

Highway e-toll payment device

Installation manual

Recipients and obligations

This manual is intended for authorized installers of the device (garage). It contains all the instructions to install the device safely and must be kept and accessible for the entire life of the device.

For information on device use, please see the enclosed User manual.

Manual data

Device: K1 Telepass SAT - model ETOLLKITL
Title: Installation manual
Code or edition: v. 1.3
Month and year of publication: OCT 2025
Manual type: translation of the original instructions

Customer service

In the event of malfunctions or faults, directly contact the service provider. To check that the device has been installed correctly, see "Check that installation is correct".

Warranty

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

Limitations

Telepass SpA cannot be held liable for the following.

- Reimbursements for interventions under warranty, repairs or other claims related to the product if the inspection by Telepass SpA confirms that the parts have not been correctly used, stored, installed and maintained, or that the said parts have been subject to contamination, abuse, improper use, modifications or makeshift repairs.
- Reimbursements for direct or indirect personal or property damages due to product use in conditions other than those described in this manual or due to manual, print and spelling errors or omissions.

SAFETY INFORMATION

Always read this section to work with the unit safely.

Safety messages

Warnings related to safety as envisaged in this document are provided below:



CAUTION! Indicates a hazardous situation which, if not avoided, may cause slight injury.

NOTICE: indicates obligations that, if not observed, may cause damage to the product.

Important warnings

This device complies with current safety regulations. If improperly used or installed, it can cause personal and/or property damages. Those who work on this device must follow good working practices for electricians.

Keep out of reach of children.

The use of the device is permitted only in the presence of electrical protections on the vehicle.

Installation, use and maintenance warnings

Electric shock risk



The vehicle battery is live even when the vehicle is not running!

Observe the voltage limits indicated in the technical specifications, the vehicle manufacturer's indications and power cable specifications.

Do not submerge in liquids. Protect the device from rain and/or spray.

Do not allow unqualified and unauthorized personnel to open or tamper with the device. Only contact customer service in the event of malfunctions.

Fire risk



A damaged device can emit smoke and/or catch fire.

Do not use the device if it appears damaged.

Keep away from heat sources, flames and magnetic fields.

If smoke comes from the device, remove it, move it away from the vehicle, and contact customer service immediately to return it to the service provider.

Risk of contact with irritants



Irritant liquid may leak from a damaged device.

Do not use the device if it appears damaged.

If liquid leaks from the device, do not handle it with your bare hands. Contact customer service immediately to return it to the service provider.

Intended use

The device was designed, manufactured and tested to detect road passages through a radio and satellite system. It meets the safety standards required by current regulations if installed according to the instructions provided in this manual and used according to the instructions in User manual.

NOTICE

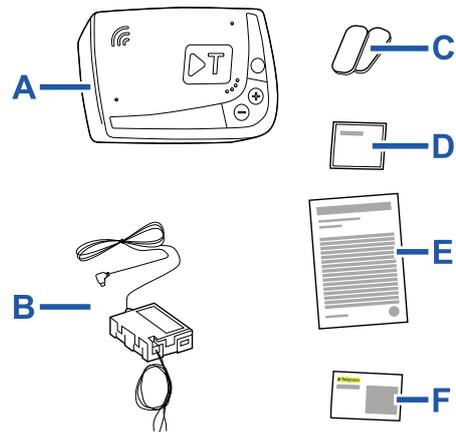
- Install only one device per vehicle. Several units can cause interferences, malfunctions and double toll charges. In this case, Telepass SpA cannot reimburse the extra amount paid.
- Only install the device in the position indicated. Incorrect positioning may cause malfunctions.
- Only install the device on the vehicle for which it was supplied. In the event of license plate change, contact customer service.

PRODUCT KNOWLEDGE

Receipt

Upon receipt of the device, check that the packaging and all components are in perfect condition. Contact the shipping agent in the event of damages.

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.

Operations

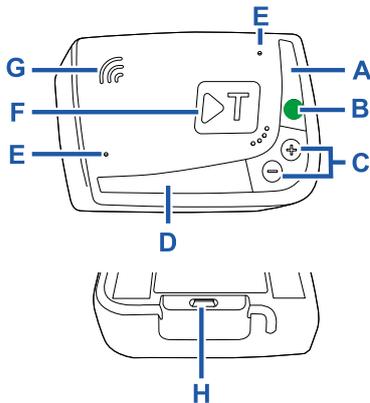
This device performs e-toll payment through a radio or satellite reading system. Where the radio system is used, the passage is detected by antennas placed in dedicated lanes, or on gates positioned in various points of the road network, where the *free-flow* service is available. Where satellite service is used, passage is detected by the GNSS system.

NOTICE: 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.**

The device communicates with the user by voice and acoustic messages.

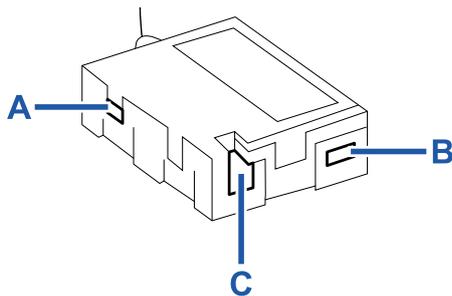
The device must be connected to the vehicle's electrical system according to the instructions in this manual.

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

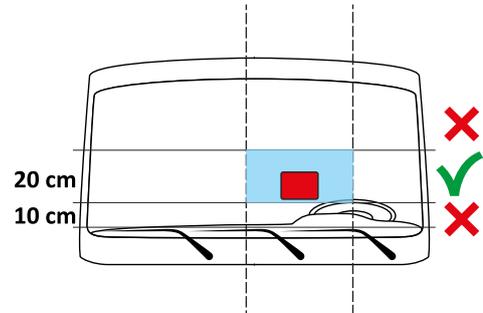
Structure of the smart connection device



- A** - Status LED (blue/yellow/green/red)
- B** - Hirose input
- C** - Molex input

DEVICE INSTALLATION

Position on the windshield



Install in the windshield area as indicated below:

- within a 20 cm band, 10 cm over the idle windshield wiper line
- between the windshield median line and center of the steering wheel.

To identify the shielded windshield zones, please refer to the vehicle documentation.

NOTICE: make sure that the device does not interfere with the driver's field of vision when driving and that it is not within the airbag's range of action.

Installation warnings

NOTICE:

- The fixed installation of the device can only be performed at authorized workshops by suitably qualified personnel.
- Comply with the power cable specifications, the device power limits and the vehicle manufacturer's instructions.
- To ensure the Velcro strip adhesion, install the unit when the ambient temperature is between 20 °C and 40 °C.
- Before installing the device, check that all data included in the vehicle declaration are correct. Otherwise, ask the vehicle's owner for an updated declaration.
- Make sure that device installation does not inhibit the correct operations of the vehicle and electrical devices connected to the electrical system (e.g. tachographs, etc.)
- Make sure that the power cable is not subject to mechanical, heat or chemical stress and does not hinder the driver when driving.

Required material

Two 3 A fuses and relevant fuse boxes.

Voltmeter, 8-32 Volt

Reconnect the power cable to the electric system

This connection procedure is suitable for both types of installation (Molex or Hirose).



CAUTION!

Do not make any other connections (e.g., 1- or 2-wire connections). This would compromise the operation of the device and can cause fines.

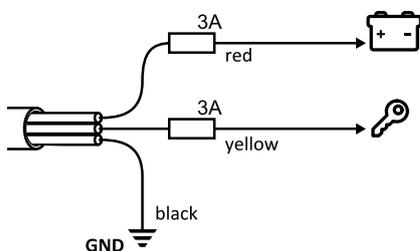
DO NOT short-circuit the three wires.

Comply with the cable specifications and the vehicle manufacturer's instructions.

Make sure that the fuses are easy to access and replaceable.

DO NOT connect the device to the electronic control units (ECU).

1. Connect the three wires according to the following diagram.



2. Measure the connection voltage using the voltmeter. The optimum value is between 15 and 32 Volt.

NOTICE: when the voltage is outside of this range, proper operation of the device cannot be guaranteed.

Check that installation is correct

NOTICE: Perform all of the steps in this procedure to guarantee the K1 device is connected and operating correctly.

1. Make certain the panel is switched off.
2. Insert the cable jack connected to the electric system in the respective input of the smart connection device (Molex or Hirose): the connection status LED switches on, first blue and then yellow.
3. Switch on the panel: the LED remains yellow.
4. Switch off the panel: the LED remains yellow.
5. Wait 5 seconds, then switch on the panel again.
 - If the LED turns green, the connection is correct.
 - If the LED remains yellow, switch off the panel and repeat step 3.

If the LED always remains yellow, check the connection to the electric system. See "Reconnect the power cable to the electric system".

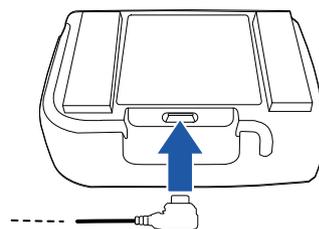
6. Switch off the panel: the LED turns red.
7. Switch on the panel: the LED turns green.
8. Switch off the panel and leave it off. The LED turns red and, after 15 minutes, switches off.

Transfer the smart connection device to another vehicle

If the smart connection device is transferred to another vehicle, check the connection:

1. Switch the panel on and off and check the LED status.
2. If the LED turns green when on and red when the panel is switched off, it has been installed correctly.
3. If the LED remains yellow, the connection is incorrect. Repeat the connection procedure, "Check that installation is correct".

Check the device's connection to the power supply

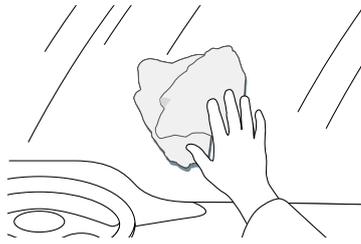


1. Firmly insert the jack into the power socket on the K1 device.
2. Switch on the panel: the green LED status light will be illuminated on the device. If there is a fault, the red LED status light will flash or remain on.
3. Switch off the panel: the green LED status light flashes three times and then switches off.

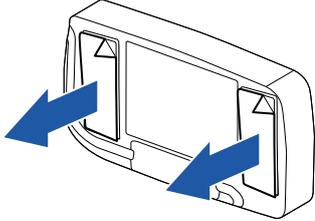
For further information on the LEDs on the device, see the User manual enclosed.

NOTICE: Once installation and checks have been completed, return the smart connection device inside the dashboard.

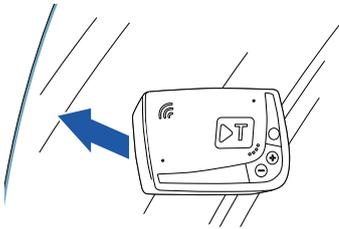
Position the device on the windshield



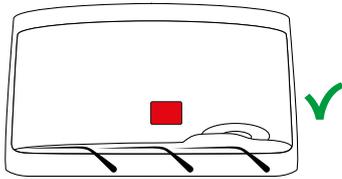
1. Clean the application area on the windshield carefully, using a multipurpose detergent.



2. Remove the protective film from the sticker.



3. Place the device horizontally on the clean windshield.



4. Check for air bubbles in the adhesive area. Press firmly the device against the windshield.

NOTICE: make sure that the power cable is not subject to mechanical, thermal or chemical stress.

MAINTENANCE AND DISPOSAL

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.

Disposal liability



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.

Batteries and accumulators



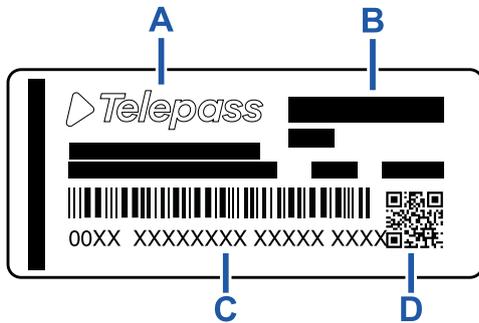
CAUTION! Toxic substances in the Li-Ion battery. Intoxication, pollution and environmental damages. DO NOT remove and dispose of the battery. Return the entire device as indicated in the operating instructions.



CAUTION! Risk of explosion. DO NOT expose the device to high temperatures.

TECHNICAL SPECIFICATIONS

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

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

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