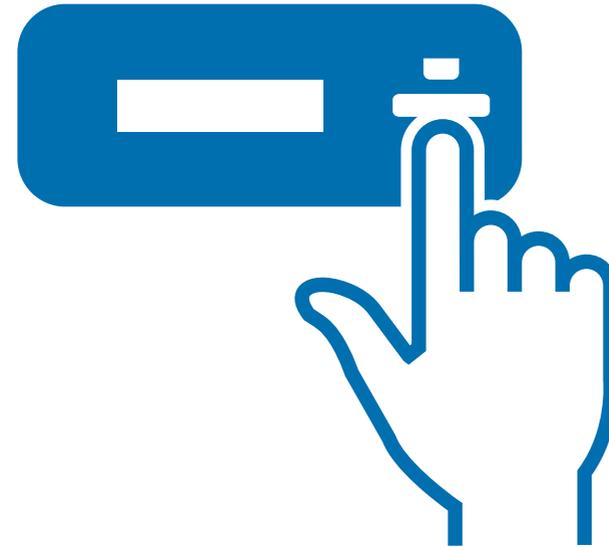


ON-BOARD UNIT

USER MANUAL

Toll Collect GmbH, On-Board Unit User manual, V 4.3, GB – as at 04/2020



Notes on this User's Manual – what's new?

Important functions of your On-Board Unit have been improved. This makes operation easier for you, especially in fault situations and with error messages:

- The display messages for reporting errors have been revised to make them easier to understand. Information about faults is provided clearly and navigation through the error process is straightforward.
- When error messages appear, the LED changes to red and also blinks.
- The error tone announcing an error message has been extended and repeats every five minutes until the message is confirmed by actively pressing the key.

The new error messages are clearly shown visually and acoustically if no toll is being collected. This prevents any error affecting the On-Board Unit's proper toll collection that you have not noticed from resulting in penalties and retrospective toll collection. In the event of On-Board Unit malfunction, you must manually log on the route section subject to toll using the Toll Collect app, at a toll terminal or via online log-on.

Additional innovations in On-Board Unit operation include:

- modified display in toll-free mode with set vehicle weight < 7.5 tonnes;
- modified display in manual mode after OBU is switched off;
- an information menu that displays key data about your vehicle as well as the last two error messages (if present);
- the option of quick accounting of toll costs for customer trips, which can be called up at short notice on the customer portal via the Internet. To do so, set the start and destination point of a tour by entering a cost center in the menu.

Up-to-date information is always available at www.toll-collect.de

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In accordance with Item 29 of the General Standard Terms and Conditions of Toll Collect GmbH, users of the automatic toll collection system are obliged to operate the On-Board Units properly. In particular, before each use of roads subject to toll, users are obliged to check that the On-Board Unit is ready to collect data and that the information on the current vehicle status is correct. Toll Collect GmbH notes that the On-Board Units save the start-up of the On-Board Units, which occurs when the truck ignition is activated, in a time-indexed manner; similarly, all settings changes made to the On-Board Unit by drivers are also time-logged, as are malfunctions in the On-Board Unit's readiness to collect data.

Within the scope of toll enforcement, officers of the Federal Office for Goods Transport (BAG) can query this information from any On-Board Unit and evaluate it in a time-indexed manner with regard to each customer's compliance with their duties.

1 General information

1.1 Statutory provisions

! Please note: Anyone in Germany who intentionally or negligently fails to pay the toll properly commits a civil offence which can be punished with a penalty up to 20,000 euros (§ 10 para 2 German Federal Trunk Road Toll Act (BFStrMG)).

- The driver's statutory responsibility includes properly entering the vehicle weight and number of axles before driving on roads subject to toll in Germany.
- A** ■ Before driving on roads subject to toll in Austria, the correct number of axles (category) must also be declared per the "Toll Regulations for the Motorways and Trunk Roads of Austria". You can always view the currently applicable version of the Tolling Regulations at www.asfinag.at.
- In the event of On-Board Unit malfunction in Germany, you are required by law to manually log onto the route section subject to toll using the Toll Collect app, at a toll terminal or via online log-on.
- A** ■ In the event of On-Board Unit malfunction in Austria, you are obliged to subsequently pay the toll at a GO sales point in accordance with the Tolling Regulations. You can always obtain a GO Box at the GO sales point if your On-Board Unit has permanently failed.

1.2 Instructions on using the On-Board Unit

! Please familiarise yourself with the functions of your On-Board Unit before beginning your first journey. The controls of the On-Board Unit must not be operated during the journey.

- The On-Board Unit must be installed and sealed in your vehicle by a service partner authorised by Toll Collect, as required by law.
- Please do not attempt to open or modify the On-Board Unit or the supply lines connected to it, and do not alter the installation location.
- Do not use sharp-edged or pointed objects to press the buttons on the On-Board Unit.
- Do not use abrasive cleaning agents or solvents such as paint thinner or petrol to clean the On-Board Unit. Simply clean the On-Board Unit with a slightly moistened cloth.
- In order to ensure that the On-Board Unit functions correctly, there must be no objects blocking the space between the windscreen and DSRC module. Similarly, with the Continental dashboard-mounted OBU, no objects must be placed next to, on top of or above the On-Board Unit.

2 The automatic toll collection system

Dear customer,

The On-Board Unit acts as the basis for automatic toll collection on toll roads within Germany, and also for toll collection on toll roads in Austria for optional toll collection.

In Germany, the On-Board Unit performs the following tasks:

- Continuous determination of vehicle position using satellite technology;
- Transfer of journey data and vehicle characteristics to the data center;
- Reporting disruptive influences (visually and acoustically) that prevent automatic toll collection;
- Displaying the vehicle declaration and the toll service used on the screen.

A In Austria, the On-Board Unit performs the following tasks:

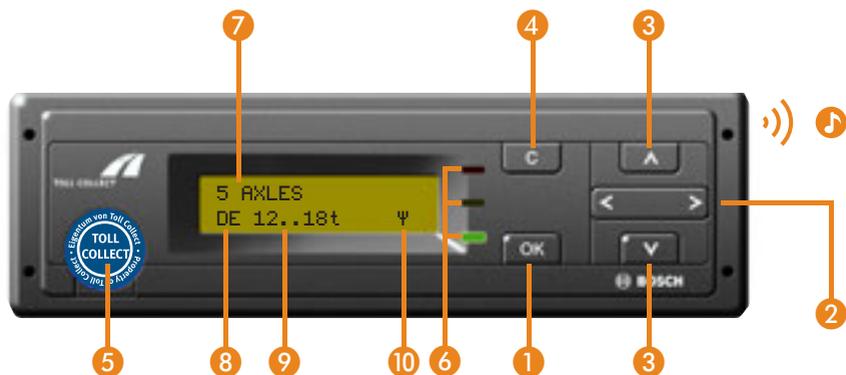
- Charging vehicles non-position-based toll at toll gantries installed along the road-side using microwave (DSRC) technology;
- Toll collection is exclusively signalled by acoustic signals;
- Reporting disruptive influences (visually and acoustically) that prevent automatic toll collection.

Please read through this user manual carefully and familiarise yourself with how the On-Board Unit works. Retain all documents supplied along with the OBU.

We wish you a safe and pleasant journey.
Toll Collect GmbH

3 Controls

3.1 BOSCH and BOSCH 2 On-Board Units



i To bring up the menu screen, press the **OK** key once; then use the **✓** key to scroll through the menu entries.

The graphic layout of the menu navigation system in the BOSCH On-Board Unit is different to that of the On-Board Units made by Continental; however, the procedures and operation are identical.

As an example, the difference is illustrated in the following figure:

BOSCH ↓	Continental ↓
MENU NUMBER OF AXLES	MENU NUMBER OF AXLES
NUMBER OF AXLES 2	NUMBER OF AXLES 2

i The controls on the second-generation BOSCH On-Board Unit do not differ from those on the first generation. The old units still have two service interfaces.

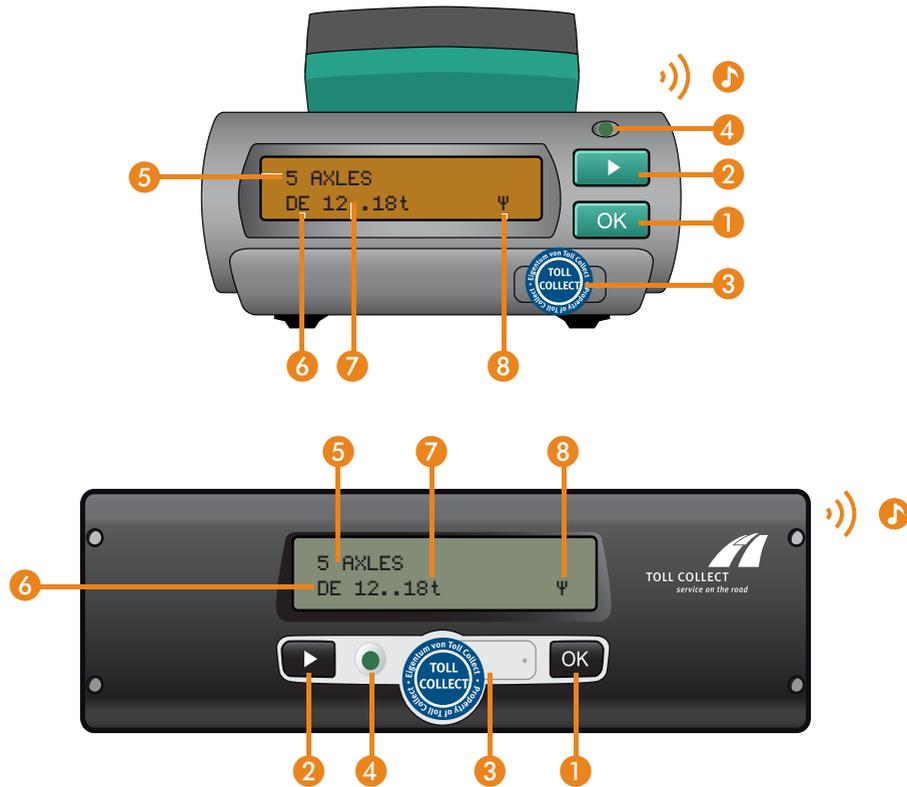
- Keys**
- 1 OK key:**
Open the menu, confirm menu options and messages
 - 2 Left and right arrow keys:**
Select and set functions
 - 3 Up and down arrow keys:**
Move forwards and backwards in the menu
 - 4 Clear key:**
Cancel entries, Return to a higher menu level
 - 5 Service interface:**
For service purposes only (seal must not be damaged)

- LED**
- 6 Green:**
On-Board Unit technically ready for operation; all requirements for automatic toll collection are met, provided the obligation to pay toll applies.
 - Red:**
On-Board Unit not ready for operation; requirements for automatic toll collection are not met.
 - Blinking red:**
Optical signal for errors that haven't been acknowledged with OK, accompanied by acoustic error tones.

Acoustic indicators **Acoustic indicators in the event of errors**

- Display**
- 7** Number of axles currently set
 - 8** Service (DE = Germany)
 - 9** Current weight declaration
 - 10** Display for active mobile communication (data transmission) with the Toll Collect data center

3.2 Continental On-Board Units



Keys 1 **OK key:**
Confirm menu options and messages

2 **Select key:**
Select and set functions,
Move forward in the menu

3 **Service interface:**
For service purposes only
(seal must not be damaged)

LED 4 **Green:**
On-Board Unit ready for operation; all requirements for automatic toll collection are met, provided the obligation to pay toll applies.

Red:
On-Board Unit not ready for operation; requirements for automatic toll collection are not met.

Blinking red:
Optical signal for errors that haven't been acknowledged with OK, accompanied by acoustic error tones.

Acoustic indicators in the event of errors

Display 5 Number of axles currently set
6 Service (DE = Germany)
7 Current weight declaration
8 Display for active mobile communication (data transmission) with the Toll Collect data center

4 Operation

The truck toll is calculated based on the emission class, weight class and, for vehicles or vehicle combinations with a gross vehicle weight greater than 18 tonnes, based on axle class as well. Noise pollution costs are also charged in addition to this. Choose one of the following weight classes:



All vehicles and vehicle combinations with a gross vehicle weight of 7.5 tonnes or more are subject to toll. The gross vehicle weight specified by the keeper at the time the vehicle was registered is usually saved permanently on the On-Board Unit. If the gross vehicle weight changes due to a trailer being attached/detached, the gross vehicle weight must be adjusted on the On-Board Unit before starting a journey. This applies to all vehicles with a gross vehicle weight up to and including 18 tonnes. For weights greater than 18 tonnes, the number of axles must also be specified in addition to this (≤ 3 axles or ≥ 4 axles).

Weight classes	Weight declaration *	Axle declaration **
Not subject to toll <7,5 t	<7,5 t <i>(Display shows "TOLL FREE")</i>	-
≥7,5 t to <12 t	7,5 t – 9 t – 10,5 t <i>(Display shows "< 7.5t .. 11.99t")</i>	-
≥12 t to ≤18 t	12 t – 13,5 t – 15 t – 16,5 t – 18 t <i>(Display shows "< 12t .. 18t")</i>	-
>18 t	>18 t, no weight declaration necessary <i>(Display shows "> 18t")</i>	≤3 axles or ≥4 axles <i>(Enter the exact number of axles)</i>

* in 1.5 t increments

** For weights up to and including 18 t, voluntary entry of the number of axles is possible, but has no effect on the toll amount.

For vehicles and vehicle combinations weighing 7.5 tonnes or more, the weight is declared in increments of 1.5 tonnes. No weight class can be set that is below the weight which has been saved on the On-Board Unit. Different to the German Road Traffic Registration Regulations, the gross vehicle weight of vehicle combinations is formed from the sum of the gross vehicle weight of the individual vehicles. Support and fifth wheel loads do not need to be included.

4.1 Entering vehicle data

After ignition but before beginning your journey, you will be automatically prompted by the On-Board Unit to enter the vehicle data relevant for toll collection.

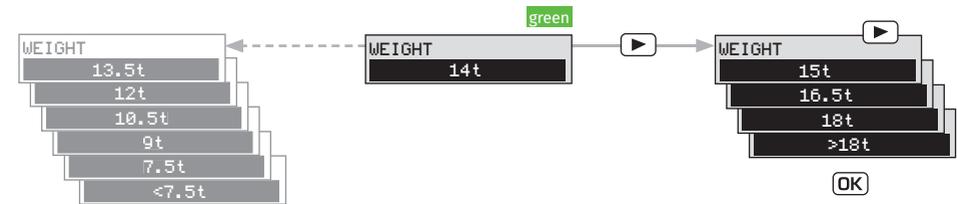
Weight



After starting the engine, the weight that was set for the last journey is displayed. This can be the weight that is permanently saved on the On-Board Unit or a weight that has been actively selected by the driver.



Please note that you cannot enter a weight class below the personalised weight saved in the On-Board Unit.



BOSCH ↓



Use the arrow keys ◀ ▶ to select the correct weight. Confirm the correct weight with **OK**.

Continental ↓

Use the **▶** key to select the correct weight. Confirm the correct weight with **OK**.



In Austria, toll is paid irrespective of the weight setting; however, the number of axles must be specified correctly. You can change the number of axles at any time by using the "NUMBER OF AXLES" menu item.



Please consult the valid version of the "Toll Regulations for the Motorways and Trunk Roads in Austria" for information on how to correctly determine the number of axles in Austria (vehicle category declaration); these regulations can be viewed at any time at www.asfinag.at.

Number of axles

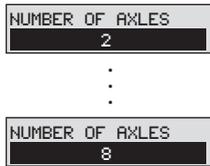
In Germany, the number of axles has no bearing on toll costs for vehicles in Weight Class II or below. The number of axles on the vehicle must be entered on the On-Board Unit for vehicles or vehicle combinations with a gross vehicle weight of 18 tonnes or more. The toll amount is different for ≤ 3 axles and ≥ 4 axles.

A

In Austria, the precise number of axles must always be provided.

BOSCH ↓

Continental ↓



Use the arrow keys < > to select between a minimum of 2 and maximum of 8 axles. Confirm the correct number of axles with **OK**.

Use the **▶** key to select between a minimum of 2 and maximum of 8 axles. Confirm the correct number of axles with **OK**.



Please note that you cannot enter a number of axles that is less than the number of axles registered on your On-Board Unit.

Cost center

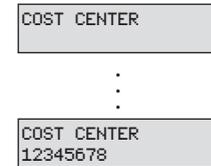
Use the “COST CENTER” function to set the start and end point of a tour for accounting purposes.



By entering a cost center at the beginning of a tour and changing this cost center at the end of the tour, you have the opportunity to quickly call up the toll costs for individual customer journeys, which you can quickly call up on the Customer portal via the internet. Activate tour start by entering a new cost center; the tour end is defined in the “COST CENTER” menu by changing this cost center. Changing the cost center triggers transmission of the tour data, which is sent to the Toll Collect data center.



During data transmission, the “Ψ” symbol appears in the standard display, for active mobile communication with the Toll Collect data center. Once the “Ψ” disappears, the transmission of tour data is complete. If you want to end your journey after the cost center change, switch the vehicle ignition off as quickly as possible after the symbol disappears, in order to ensure complete transmission of the toll data.



BOSCH ↓

Use the **▲** or **▼** key to enter the first digit of your cost center. Use the **▶** key to move to the next digit. Repeat these steps to enter additional digits. To correct entries, use the **◀** key to move back to the previously entered digits. Confirm the desired cost center with **OK**.



A maximum of 8 digits may be entered for a cost center.

Continental ↓

Use the **▶** key to enter the first digit of your cost center. Use the **OK** key to move to the next digit. Repeat these steps to enter additional digits. To correct the previous digit, use the **▶** key to select the **←** function, then confirm with **OK**. Once you have done this, use the **▶** key to correct the previous digit. Confirm the desired cost center with **OK**.



Vehicle data queries are no longer displayed once the vehicle begins to move (for Continental OBUs: once in motion for longer than three seconds). The display screen automatically switches to operating mode and the set number of axles and the weight of the previous journey are adopted.

4.2 Services for toll collection in Germany and Austria

- A If your On-Board Unit is registered for toll collection in Germany and Austria, its operating mode will automatically switch over to the service provider in the country where you are located when you cross the border. Consult the “SERVICES” menu for information on service status:

BOSCH ↓

```
MENU
SERVICES
```

```
DE
SERVICE ACTIVE
```

```
AT
SERVICE ACTIVE
```

Use the **OK** key to select the menu of the On-Board Unit. Use the **▲** or **▼** key to scroll through the various menu functions until “SERVICES” is displayed. Use **OK** to switch to the “SERVICES” menu. In the “SERVICES” menu you will be shown the current operating mode: “DE SERVICE ACTIVE” for Germany or “AT SERVICE ACTIVE” for Austria.

Use the **C** key to return from the open submenu to the main menu. Use the **C** key to return from the main menu to the operating display.

Continental ↓

To view the menu, in the operating display mode, press the **▶** key repeatedly until “MENU” is shown on the display. Confirm “MENU” with **OK**. The On-Board Unit automatically switches to the main menu. In the menu, scroll with the **▶** key until “SERVICES” is displayed. Use **OK** to switch to the “SERVICES” menu. In the “SERVICES” menu you will be shown the current operating mode: “DE SERVICE ACTIVE” for Germany or “AT SERVICE ACTIVE” for Austria. Press **OK** to return the On-Board Unit to the main menu.

To exit the menu, press the **▶** key repeatedly until “MENU BACK” appears. Confirm “MENU BACK” with **OK**. The Continental On-Board Unit automatically switches back to the operating display.

4.3 Operating displays

4.3.1 Operating displays on route sections within Germany

After starting your journey, the display will continuously show the selected weight range. Here are four examples:

With a gross vehicle weight less than 7.5 tonnes

1 green
 3 AXLES
 DE TOLL FREE
 2 3

Vehicle with 3 axles
Toll-free <7.5 tonnes

During the journey in a truck subject to toll

green
 5 AXLES
 DE 7.5..11.99t
 4 green
 5 AXLES
 DE 12..18t
 5 green
 5 AXLES
 DE >18t
 6

Vehicle with 5 axles
Weight of 9 tonnes

Vehicle with 5 axles
Weight of 16.5 tonnes

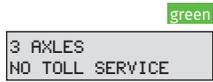
Vehicle with 5 axles
Weight of 40 tonnes

- 1 Number of axles currently set
- 2 Service area
- 3 Current weight declaration (declared range: toll-free)
- 4 Current weight declaration (declared range: ≥ 7.5 t to <12 t)
- 5 Current weight declaration (declared range: ≥ 12 t to ≤ 18 t)
- 6 Current weight declaration (declared range: >18 t)

Automatic toll collection is switched off

red
 DE: TOLL COLLECT.
 SWITCHED OFF

If the “TOLL COLLECTION MANUAL” function is selected in the menu, the On-Board Unit will not collect any toll. The display first shows continuously “DE: TOLL COLLECT. SWITCHED OFF”. When the obligation to pay toll applies, journeys must be logged on manually using the Toll Collect app, at a toll terminal or via online log-on.



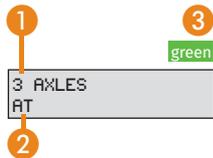
The On-Board Unit is located outside the active toll service regions in Germany and Austria. No toll collection takes place.

4.3.2 Operating displays on route sections within Austria

A Toll collection with the On-Board Unit on roads subject to toll in Austria is indicated exclusively by means of auditory signals. The tone signals cannot be switched off. The On-Board Unit's LED and display screens do not show any information on toll collection on these route sections.

The On-Board Unit emits a tone signal each time the toll is successfully paid as the vehicle passes a toll gantry. If the On-Board Unit is blocked, four sequential tone signals will be heard. If there is no signal when you pass by a toll gantry in Austria, it is likely that the toll was not paid. Pay the outstanding toll amounts subsequently at a GO sales point. You can always obtain a GO Box at the GO sales point if your On-Board Unit has permanently failed.

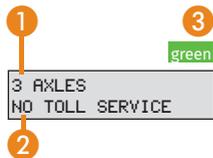
A Austria service region – with TOLL2GO activated (AT service)



You are located in the Austria service region and have registered your Toll Collect On-Board Unit for toll collection in Austria.

- 1 Number of axles currently set
- 2 Service (AT = Austria)
- 3 LED (green: indicates operational readiness in Germany but in Austria means nothing; red: indicates an error, see chapter 4.5 "Error messages").

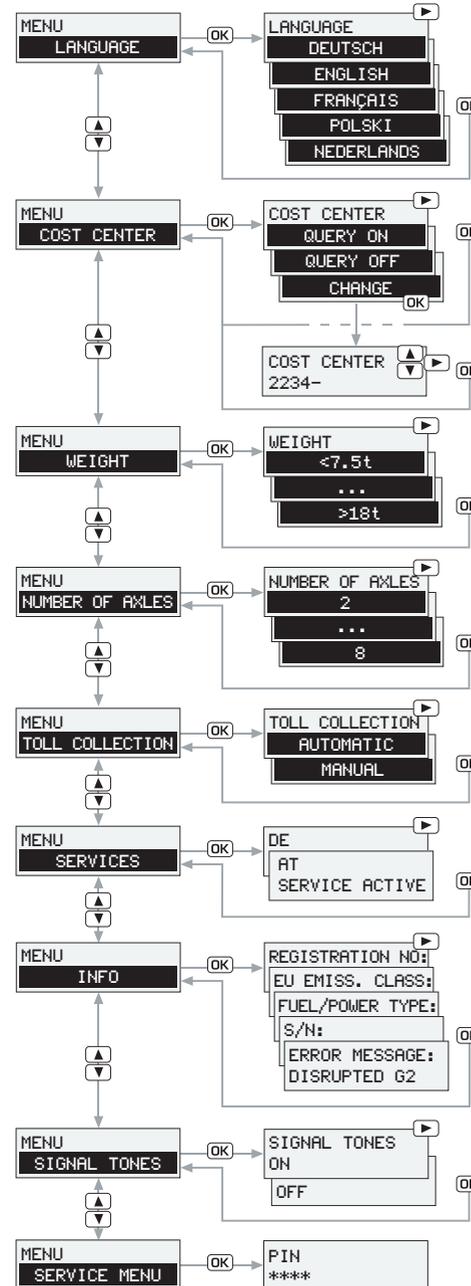
A Service region Austria – without TOLL2GO (AT service) and in other countries outside Germany



You are located in the Austria service region, but you have not registered your Toll Collect On-Board Unit for toll collection in Austria or other countries.

- 1 Number of axles currently set
- 2 No toll is collected with the On-Board Unit
- 3 LED is green (means nothing in Austria but LED indicates operational readiness in Germany)

4.4 Menu settings



The Continental On-Board Unit additionally outputs a confirmation message after a setting is changed.



The way the messages are displayed can vary slightly depending on your hardware type and software version.

← Change and confirm numbers

← in 1.5 t increments



← The "SIGNAL TONES" menu currently has no functionality.



← The "SERVICE MENU" menu is only needed for service purposes in the workshop.

When your On-Board Unit is ready for operation, you have the option of configuring various settings according to your wishes.



The menu can only be operated when the vehicle is not in motion.

BOSCH ↓

Opening the main menu

Use the key to select the main menu.

Continental ↓

To view the main menu, in the operating display mode, press the key repeatedly until “MENU” is shown on the display. Confirm “MENU” with .

Navigating the submenu

Use the keys to scroll through the various menu functions. Use to switch to the desired submenu.

When the menu is open, scroll through the various menu functions with the key. Use to switch to the desired submenu. Use the key to configure the desired function. Confirm the desired function with . Repeat these steps to configure additional settings.

Exiting the main menu

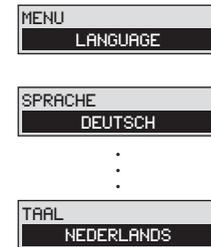
Use the key to return from the open submenu to the main menu. Use the key to return from the main menu to the operating display.

To exit the menu, press the key repeatedly until “MENU BACK” appears. Confirm “MENU BACK” with . The Continental On-Board Unit automatically switches back to the operating display.



The On-Board Unit automatically switches to the operating display screen if a key is not pressed within 10 seconds of opening the menu, or if the vehicle begins to move while the menu is open.

Language menu



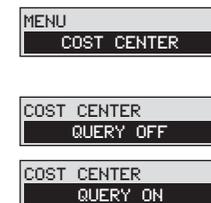
BOSCH ↓

In the “LANGUAGE” menu, use the or key to select between “DEUTSCH, ENGLISH, FRANÇAIS, POLSKI or NEDERLANDS”. Confirm the desired language with .

Continental ↓

In the “LANGUAGE” menu, use the key to select between “DEUTSCH, ENGLISH, FRANÇAIS, POLSKI or NEDERLANDS”. Confirm the desired language with . “LANGUAGE CHANGED” appears on the display and the On-Board Unit automatically goes back to the main menu.

Cost center menu



Entering a cost center allows you to quickly call up the toll costs for customer journeys, which you can quickly call up on the Customer portal via the internet. Activate the start and end point of a tour here by using the “CHANGE” function. A maximum of 8 digits may be entered for a cost center.

BOSCH ↓

In the “COST CENTER” menu, use the or key to select between “QUERY ON”, “QUERY OFF” and “CHANGE”. After selecting the “QUERY OFF” function, the cost center prompt no longer appears when the OBU starts up. Changing the cost center (to send the tour data) must always be done using the “COST CENTER CHANGE” menu. Confirm the desired setting with .

Continental ↓

In the “COST CENTER” menu, use the key to select between “QUERY ON”, “QUERY OFF” and “CHANGE”. After selecting the “QUERY OFF” function, the cost center prompt no longer appears when the OBU starts up. Changing the cost center (to send the tour data) must always be done using the “COST CENTER CHANGE” menu. Confirm the desired setting with . When “QUERY ON” or “QUERY OFF” is set, “COST CENTER CHANGED” appears on the display and the On-Board Unit automatically goes back to the main menu.

(Continued →)

(Continued)

To change a cost center, proceed as follows: Use the or key to enter the first digit of your cost center.

Use the key to move to the next digit. Repeat these steps to enter additional digits. To correct numbers, use the key to move back to the previously entered digits. Confirm the desired cost center with .

Continental

To change a cost center, proceed as follows: Use the key to enter the first digit of your cost center. Use the key to move to the next digit. Repeat these steps to enter additional digits. To go to the previous digit, use the key to select function , then confirm with . Once you have done this, use the key to correct the previous digit. After entering the desired cost center, confirm your input with . "COST CENTER ACCEPTED" appears on the display and the On-Board Unit automatically goes back to the main menu.

Weight menu

BOSCH

In the "WEIGHT" menu, use the arrow keys to select the correct weight in 1.5 tonne increments. Confirm the correct weight with .



Vehicles or vehicle combinations in the weight class "<7.5t" (less than 7.5 tonnes) are not charged toll on toll roads in Germany. The display shows "DE TOLL FREE". The green LED is illuminated when the On-Board Unit is technically ready for operation.



Please note that you cannot enter a weight class below the personalised weight saved in the On-Board Unit.

Continental

In the "WEIGHT" menu, use the key to select the correct weight in 1.5 tonne increments. Confirm the correct weight with . "WEIGHT CHANGED" appears on the display and the On-Board Unit automatically goes back to the main menu.

Number of axles menu

The "NUMBER OF AXLES" menu allows you to change the number of axles entered by the customer.

BOSCH

To change the number of axles, use the or key to select between a minimum of 2 and maximum of 8 axles. Confirm the correct number of axles with .



Please note that you cannot enter a number of axles that is less than the number of axles registered on your On-Board Unit.

Toll collection menu

Automatic toll collection with the On-Board Unit can be switched off for the German road network, if necessary. In Austria, toll collection by the On-Board Unit always remains active, provided the On-Board Unit is registered for the Austrian toll service.

BOSCH

In the "TOLL COLLECTION" menu, use the or key to select between the automatic or manual toll collection procedures. Confirm the desired toll collection procedure with . When the setting "TOLL COLLECTION MANUAL" is activated, the following message automatically appears on the display "DE: TOLL COLLECT. SWITCHED OFF" and the red LED lights up.

Continental

Use the key to select between a minimum of 2 and maximum of 8 axles. Confirm the correct number of axles with . "NUMBER OF AXLES CHANGED" appears on the display and the On-Board Unit automatically goes back to the main menu.

Continental

In the "TOLL COLLECTION" menu, use the key to select between the automatic or manual toll collection procedures. Confirm the desired toll collection procedure with . "TOLL COLLECTION CHANGED" appears on the display and the On-Board Unit automatically goes back to the main menu. When the setting "TOLL COLLECTION MANUAL" is activated, the following message automatically appears on the display "DE: TOLL COLLECT. SWITCHED OFF" and the LED lights up red.



In Germany, manual toll log-on is conducted via online log-on, the Toll Collect app or at a toll terminal.

Services menu

If your On-Board Unit is registered for toll collection in Germany and Austria, its operating mode will automatically switch over to the service provider in the country where you are located when you cross the border. To view the available services on your On-Board Unit, go to the “SERVICES” menu:

A



Use the **OK** key to select the menu of the On-Board Unit. Use the **<** or **>** key to scroll through the various menu functions until “SERVICES” is displayed.



Use **OK** to switch to the “SERVICES” submenu. In the “SERVICES” menu you will be shown the current operating mode: “DE SERVICE ACTIVE” for Germany or “AT SERVICE ACTIVE” for Austria.



Use the **C** key to return from the open submenu to the main menu. Use the **C** key to return from the main menu to the operating display.

BOSCH ↓

To view the menu, in the operating display mode, press the **▶** key repeatedly until “MENU” is shown on the display. Confirm “MENU” with **OK**.

The On-Board Unit automatically switches to the main menu. In the menu, scroll with the **▶** key until “SERVICES” is displayed. Confirm with **OK**. In the “SERVICES” menu you will be shown the current operating mode: “DE SERVICE ACTIVE” for Germany or “AT SERVICE ACTIVE” for Austria. Press **OK** to return the On-Board Unit to the main menu.

To exit the menu, press the **▶** key repeatedly until “MENU BACK” appears. Confirm “MENU BACK” with **OK**. The Continental On-Board Unit automatically switches back to the operating display.



Service statuses

You can see the respective status of a service in the “SERVICES” menu. The display “SERVICE ACTIVE” means that you can use the service. The display “SERVICE INACTIVE” means that the service is not registered (currently only affects AT service). The display “SERVICE DEFECTIVE” or “SERVICE MALFUNC.” indicates a malfunction of the On-Board Unit; please contact your service partner.

In the event the On-Board Unit is blocked by Toll Collect, the display shows “DE: TOLL COLLECT. BLOCKED” or “AT: TOLL COLLECT. BLOCKED”. Then in the “SERVICES” menu, “SERVICE BLOCKED”. In this case, please contact Toll Collect customer service.

Info menu

In the “INFO” menu, you can query data about your vehicle already stored on the On-Board Unit as well as information about current error messages already removed from the display.

BOSCH ↓



Use the **OK** key to select the menu of the On-Board Unit. Use the **<** or **>** key to scroll through the various menu functions until “INFO” is displayed.

Continental ↓

To view the menu, in the operating display mode, press the **▶** key repeatedly until “MENU” is shown on the display. Confirm “MENU” with **OK**.

(Continued →)

(Continued)

BOSCH ↓**Continental** ↓REGISTRATION NO:
DE: B-TC 123EU EMISS. CLASS:
6FUEL/POWER TYPE:
4S/N:
0202100513S/N:
BA00000000127929ERROR MESSAGE:
14:28 20.12.2019ERROR MESSAGE:
DISRUPTED G2

Use **OK** to switch to the “INFO” submenu. In the “INFO” menu, use the key **◀** or **▶** key to scroll through the current data for your licence plate number, the Euro emission class, the fuel/power type (e.g. 4=Diesel) and serial number (Part 1 and 2). Already deleted displays about current error messages (Part 1 and 2) can still be called up.

Use the **C** key to return from the open submenu to the main menu. Use the **C** key to return from the main menu to the operating display.

The On-Board Unit automatically switches to the main menu. In the menu, scroll with the **▶** key until “INFO” is displayed and confirm with **OK**. In the “INFO” menu, use the **▶** key to scroll through the current data for your licence plate number, the Euro emission class, the drive type (e.g. 4=Diesel) and serial number (Part 1 and 2). Already deleted displays about current error messages (Part 1 and 2) can still be called up.

Press **OK** to return the On-Board Unit to the main menu. To exit the “INFO” menu, press the **▶** key repeatedly until “MENU BACK” appears. Confirm “MENU BACK” with **OK**. The Continental On-Board Unit automatically switches back to the operating display.

Signal tones menuMENU
SIGNAL TONES

The “SIGNAL TONES” menu currently has no functionality.

Service menuMENU
SERVICE MENUPIN

The “SERVICE MENU” is protected by a PIN query. Access is reserved exclusively for Toll Collect service partners.



You will find information on the fuel type/energy source of your vehicle (item P3 in the vehicle documents) at: www.toll-collect.de/Leitfaden_Kraftstoffart-Energiequelle

4.5 Error messages

The On-Board Unit automatically verifies certain technical requirements that are necessary in order for toll collection to work properly in Germany and Austria. If one or more of these requirements is at risk or is no longer met:

- An error message appears on the display (with error code in certain cases);
- The LED lights up red and blinks to make it more noticeable;
- The error tone, an acoustic signal with two short and one long tones, sounds. The error tone repeats every five minutes until you acknowledge the error message.



There is a risk of distraction when error messages are shown on the display and an error tone sounds during the journey. Don't allow yourself to become distracted; instead devote all of your attention to driving and traffic. Bring the vehicle to a stop in a suitable place before acknowledging the error message using the OK key on the On-Board Unit and turning off the error tone.

Error messages completely overshadow the standard display; if multiple messages are shown, the newest is shown.



For more precise troubleshooting, some error messages are displayed with an error code in brackets following the display message. The error code will assist your service partner in resolving the error. If you have already removed the error message from the display, you can call it up again at any time in the “INFO” menu.



An error message is immediately recognisable insofar as the On-Board Unit does not collect toll. In this case, please contact

your Toll Collect service partner. The On-Board Unit is not ready for operation with the automatic toll collection system in Germany. First, restart the On-Board Unit; if the problem then persists, log on manually via online log-on, the Toll Collect app or at a toll terminal.

Details on error messages and their significance for the respective service region are provided below in this document.

4.5.1 Error messages in the event of technical defects



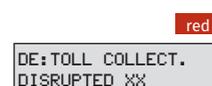
The “TOLL COLLECTION DISRUPTED ” message and error code appear if there is a technical fault in the On-Board Unit. In this case, please contact your Toll Collect service partner.



If defective, the On-Board Unit is not ready for operation with the automatic toll collection system. If such a situation occurs in Germany, you must therefore log on the toll manually via online log-on, the Toll Collect app or at a toll terminal.



If such a situation occurs in Austria, you must obtain a GO Box.



The “DE: “TOLL COLLECT. DISRUPTED” message and error code appear if there is a technical fault in the On-Board Unit. This message with “DE:” at the beginning is only relevant for toll collection in Germany. In this case, please contact your Toll Collect service partner.



In Austria, tolls can still be collected without any trouble despite this error message if the error message first **appears after the system has detected that you have entered Austria.**



The On-Board Unit is not ready for operation. If such a situation occurs in Germany, you must therefore log on the toll manually via online log-on, the Toll Collect app or at a toll terminal.



In Austria, tolls can still be collected without any trouble despite this message.



The “REPLACE BATTERY” message appears when the power of the built-in battery decreases. When this message first appears, you can first confirm it with **OK** and continue to use the automatic log-on method. Please plan to visit a workshop to replace the built-in battery within the next four weeks.

4.5.2 Error messages about toll collection service



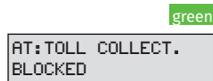
The “DE: TOLL COLLECT. BLOCKED” message appears if the operator has arranged for the On-Board Unit to be blocked for toll collection in Germany. In this case, please contact Toll Collect customer service directly.



The On-Board Unit is not ready for operation. If such a situation occurs in Germany, you must therefore log on the toll manually via online log-on, the Toll Collect app or at a toll terminal.



In Austria, tolls can still be collected without any trouble despite this message.



The “AT: TOLL COLLECT. BLOCKED” message appears if the operator has arranged for the On-Board Unit to be blocked for toll collection in Austria for technical reasons. The LED remains green for this message, provided there is no other reason for a red LED. This warning message will be accompanied audibly by four signal tones once you pass an enforcement gantry in Austria. In this case, please contact your Toll Collect service partner directly.



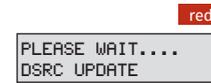
The On-Board Unit is not ready for operation. If such a situation occurs in Austria, you must obtain a GO Box. In Germany, tolls can still be collected without any trouble despite this error message if the error message first appears after the system has detected that you have entered Germany.



4.5.3 Messages about the On-Board Unit update



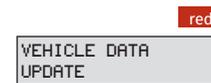
The “SYSTEM UPDATE WARTEN / WAIT” message appears when the On-Board Unit is performing a software update. Please wait until the update has completed. When the display switches to the start screen and the LED is green, the On-Board Unit is again ready for toll collection.



The On-Board Unit updates the software in the DSRC module, which is located on the windscreen. Please wait until the update has completed. When the display switches to the start screen and the LED is green, the On-Board Unit is again ready for toll collection.



This message appears at short notice if the On-Board Unit has received an order to change toll-relevant data (e.g. emissions class).



This message appears when the On-Board Unit starts up, when the order to update the toll-relevant data is implemented by the On-Board Unit. Please wait for the process to complete; under certain circumstances, the On-Board Unit restarts on its own. When the display switches to the start screen and the LED is green, the On-Board Unit is again ready for toll collection.