

# Telepass SAT **K1**

Technology ETOLLKITL

Highway e-toll payment device

## User manual

### General warnings

Please read the instructions carefully before using the device. For details on payments, warranty, contractual obligations, regulations and conditions in each country where the device is used, please see the service contract.

### Avoid device damages

- Do not tamper with or attempt to open the unit.
- Do not submerge in liquids and protect against rain and/or showers.
- Keep away from heat, flames and magnetic fields.
- Keep out of reach of children.
- The use of the device is permitted only in the presence of electrical protections on the vehicle.
- Do not use the supplied power cable to connect or power other devices.

### Guarantee correct operation

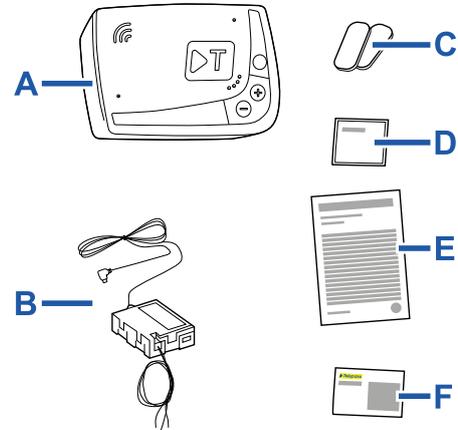
- Carefully follow the installation instruction.
- Do not use the device if it appears damaged.
- If the device emits smoke, remove it from the support and take it out of the vehicle. Contact customer service immediately to return it to the service provider.
- If liquid leaks from the device, do not touch it with your bare hands. Contact customer service immediately to return it to the service provider.

### DO NOT

- Do not disconnect the power cable from the device.**
- Do not use the device in a vehicle other than the one for which it was supplied. If the license plate has been changed, make sure to use the device on the correct vehicle.
- Do not use more than one device with the same active services in the same vehicle; this can cause interference between devices, malfunctioning and double transit charges may be billed. In such cases, Telepass cannot reimburse the extra amount paid.

## DESCRIPTION

### Box contents



- A** - K1 Telepass SAT device
- B** - Smart connection device (IPS 2.0) with cable for connection to the electric system via a removable Molex jack
- C** - Two Velcro strips
- D** - Cleaning wipes
- E** - Vehicle declaration
- F** - Safety notices

A Quick Guide for using the device is found on the inside of the packaging. Keep the packaging to be able to consult it at any time.

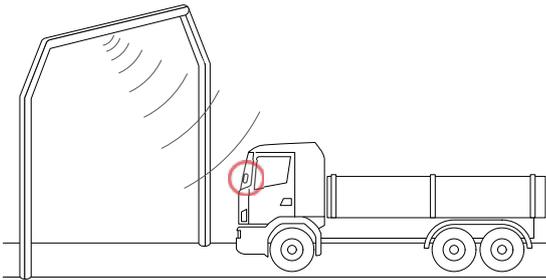
### Travel documents (GO service only)

- The vehicle declaration (supplied with the device) and any documents that prove it belongs in a specific toll group (registration, COP, CCA, ECMT) must always be on-board the vehicle that uses this device.
- The driver can also consult the vehicle declaration using the **Telepass Truck App**.

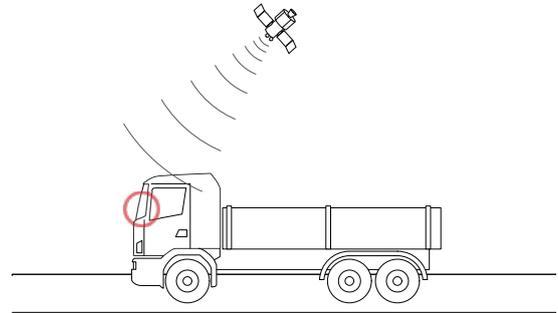
## Operations

This device performs e-toll payment when passing through dedicated lanes, with detection gates (*free-flow service*) or by means of satellite localization systems.

-  Never disconnect the power cable. The device only works if powered. Traveling on toll roads when the device is not operative may result in fines.



Where the radio system is used, the passage is detected by antennas placed in dedicated lanes, or on gates positioned in various points of the road network, where the free-flow service is available. While passing through a gate, sound signals and messages on the screen indicate the device is functioning correctly.



Where a satellite service is active, the GNSS detects the passage of the vehicle on toll roads.

The device is only active when correctly installed and the instrument panel is switched on. It communicates with the driver through acoustic signals, light signals (LEDs) and voice messages. The driver can access device functions using the Telepass Truck App, or directly on the device.

### Device configuration

The device must be configured to correctly record and charge for transits. In particular, the weight and number of axles of the vehicle on which the device is installed must be set.

This configuration can be performed directly by the driver using the K1 device or on the **Telepass Truck** App. Otherwise, it can be performed by the fleet manager remotely.

### Craftsman exemption

The craftsman exemption function is available for vehicles traveling in Germany. This function, which allows transit through toll zones free of charge, can only be activated on vehicles that weigh less than 7.5 tons. The craftsman exemption is automatically deactivated when leaving Germany.

-  Activating the craftsman exemption without meeting the requirements may result in penalties.

### Extended Declaration (Switzerland)

For vehicles transiting Switzerland, the type of trailer being transported and the current weight of the vehicle can be declared. This information can only be entered from the Telepass Truck App and does not need to be changed when leaving the Swiss highway network.

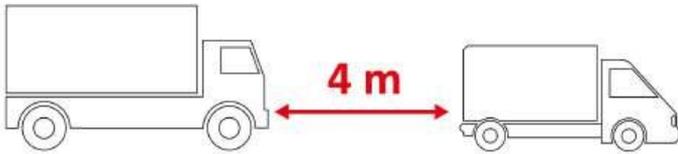
The function is available only under these conditions:

- when ordering the device, the empty weight (G-weight) of the vehicle was provided
- the vehicle's current number of axles is greater than the minimum number

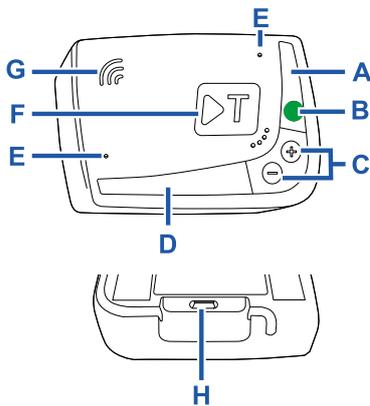
## Cross the tollbooth

Risk of accident. Follow the directions and speed limits indicated by the highway authority near tollbooths.

Stay at least four meters away from the vehicle in front of you. If the traffic light is red, use another tollbooth.



## Device structure



- A** - Status LED (red/green)
- B** - Function/confirmation button
- C** - Adjustment buttons (+/-)
- D** - Communication LED (red/yellow/green/blue)
- E** - Microphone (not used)
- F** - Multifunction button
- G** - Speaker
- H** - Power inlet

## Button behavior

The buttons on the device allow the functions to be accessed even without using the **Telepass Truck App**.

Multifunction button (F) 	Allows you to connect the <b>Telepass Truck App</b> to the device.
Function button (B) 	Press once to access the functions or to confirm the current setup. Press twice to return to the previous function from the current one. Keep pressed for 30 seconds to exit the functions.
Adjustment buttons (C) 	Press to navigate the functions and the options or change the volume level.

In the event of extended inactivity, the device exits from the setup automatically and returns to the "Home" function.

## Status LED

The status LED lamp indicates the device's function and warns of any faults during use and during setup. For a description of the messages, see section "Fault messages".

(green)	On and steady	<b>Device functioning</b> Power supply from vehicle correct
(green)	Flashes once during setup	<b>Setup accepted</b> Power supply from vehicle correct
(off)	-	<b>Device is off</b> Device non connected <b>Do not travel on toll roads.</b>
(red)	On and steady	<b>(only for Germany) Craftsman exemption activated</b> Active service and craftsman exemption activated
(red)	On and steady	<b>E-toll payment is not active</b> Device fault <b>Do not travel on toll roads.</b>
(red)	Flashing	<b>Device non functioning correctly</b> Power supply disconnected or device overheated <b>Check the error message displayed.</b>
(green)	Flashing three times when the vehicle is switched off	<b>Device deactivated</b>

## Communication LED

The communication LED lamp indicates dialog with the device and accompanies the voice messages.

(blue)	<b>The device is being paired with the App</b> <b>Remote device configuration pending</b>
(green)	<b>Value confirmed</b>
(yellow)	<b>Voice message being read</b>
(red)	<b>Value refused</b> The value selected is not allowed. <b>Select a permitted value.</b>

### Sound signals at transit detection

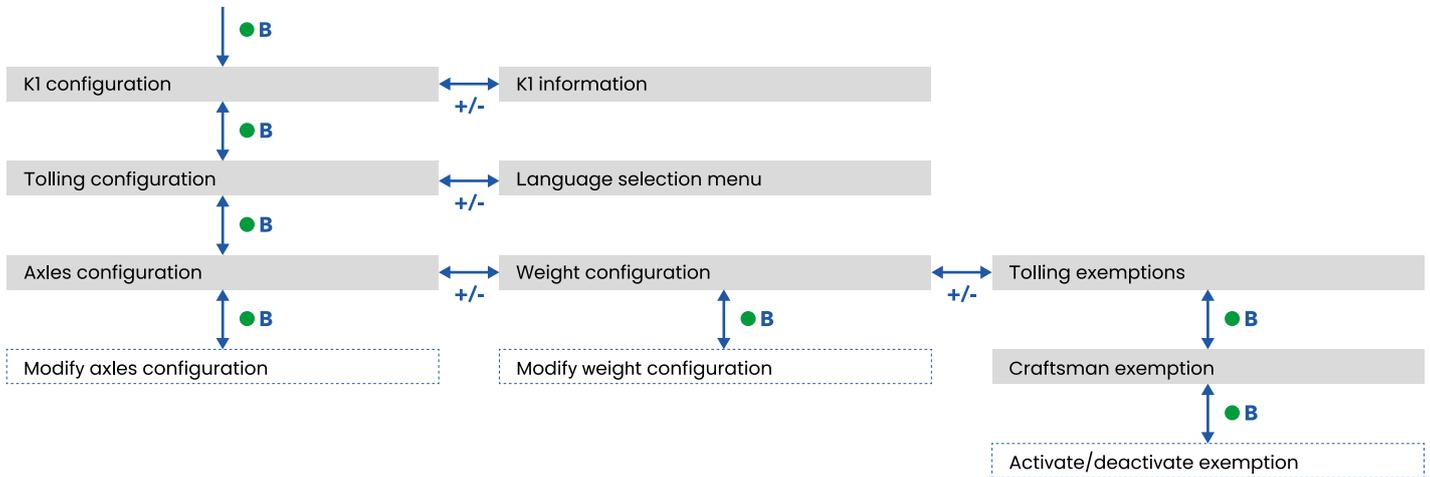
When entering into radio detection areas, the device emits sound signals.

 x 1	✓ Transit recorded.
 x 2	✗ Transit recorded, yet the device is signaling a fault.
 x 4	✗ Transit NOT recorded.
	
	When entering into satellite detection areas, the device does not emit sound signals.

## SETUP FROM THE DEVICE

### Function navigation diagram

The device functions are accessible according to the following diagram:



### Consult the data

**NOTICE:** sanction risk. Before departing, make sure the data set on the device and the real vehicle specifications match.

1. Press the ● function button: the device announces "K1 configuration".
2. Press the + or - button: the device announces "K1 information", then press the function button to confirm.
3. Press the + or - button to select the information for consultation, then press the function button to confirm the desired adjustment: the device announces the information recorded.

It is possible to consult the following information:

- device identification
- software installed
- any faults recorded
- active services
- vehicle plate number

### Select the language

1. Press the function button: the device announces "K1 configuration".
2. Press the function button to confirm: the device announces "Tolling configuration".
3. Press the + or - button: the device announces "Language selection menu".
4. Press the function button to confirm: the device reads the currently set language.
5. To change the current language, press the + or - button to select the desired language. Then press the function button to confirm. The device announces the language set.

### Check and modify the number of axles

Consider all vehicle and trailer or semi-trailer axles, including the double tandem axle and liftable axles. Check the number of axles set on the device and change it if necessary. Review the setting each time a trailer is hooked up or removed.

**NOTICE:** modify the settings with the motor on but with the vehicle stopped.

1. Press the function button: the device announces "K1 configuration".
2. Press the function button to confirm: the device announces "Tolling configuration".
3. Press the function button to confirm: the device announces "Axles configuration".
4. Press the function button to confirm: the device announces the number of axles currently set.
5. To modify the current settings, press the + or - button to select the number of axles desired, then press the function button to confirm: the device emits a short acoustic signal and announces the number of axles set.

Each time the settings are changed, a notification is sent to the **Telepass Truck App**.



The Extended Declaration (Switzerland) function is not usable from the device but only through the Telepass Truck App.

## Check and modify the vehicle weight

**NOTICE:** modify the settings with the motor on but with the vehicle stopped.

1. Press the function button: the device announces "K1 configuration".
2. Press the function button to confirm: the device announces "Tolling configuration".
3. Press the function button to confirm: the device announces "Axles configuration".
4. Press the + or - adjustment button until the Weight configuration message is displayed.
5. Press the function button to confirm: the device reads the weight range currently set.
6. To modify the current settings, press the + or - button to select the weight range desired, then press the function button to confirm: the device emits a short acoustic signal and announces the weight range set.

Each time the settings are changed, a notification is sent to the **Telepass Truck** App.

## Check and change the craftsman exemption

**NOTICE:** modify the settings with the motor on but with the vehicle stopped. You can only activate the craftsman exemption for vehicles weighing less than 7.5 tons.

1. Press the function button: the device announces "K1 configuration".
2. Press the function button to confirm: the device announces "Tolling configuration".
3. Press the function button to confirm: the device announces "Axles configuration".
4. Press the + or - adjustment button until the Tolling exemptions message is displayed.
5. Press the function button to confirm: the device announces "Craftsman exemption".
6. Press the function button to confirm: the device reads the current craftsman exemption setting (active or not active).
7. To change the current setting and activate/deactivate the exemption, press the + or - adjustment button, then press the functions button to confirm: the device beeps briefly and announces the current setting. The status LED turns red.

**Note:** if you try to activate the craftsman exemption for vehicles weighing more than 7.5 tons, the device announces the message "Exemption not applicable".

Each time the settings are changed, a notification is sent to the **Telepass Truck** App.

## Accept or reject a remote configuration request

The device can receive a remote request to update the axle and weight configuration. When this happens, the blue notification LED flashes ( ● ).

The request remains pending for 15 minutes. After this time, it is considered rejected and the fleet manager can resend it.

**NOTICE:** Perform these operations with the engine running but with the vehicle stopped.

1. Press the multifunction button: the device announces the new settings received.
2. To accept the request and update the settings, press the + adjustment button: the device announces "Confirmed" and the communication LED turns green ( ● ).
3. To reject the request and keep the current settings, press the - adjustment button: the device announces "Rejected" and the communication LED turns red ( ● ).
4. Press either the + or - adjustment button to return to the main page: the device announces "Home".

Each time the settings are changed, a notification is sent to the **Telepass Truck** App.



Traveling with incorrect axle and weight settings may result in penalties.

## TELEPASS TRUCK APP

### Why install Telepass Truck

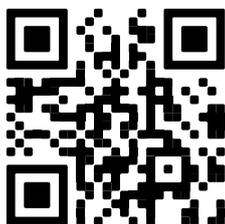
Download the **Telepass Truck** App for a complete user experience.

The App allows quick, easy-to-use communication with the device and performs the following activities using a smartphone:

- Read messages about the device status.
- Check or modify the axle and vehicle weight settings.
- Check the vehicle information.
- Check the active services.
- Consult the manual for use and installation.

### Install the App

Scan the QR code to install the **Telepass Truck** App.

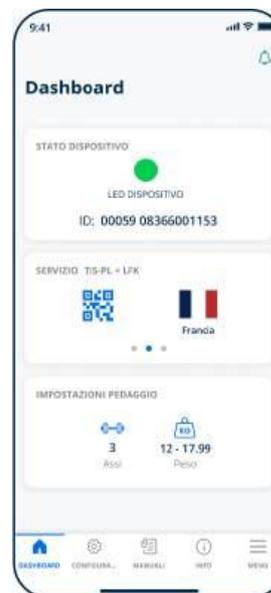


### Register and login

To use the App, first you must register, log in, and pair the App with the device.

**NOTICE:** perform these operations with the engine running but with the vehicle stopped.

1. Launch the App.
2. Enter your email.
3. Use the OTP code you receive at the email address entered to complete the registration procedure.
4. Start the vehicle: the device code appears in the **OBU ID** field automatically and cannot be changed.
5. Select **Log in**: now the App has to be paired with the device.
6. Select **Pairing**: the communications LED flashes blue.
7. Press the orange multifunction button on the device. When the operation has been completed successfully, the **Dashboard** page opens.



### Main page

 <b>Dashboard</b>	Displays the identification and status of the device, active services, and current weight and axle settings.
 <b>Configurations</b>	Allows the language, weight and axles of the vehicle to be changed.
 <b>Manuals</b>	Allows the installation and use manuals for the device to be downloaded.
 <b>Info</b>	Displays the vehicle information.
 <b>Menu</b>	Allows the user data, Terms and Contract Conditions to be consulted.
 <b>Notification</b>	Allows you to read any notifications received.

## TELEPASS TRUCK APP SETTINGS

### Check the data and device settings.



The **Dashboard** page displays the following information:

- device status and identification
- language set
- weight and number of the axles set
- any notifications received

### Check the vehicle data



The **Vehicle Info** page displays the following information:

- vehicle plate and nation
- emissions class
- tractor axles and weight

### Select the language



1. Select the desired language, then press **OK**.
2. Select **Save** to confirm the settings.

### Set the vehicle weight



1. Select the correct weight category, then press **OK**.
2. Select **Save** to confirm the settings.

### Set the vehicle axles



1. Select the correct number of axles, then press **OK**.
2. Select **Save** to confirm the settings.

### Set the trailer type and the vehicle weight (Extended Declaration function)

This procedure is not mandatory and is only available for transit in Switzerland.



> **Edit** > **Specific**

1. In **Trailer**, select the trailer type, and then **OK**.
2. In **Tons**, select the actual weight of the vehicle, and then **OK**.
3. Select **Save** to confirm the settings.

### Set the toll exemption

This function is only available while traveling in Germany.



1. Activate or deactivate the exemption.
2. Select **Save** to confirm the settings.

### Display the notifications



This page shows the notifications received.

## TRAVELING

### Before starting the trip

Depending on the service provider and the country in which you are transiting, follow the instructions below.

Instructions	Service											
	GO Austria	Scandinavia	LKW-Maut Germany	eToll Poland EETS	HU-GO Hungary	LSVA Switzerland	TOLLPASS Bulgaria	Myto SK Slovakia	Go Slovenia	Croatia	Czech Republic	Viapass Belgium
<b>Vehicle declaration</b> Make sure that the information on the vehicle declaration supplied with the device corresponds to the actual vehicle and to the device installed.	•	•										
<b>Axles</b> Make sure the number of axles and other data match the real vehicle specifications.	•		•	•	•	•	•	•	•	•	•	
<b>Weight</b> Make sure that the weight set corresponds to the maximum transportable weight, including any trailer.			•	•								
<b>Craftsman exemption</b> Make sure that the requirements for craftsman exemption are met.			•									
<b>Viapass - mandatory instructions</b> Consult the Mandatory instructions to travel in Belgium (Viapass service).												•

## Fault messages

The device may indicate the following faults.

Message	LED	Description	Required action
Exemption anomaly	● (red)	(Only for Germany) Craftsman exemption activated. Toll charge temporarily suspended.	When re-entering the German road network, make sure you still meet the requirements that entitle you to the exemption.
LTE anomaly	● (red)	No radio signal	<b>Pay the transit with another means of payment.</b>
GNSS anomaly	● (red)	No satellite signal	
OBU Blocked, contact the service provider	● (red)	Device blocked by the service provider	<b>Do not use toll roads.</b> Contact the service provider.
Service is not active in this area	● (red)	E-toll payment services not active in the transit area	
Tampering anomaly, please contact the service provider	● (red)	Attempt to tamper with the device detected	<b>Do not use toll roads.</b> Contact the service provider.
OBU battery alert, please connect the original power cable to the OBU as soon as possible	⚡ (flashing red)	Power cable disconnected	Reconnect the power cable
OBU temperature warning, please contact the service provider	⚡ (flashing red)	Device overheated	Switch off the vehicle and wait for the device to cool down.

## CARE FOR THE DEVICE

### Cleaning



Use a soft cloth, dampened with a multipurpose detergent to clean the unit.

#### NOTICE:

- Do not spray detergent directly on the device.
- Do not use solvents or abrasive materials.

### Device return

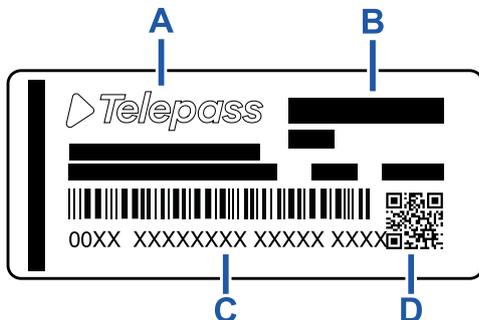


Never dispose of the device as standard urban waste. Dispose of at a local WEEE recycling center or return to your local contact company or to Telepass SpA.

### Technical features

Dimensions	95 x 66 x 27 mm
Weight	120 g
External material	Recyclable plastic (ABS)
Protection grade	IP 41
Working temperature	-30 °C to +70 °C
Storage temperature	5 °C to +40 °C
Power from vehicle	5 V DC - 2 A (min.)
Internal battery	Rechargeable battery (supercap) 3.9 V DC/155 mAh (@ 3.67 V) - 311 mAh (@ 3.90 V)
Residual voltage (DSRC only)	3.0 V DC - 225 mAh (cr2032)
Radio-frequency band	2G (GSM): 900/1800 MHz 3G (WDCSMA): 900 MHz LTE (FDD): 700/800/900/1800/2600 MHz GNSS: 1151-1214/1215.6-1350/1559-1610 MHz DSRC: 5.785-5.815 GHz
Output power	2G (GSM): Class 1 (30 dBm ±2 dB), Class E2 (26 dBm ±3 dB), Class 4 (33 dBm ±2 dB), Class E2 (27 dBm ±3 dB) 3G (WDCSMA): Class 3 (24 dBm +1/-3 dB) LTE (FDD): Class 3 (23 dBm ±2 dB) DSRC: -14 dBm
GNSS standards	GPS, Galileo, GLONASS

### Back label



- A** - Manufacturer's name and information
- B** - Model name and technical data (IP rating and power supply)
- C** - Device serial number and bar code for DSRC module information
- D** - QR code to access the Telepass website

### Other markings

	Device subject to the WEEE Directive (2012/19/EU).
	Device not subject to the RoHS Directive (2011/65/EU).
CE	CE marking

### Safety and approval conformity

Hereby, the manufacturer Telepass SpA declares that the ETOLLKITL type radio equipment is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following Internet address: <https://www.telepass.com/en/truck/support>

CE	0051-RED-0118
Approval	NSAI as per UNECE R10 regulation

### Warranty

For further information on the warranty, please see the service contract and contact the service provider.

### Manufacturer's data

Telepass SpA  
Via Laurentina, 449 - 00142 Rome (RM) - Italy  
[www.telepass.com](http://www.telepass.com)