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Operating manual

Toll Box
GNSS OBU 5310-22A

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1. Docking Station Installation

Please refer to the installation guide available here: get started with the Toll Box.

> **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).
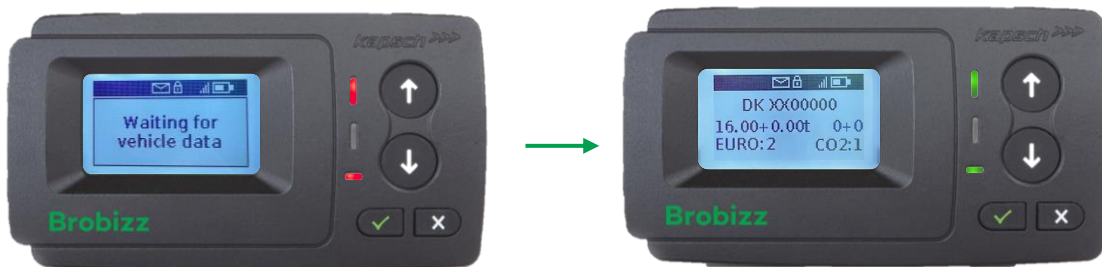
> **NOTE**:
> The Toll Box must always be connected to the power source, and the "+" sign displayed on screen.

In case the message "Waiting for vehicle data" is shown on the display, please wait until the final configura-tion is downloaded. It will typically happen within 10 minutes, but it can take up to two hours.
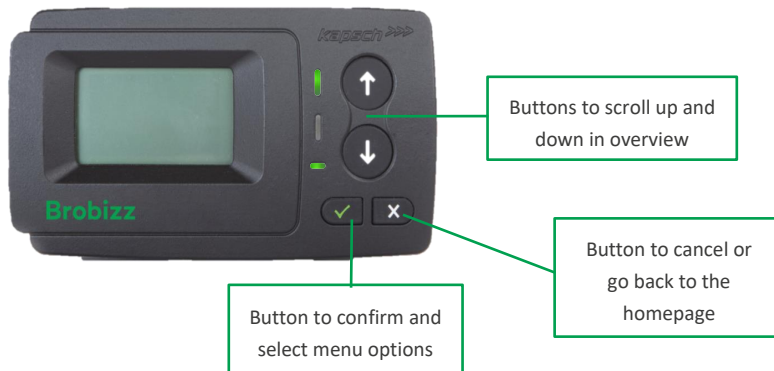
Once the download is complete, the message "Waiting for vehicle data" will disappear from the display.

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

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2.1. The Buttons of the Toll

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

Buttons to scroll up and down in overview

Button to cancel or go back to the homepage

Button to confirm and select menu options

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.

2.2. 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 in-formation about the operational status and message status of the Box.

Message status

Operational status

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.

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2.3. OBU-5310 LED Illumination

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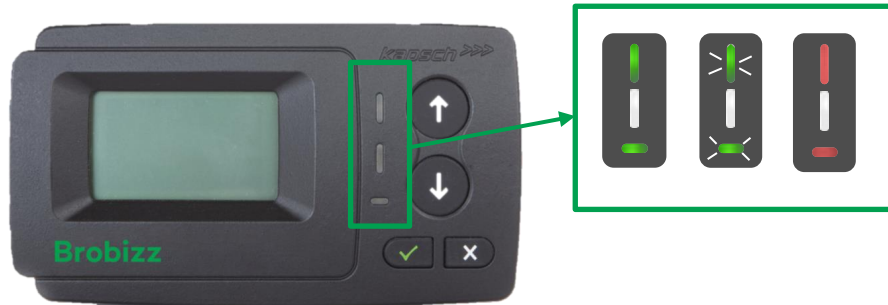
		Status
Green		Normal operational status. The Box is configured correctly and can be used for driving.
Blinking green		Indicates a warning. The Toll Box is still in normal operational status, but a message is displayed indicating what the problem might be.
Red		The Toll Box will light up red until the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

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2.4. 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 beep	Error or no signal
Warning beep	◉◉	Two short beeps	Indicating a possible error

For further information on errors and beeps, see section 6 in the manual.

2.5. Symbols of the Toll Box

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.

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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 Broizz' 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 ✔

An OK beep will confirm that the Toll Box is active with the necessary vehicle data. Before using it on the toll road network, you must wait until the operational status indicated by the LED light turns green.

It may take up to 2 hours before your Toll Box is ready for use.

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4. Operation of the Toll Box

4.1. 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.

```
FR  *  ✉  ⌗ ▁▃▅ ▭+
       AT WU766FY
5.0+12.5t          2+3
EURO:3            CO2:2
```

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

4.2. Sub Menus in settings

4.2.1. GNSS-Tracking:
This setting should not be used.

4.2.2. 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 ✓

4.2.3. 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.

4.2.4. Power Modes
The Toll Box is operational as long as it is connected to the power source and/or the battery is charged. For easy and optimum usability, the Toll Box does not rely on an "OFF" button but manages its power states automatically. Therefore, the Box turns "OFF" automatically after 5 to 15 minutes of being stationary and turns "ON" as soon as you start driving.

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

4.2.6. Setting Weight
This setting shall not be used.

4.2.7. Bluetooth
This setting shall not be used.

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4.3. Submenus in Information

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

4.3.2. Serial Number
You can find the Box's unique serial number under the "serial number" menu.
4.3.3. Customer Service
Here you can find information on how to contact customer service.

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

4.3.5. Battery Charging
Displays the percentage of battery charge.

4.3.6. License Plate
Displays the license plate associated with the Box.

4.3.7. CO2 Class
Displays the vehicle's CO2 class.

4.3.8. EURO Class
Displays the vehicle's EURO class.

4.3.9. Version
Displays the Toll Box's software version.

4.3.10. Ext. SW Licenses
Displays the Box's software licenses.

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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
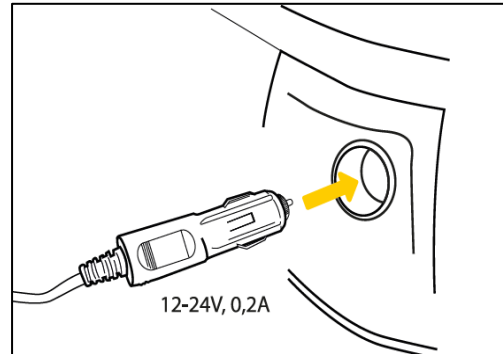
NOTE:
It is mandatory to follow this installation procedure. The manufacturer (Kapsch) and Brobizz A/S assume no responsibility for the proper functioning of the Toll Box in the event of incorrect power connection

5.2. Fixed Cable Instructions

- Use the power cable supplied. Make sure the cable is long enough, then remove the cigarette lighter plug and any excess cable.
- Locate the connection points in the vehicle.
- The black ignition signal wire shall be connected to the vehicle ignition.
- 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 necessary.
- Finally, connect each wire to the connection points you have identified (vehicle power, ignition and
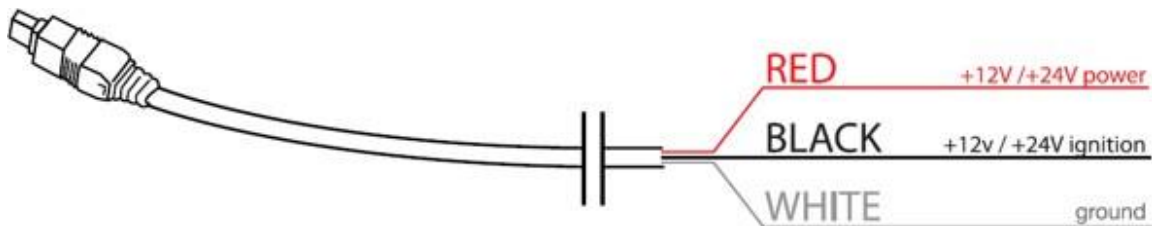
ground).

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

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6. Troubleshooting

6.1. 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	Problem	Cause	Solution
5002	• • 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	• • 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.
2002	• 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	• Red LED light • Not OK beep • Message "Contact support centre"	The Box is blocked and cannot be used	The Box must be activated before it can be used. See reasons for blocking in section 6.2 before contacting customer service.
50000	• Red LED light • Not OK beep	The Box is not sending data. You are operating outside of con-tract/agreement obligations.	Contact Brobizz' customer service
50020	• Red LED light • Not OK beep	Connection issues to the server	Contact Brobizz' customer service
24	• Red LED light • Not OK beep	Error in battery or power connection.	Tjek at strømforsyning er korrekt tilsluttet til Boksen

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1008	• Red LED light • Not OK beep	Connection error to the hardware	Contact Brobizz' customer service
3012	• 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.	Afvent at Boksen genetablerer GPS signal og samler positioner igen, når der ikke køres i tunnel eller andet der kan forstyrre signalet.
3016	• Red LED light • Not OK beep	Hardware error	Contact Brobizz' customer service
3018	• Red LED light • Not OK beep	Hardware error	Contact Brobizz' customer service
4006	• Red LED light • Not OK beep	Hardware error	Contact Brobizz' customer service
4008	• Red LED light • Not OK beep	Hardware error	Contact Brobizz' customer service
4010	• Red LED light • Not OK beep	Hardware error	Contact Brobizz' customer service
7014	• Red LED light • Not OK beep	Problems with connection to the mobile network.	Contact Brobizz' customer service
8002	• Red LED light • Not OK beep	Hardware error	Contact Brobizz' customer service
9006	• Red LED light • Not OK beep	Secondary battery is close to being discharged	Contact Brobizz' customer service
9010	• Red LED light • Not OK beep	Update error	Contact Brobizz' customer service
9012	• Red LED light • Not OK beep	Storage space error	Contact Brobizz' customer service
9014	• Red LED light • Not OK beep	Hardware error	Contact Brobizz' customer service
10000	• Red LED light • Not OK beep	Software error	Contact Brobizz' customer service

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11002	• Red LED light • Not OK beep	Hardware error	Contact Brobizz' customer service
16002	• Red LED light • Not OK beep	Connection issues to the server	Contact Brobizz' customer service
17002	• Red LED light • Not OK beep	Hardware error	Contact Brobizz' customer service

6.2. 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.