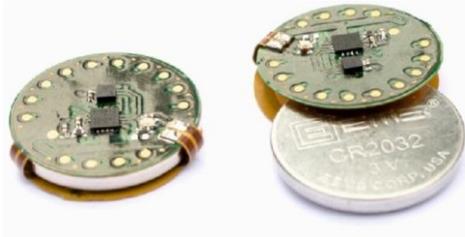


Keyless Defender

electronic chip for keyless vehicle protection

Keyless Defender is designed to protect vehicles against attack by Keyless Extender. The Keyless Defender, or chip, is inserted into the vehicle's key and disconnects the battery when the key is not in use. This prevents the vehicle from being attacked by an extender.



Due to the different mechanical design of keys, it is necessary to select an appropriate chip for a specific key. There are 3 chip variants for the most common types of keys - KD01, KD02 and KD03. KD01 and KD02 for CR2032 and CR2025, KD03 for CR2450 with 3V. **The specific type will always be recommended by your distributor depending on your key/vehicle type.**

Installation: The chip can be installed by the distributor or by trained staff. The installation is simple, just like replacing the battery in the key. As part of the set, we recommend to use the new battery which will guarantee long-time functionality. The actual disassembling of the key is described in the vehicle user's manual, or it can be found on the internet, for example: www.youtube.com for example: under the title *How to change key battery Skoda Octavia 2015*. After disassembling the key and removing the original battery, wrap the chip around the new battery and insert back into the key. Avoid to cause any damage to the chip or key. The insertion of the chip into one particular key is shown on the packaging. The orientation of the battery and chip poles is always that the + pole of the battery touches the part of the chip with the mounted parts. In certain cases, it is not possible to use the same type of battery, usually CR2032, due to lack of space. In these cases, it is possible to use a CR2025 battery, which is thinner.

Functional test: An electronic LED is part of the chip electronics. The first time the battery is connected to the chip, the LED indicates the firmware version and then always blinks when the key movement starts/stops. In this mode, it is possible to verify the function of the motion sensor of the chip. Movement LED indication is active only 1 minute after the battery is connected to the chip, then shuts down to save battery power. After each installation the following test is recommended. With the key, access the vehicle, use the keyless function to open, get into the car, start the engine, then turn it off again. Then place the key, for example, in the centre console (or any other place where it is not in motion). Wait for 3 minutes and try to start the engine without moving the key. If the chip is properly installed, the engine will not start and the vehicle will display a message saying the key is not in the vehicle. Any movement of the key activates the chip and the next attempt to start the engine will be successful.

Standard function: The chip is designed to maintain all comfort features provided by the original keyless system. The principle of the function implies that if the chip is idle for more than 3 minutes, the key will be deactivated. This can happen in case of a longer stopping of the vehicle, for example in a traffic jam, or if the driver turns off the ignition for more than 3 minutes. To be able to start again, it is necessary to move the chip again! If communication with the key is lost and the engine is already started, **the engine never stops.** This can only happen by taking the key out of the vehicle or by disconnecting the battery from the key, after 3 minutes without movement. The start-stop system can turn the engine off, but if the ignition is not turned off, the engine starts again without the key, the vehicle only displays that the key is not in the vehicle. Different manufacturers can provide different Keyless system functions. **Always inform all vehicle users about the chip function!**

Chip technical parameters:

Temperature range: from -40 to +85°C, humidity resistance (varnishing)

Power consumption: chip average consumption 1uA

Battery disconnection time: 3 minutes from last movement

Battery connection time: immediate after movement detection

Other parameters: 3D motion sensor, disconnection of negative battery pole, utility pattern 



Warranty conditions:

The manufacturer's warranty applies to the product itself, not to its installation. The installer is responsible for the installation. The warranty also does not apply to any battery, key or vehicle. If the installation is done correctly in accordance with this installation manual, the product is provided with a warranty period of 24 months. The manufacturer and distributor provide warranty service only when correct installation can be proved by performing a test. The manufacturer is not responsible for damages caused by improper or inappropriate use of the product, or for defects caused by intentional damage or damage by force majeure (fire, lightning, water etc.) The manufacturer recommends regular monthly check-ups for 100% product functionality.

In case of any trouble...

If the vehicle is not responding to the keyless system or cannot be opened by using the key, then perform the service procedure according to the manufacturer's instructions. This procedure is recommended when the key is defective or the battery is low. Typically, it is the use of a mechanical key inserted in the key fob which unlocks the vehicle by inserting it in the designated slot, usually marked START. This slot is usually covered by a plug which needs to be removed. For any additional assistance, please contact your local distributor or installer. You can also contact the manufacturer at:

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Distributor: