractor during autonomous operation and enables emergency braking if needed.
- To return control to the driver, press the road switch for 3 seconds

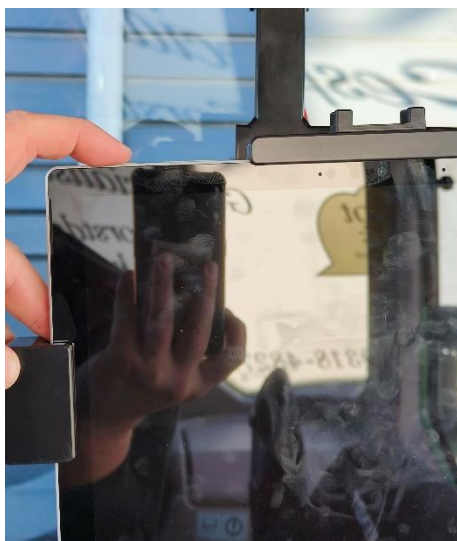
2.2 Important Safety Information

This document describes an autonomous system, for which you are fully responsible and liable during use. Do not activate the system in areas where its use or a malfunction could cause physical injury, psychological harm, or other damage. Ensure that no people or animals are near the system when it is active. Use the system only on private property, and prevent it from accessing others' property, public spaces, or public roads. Take precautions to avoid any material, physical, psychological, or other damage in these areas.

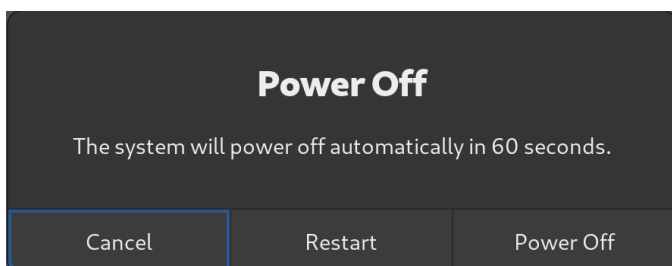
In an emergency, prioritize your own safety. In an emergency, call 000. To restart the system after an emergency stop, please refer to Section 4.11, "Emergency Stop."

For further safety information, please refer to the supplied CE documentation

2.3 Startup and shut down



Turn the iQuus tablet on/off by pressing the button. The tablet will now boot up and is booted up when the profile choice is displayed.



Pressing the on/off button again closes the tablet. A drop-down menu will be displayed as shown on the right. Click on "Power off" to close the tablet immediately. If no choice is made, the tablet will shut down after 60 seconds.

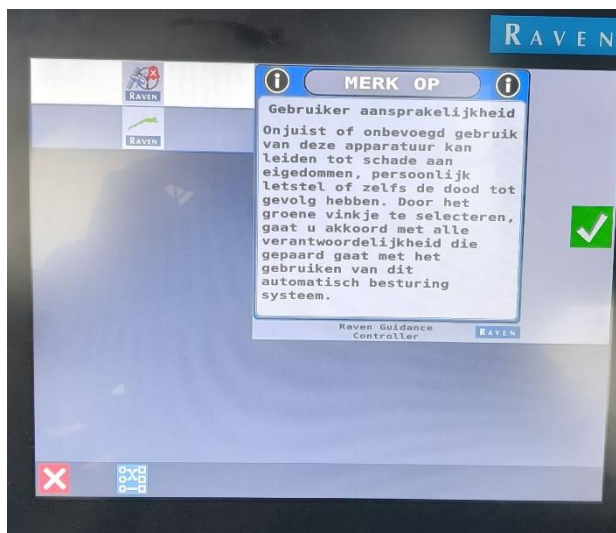
2.4 Force shutdown

In exceptional cases, the system can be forced to shut down using the following steps:

- Turn off the tractor and remove the key from the ignition.
- Wait 1 minute for the tractor to fully shut down.
- Press and hold the iQuus tablet's on/off button for 5 seconds.
- Restart the tractor.
- Wait 10 seconds, then turn the tablet back on.

2.5 Before each use of iQuus

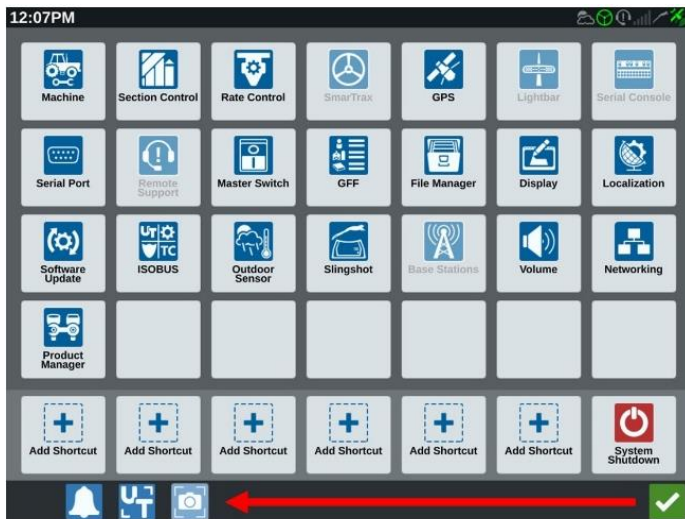
Before using iQuus, ensure the following points and settings are checked:



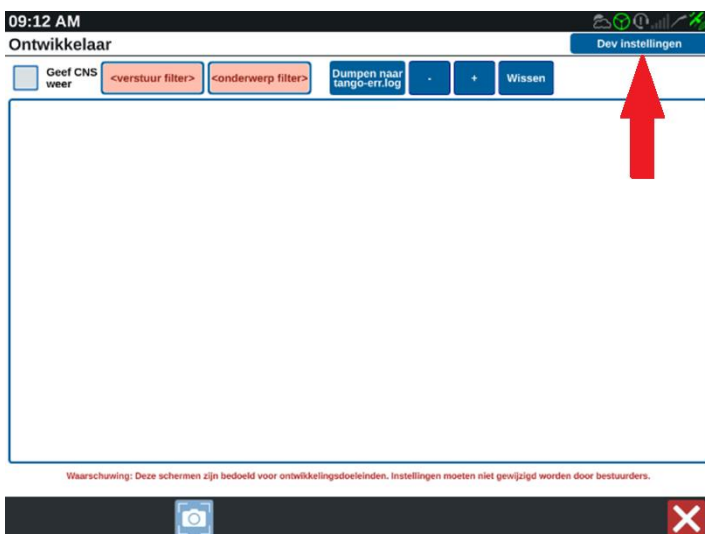
- Accept the liability on the Raven screen by pressing the green check mark in the UT (User Terminal) of the Raven screen. The Raven screen must remain on while operating iQuus.

- Wait for the Raven GPS to converge.

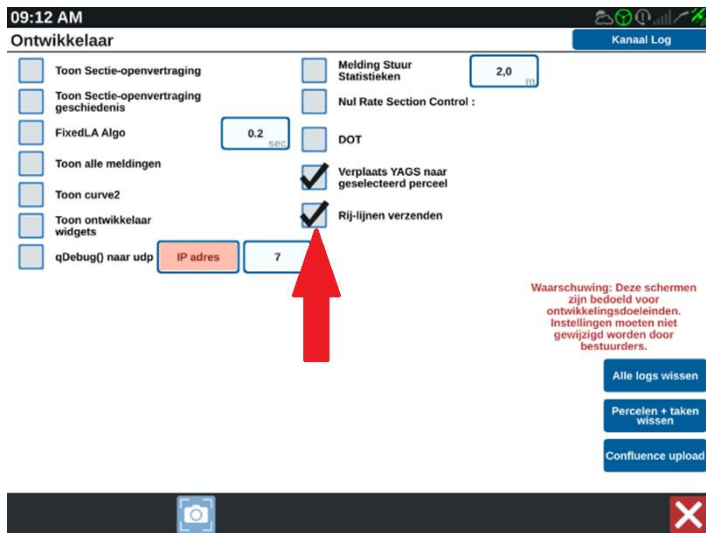
- Drive forward 2 to 4 meters and verify that the direction of travel is correct. If needed, you can change the direction by pressing the button on the red arrow.



- If the Raven Terminal (CRx or Viper) is installed, on the Raven terminal check that the "Send Lines" option is turned off. Swipe smoothly from right to left across the bottom black bar.



Tap on "Dev Settings."



Uncheck the "Send Row Lines" option.

- Verify that the tractor settings are configured as shown below.



Picture 1: FendtOne Screen showing editing functions, earlier models of Fendt will have different screens

- Ensure that all functions to be used in autonomous mode are unlocked.
- Set the front hitch between 0 and 50 percent, and level the bumper using the top link.

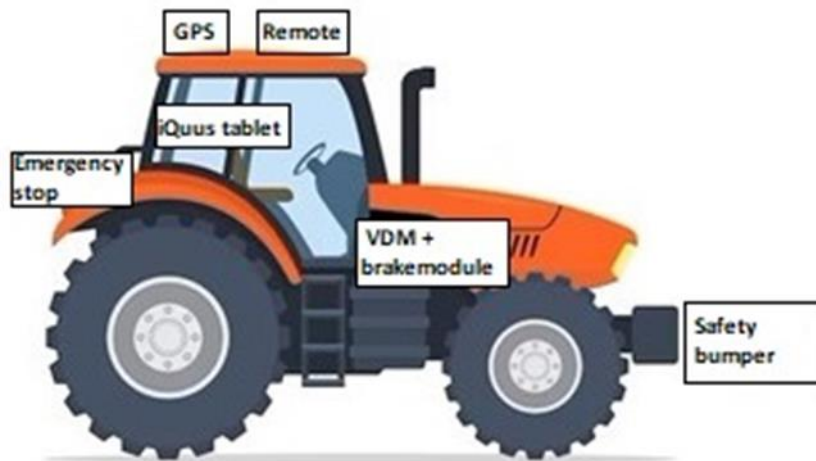
3. Part overview

This chapter describes the components of the iQuus system.

3.1 System Overview

The iQuus Autonomy kit includes the following components:

- iQuus tablet
- Vehicle Drive Module (VDM)
- Automatic Brake Module
- Raven terminal (optional)
- Remote control
- Emergency stop
- Safety package, which includes emergency braking at the corners of the vehicle and a safety bumper with object detection



Picture: Tractor showing the location of additional features the iQuus system adds.

3.2 System states

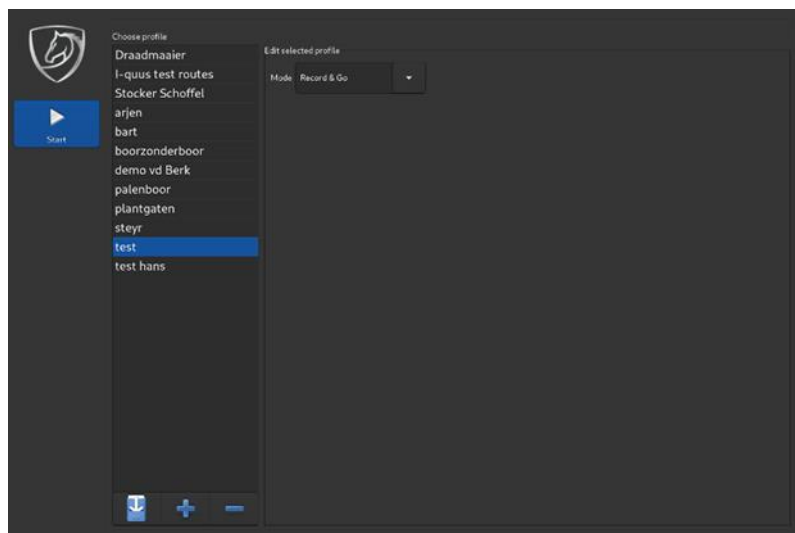
At the bottom left of the iQuus tablet screen, you can see the current state of the system. The table below provides a detailed explanation of the different states:

State	Definition
Initializing	Start-up of IQuus and vehicle.
Passive	Normal use of vehicle.
Pre-autonomous	First step to autonomous.
Autonomous start	2 seconds before it becomes autonomous.
Autonomous	Full autonomous mode.
Pause	Autonomous mode but stationary mode.
Autonomous is going to stop	Stopping autonomous mode (speed to 0).
Ready	Done autonomously, waiting for user input to go to passive.
Error	Critical error in iQuus.
Emergency Stop	Emergency stop (emergency stop is triggered in autonomous mode).
None	Vehicle is switched off.


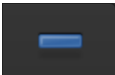
4. Using iQuus

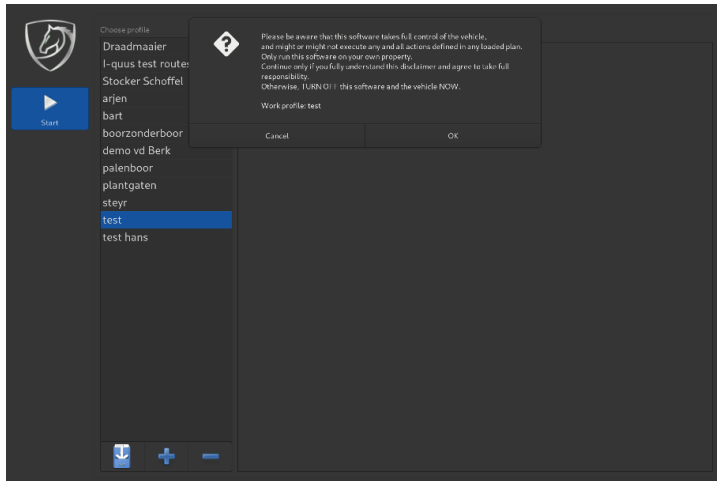
This chapter explains how to use iQuus in more detail.


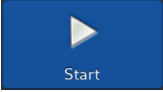
4.1 Selecting/creating a profile



When the iQuus tablet is powered on, the screen will display as shown above.

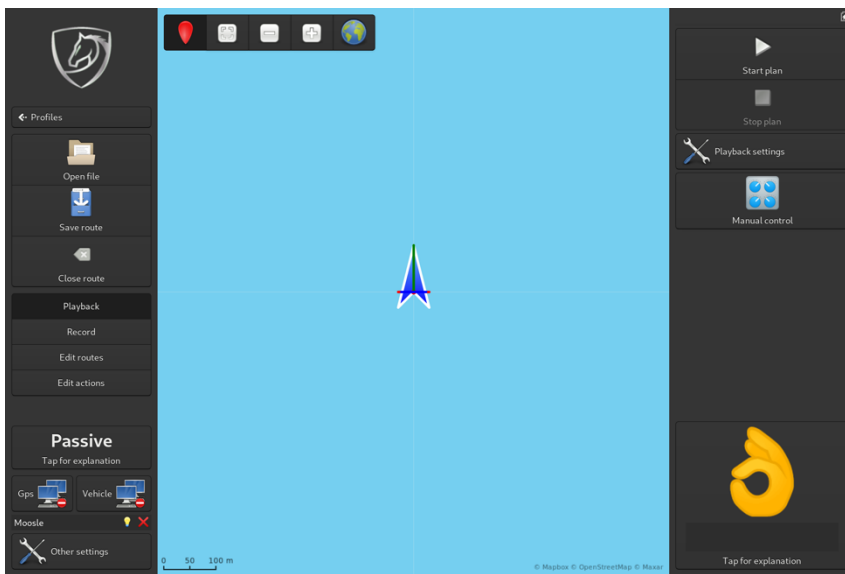
- Press the  icon to create a new profile. Enter a name for the profile and save it. You can then open this profile later.
- Press the  icon to delete a profile.



- Press the  icon to change the name of the profile.
 - Press  the icon to choose the profile and to start iQuus.
- Press 'OK' to accept the iQuus liability.

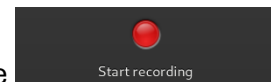
4.2 Main

After selecting a profile, the home screen will open. From this screen, you can view and manage all iQuus actions.



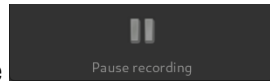
4.3 Recording a route

Press "Record" on the left side of the main screen, then press the



icon to begin recording a route. Drive the tractor along the desired path, and when

finished, press the



icon again to stop recording.

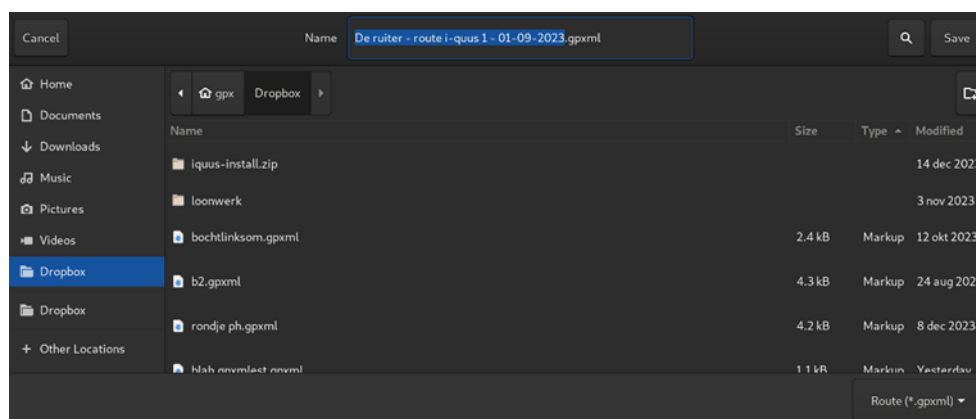
- When pausing and resuming the recording, ensure there are no obstructions or locks between the two points.
- You can also pause the recording while driving the route. When you resume recording, a straight line will be drawn between the last recorded point and the current position. This feature helps smooth out any irregularities when recording straight sections.
- During route recording, avoid turning the steering to its maximum angle. If the steering angle reaches its limit, the tractor may have difficulty following the corners properly during playback.

4.4 Save route

Once you have recorded and edited the route, be sure to save it. Press the save button



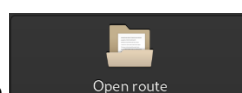
, and the following screen will appear:



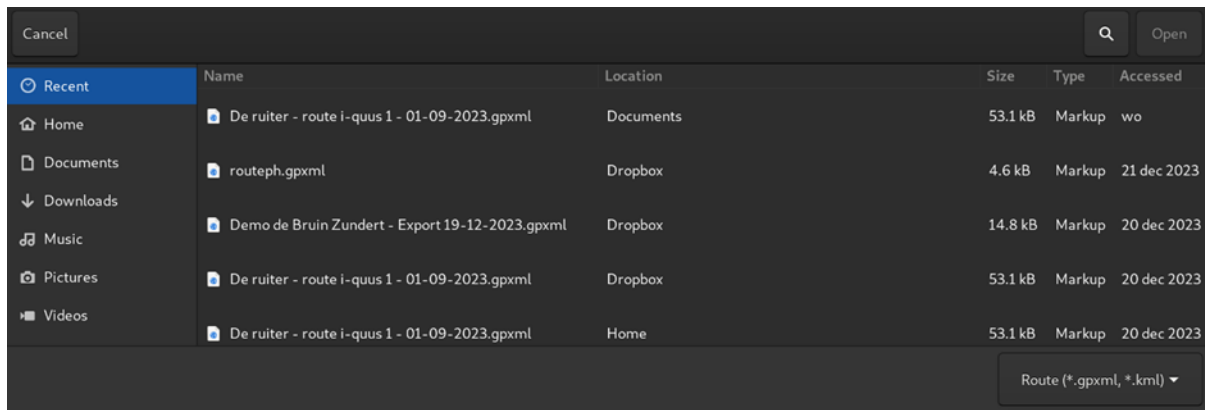
Enter a name for the route in the "Name" box, then press "Save" to save the route.

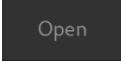
4.5 Open route

To open a route, click on the



The screen below will appear. Routes are stored in Dropbox and can also be found under "Recently Used."




Choose a route and press . The route will now be opened. To play the route see chapter “Edit actions.”

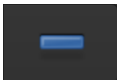
4.6. Edit actions

The actions that the tractor needs to perform during the route must be set in the action menu. On the left side of the main screen, press "Edit Actions." The actions are organized into four different conditions:

- Start
- End
- Start Recorded Straight
- Start Recorded Turn

For each condition, the following actions can be assigned: Mock-up, PTO, Hitch, Hydraulics, Speed, and RPM. Other functions are not applicable to this iQuus system.

To add a function, press the  button at the bottom right of the "Edit Action" menu. A new screen will appear, where you can select the desired action under "What."

To delete an action, press the  button. Actions are executed in the order they appear in the list. It's important to note that the system does not wait for an action to be fully completed before moving on to the next one. For example, if an action is set for 1000 RPM, the next action will be triggered immediately, even if the engine has not yet reached 1000 RPM. By adding a Mock-up with a specific duration, you can ensure that the current action is completed before the next one starts.

Below are explanations of the various actions and their functions.

• **Mock-up**

This function allows you to add a time delay between actions. It ensures that the current action is completed before the next one begins, providing a buffer of time as needed.

• **PTO Shaft**

This function allows you to turn the rear PTO shaft on or off. In the PTO action, a value of 0 turns the PTO off, and a value of 1 turns it on.

- If the time is set to 0, the PTO will remain on continuously.
- If a time between 1 and 60 seconds is selected, the PTO will turn on for the specified duration and then turn off automatically.
- When a time is set, the tractor will perform this function while stationary.

• **Hitch**

This function allows you to adjust the height of the rear hitch. The lifting height can be set between 0 and 100 percent, where 0 is the lowest setting and 100 is the highest. Please note that time regulation does not apply to the hitch.

• **Hydraulics**

This function allows you to operate the tractor's hydraulic system. Keep in mind that there may be more hydraulic colours listed than those applicable to your tractor. Only the existing hydraulic colours can be controlled.

To use a hydraulic function, select the appropriate colour and set a value:

- **-100**: Float position (if the tractor's valve supports it)
- **-90**: Maximum valve open to the negative side
- **0**: Stop (valve is closed)
- **+100**: Maximum valve open to the positive side

Values between 0 and +100 (or between 0 and -90) allow you to partially open the valve, but not fully.

You can also set a time duration for the hydraulic function, allowing it to operate either for a specific amount of time or continuously.

Important: *Improper use of a hydraulic valve can lead to overheating of the oil, which may cause damage to the tractor.*

• **Speed**

This function allows you to set the tractor's speed in meters per hour. You must enter a value between 0 and 20,000 meters per hour.

Additionally, the **deceleration function** allows you to choose between two modes:

- **Reactive (value 0):** The tractor adjusts its speed when it reaches the turn.
- **Anticipatory (value 100):** The tractor adjusts its speed earlier, before reaching the turn, to ensure a smoother cornering.

The anticipatory setting adjusts the speed in advance, depending on the deceleration value. A higher value results in earlier speed adjustments, while a lower value waits until the tractor is closer to the turn. This setting is a percentage, described in the “playback settings” chapter.

Important: Always ensure the set speeds are lower than what the operator would normally drive. If the speed is set too high, the tractor may deviate from the planned route.

• RPM

This function allows you to set the tractor's engine speed, which should be specified between 800 and 2000 rpm. You can choose to set the RPM to run continuously or for a specific duration, depending on the time setting.

4.6.1. Start actions

To add actions that should be performed at the start of a route, select the "Start" menu at the top right of the "Edit Actions" menu. These actions will only be executed when the route begins.

4.6.2. End actions

To add actions that should be performed at the end of a route, select the "End" menu at the top right of the "Edit Actions" menu. These actions will only be executed when the route ends. The vehicle's speed will always be reduced to 0km/hr at the end of the route.

Good actions to include at the end of a route are:

- Reduce speed to 4km/hr, this will allow the tractor to slow gradually from operating speed, to 4km/hr, to 0km/hr
- Stop PTO
- Raise Hitch

4.6.3. Start recorded straight actions



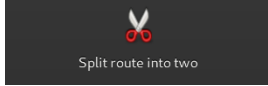

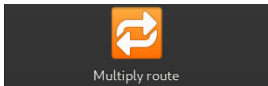


To add actions that should be performed on the straight sections of the route, select the "Start Recorded Straight" menu at the top right of the "Edit Actions" menu. Actions set as continuous will be carried out throughout the straight section. If actions are added for a specific duration, they will be executed at the beginning of the straight. The Start action should include some set speed. The tractor will travel at no more than 4km/hr for the first 6 seconds, this allows the tractor to check if steering is operational before it begins operational speed.

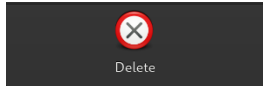
4.6.4. Start recorded turn actions


To add actions that should be performed during the turn, select the "Start Recorded Turn" menu at the top right of the "Edit Actions" menu. If the actions are set as continuous, they will be carried out throughout the turn. If the actions are set for a specific duration, they will be executed at the beginning of the turn.


4.7. Edit route

After recording the route, you can edit it as needed. To do so, press "Edit route" on the left side of the main screen. The available editing options are as follows:

- **Mark Curves Automatically:** Press  to automatically mark the curves in the route. Marking the curves is necessary for applying different actions on straight sections or curves.
- **Reverse the Route:** Press  to reverse the route. The stop point will then become the starting point.
- **Split the Route:** Select the desired junction and then press  to split the route into two parts.
- **Connect Two Routes:** Select the last point of route 1 and the first point of route 2, then press  to connect the two routes.
- **Multiply the Route:** Press  to multiply the route. The stop point will be connected to the starting point with a straight line.
- **Mark a Point as a Curve:** Select the desired point and press  to mark it as a curve.
- **Mark a Point as Straight:** Select the desired point and press  to mark it as a straight section.

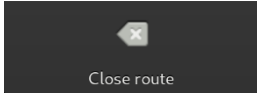
- **Delete a Point:** Select the point you want to delete and press . The points before and after the selected point will be automatically connected to each other.

By pressing , you can select multiple points at the same time for bulk editing.

By pressing , you can select all points between two points clicked.

Important: *It is important to remember to save a route after editing*

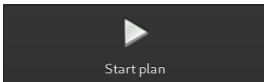
4.8. Close route

To close the route, press the “close route” button . Note that any unsaved changes will be lost upon closing.

4.9. Playback route

To begin the route, stop within 5 meters of the starting point. If starting after reaching the starting point, the tractor can be parked up to 0.5 meters from the route.

Follow these steps to start the route:

- Press the Start plan button on the tractor to initiate the route. 



- Briefly press the roadswitch (located at the red arrow) once; it will turn green. This changes the tablet status to "pre-autonomous" and gives iQuus control of the tractor.
- Press Start once on the remote control.
- Exit the tractor and inspect the surrounding area for any hazards or obstacles.
- Press Start once again on the remote control. The tractor will then enter autonomous mode and begin driving.

4.10. Stop plan

At the end of the route, the route plan stops automatically, and the tablet status changes to "Stopped." To regain manual control of the tractor, press and hold the roadswitch for 3 seconds. This will switch the tablet's status to "Passive," and the roadswitch light will turn off.

Important: After holding the roadswitch for 3 seconds, iQuus will no longer control the armrest. When disabling iQuus, ensure that no armrest functions are being operated.

4.11. Emergency stop

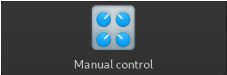
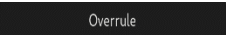
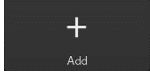
In an emergency braking situation, the brake is activated, and the tractor shuts down with the ignition switched off. To restart the tractor after emergency braking, turn off the ignition and remove the key for 30 seconds before reinserting it.

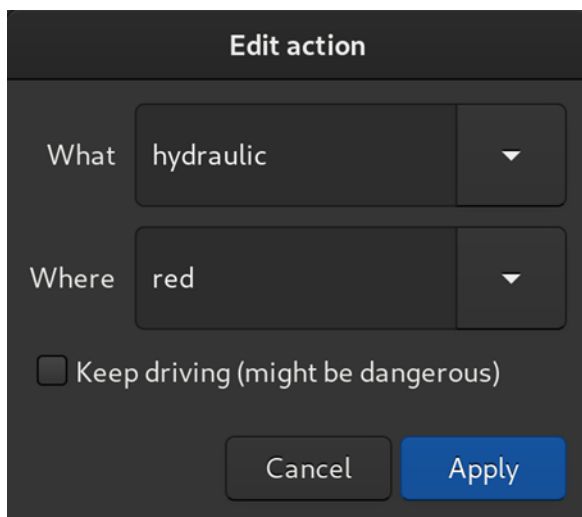
4.12. Manual control

In iQuus, certain functions can still be manually controlled by the user during autonomous driving. These functions include Hitch, Speed, Hydraulics, and PTO.

Important: Adding override functions may impact the moving parts of the iQuus system. Ensure that any use of an override function is set up within a separate profile.

4.13. Override

To open the override menu, press the  button on the right side of the main screen, then select **Override** . Next, press  at the bottom of the screen to add a function.



Edit action

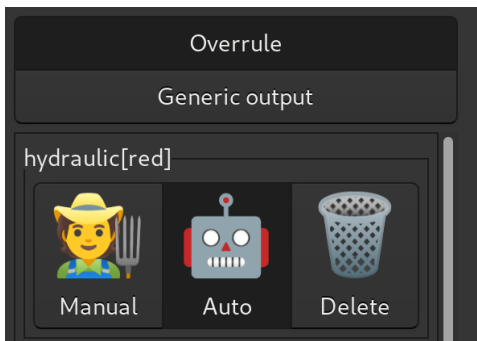
What hydraulic ▼

Where red ▼

Keep driving (might be dangerous)

Cancel Apply

The menu will open on the screen as seen on the left. From this menu, select the function you wish to override during autonomous driving.



Auto to leave the function unmodified

Manual to override the function

Delete to remove the function entirely.

4.14. Generic output

This version of the iQuus system does not support external inputs or outputs, so the generic output function is not operational in this system.

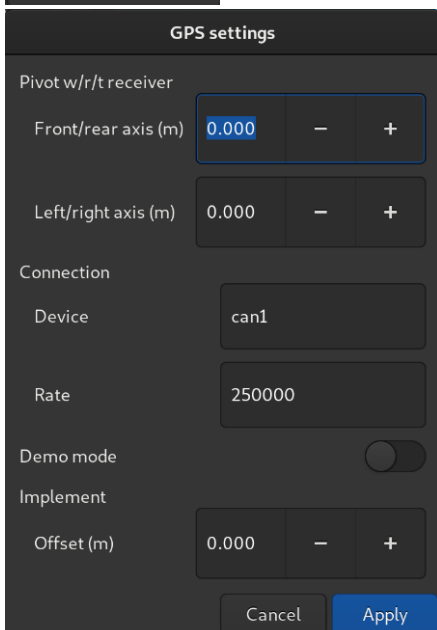
5. Other Settings

Certain settings in the iQuus system must be configured correctly, as explained in detail in this chapter.

Important: *Adjusting these settings is a specialized task; improper changes may cause the iQuus system to malfunction or stop working altogether.*

5.1. GPS

Press the button located at the bottom left of the main screen to open the GPS settings menu.



Configure the settings as shown here.

5.2. Vehicle

To open the vehicle settings menu, press the button at the bottom left of the main screen.



This menu includes the following submenus:

Connection,

General,

Steering Module,

Hitch, Speed,

Miscellaneous,

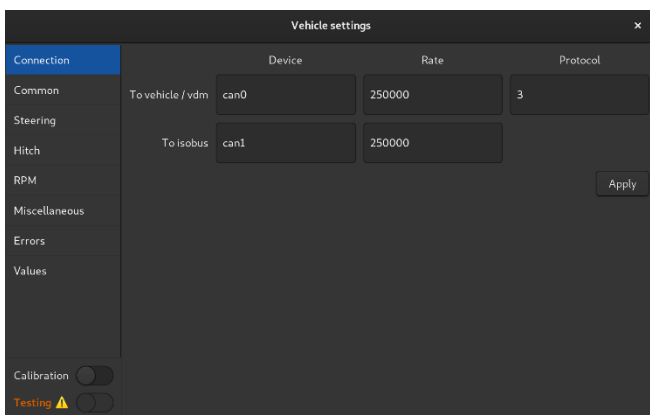
Errors, and

Values.

For this iQuus system, only the **Connection**, **Errors**, and **Values** menus are applicable and are explained in more detail below.

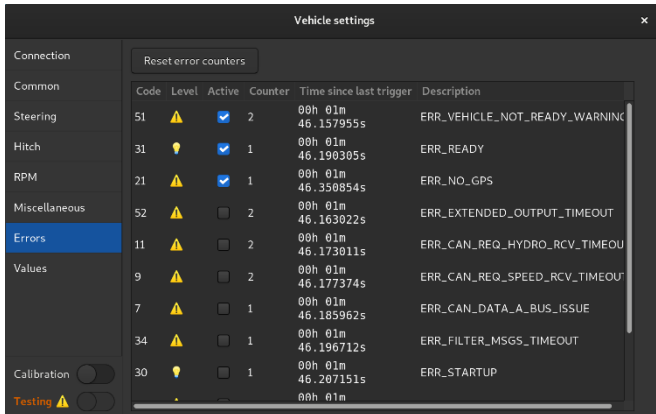
Connection:

Ensure the connection settings match those shown on the left. Changing these settings will cause the system to stop working.

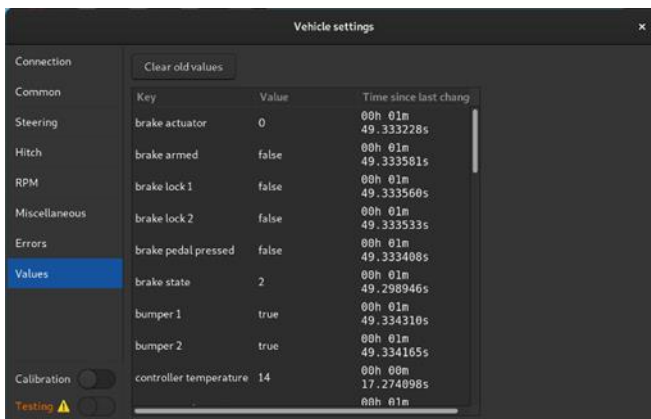


Errors:

In the **Errors** menu, you can view all currently active errors. For more information on possible errors and their solutions, refer to Chapter: *List of Known Faults*.




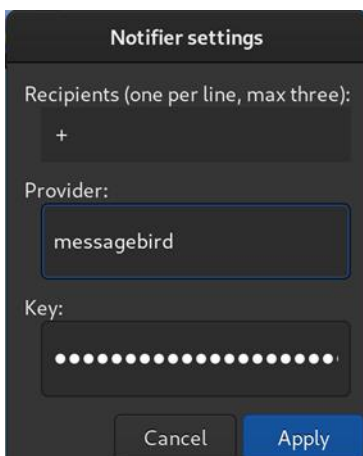
Values:



The **Values** menu displays all the important inputs and outputs for the iQuus system.

5.3. Notifier

Press the  button to open the notifier settings menu, where you can adjust the settings.



The notifier feature in the iQuus system sends messages to a designated phone number, with support for up to 3 numbers in the format: **+316-12345678**. Ensure the provider is set to **messagebird**.

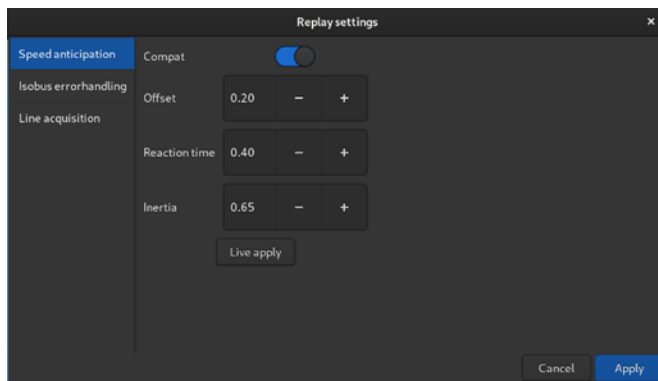
The notifier will send an alert to the user when the tractor is ready or if an object is detected.

5.4. Playback settings

Access the iQuus playback settings by pressing the button on the right side of the screen. In the playback settings menu, you'll find three submenus: **Speed Anticipation**, **Isobus Error Handling**, and **Line Acquisition**.

5.4.1. Speed Anticipation

Speed anticipation is particularly relevant at speeds above 8 km/h. When '**compat**' is enabled, anticipation is applied only above 8 km/h. When '**compat**' is disabled, it is also applied below 8 km/h.



The purpose of speed anticipation is to help the tractor brake more effectively before making a turn.

Deviation:

Adjustable in meters. This ensures that the point of braking is placed with the set value forward.

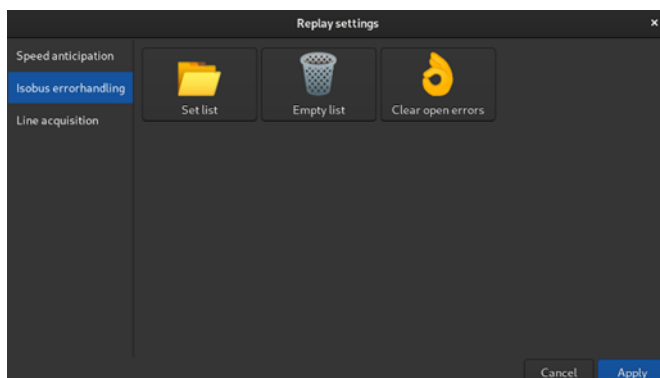
Response time:

Adjustable in seconds, this feature ensures that the braking point is shifted forward based on the speed. For example, at a speed of 2 m/s with a response time of 2 seconds, the braking point would be moved 4 meters ahead.

Inertia:

Adjustable in m/s^2 , this setting determines the tractor's deceleration rate. A higher deceleration value causes the tractor to brake earlier.

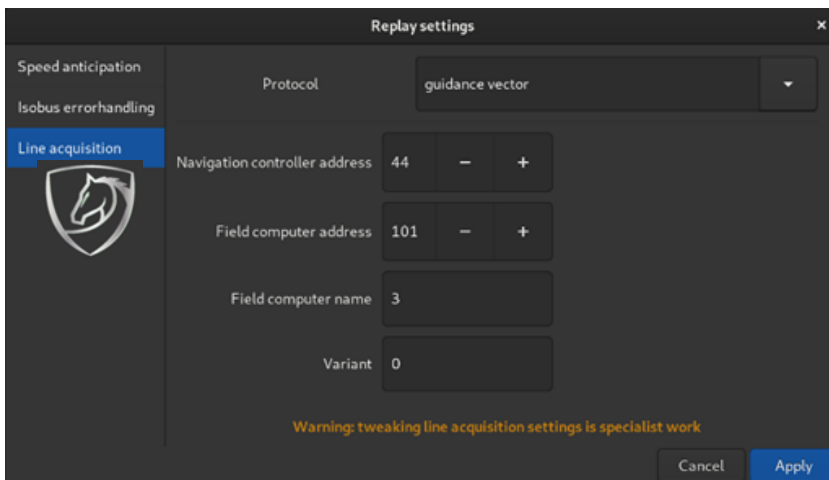
5.4.2. Isobus Error Handling



In the "Isobus Error Handling" tab, you can upload a list of Isobus error codes. If any of these error codes appear on the Isobus, iQuus will automatically stop. Please consult an iQuus team member to create a

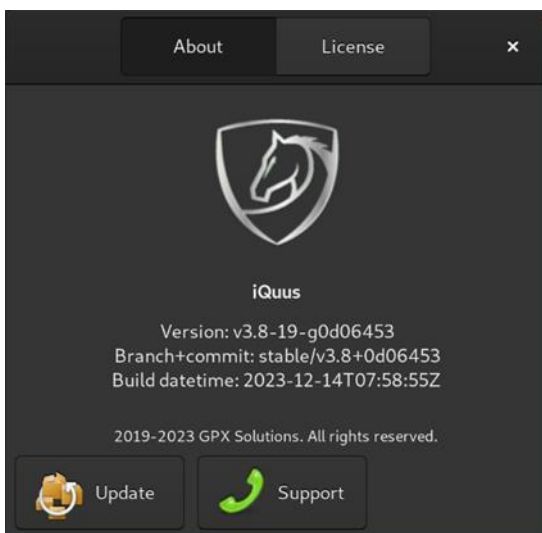
list of specific failure codes that should trigger a stop.

5.4.3. Line Acquisition



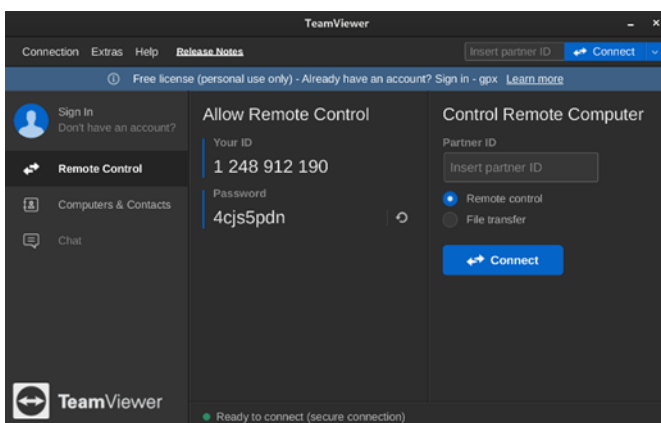
The settings for line acquisition should be configured as displayed on the left.

5.5. Remote Assistance



When contacting iQuus or a local iQuus dealer, you may be requested to enable remote assistance. To activate this, press the iQuus logo located in the top-left corner of the main screen.

The screen below will open

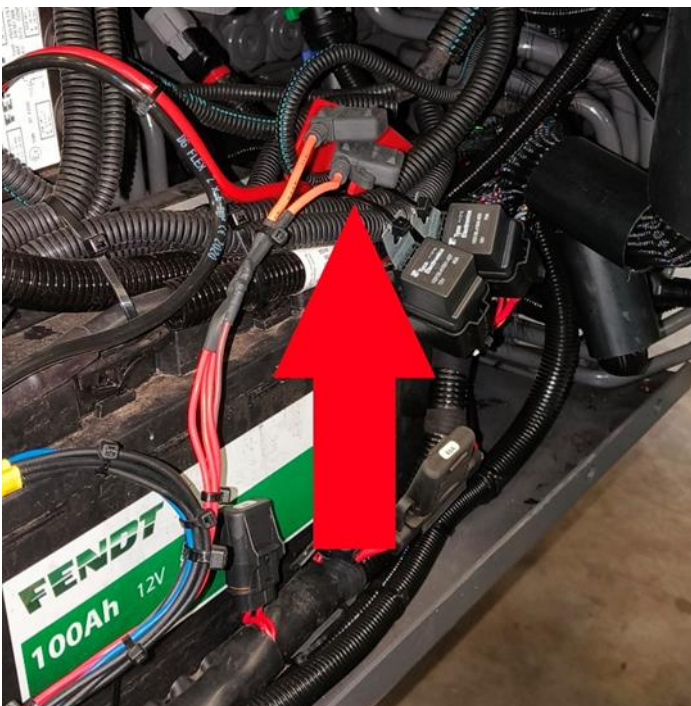


Press "Support" to unlock the tablet. This will open the TeamViewer screen.

The TeamViewer screen displays the ID and password. Share this information only if specifically requested by iQuus or an authorized iQuus dealer.

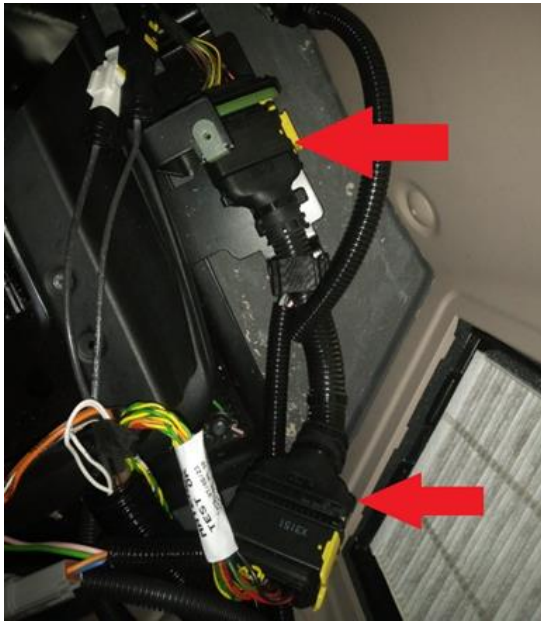
6. Failures

6.1 Location of fuses



The system contains two fuses: one rated at 15A and the other at 30A.

6.2 Temporarily disable iQuus



This chapter explains how to temporarily disable the iQuus control system. Doing so allows you to determine whether a malfunction originates from the tractor.

Important: *iQuus should only be temporarily disabled for troubleshooting purposes. If iQuus is not in use, it does not need to be disabled.*

Disconnect the two connectors at the red arrows to remove the T-plug from the iQuus system.

Connect the two original plugs together.

Disconnect the two plug connections from each other, then connect the two connectors at the red arrows.





Once the T-plug has been disassembled, attach the supplied override connector to the service plug (indicated by the red arrow).

Important: *If the bridging plug is inserted, the iQuus system will no longer be able to stop the engine in the event of an emergency. Therefore, it is firmly advised to not operate the vehicle autonomously with the bridging plug installed.*

7. Frequently Asked Questions

- The tractor reaches the turn but does not execute action required during turns, including operating PTO or hydraulics, and changing speed.
 - Check "Mark Turns" setting.
- The tractor reaches the corner but does not slow down quickly enough
 - Increase the delay setting.
- The desired action is not performed
 - Check the hand control and verify "Mark Curves" settings.

8. Known Faults

Fault (iQuus Tablet)	Definition	Possible solutions
ERR_UNKNOWN	General Error or Malfunction	Contact iQuus or your local dealer
ERR_GENERAL	No communication with the VDM	Check the VDM fuse and ensure that the USB cable is securely connected to the tablet.
ERR_VDM_OFFLINE	No communication with the VDM	Check the VDM fuse and ensure that the USB cable is securely connected to the tablet.
ERR_NO_SYSTEMTYPE_SELECTED	No system type defined	Contact iQuus or your local dealer
ERR_SYSTEMTYPE_WRONG_SELECTED	Wrong system defined	Contact iQuus or your local dealer
ERR_SYSTEM_DIDNT_SHUTDOWN_NICELY	The system was not shut down correctly or was forced to shut down	Close everything as described in Chapter “Start up and shut down”
ERR_CAN_COMM_BUS_ISSUE	Canbus 1 malfunction	The Canfilter is not working properly, check the cabling from the plug to the Canbus adapter.
ERR_CAN_DATA_A_BUS_ISSUE	Canbus 2 malfunction	The Canfilter is not working properly, check the cabling from the plug to the Canbus adapter.
ERR_CAN_DATA_B_BUS_ISSUE	The VDM has no communication with the iQuus tablet	If the VDM is not communicating with the iQuus tablet, check the following: Ensure the USB cable is securely connected to both the VDM and the tablet. Verify the power supply to the VDM. Inspect the VDM fuse for any issues. Restart both the VDM and the iQuus tablet to reset the connection.
ERR_CAN_STEER_ANGLE_TIMEOUT	The VDM does not receive any steering angle information	Check the cabling leading to the Canbus adapter to ensure proper connections. Additionally, verify that the tablet's software is up to date.

ERR_CAN_REQ_SPEED_RCV_TIMEOUT	The VDM has no communication with the iQuus tablet	Check the cabling leading to the Canbus adapter to ensure proper connections. Additionally, verify that the tablet's software is up to date.
ERR_CAN_REQ_STATE_RCV_TIMEOUT		
ERR_CAN_REQ_HYDRO_RCV_TIMEOUT		
ERR_SYSTEM_VOLTAGE_LOW	The VDM detects a low voltage	Check the battery status and inspect the power cables and fuses to ensure they are functioning correctly.
ERR_EMERGENCY_STOP_TRIGGERED	Emergency stop activated during autonomous mode.	Inspect all emergency stop buttons to ensure none of them are pressed.
ERR_EMERGENCY_STOP_NOT_READY	Emergency stop not ready for autonomous mode	Inspect all emergency stop buttons to ensure they are not pressed. Additionally, check the cabling for each emergency stop to confirm proper connections.
ERR_EMERGENCY BUMPER_TRIGGERED	Bumper emergency sensor active	Inspect the bumper to see if it is pressed in.
ERR_EMERGENCY BUMPER_NOT_READY	Bumper emergency sensor active or not present	Additionally, check if any of the sensors are defective or if the cables are loose or damaged.
ERR_OBSTACLE_DETECT_TRIGGERED	Obstacle detected	Ensure there is no object in front of the tractor. Also, check that the obstacle detection system is clean, dry, and free of dust.
ERR_OBSTACLE_DETECT_NOT_READY	Obstacle detection not ready for autonomous mode	Verify that there is no object obstructing the front of the tractor and ensure the obstacle detection system is clean, dry, and free of dust. Additionally, check the cabling for the obstacle detection system and confirm the status LED is functioning correctly.
ERR_OBSTACLE_DETECT_ERROR	Obstacle detection error	Inspect the obstacle detection cabling for any damage or loose connections, and verify the status of the LED to ensure it is functioning properly.
ERR_NO_GPS	No or poor GPS signal	Inspect the GPS system for any errors and ensure there

		are no obstructions blocking its signal reception.
ERR_WRITING_ERROR_DURING_AUTONOMOUS	Changing parameters during Autonomous is not allowed	Go out autonomous mode and try again
ERR_BRAKE_ERROR	2nd brake lock sensor fault	Check the brake cables, from the foot pedal to the brake module, to ensure they are tight, intact, and free of excessive play.
ERR_BRAKELOCKED	Brake locked not ready for autonomous mode	Release brake lock. Check cabling
ERR_EMERGENCY_BRAKE_ENGAGED	Emergency brake active	Investigate the cause of the emergency brake being active and check the construction for any issues that may be triggering it.
ERR_NOT_CALIBRATED	System not calibrated	Refer to the manual for the step-by-step instructions to calibrate the system.
ERR_MAX_LINE_DEVIATION	The vehicle has gone beyond the maximum permissible line deviation during autonomous mode	Reduce the speed in the corners and check the steering settings in the GPS system to ensure they are properly configured.
ERR_SEQUENCER_TIMEOUT	Internal error (sam)	Contact iQuus or your local dealer
ERR_STEERING_PASSIVE_PROXIED	Guidance vector error of steering system	Check guidance vector settings
ERR_STARTUP ERR_READY	System Boot (No Error) System ready for use	System startup notifications: No errors detected, this is just informational.
ERR_INITIALIZATION_FAILED	System initialization failed	Contact iQuus or your local dealer
ERR_EMERGENCY_BRAKE_NOT_READY	Emergency brake is not ready for autonomous mode	Turn the tractor off and on again after approximately 1 minute. Then, check the movement and condition of the brake and brake cables to ensure they are functioning properly.
ERR_FILTER_MSGS_TIMEOUT	Internal CANbus communication error	Check the wiring of the power plug for any loose connections or damage. If the issue persists, contact iQuus or your local dealer for further assistance.
ERR_API_LEVEL	Internal communication error	Contact iQuus or your local dealer

ERR_STEERING_LOCKED	Steering system is locked	Unlock the automatic steering by pressing the designated button on the tractor or within the GPS system.
ERR_STEERING_PASSIVE	Steering system is in a passive position	This message is reset every 30 seconds by the iQuus system. If the error is not cleared, please contact iQuus or your local dealer for assistance.
ERR_VEHICLE_NOT_READY	Vehicle not ready for autonomous mode	Ensure that the tractor handbrake is not engaged and the vehicle direction is set to forward. For additional tractor-specific checks, refer to the Quick Start manual.
ERR_ROADSWITCH	Roadswitch failure	Verify if the roadswitch is stuck, and inspect the cabling for any issues.
ERR_BRAKE_ACTUATOR_ERROR	Brake actuator failure	Contact iQuus or your local dealer
ERR_ISO_DTC	Isobus interference	Check the ISOBUS notifications on the tractor or GPS screen for any alerts or messages.
ERR_TOO_LONG_IN_CURVE_STATE	The iQuus system remains stuck in "curve" status even though the vehicle is already moving straight.	Check bend settings and otherwise contact iQuus or your local dealer
ERR_LIDAR_SELECT_PIN1_ERROR	Lidar selection pin 1 failure	Check Lidar cabling
ERR_LIDAR_SELECT_PIN2_ERROR	Lidar selection pin 2 failure	Check Lidar cabling
ERR_LIDAR_SELECT_PIN3_ERROR	Lidar selection pin 3 failure	Check Lidar cabling
ERR_LIDAR_OK_ERROR	Lidar OK pin failure	Check Lidar cabling
ERR_REMOTE_CONTROL_ERROR	Remote control malfunction (multiple buttons active at the same time)	Check remote control and receiver cabling
ERR_HITCH_TIMEOUT	Hitch does not reach the set value or does not reach the set time	Check if the time set in the list of actions is too short and verify whether the hitch is locked in the tractor settings.
ERR_SPEED_TIMEOUT	The tractor does not reach the set speed.	Ensure the tractor's wheels are not slipping, and engage the 4WD if available.

		Also, inspect the tractor's speed sensor for any faults.
ERR_RPM_TIMEOUT	The tractor does not reach the value for the set speed or does not reach it within the set time	Check if the time set in the list of actions is too short, and verify whether a limit is set in the tractor.
ERR_VEHICLE_NOT_READY_WARNING	Vehicle is not ready for autonomous mode due to locked or unconfigured options	Inspect the hydraulics, hitch, speed lock, and ensure the tractor's direction is correctly selected. Refer to the quick start manual for additional tractor-specific checks.
ERR_EXTENDED_OUTPUT_TIMEOUT	Additional implement output value not achieved within the set time.	Verify that the implement outputs are correctly configured, and check the time and function settings.
ERR_LIDAR_HEIGHT_MISMATCH	Front hitch is not at the correct height for the correct operation of the Lidar.	Adjust the front hitch height to the correct range, between 10% and 50%, until the message is cleared on the tablet.
ERR_LIDAR_SELECT1_OPENLOAD	Lidar select pin 1 connection lost.	Check Lidar cabling
ERR_LIDAR_SELECT2_OPENLOAD	Lidar select pin 2 connection lost.	Check Lidar cabling
ERR_LIDAR_SELECT3_OPENLOAD	Lidar select pin 3 connection lost.	Check Lidar cabling
ERR_SEATSWITCH_NOT_READY	Seat switch malfunction	Inspect the seat switch cabling for any damage or loose connections.
ERR_PTO_TIMEOUT	PTO shaft does not engage within the stipulated time	Check if the PTO is locked or defective
ERR_BRAKE_ARMED_SENSOR_ERROR	Brake position sensor malfunction	Check cabling and otherwise contact iQuus or your local dealer
ERR_PARAM	Something went wrong with the retrieval of a parameter from the VDM.	Ensure that the VDM is turned on and verify that its version is compatible with the tablet's version.
ERR_EXTERNAL_ISOBUS	A user-defined error occurred on the isobus.	Based on the defined errors, review each error and investigate its possible causes.
ERR_REQUEST_SPEED_TOO_HIGH	Requested speed too high	Reduce speed request in list of set actions or contact iQuus or local dealer to adjust this setting (where possible and allowed)

