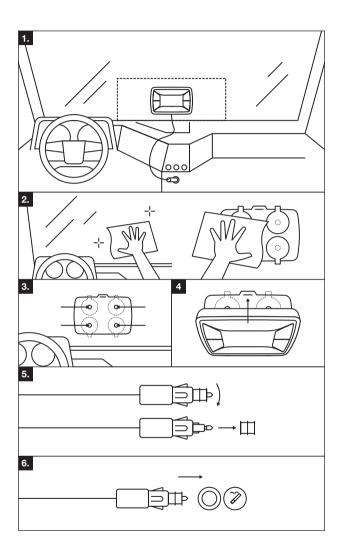


Billien OBU 5050

User Guide





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Information on the Contents of this User Guide

This user guide reflects the status of the Billien OBU 5050 on-board unit (herein also only as "on-board unit") at the time of delivery. TollNet a.s. reserves the right to update this user guide from time to time. The current version, either in electronic or printed form, will be provided upon request by your toll service provider.

This user guide does not provide a complete overview of the obligations of the vehicle operator and vehicle driver in relation to electronic toll collection; it is the responsibility of the vehicle operator and vehicle driver to familiarize themselves with all relevant legal regulations governing this domain.

This user guide is subject to the copyright of TollNet a.s.; without the explicit permission of TollNet a.s., it is not allowed to reproduce it, either in whole or in part, in any manner.

Disclaimer

The on-board unit is intended exclusively for electronic toll collection within the toll domains currently supported by your toll service provider, unless explicitly stated otherwise. TollNet a.s. is not liable for any damages resulting from any use other than the intended use or any misuse of the Billien OBU on-board unit, particularly regarding property or health damage, or financial losses.

1 Safety Instructions

- All settings of the on-board unit must be done only before driving. For safety reasons, the button functions are blocked while driving at speeds above 15 km/h.
- Regularly check the power cord for any damage. Such damage could lead to a short circuit and a vehicle fire. For replacing a damaged power cord, contact your toll service provider.
- Prevent mechanical damage to the on-board unit. Check regularly that the on-board unit is securely attached to the windscreen.
- Do not tamper with the battery cover or connectors. Such handling could damage the on-board unit. It is considered deliberate entry and may result in a contractual penalty.
- WARNING! Do not tamper with the on-board unit battery. Using an incorrect battery type during replacement may result in explosion or fire.

2 General Instructions

- The operating voltage range of the on-board unit is 8–32 V DC. There is a risk of damage to the on-board unit if a higher voltage occurs in your vehicle's power supply system, even for a short period of time. In such case, do not operate the on-board unit in the vehicle. During short-time voltage spikes, such as during jump-starts from an external power source, temporarily disconnect the on-board unit from the vehicle's power grid.
- If necessary, the on-board unit can be cleaned with a cloth moistened with lukewarm water. Do not clean the on-board unit with aggressive substances containing organic solvents or abrasive cleaning agents.
- Do not use sharp or pointed objects to operate the on-board unit and protect it from excessive mechanical shocks.

3 Symbols Used

Table 1: Examples of symbols used in this user guide

2	Tone with a constant frequency and a duration of 2 seconds; sounds once, without repetition.
2 120 2 120	Tone with a constant frequency and a duration of 2 seconds; sounds repeatedly with a period of 120 seconds.
5 600 5 600	Sequence of a low tone and a shorter high tone with a total duration of 5 seconds, sounding every 10 minutes (600 seconds).

4 Package Contents

The basic package of the Billien OBU 5050 on-board unit (in a cardboard box or dispensing bag) includes:

- Billien OBU 5050 on-board unit with a power cord for connection to a cigarette lighter socket and a rechargeable battery (installed inside the on-board unit)
- Windscreen holder with four suction cups
- Quick installation guide

5 Installing the On-Board Unit in the Vehicle

5.1 Installation Types

There are two possible types of installation for the Billien OBU 5050 on-board unit in a vehicle:

- **Temporary installation** the on-board unit connects to the vehicle's power grid via the cigarette lighter socket.
- **Permanent installation** the on-board unit is permanently connected to the vehicle's power grid (not via the cigarette lighter socket). The power cord for permanent installation is not included in the basic package. If you are interested in this type of installation, contact the

customer service centre of your toll service provider for further information.

For installation in vehicles transporting hazardous materials (e.g., volatile or highly flammable substances), a permanent installation is required and must be carried out at an authorized service centre. In such cases, contact the customer service centre of your toll service provider for further instructions.

5.2 Installation of the On-Board Unit

All figures can be found on the first page of this user guide (figures [1] – [6]).

The Billien OBU 5050 on-board unit must be placed on the windscreen in such a way that it does not obstruct the driver's view (see figure [1], the area outlined with a dashed line) and is also visible from outside the vehicle. Therefore, it must not be covered by any objects, such as windscreen wipers in their resting position. Place the on-board unit away from any potentially movable parts (e.g., airbag covers) and away from vents that blow warm air onto the windscreen. If the vehicle is equipped with metallized glass, try to place the on-board unit outside the metallized area. If this is not possible, contact the customer service centre of your toll service provider for further instructions.

Follow these steps to install the on-board unit:

- Before attaching the on-board unit, it is recommended to moisten the suction cups located on the back of the on-board unit and wipe the inside of the windscreen to remove any dust. (figure [2])
- Attach the holder with four suction cups to the pre-selected spot on the windscreen by firmly pressing the centre of each suction cup. The holder should be positioned so that the suction cups face the windscreen, and the power cord cutouts point downwards. (figure [3])
- Insert the on-board unit into the holder, starting with its lower part so that the tabs on the body of the unit fit into the cutouts at the bottom of the holder, then press the top part of the unit. An audible click indicates that the unit is securely attached to the holder. Confirm this by gently pulling the unit away from the holder. (figure [4])
- If using a DIN socket with a smaller diameter in the vehicle, first remove (by turning left and pulling out) the red adapter on the end of the power cord plug. Keep the red adapter as it will need to be returned with the on-board unit. (figure **[5]**)
- Insert the power cord plug into the cigarette lighter socket. (figure [6])

5.3 Removing the On-Board Unit

To remove the Billien OBU 5050 on-board unit from its holder, follow these steps: Insert your fingers behind the holder so that they are between the windscreen and the holder. Use the thumb of the same hand to press the tab on the top of the holder towards the windscreen. With your other hand, grasp the on-board unit and tilt it first from the top and then from the bottom to remove it from the holder (following the direction opposite to the arrow in figure **[4]**).

To remove the holder from the windscreen, gently lift each suction cup one by one using the tabs on their edges. Do not use sharp objects that could damage the suction cups. Once all suction cups are lifted, the holder can be easily removed.

6 User Interface and Controls

6.1 Components of the User Interface

The on-board unit is equipped with four control buttons and three signalling elements:

- ① Four control buttons
- ② Display

- ③ Main status indicator (LED above the display)
- ④ Sound indicator (built-in speaker)

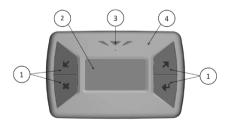


Figure 1: User interface

6.2 Control Buttons



Menu navigation

Toggle sound indications on/off.

Cancel action during menu navigation.

× ↓ Menu navigation Initiate external

communication

Confirm action during menu navigation.

6.3 Display

The on-board unit is equipped with a display that shows the user basic information about the current status of the on-board unit.

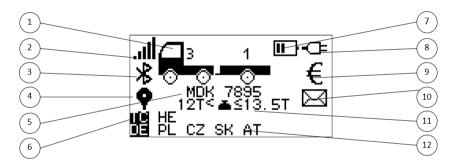


Figure 1: Display elements

 Vehicle category pictogram with the number of axles on the tractor and trailer

Communication indicator – GSM signal strength. During manually
 initiated communication, it signals the progress and final status (see Table 2).

③ Bluetooth connection indicator (only for certain versions)

Position determination indicator. If the symbol is not displayed, leave

④ the on-board unit in a good signal area (open view of the sky) for a while until the symbol appears before starting your journey.

- (5) License plate number
- ⁽⁶⁾ Toll domain identification (bottom row with a two-letter country code, top row with the toll domain abbreviation)
- ⑦ Battery status indicator
- (8) External power indicator
- (9) Toll (customer) account status indicator
- Incoming message indicator
- ① Vehicle weight category
- Identifiers of other active toll domains for which the on-board unit is configured

Table	2:	Symbols	on	the	display
-------	----	---------	----	-----	---------

Indicator	Option	Meaning		
	斑	Battery disconnected or faulty		
Battery	Ì	Battery completely discharged		
Duttery	Ì	Battery 50 % charged		
		Battery fully charged		
External Communication	((-)) (flashing)	Communication in progress using GSM/GPRS, manually initiated by pressing the button 4 for more than 3 seconds		

Indicator	Option	Meaning
External Communication	>	Data transfer was successful.
Communication	•	Data transfer failed. The on-board unit was likely in an area with poor or no GSM signal. Try to initiate communication again by pressing the button \checkmark for more than 3 seconds in an area with good mobile network coverage.
Position Determination	\$	The presence of this symbol on the display indicates that the on-board unit has positioning data available and is ready for operation.
	ψ	The on-board unit is connected to the vehicle's power grid.
External Power	墩	The on-board unit is not connected to the vehicle's power grid. The user is also warned with sound alert.
	€	No active problem with the toll account, the amount of prepaid credit or financial guarantee is sufficient.
	€	Warning
Toll Account Status	(flashing)	Low prepaid credit balance or the amount of payable toll has reached 80 % of the financial guarantee.
	X	Administrative blocking
		Warning of zero credit balance or the amount of payable toll has reached 90% of the financial guarantee.

Indicator	Option	Meaning
		The vehicle cannot continue its journey until the issue is resolved. Contact your toll service provider.
Toll Account Status	G	The on-board unit has been blocked (for example, due to hardware/software malfunction, detected unauthorized access, or administrative blocking).
		The vehicle cannot continue driving until the issue is resolved. Please contact your toll service provider.
	Х	There is an unread incoming message with standard priority in the memory of the on-board unit.
The Indication of an Incoming Message	(flashing)	There is an unread incoming high-priority message in the memory of the on-board unit.
	X	There is a read message in the memory of the on-board unit.
Transport Mode	¢	The on-board unit has received a request to enter transport mode. A symbol is displayed in the centre of the display, and other indications on the display are turned off. Upon power disconnection, the on-board unit will enter sleep mode.

6.4 Main Status Indicator

The main status indicator located on the front side of the on-board unit above the display serves as a light indicator to show the overall operational state of the on-board unit.

6.5 Speaker

The integrated speaker of the on-board unit is used for sound indication of actions performed, operational states, and feedback to user activities.

6.6 Connectors

- ① Rechargeable battery
- ③ Power cord connector
- ② Rechargeable battery connector

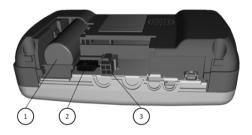


Figure 2: Connectors

7 Operation and Service

7.1 Operating States

The Billien OBU 5050 on-board unit can be in several operating states. The following table provides an overview of these states or transitions between them, along with respective sound and visual indications.

If the main status indicator lights red and the lock symbol **a** is displayed on the display, the on-board unit is blocked, and you are required to visit the customer service centre of your toll service provider or contact their customer service line.

State	Condition/Reason	Sound - transition	Display	Sound – status	Main status indicator	Recommended user action
Active	Activation of the on-board unit from the "Deactivated" state Return to the active state from the "Warning" or "Blocked" states	0,55	Vehicle category symbol and license plate number			The on-board unit is operating correctly. Driving on toll roads is permitted.
Active - pending	The unit is active but does not meet all the conditions required to start a journey in the current toll domain.		Vehicle category symbol and license plate number			The on-board unit is functioning correctly, but there is a lack of the fulfilment of one or more conditions necessary to start driving (typically due to missing location data or lack of connection to the server). Drive the vehicle with the on-board unit to an open area. If the issue persists, contact the customer service line of your toll service provider for further instructions.
Warning	The prepaid toll balance is equal to or lower than the specified minimum balance (in the prepaid toll mode). The amount of toll payable in the current billing period has reached 80% of the financial guarantee (in the postpaid toll mode).	0,25	E (flashing)		(flashing) (2 s / 2 s)	Top-up the prepaid toll credit or alternatively increase the financial guarantee.
NoGo /Blocked	The on-board unit is temporarily blocked due to technical reasons.		€			Driving on toll roads is not possible. The on-board unit's location cannot be determined due to a very weak GNSS signal or the presence of an interfering signal. Ensure that the on-board unit is correctly positioned on the windscreen and that the vehicle is not in a location with poor reception (such as tunnels, garages, etc.). If necessary, remove sources of interference.
	The on-board unit is permanently blocked due to technical reasons. Toll has not been prepaid (in the prepaid toll mode). The amount of payable toll in the current billing period has reached 90% of the financial guarantee (in the postpaid toll mode).	0, 75	€ €	0,3 15 0,3 15		Driving on toll roads is not possible. Please contact the customer service line of your toll service provider for further instructions. Driving on toll roads is not possible. Settle overdue payables and top-up the credit balance. Please contact the customer service line of your toll service provider for further instructions.

Table 2: Operating states of the on-board unit

The on-board unit is outside the activated toll domain

With the on-board unit, you can drive beyond the borders of the area defined by the activated toll domains. The on-board unit will enter an inactive state; this state is indicated as shown in Table 4. In this state, you can disconnect the on-board unit from the power supply (the on-board unit will eventually enter sleep mode). Before returning to the area of the activated toll domains, it is necessary to reconnect the on-board unit to the vehicle's power grid well in advance (up to several minutes) so that the on-board unit displays the position determination indicator on the display when entering the activated toll domain **P**.

Transport mode

Transport mode is used for transporting the on-board unit without the obligation to pay tolls. This mode can be activated upon request through the customer service line of your toll service provider. The acceptance of the request to enter this mode is indicated by the on-board unit with a symbol \bigcirc in the centre of the display. Upon disconnecting the power cord from the cigarette lighter socket, the on-board unit enters sleep mode. Transport mode ends when the power cord is reconnected to the cigarette lighter socket.

State	Condition/Reason	Sound - transition	Display	Sound – status	Main status indicator	Recommended user action
Deactivated	The on-board unit is not activated.	0,55	The necessary toll collection data is not displayed.		(flashing) (2 s / 2 s)	Driving on toll roads is not possible. Please contact your toll service provider.
Inactive state	The vehicle has left the area of activated toll domains.	0,11	The symbol € is not displayed.		(off)	The on-board unit is not collecting toil data. Upon disconnecting the power cord, it enters sleep mode. Before returning, don't forget to reconnect the power cord.
Transport mode requested	Request during activation of the on-board unit or through the customer service line.		Φ		(off)	Upon disconnecting the power cord, the on-board unit enters sleep mode.

Table 3: Special states of the on-board unit

7.2 Power Modes

The on-board unit is equipped with a rechargeable battery to bridge short-time power outages. During normal operation, the on-board unit should always be

connected to the vehicle's power grid. If you notice that the unit is running on the battery, check the following (in the specified order):

- 1. ensure the power cord plug is properly inserted into the cigarette lighter socket,
- 2. check the integrity of the power cord,
- 3. confirm the functionality of the cigarette lighter socket.
- Note: The warning sound alert for low and critical battery levels (Table 6) replaces the sound signal for power from nearly empty battery (Table 5).

If everything seems to be in order but the on-board unit still indicates operation solely from the rechargeable battery, please contact the customer service centre of your toll service provider.

Table 4: Power states of the on-board unit

State	Condition/Reason	Sound - transition	Display	Sound – status	Main status indicator	Recommended user action
	Power supplied via the power cord		Å			
	Power supplied from the charged rechargeable battery (power cord disconnected)	0,27	₩	0,3	(flashing) green 20 s yellow 5 s	Check the connection of the power cord.
				 25		
				0,3		
Active mode				 25		
	Power from the nearly-empty rechargeable battery (power cord disconnected)		₩	0,3	(flashing) green 20 s yellow 5 s	Check the connection of the power cord.
				 15		
				0,3		
				 15		
Power-saving mode	Ignition switch is off or vehicle detected stationary with charged battery	1,1	off		(off)	After starting the journey, the on-board unit will return to the active mode.
Sleep mode	The power cord is disconnected, and the on-board unit has either received a request to enter transport mode, detected a low battery level, or is outside the activated toll domains.	1,6	off		(off)	To wake the on-board unit, connect the power cord.

Table 5: Additional sound indications for power states

Event	Sound alert			
Power cord connected	0,11			
Power cord disconnected	0,11			
Alarm: Power from the rechargeable battery - low battery	0,3	 600	0,3	 600
Alarm: Power from the rechargeable battery - battery discharged to a critical level	1,6	 10	1,6	 10

7.3 Warnings

If the on-board unit detects that toll collection in a specific activated toll domain is hampered or completely disabled, it will alert the user with prominent indications using the main status indicator red light, flashing icon on the display, and a sound alert (see Table 7).

Condition/Reason	Display	Sound	Main status indicator	Recommended user action
Vehicle location is not available		0,3 1 0,3 1	(flashing) (0,5 s / 0,5 s)	The location cannot be determined due to a very weak GNSS signal or the presence of an interfering signal. Ensure that the on-board unit is correctly positioned on the windscreen and the vehicle is not in a location with poor reception (such as a tunnel, garage, etc.), or remove the source of interference.
Toll transaction via the microwave interface was not completed.	×	0,3 1 0,3 1	(flashing) (0,5 s / 0,5 s)	Toll must be paid using an alternative method available in the respective toll domain.

Table 6: Sound and visual indication - Warning

7.4 Manual Invocation of Communication

The on-board unit allows data communication to be manually initiated upon request by pressing and holding the button \clubsuit for more than 3 seconds. If the sound indications are active, you will also hear a double beep (see Table 8), confirming the start of communication. Additionally, the symbol (\cdot) will flash on the display.

Table 7: Sound indication - manual invocation of communication

The event	Sound alert
Manual initiation of data communication	0,22

7.5 Other Sound Indications

Table 8: Other sound indications

The event	Sound alert
Button press	0,03
Turning on the on-board unit	0,27
Speaker turned on	0,72
Speaker turned off	0,72

7.6 Putting into Operation

If the on-board unit is not already activated (the on-board unit indicates the "deactivated" state, see Table 4), it must be activated before starting the journey. The previously entered activation command will be received during the subsequent communication of the on-board unit via the mobile data connection. This should be initiated as described in chapter 7.4. After receiving a processing the activation message, verify that the received data corresponds to the vehicle where the on-board unit is installed. If the data does not match, you can terminate the confirmation dialogue. In such a case, immediately contact the customer service line. Upon confirming all data, the follow-up communication is automatically initiated to complete the activation. A successful outcome is indicated by the green light of the main status indicator and the display of vehicle data on the on-board unit display.

7.7 Activities Before and During Driving

The on-board unit is not equipped with any on/off switch – it turns on automatically:

- once you start driving the vehicle, or
- when you turn the ignition switch on (permanent installation).

Connecting the power cord to the cigarette lighter socket is necessary to wake up the on-board unit if it was previously in sleep mode or transport mode. After the on-board unit turns on, check that:

- 1. the main status indicator lights green,
- 2. the license plate number, weight category, and current axle count are correctly displayed on the display,
- 3. the position determination is shown \mathbf{P} .

If the position determination indicator is not displayed after a while, drive the vehicle to an area with a better signal, preferably an open space.

If the displayed number of axles or the weight category do not match the vehicle's (vehicle combination's) current configuration, adjust them according to the instructions in chapter **Error! Reference source not found.**.

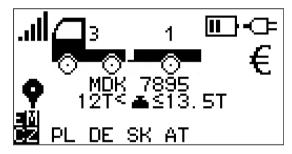


Figure 3: Pre-driving check – symbols on the display

Periodically check the status of the main status indicator and other indicators during the journey.

7.8 Setting the Number of Axles and Weight Category

To enter the menu, use the arrow key pointing right \neg or left \checkmark at the top. Confirm the menu item selection with the key \blacklozenge . To exit the current menu level or cancel the selection of an item, press the key \thickapprox .

Table 9: Change of axle count

Step	Procedure	Display
1	Select the item with the axle icon. The current number of axles is set to 4. The trailer is connected.	↓ ↓ 4 T=1 ★ ★
2	Axle count set to 4.	3 4 5
3	Change the axle count to the required number within the available range.	3 4 ▶5
4	Confirm selection.	
5	On the main display, check the correctness of the settings.	

Table 10: Change weight category

Step	Procedure	Display
1	Select the item with the weight symbol.	4 T=1
2	The current weight of the vehicle combination ranges from 16.5 to 18 tons.	10.5T<<12.0T 12.0T<<13.5T 13.5T<<15.0T 15.0T<<16.5T 16.5T<<18T

Step	Procedure	Display
3	Select the required weight range based on the current weight of the vehicle combination. Displayed are only intervals above the maximum weight of the vehicle (tractor) and below the maximum permissible weight of the entire vehicle combination.	10.5T≤ ▲<12.0T 12.0T≤ ▲<13.5T 13.5T≤ ▲<15.0T 15.0T≤ ▲<16.5T 16.5T≤ ▲≤18T
4	Confirm selection.	15.0T≤▲<16.5T X ✓
5	On the main display, check the correctness of the settings	

7.9 After-Driving Activities

After driving, the on-board unit requires no further actions. Once the vehicle has stopped and the on-board unit completes the transfer of collected data, it will enter a power-saving mode after a while, during which the main status indicator and display will turn off. You can then disconnect the power cord then.

7.10 Leaving and Returning Activated Toll Domains Area

When you leave the area of activated toll domains, the main status indicator will turn off after a while. Outside of these toll domains, you can disconnect the power cord. The on-board unit will finally enter a dormant mode.

Before re-entering the area of activated toll domains, reconnect the power cord into the cigarette lighter socket well in advance. Upon crossing the borders into these toll domains, perform the same check as before starting your journey.

7.11 Troubleshooting

Immediately stop driving and contact customer service line if any of the following events occur:

- 1. the main status indicator starts flashing or lighting red,
- 2. the main status indicator goes off while diving in activated toll domains,
- 3. the on-board unit indicates the blocked status (\clubsuit),
- 4. incorrect vehicle data is displayed on the display.

If the main status indicator is flashing yellow and the symbol for external power supply is crossed out, check the power supply in the cigarette lighter socket and ensure the power cord is correctly connected to the socket. If no problem is found, contact the customer service line.

7.12 Updates

The on-board unit allows remote software updates. Updates typically occur after the end of a journey before entering power-saving mode. During the update, the display will turn off for approximately 15 seconds. Wait until the update process is complete and do not disconnect the on-board unit from external power. Afterwards, the on-board unit will return to normal operating mode, and you can continue driving, if needed.

7.13 On-board unit maintenance

The on-board unit does not require any maintenance. In case it becomes dusty or dirty, you can clean it with a cloth moistened with lukewarm water. Do not use aggressive or abrasive cleaning agents, solvents, or immerse the on-board unit in any liquids.

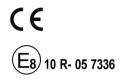
7.14 Disposal

The on-board unit is marked according to the European Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE). Detailed information on how to properly dispose of the on-board unit and prevent negative impacts on the environment and human health can be obtained upon request from your toll service provider.



8 Technical Specification

TollNet a.s. hereby declares that the Billien OBU 5050 on-board unit complies with the essential requirements and all relevant provisions of European Directive 2014/53/EU (RED). This device can be used within the European Union.



You can find the Declaration of Conformity at the end of this user guide.

The Billien OBU 5050 on-board unit is a type-approved component.

The Billien OBU 5050 on-board unit complies with tests according to ISO 16750 specifications for environmental influences (mechanical resistance – shocks, vibrations according to ISO 16750-3, EN 60721-3-5; temperature range ISO 16750-4; chemical resistance ISO 16750-5) and electrical resistance (ISO 16750-2) specified for road vehicles.

GSM/GPRS	lt operates in 4 bands: GSM 850, PCS 1900, E-GSM 900, a DCS 1800; Data: GPRS multislot class 12, class B
GNSS	GPS/GLONAS/GALILEO; SBAS, A-GPS, it allows tracking up to 72 satellites simultaneously, with an internal antenna.
DSRC	In compliance with EN12253 CEN/TC278 and ETSI 200 674-1 standards in the 5.8GHz band.
Power supply voltage	8-32 V DC
Maximum current	5 A fuse in the body of the external power connector
Backup battery	Button cell battery with a rated voltage of 3V
Rechargeable battery	Li-Ion battery with a rated capacity of 2200 mAh
Energy consumption	Average power consumption: 1.1 W Average power consumption in sleep mode: 10 mW
Weight	290 g (without holder, suction cups, and power cord) 420 g (with holder, suction cups, and power cord)
Dimensions	145 x 92 x 40 mm (w x h x d) without holder and suction cups
Temperature range	Storage: -40 °C to +85 °C Operating: -40 °C to +85 °C (except GSM, display, and rechargeable battery) Tested according to ISO 16750-4.
Protection class	IP 54

Table 11: Technical specifications of the Billien OBU 5050 on-board unit

EU Declaration of Conformity

Holušická 2221/3, Praha 4, 148 00, Czech Republic

hereby declares under its sole responsibility, that the product

Name:	Billien OBU
Type:	OBU 5050 op1, op8

conforms to the respective regulations of the EU harmonisation legislation

TollNet a.s.

2004/52/ES (29. 04. 2004)	768/2008/ES (09. 07. 2008)
2009/750/ES (06. 10. 2009)	2011/65/EU (08. 06. 2011) as amended
2014/53/EU (16. 04. 2014)	

and technical standards

Manufacturer:

Address:

2014/53/EU (RED), Safety and Health, Art. 3.1a)

ČSN EN 60 950-1 ed.2:2006 +A1:2010, +A11:2009, +A12:2011, +A2:2014, +OPR.1:2012, +Z1:2016

ČSN EN 62 311:2008
2014/53/EU (RED), EMC, Art. 3.1b)
ČSN ETSI EN 301 489-1 V2.1.1
ČSN ETSI EN 301 489-7 V1.3.1
2014/53/EU (RED), Radio Spectrum Efficiency, Art. 3.2
ČSN ETSI EN 303 413 V1.1.1
ČSN ETSI EN 300 674-2-2 V2.1.1
ČSN ETSI EN 300 320 V2.1.1
2011/65/EU, RoHS
ČSN EN 50581

The product mentioned hereinabove conforms to the Government Decree No. 426/2016 Coll. of 14 December 2016 on the conformity assessment at making available on the market of radio equipment, implementing Directive 2014/35/EU. Procedure of Module B+C, as defined in Decision 768/2000/ES, was used for purposes of the declaration of conformity.

This EU declaration of conformity also represents EU declaration of conformity to specifications issued by the manufacturer as defined by the Commission Decision 2009/750/ES. Procedure of Module A, as defined in Decision 768/2008/ES, was used for purposes of the declaration of conformity.

In addition to the statements given hereinabove the manufacturer, in accordance with Art. 3 of the Annex IV to the Commission Decision 2009/750/ES, specifies/complements:

The product mentioned hereinabove, constituting an interoperability constituent in the sense of the definition under 1. (d) of Art. 2 of the Commission Decision 2009/750/E5 is an on-board unit for electronic toll collection, i.e. "on-board equipment" in the sense of the definition under 1. (e) of Art. 2 of the Commission Decision 2009/750/E5 that supports following technologies (a) satellite positioning, (b) mobile communications using the GSM-GPRS, and (c) 5,8 GHz microwave technology listed in Art. 2, par. 1 of the Direct 2004/52/ES. The product that is delivered together with the product.

Prague, 11 June 2018

Place and date of issue

Ing. Pavel Bednář, Member of Board of Directors

Name, position and signature of authorised person



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