

Brobizz

Operating manual

Toll Box

GNSS OBU 5310-22A



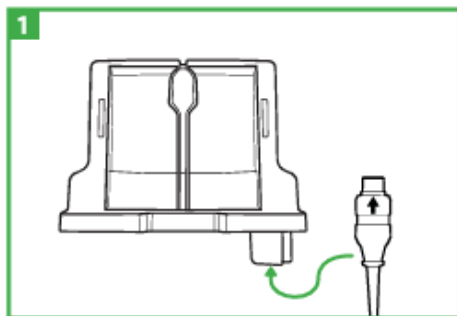
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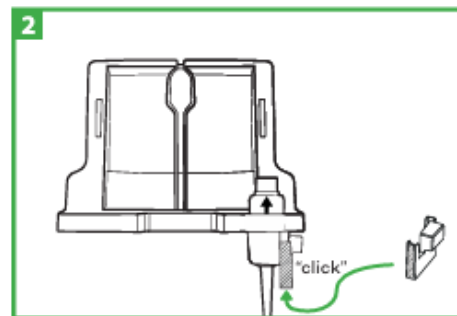
1. Docking Station Installation

Please follow the below steps or refer to the installation guide available here: [get started with the Toll Box](#).

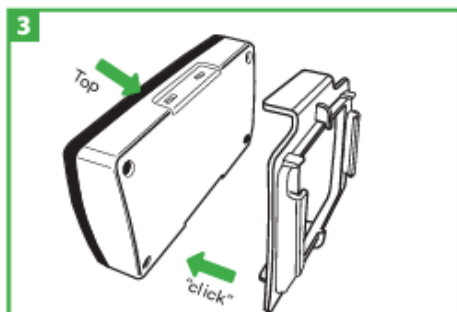
Preparing the Box for installation:



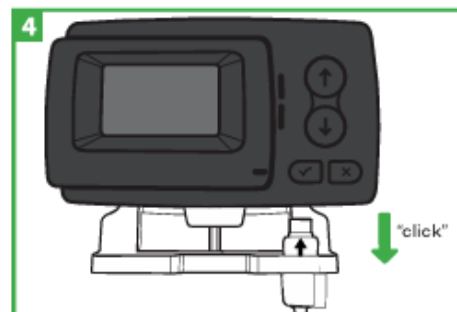
1 Feed the cable up through the bottom of the holder. Make sure the cable is oriented correctly with the arrow and is straight before proceeding to step 2.



2 Attach the provided plastic clip between the cable and the holder. Ensure it is mounted straight before clicking it into place, as it will be locked afterward.

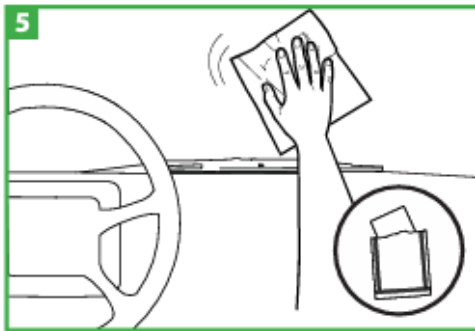


3 Mount the bracket on the back of the box. Be careful to position the bracket correctly (align the notches on the bracket and the box), as it is difficult to separate once assembled.

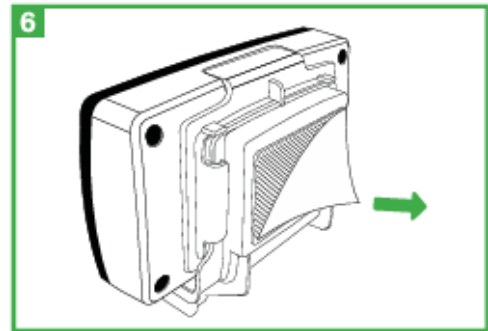


4 Mount the box (with the bracket on the back) onto the holder until you hear a 'click'.

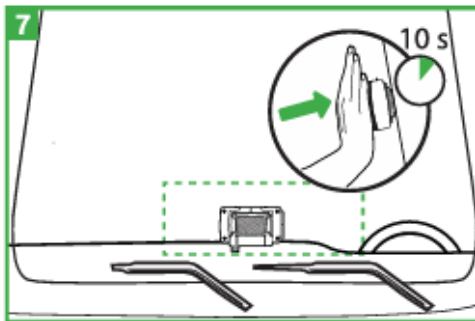
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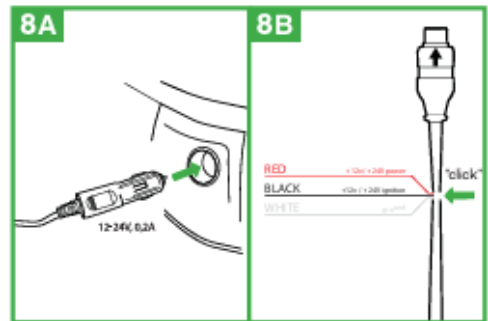
5 Thoroughly wipe the window with the provided cloth.



6 Peel off the paper backing from the adhesive.



7 Mount at the bottom of the window and press for 10 seconds to secure the box. The box must be mounted so that the driver has a clear view of the display and the LED indicators.



Connect the power in two ways:

- 8A Connect the provided power cable to the vehicle's cigarette lighter socket.
- 8B Direct connection to the vehicle. See operating manual for guide (Recommended)

NOTE:

Please check the specifications of your vehicle's windshield in the vehicle documentation. The device cannot be used in vehicles with metallized windshields. The windshield must be non-metallized or have an area without metallization where the device should be placed to ensure normal function. Most vehicles will have a shaded area on the windshield indicating where the windshield is not metallized.

2. Getting Started with the Toll Box

After completing the installation steps, the Toll Box will start when the power cable is connected (see section 5).

NOTE:

The Toll Box must always be connected to the power source, and the “+” sign displayed on screen.

In case the message “Waiting for vehicle data” is shown on the display, please wait until the final configuration is downloaded. It will typically happen within 10 minutes, but it can take up to two hours.

Once the download is complete, the message “Waiting for vehicle data” will disappear from the display.

If the “Waiting for vehicle data” message is not displayed, your unit is ready to confirm the vehicle data.



3. Activation of the Toll Box

Before the Toll Box can be used, it must be activated. This is done by entering the correct vehicle data and payment method in Brobizz' self-service. Additionally, check if the correct vehicle data is configured on the Box by following the steps below the first time the Box is used.

3.1. License Plate Number

- Make sure that the tractor license plate number matches the one shown on the display.
- If yes, then press the confirm button. ✓
- If it is incorrect, please update the license plate number on the self-service and wait for the Toll Box to update



3.2. Language

- Choose your language using the buttons to scroll up/down. The Toll Box supports Danish and English.
- Select language by pressing the confirm button ✓



3.3. Axles Setting

NOTE:

Axles do not need to be installed, as the function is not used in the countries where the Toll Box can be used.

Confirm by pressing the confirm button ✓

3.4. Weight Setting

NOTE:

The weight must be set in the self-service system, and the weight setting function on the Toll Box should not be used.

Confirm by pressing the confirm button ✓

After all vehicle data has been confirmed, an OK beep will confirm that the Toll Box is active with the required vehicle data. Before using the Toll Box on the tolled road network, wait until the LED indicator shows a green operational status.

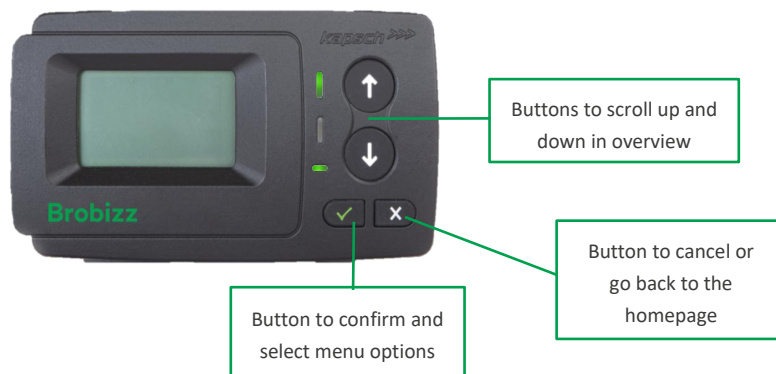
Please note that it may take up to 2 hours before your Toll Box is ready for use after vehicle data has been updated on the self-service portal.

If the box does not turn on automatically when a trip starts, press the green check mark button manually to activate the box.

4. Operating the Toll Box

4.1. The Buttons of the Toll

There are several buttons on the Box that can be used to navigate the Box's function

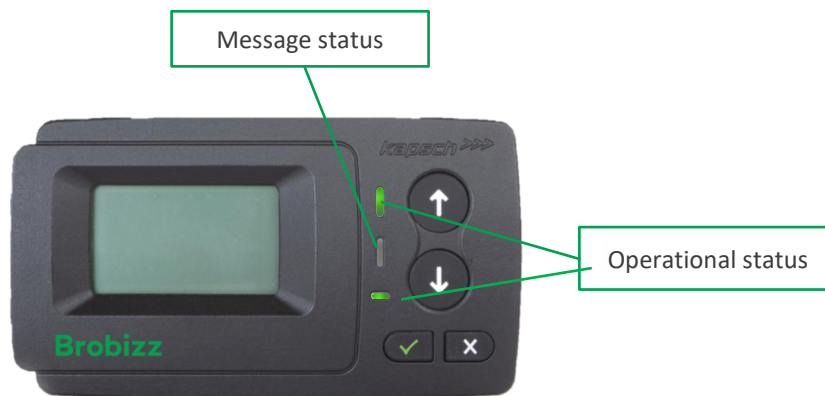


NOTE:

For traffic safety and your personal safety, you should only interact with the Toll Box when the vehicle is stationary. The buttons do not function at speeds over 5 km/h.

4.2. The LED-lights of the Toll Box

The Toll Box is equipped with several LED lights that indicate the status of the Box. These lights provide information about the operational status and message status of the Box.

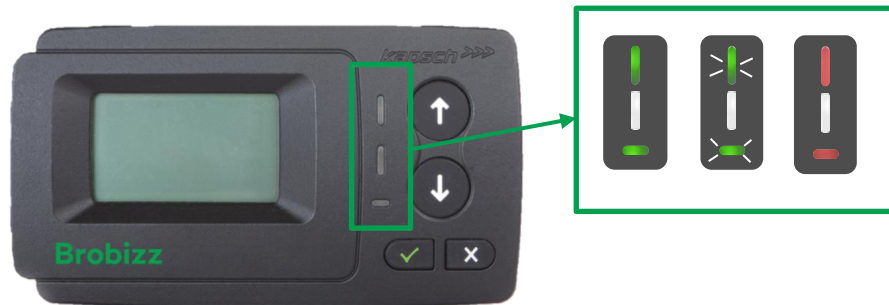







Operational status indicates whether the Toll Box is correctly configured, including whether the Box is blocked or active.

Message status shows if there is an unread or new message on the Box. A message could be that the Box is missing a power connection.

4.3. The Toll Box' LED light and explanation




The LED lights on the Toll Box indicates its status. If the status of the Box changes, the LED light will change color accordingly:



	Status
Green	 <p>Normal operational status. The Box is configured correctly and can be used for driving.</p>
Flashing green	 <p>Indicates a warning. The Toll Box is still in normal operational status, but a message is displayed indicating what the problem might be.</p>
Red	 <p>The Toll Box will light up red until the Box is configured correctly. The red light can also indicate an error. You should not continue driving with a Box that lights up red, as this may result in a fine.</p>
Off (No colour)	 <p>It indicates that the Box is either in power-saving mode or that the installation process is not completed.</p>
White	 <p>The LED light will be white if there is a new or unread message on the Box</p>

4.4. Sound Indications of the Toll Box










The Toll Box can emit various beeps that you should be aware of. Beeps will sound simultaneously with changes or updates to the Box's LED lights. In the overview below, you can see the different sounds and their meanings:

OK Beep		One long beep	Normal operational status
Not OK Beep		Four short beeps	Error or no signal
Warning beep		Two short beeps	Indicating a possible error

For further information on warnings, errors and beeps, see section 6.

4.5. Symbols of the Toll Box

The display on the Toll Box shows symbols, each indicating a specific status, function, or message.

Status	Description
XX	A two-letter country code is set during the configuration of the Toll Box.
	Bluetooth enabled, and the Box is not connected to another Bluetooth device.
	Bluetooth enabled, and the Box is connected to another Bluetooth device.
	The battery is fully charged.
	The battery is depleted
	Cellular connection indicator showing if a mobile network signal is available.
	GNSS indicator showing that the position is known.
	Indicates that the external power supply is connected.
	GNSS Privacy is enabled.
	A new message is available.

NOTE:

For traffic safety and your own safety, you should only interact with the Toll Box when the vehicle is station-ary. The buttons do not function at speeds above 5 km/h.

4.6. Main Interface

The following view is the main screen off the Toll Box, once the vehicle data is added and the Box is active:

You can access two submenus, "Settings" and "Info," by scrolling using the Up ↑ / Down ↓ buttons and pressing the confirm button ✓ to choose the menu you want to access.



If you press "confirm" on the main screen, you will be taken directly to the "Settings" menu.

4.7. Sub Menus in settings

4.7.1. Fleet:

This setting should not be used.

4.7.2. Display Brightness:

- Enter the "Set display brightness" menu via the Settings menu.
- Use the scrolling Up ↑ / Down ↓ buttons to adjust the display brightness to a value between 0-100% in steps of 5%.
- Set by pressing the confirm button ✓

4.7.3. LED-Lysstyrke:

- Enter the "Set LED brightness" menu via the Settings menu.
- Use the Scrolling Up ↑ / Down ↓ buttons to adjust the LED brightness to a value between 10-100% in steps of 5%.
- Set by pressing confirm button. ✓

NOTE:

If a message, such as a warning, is shown on the display, the main screen will be displayed again by pressing the Back button.

4.7.4. Restart

When Restart is selected, the Toll Box shuts down and immediately restarts. Restart should be used as the first troubleshooting step if the Toll Box has an error that is not related to blocking, power supply, or missing updates to vehicle data.

4.7.5. Setting Axles

Axles should not be installed, as the function is not used in the countries where the Toll Box can be utilized.

4.7.6. Setting Weight

This setting shall not be used.

4.8. Submenus in Information

4.8.1. Message History

In the message history, you can view previous messages received on the Box.

4.8.2. Serial Number

You can find the Box's unique serial number under the "serial number" menu.

4.8.3. Customer Service

Here you can find information on how to contact customer service.

4.8.3. Customer Service

Information about customer service.

4.8.4. Toll Area

This function should not be used. The agreement with Brobizz determines which areas the Toll Box can be used in.

4.8.5. Battery Charging

Displays the percentage of battery charge.

4.8.6. License Plate

Displays the license plate associated with the Box.

4.8.7. CO2 Class

Displays the vehicle's CO2 class.

4.8.8. EURO Class

Displays the vehicle's EURO class.

4.8.9. Version

Displays the Toll Box's software version.

4.8.10. Ext. SW Licenses

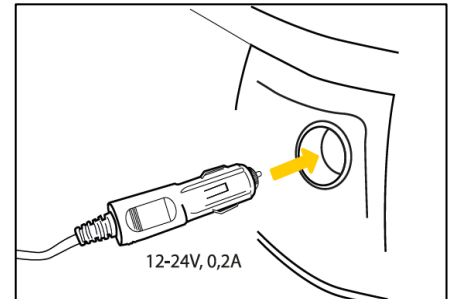
Displays the Box's software licenses.

5. Power Connection

5.1. Cigarette Lighter Plug Instructions

Connect the supplied power cable to the vehicle cigarette lighter socket and make sure:

- The power adapter is plugged in properly into the cigarette lighter socket
- The adapter is securely connected to the Box and the Box is receiving electrical power
- The cable will not get in the driver's way
- The external power indication + sign is displayed on the Box screen



NOTE:

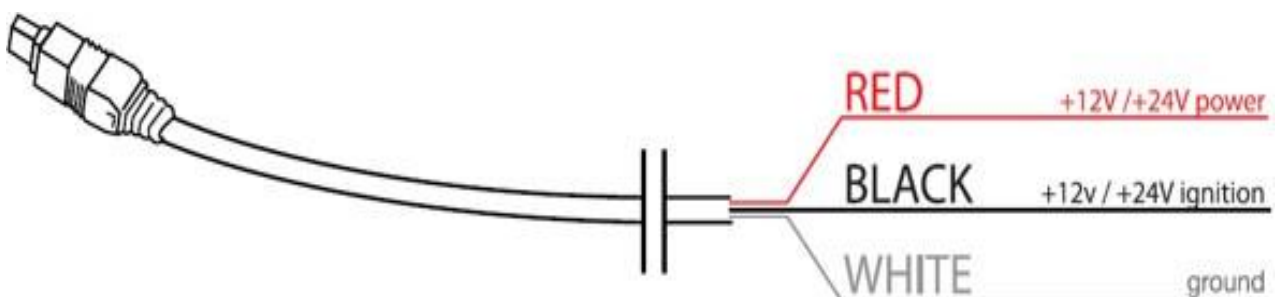
Brobizz A/S does not recommend this power connection.

The manufacturer (Kapsch) and Brobizz A/S accept no responsibility for the correct functioning of the Toll Box in the event of incorrect power connection via the cigarette lighter socket.

If this power connection is used, no other devices should be connected to the same power outlet as the Toll Box.

5.2. Fixed Cable Instructions

- Use the supplied power cable. Ensure that the cable is long enough, then remove the cigarette lighter plug and any excess cable.
- Locate the connection points in the vehicle.
- The red wire must be connected to the vehicle's permanent power supply. This ensures that the box receives the correct power when the vehicle is switched on.
- The black ignition wire must be connected to the vehicle's ignition power. This wire signals the box to start up when the vehicle is turned on and to shut down or enter sleep mode when the vehicle is turned off.
- The white wire must be connected to ground (earth/negative terminal).
- Before connecting the cables to the vehicle, install a 5-amp time-delay fuse in series with the power wires (red and black wires). If the vehicle's power supply is already protected, this step is not required.
- Connect each wire to the identified connection points (vehicle power, ignition, and ground).



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If the wires are connected to the wrong connection points, this may cause problems with the power supply to the Toll Box and the signals the box receives.

The box will not receive the correct signal indicating when the vehicle is started or switched off if the red and black wires are connected incorrectly.

The Toll Box remains operational as long as it is connected to a power source and/or the battery is charged. To ensure simple and optimal usability, the box does not have an "OFF" button but manages the power supply automatically.

The box therefore switches off automatically approximately 15 minutes after the vehicle has been stationary and turns on again as soon as driving begins.

If the box does not turn on automatically when a trip starts, press the green button manually to activate the box.

Alternative power connection

In special cases, a power connection can be established where the box has a permanent power supply – even when the vehicle ignition is switched off.

This solution may be relevant if the driving pattern means that the box rarely has the opportunity to charge via the vehicle's ignition.

With this installation, both the red and black wires are connected to permanent power. The box will still automatically enter sleep mode when the vehicle is stationary, and power consumption will be minimal. Brobizz A/S accepts no responsibility for this installation.

In case of prolonged vehicle standstill, it is recommended to remove the box from the holder to avoid unnecessary power consumption.

NOTE:

This installation must be performed by an authorized service center. The manufacturer (Kapsch) and Brobizz A/S assume no responsibility for the proper functioning of the Toll Box in the event of incorrect power connection.

6. Warning and error codes

6.1. Warning codes

The Toll Box can display various warning codes on the display. The table below indicates the warning code, description of the problem, how the box's LED lights and beeps will behave, as well as the cause and solution for the warning.

Warning code	Description of problem	Cause	Solution
5002	<ul style="list-style-type: none"> Green blinking LED light Message LED light White Warning beep Message: "Connect the power supply" 	You are running low on battery, the power supply is not connected, and the battery charge is below 20%.	Check that the power cable is connected to the box and properly plugged into the power source as described in section 5. Ensure that the box displays "+" indicating connection to an external power supply.
5004	<ul style="list-style-type: none"> Green blinking LED light Warning beep Message: "Connect the power supply" 	You are running low on battery; the power supply is not connected	Check that the power cable is connected to the box and properly plugged into the power source as described in section 5. Ensure that the box displays "+" indicating connection to an external power supply.
5006	<ul style="list-style-type: none"> Message LED light White Warning beep Message: "Vehicle turned off" 	<p>The power supply to the box is disconnected because the vehicle is switched off. If this is not intentional, investigate the cause.</p> <p>Please note that this code will appear when the vehicle is switched off and the power supply to the box is therefore interrupted. In this case, no action is required.</p>	<p>If the code appears in situations other than when the vehicle is switched off, it is important to check the installation of the box, cable, connector, and fuse group. Ensure that the box displays "+" to indicate connection to an external power supply.</p>

6.2. Error codes

The Toll Box can display various error codes on the display. The table below indicates the error code, description of the problem, how the box's LED lights and beeps will behave, as well as the cause and solution for the error.

Error code	Description of problem	Cause	Solution
2002	<ul style="list-style-type: none"> Red LED light Not OK beep Message: "No GPS signal" 	The Toll Box cannot find the GPS signal	The Box needs to re-establish the GPS signal. Start the journey only when the box has found the GPS signal.
50010	<ul style="list-style-type: none"> Red LED light Not OK beep Message "Contact support center" 	The Box is blocked and cannot be used	The Box must be activated before it can be used. See reasons for blocking before contacting customer service.
50000	<ul style="list-style-type: none"> Red LED light Not OK beep 	The Box is not sending data. You are operating outside of contract/agreement obligations.	Contact Brobizz' customer service
50020	<ul style="list-style-type: none"> Red LED light Not OK beep 	Connection issues to the server	Contact Brobizz' customer service
24	<ul style="list-style-type: none"> Red LED light Not OK beep 	Error in battery or power connection.	Check that the power supply is properly connected to the box.
1008	<ul style="list-style-type: none"> Red LED light Not OK beep 	Connection error to the hardware	Contact Brobizz' customer service
3012	<ul style="list-style-type: none"> Red LED light Not OK beep 	The box has been unable to establish a connection to GPS for a short period and thus collect positions during driving. This can happen when driving in a tunnel or parking garage.	Wait for the box to re-establish the GPS signal and collect positions again when not driving in a tunnel or other areas that can interfere with the signal.
3016	<ul style="list-style-type: none"> Red LED light Not OK beep 	Hardware error	Contact Brobizz' customer service
3018	<ul style="list-style-type: none"> Red LED light Not OK beep 	Hardware error	Contact Brobizz' customer service
4006	<ul style="list-style-type: none"> Red LED light Not OK beep 	Configuration error	Ensure that the Box is connected to power. The Box will restart when the battery voltage is above 20%, and the error will automatically be resolved. Contact Brobizz customer service if the error is not resolved.

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4008	<ul style="list-style-type: none"> • Red LED light • Not OK beep 	Configuration error	Ensure that the Box is connected to power. The Box will restart when the battery voltage is above 20%, and the error will automatically be resolved. Contact Brobizz customer service if the error is not resolved.
4010	<ul style="list-style-type: none"> • Red LED light • Not OK beep 	Hardware error	Contact Brobizz' customer service
7014	<ul style="list-style-type: none"> • Red LED light • Not OK beep 	Problems with connection to the mobile network.	Contact Brobizz' customer service
8002	<ul style="list-style-type: none"> • Red LED light • Not OK beep 	Hardware error	Contact Brobizz' customer service
9006	<ul style="list-style-type: none"> • Red LED light • Not OK beep 	Secondary battery is close to being discharged	Contact Brobizz' customer service
9010	<ul style="list-style-type: none"> • Red LED light • Not OK beep 	Update error	Contact Brobizz' customer service
9012	<ul style="list-style-type: none"> • Red LED light • Not OK beep 	Storage space error	Contact Brobizz' customer service
9014	<ul style="list-style-type: none"> • Red LED light • Not OK beep 	Hardware error	Contact Brobizz' customer service
10000	<ul style="list-style-type: none"> • Red LED light • Not OK beep 	Software error	Contact Brobizz' customer service
11002	<ul style="list-style-type: none"> • Red LED light • Not OK beep 	Hardware error	Contact Brobizz' customer service
16002	<ul style="list-style-type: none"> • Red LED light • Not OK beep 	Connection issues to the server	Contact Brobizz' customer service
17002	<ul style="list-style-type: none"> • Red LED light • Not OK beep 	Configuration error	Ensure that the Box is connected to power. The Box will restart when the battery voltage is above 20%, and the error will automatically be resolved. Contact Brobizz customer service if the error is not resolved.

6.3. Reasons for blocking of the Toll Box

The Toll Box can be blocked for various reasons. The table below describes the reasons for the Box being blocked and the solution to reactivate the Box.

Types of blocking	Reasons for blocking	Solution
Blocked via Brobizz' self service	You or your administrator have blocked the Box in the self-service portal.	Log in to Brobizz self-service portal and reactivate the Box.
Blocked due to missing vehicle de-tails	The Box is blocked because the necessary vehicle data has not been added to the Box	Log in to Brobizz self-service portal and add the missing data. Wait for the Box to update with the new data, after which the blocking will be lifted.
Blocked due to missing or expired payment card	The Box may be blocked if you have an expired payment card or if Brobizz has been unable to charge the card for usage.	Log in to Brobizz self-service portal and update the payment card, after which the Toll Box will be reactivated
Blocked due to outstanding balance with Brobizz	The Box may be blocked if you have an outstanding balance with Brobizz.	The Box may be blocked if you have an outstanding balance with Brobizz. The Box can be reactivated once the outstanding balance is paid.

NOTE:

Please note that it may take up to 24 hours for the blocking or reactivation of a Toll Box to take effect with all operators.