

VOLKSWAGEN

AKTIENGESELLSCHAFT



Operating manual

Rollover Protection System Test Device VAS 611 005



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Legal notice

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Preliminary information

Read through this operating manual carefully before using the product.

The product is delivered with a USB stick containing the operating manual in various languages. You can find the current version and additional languages on our homepage.

There is a QR code on the product. You can scan this QR code with a device that is connected to the internet to go directly to the download area for your product.

All operating manuals are an essential part of the product and must be kept together with the product. If you sell or transfer ownership of the product, the operating manuals must be handed over to the new operator.

In addition to the operating manuals, all the relevant regulations of the vehicle manufacturer for working with the rollover protection system are binding. They include but are not limited to: instructions from the vehicle manufacturer and the operator, company-specific safety requirements and the latest engineering standards for working with the rollover protection system.

Validity of the declaration of conformity

The declaration of conformity applies to the product described in the operating manual. Any changes, modifications or extensions shall void the declaration of conformity and the risk assessment.

Manufacturer specifications

Since its founding, our company has focused on groundbreaking solutions for electromobility. STODIA GmbH develops and produces custom solutions for the automotive industry, the energy storage sector, repair shops and special vehicle fleets.

Our core products are innovative energy storage systems, both stationary and mobile, which are essential technologies for advancing the energy revolution and energy autonomy. STODIA's portfolio also includes smart charging and battery technology, diagnostic systems, battery and cell management, and vehicle-wide measurement and diagnostic technology.

With experience in both software and hardware development, STODIA GmbH is your dependable partner at every production stage, from prototyping to series production – MADE IN GERMANY.

This operating manual is only valid for the following product:

Item number 22101199

Designation Rollover Protection System Test Device VAS 611 005

Warning levels

This chapter provides information about the warning levels used in this operating manual.

DANGER

Failure to observe the safety instructions **WILL** result in death or serious injury!

WARNING

Failure to observe with the safety instructions **CAN** result in death or serious injury!

CAUTION

Failure to observe the safety instructions can lead to damage to the product!

Important safety instructions

This chapter contains the safety instructions that must be observed when handling the product.



DANGER

Danger to life due to explosion

Uncontrolled triggering of the rollover protection system will result in death and serious injury.

Penetrating liquids and moisture may cause short circuits. Short circuits can lead to uncontrolled triggering of the rollover protection system.

- Do not let the product come into contact with liquids!
- Do not let the product come into contact with chemicals!
- Do not use the product outdoors or in damp environments!
- Protect the product against the effects of all kinds of weather!
- Do not attempt to open or damage the product!



WARNING

Danger to life due to serious bodily injury

When the test device is used, the safety locks of the rollover protection are overridden. The forces released by the triggering rollover protection can result in serious or even fatal injuries!

- Do not connect the test device to the vehicle until you are instructed to do so in the operating manual!
- Warn others before using the test device and always make sure that nobody is within the effective range of the rollover protection!



CAUTION

Risk of damage!

Products can be damaged if they fall.

- Be sure never to throw or drop the product!

Personal protective equipment



The following personal protective equipment must be worn when working with the product:

- Wear eye and ear protection at all times!

Intended use

The rollover protection system test device is used to check the function of the rollover protection system.

The rollover protection system test device can be updated, allowing it to be adapted to future applications with a firmware update.

Use only the plug connections on the vehicle that the manufacturer has specified in the guided fault finding.

In this operating manual, vehicle manufacturers are exclusively defined as vehicle manufacturers in the Volkswagen Group.

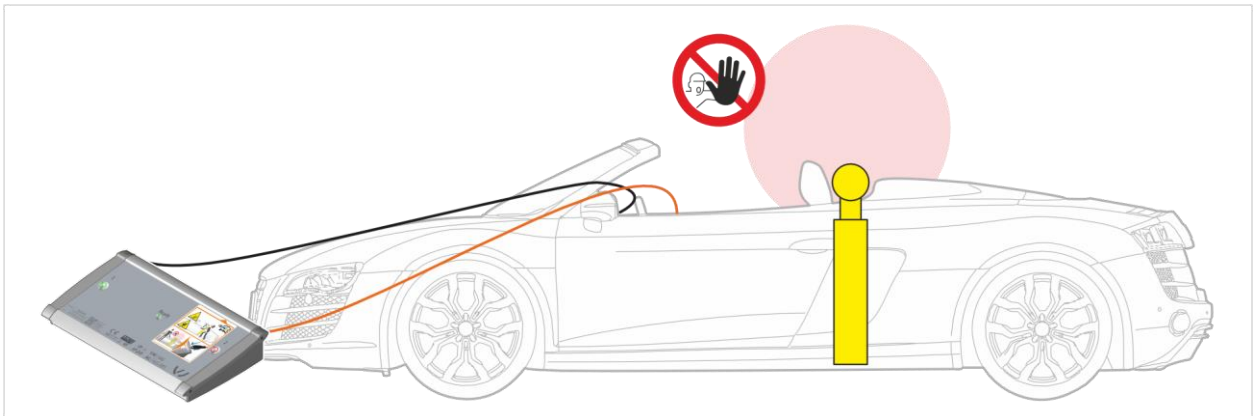
Any use beyond what is listed here is prohibited.

Safety zone

Operating the test device triggers the rollover protection system. To avoid serious injury when testing the rollover protection system, the user must remain within the safety zone of the vehicle being tested. At no time may the user or any other person be within the effective range of the rollover protection system while the test device is connected.

The safety zone of the vehicle is specified by the guided fault finding.

The effective range of the rollover protection is shown in the following illustration.



Requirements for the target group

Only qualified personnel may work with this product!

In this operating manual, qualified personnel is defined as personnel meeting the following requirements:

- Personnel must have received comprehensive training on working with the product from the manufacturer.
- Personnel must have received comprehensive training on working with the rollover protection system of the vehicle to be tested.
- Personnel must not be under the influence of medication or drugs while using the equipment!

Duties of the operator

The operator is responsible for ensuring that all staff working with the test device fulfills the requirements for the target group.

Furthermore, the operator is responsible for ensuring the following:

- The test device is always in perfect working order.
- The regular inspection periods for the test device and all components are observed and logged.
- The statutory and trade association inspection periods for the operation of electrical devices are observed.

Scope of delivery

Immediately check the condition of the product and the completeness of the delivery. If anything is missing or defective, please contact the manufacturer immediately.



- (1) Carrying case
- (2) Test device for rollover protection system VAS 611 005/1
- (3) Interface cable for rollover protection system
- (4) USB cable (USB-A to Mini USB-B)
- (5) USB stick with operating manuals

Design

Test device

Product design:



- (1) Test device
- (2) 12 V vehicle electrical system cable
- (3) USB port
- (4) Rollover protection interface

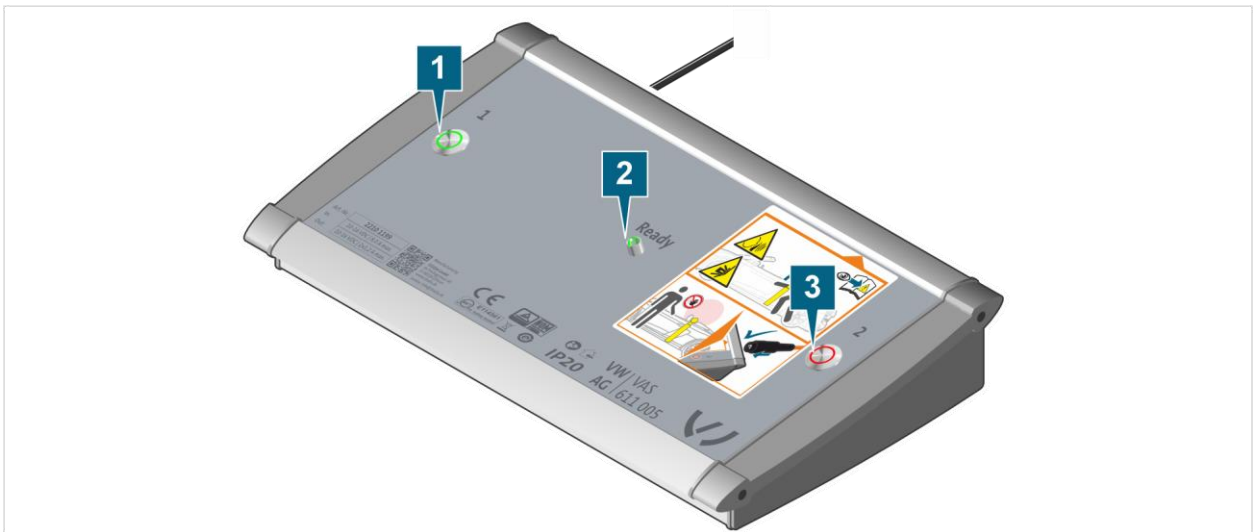
Interface cable for rollover protection system VAS 611 005/1



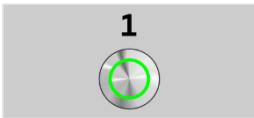

- (1) Plug for test device
- (2) Plug for rollover protection vehicle interface

Displays and controls

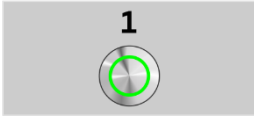


The product is equipped with the following displays and controls:



Controls

| Item | Description | Function |
|------|---|--|
| 1 |  Button 1 | Press this button to initialize the rollover protection system testing device. |
| 3 |  Button 2 | Press this button to perform the rollover protection system function test. |

Displays

| Item | Description | Function |
|------|---|--|
| 1 |  Illuminated ring on button 1 (green) | Display of operational readiness: <ul style="list-style-type: none"> Illuminated ring lights up: the test device is ready for operation. Illuminated ring off: the test device is not ready for operation. |
| 2 |  Status LED | Display of operating statuses: <p>LED flashes continuously: The vehicle voltage is too low, the function test of the rollover protection system cannot be carried out.</p> <ul style="list-style-type: none"> LED flashes for 5 seconds: The test device initializes the function test. LED lights up (when illuminated ring button 1 is pressed): initialization is complete, the function test of the rollover protection system can be carried out. |
| 3 |  Illuminated ring on button 2 (red) | Display of connection to the vehicle: <p>Illuminated ring lights up: the testing device is connected to the vehicle.</p> <ul style="list-style-type: none"> Illuminated ring off: the testing device is not connected to the vehicle. |

Symbols and connections

The product features a nameplate and a warning sign.







- (1) Nameplate
- (2) Warning sign

1.1.1 Nameplate

The following symbols are shown on the nameplate:

| Symbol | Meaning |
|--------|---|
| | Read the operating manual! |
| | The serial number is used in conjunction with the manufacturer part number to identify the product. |
| | The manufacturer part number is used in conjunction with the serial number to identify the product. |
| | Indicates that the product must not be operated outdoors. |
| | The product complies with protection class IP20: <ul style="list-style-type: none"> • The product is protected against solid foreign objects with a diameter of at least 12.5 mm. • The product is not protected against liquids. |
| | The disposal instructions prohibit disposal of the product with household waste. Always dispose of the product in accordance with all local disposal regulations. |
| | The CE marking certifies that the product complies with all applicable European regulations and has been subjected to the prescribed conformity assessment procedure. |

| Symbol | Meaning |
|---|--|
|  | The test seal identifies the product as having been approved for use in workshops and production facilities belonging to the vehicle manufacturer. |
|  | The NOM mark identifies the product as a safe product that has been tested and certified by an NRTL in accordance with applicable standards. |
|  | The cMETus mark indicates that the product has been tested and certified by an NRTL in accordance with applicable standards. The manufacturer is listed under the number E114561 at the Eurofins testing labs. |
|  | QR code for accessing the operating manual on mobile devices. |

1.1.2 Warning sign

The warning sign is located near the socket for the interface cable to the rollover protection system and warns of the dangers that can arise from the rollover protection system if the testing device is operated incorrectly.

The warning sign must never be removed!

If the warning sign becomes dirty, worn or difficult to read, contact the manufacturer!

Technical data

| Rated data | Values |
|---|--|
| Manufacturer number | 22101199 |
| Input voltage vehicle power plug | DC 10-16 V |
| Input voltage USB port | DC 4.45 – 5.50 V |
| Maximum rated current vehicle power plug | 8 A |
| Output voltage rollover protection system interface | DC 10-16 V |
| Protection class | III (safety extra-low voltage) |
| Weight | ~ 1400 g |
| Dimensions L/H/W | ~ 380 mm/70 mm/190 mm |
| Cable lengths | 12 V vehicle electrical system cable: 2 m USB cable: 1.8 m Interface cable for rollover protection system: 3.4 m |

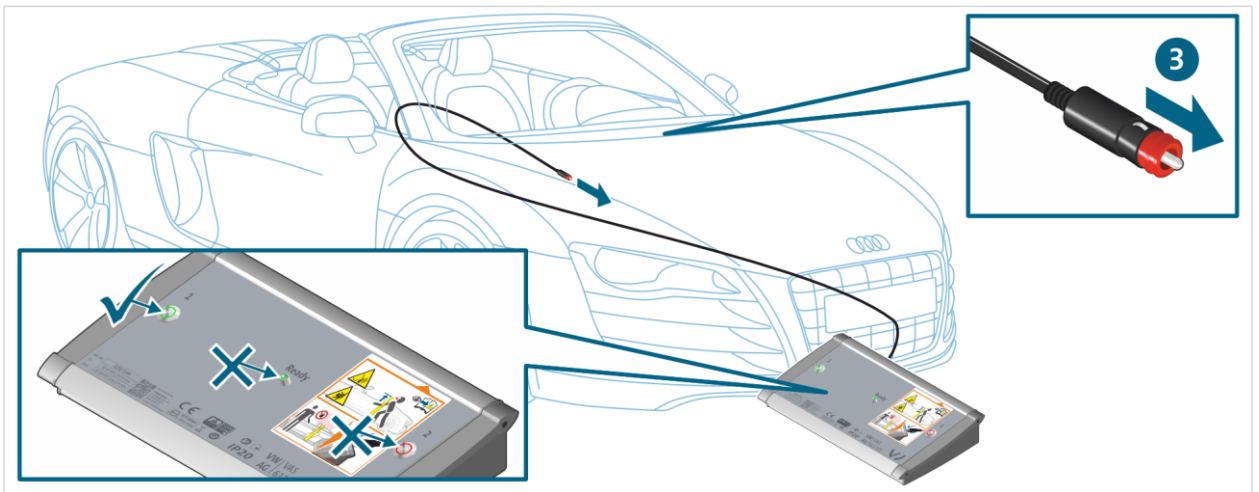
| Ambient conditions | Operation | Storage | Transportation |
|---------------------------|---|-----------------|-----------------|
| Temperature | 5 °C to 40 °C | -20 °C to 55 °C | -20 °C to 55 °C |
| Elevation above sea level | Max. 4000 m | No limitation | |
| Humidity | Max. 80% up to 31 °C, decreasing linearly to 50% at 40 °C | Max. 80% | |
| Pollution rating | 2 | | |
| Condensation | Not permitted. Maximum permissible relative humidity: 60% in environments with corrosive gas/air. | | |

Startup

1. Follow the safety instructions.



2. Establish a constant power supply to the vehicle to be tested (e.g., using a battery charger).
3. Connect the test device to the 12 V socket of the vehicle to be tested. Turn on the ignition on the vehicle to be tested (see operating manual of the vehicle to be tested).



- ⇒ The illuminated ring on button 1 lights up. No other lights may light up!
- ✓ The testing device is in operation. You can perform the rollover protection system test.

Testing the rollover protection system



WARNING

Risk of injury due to sudden sound pressure

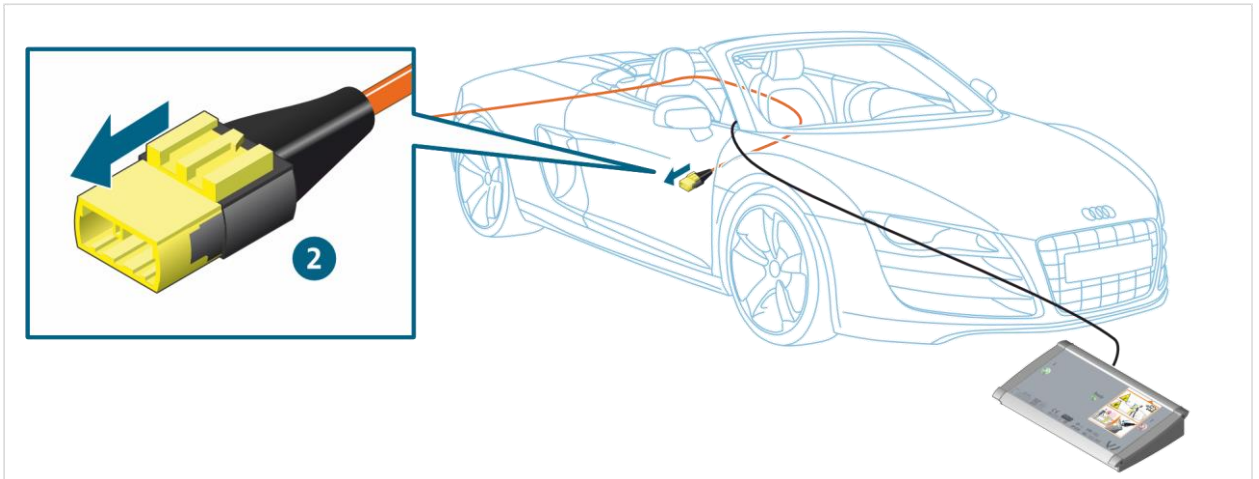
Triggering the rollover protection system can cause serious hearing damage.

- Always wear the recommended protective equipment when working with the product!
- Warn others before triggering the rollover protection system!
- Make sure that other people keep a safe distance of at least 2 m from the vehicle!
- Stay in the recommended safety zone when working with the product!

1. Follow the safety instructions.



2. Connect the interface cable to the rollover protection system interface on the vehicle to be tested.



3. Position yourself together with the test device in the safety area. The safety zone of the vehicle is specified by the guided fault finding.

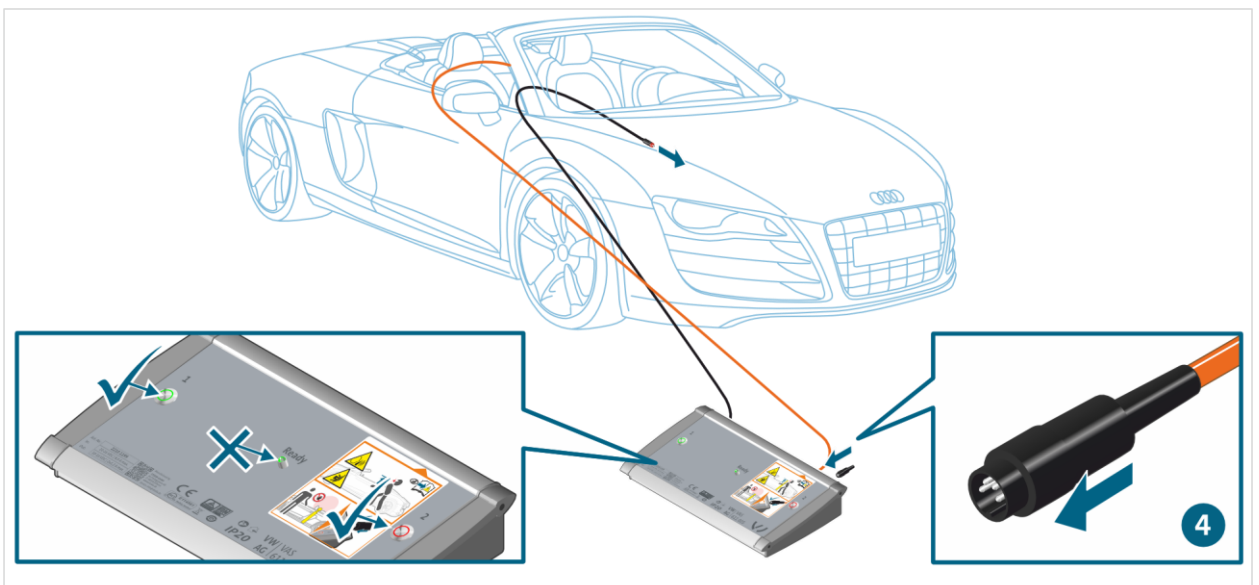


WARNING

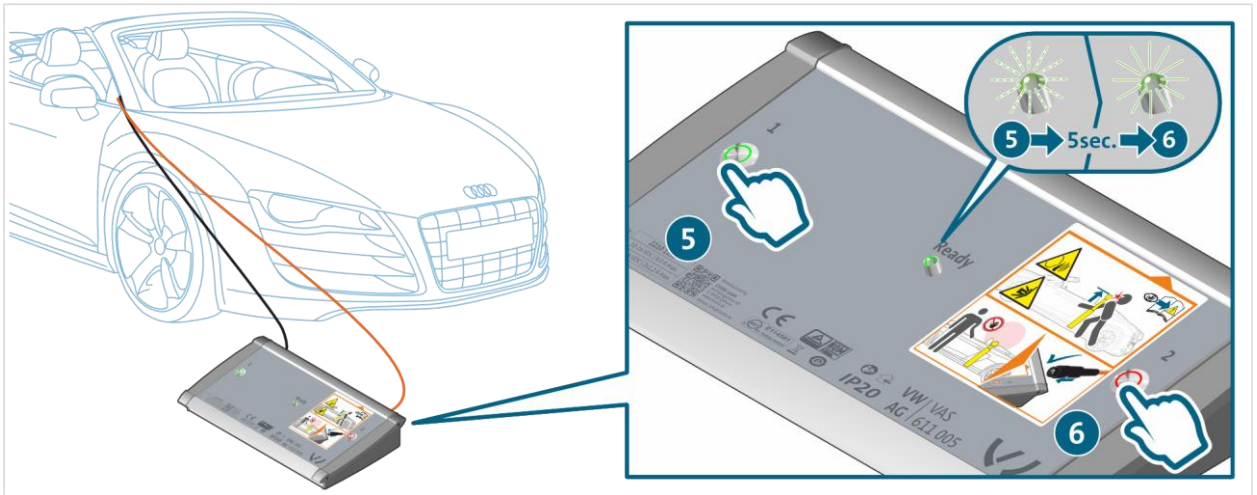
Danger to life due to serious bodily injury

When the test device is used, the safety locks of the rollover protection are overridden. The forces released by the triggering rollover protection can result in serious or even fatal injuries!

- Warn others before using the test device and always make sure that nobody is within the effective range of the rollover protection!
4. Connect the interface cable to the rollover protection system interface on the test device.
⇒ The illuminated rings on buttons 1 and 2 light up. The test device is ready to perform the test.



5. Press and hold the illuminated ring button 1 until the end of the test.
⇒ The status LED flashes for 5 seconds.
6. As soon as the status LED lights up, briefly press the illuminated ring button 2 within 5 seconds.



- ⇒ The rollover protection system is triggered.
7. Release the illuminated ring button 1.
 8. Disconnect all cable connections to the tested vehicle.
- ✓ The test of the rollover protection system is finished.

Cleaning

- Observe the safety instructions!
- Use only a dry cloth to clean the product.

Storage and transportation

Store and transport the product only in the carrying case (see the “Scope of delivery” section).

Disposal

- Observe the safety instructions!
- Always dispose of the product in accordance with all local disposal regulations.

Maintenance

- Observe the safety instructions!
- National and local requirements for regular testing must be observed!
- Test the product for proper function at intervals of no more than 24 months.
- Contact the manufacturer to have a professional function test performed.

Warranty

STODIA GmbH grants a warranty period of 24 months from the date of purchase. The warranty is valid for demonstrable defects in functional material and workmanship.

Further information on the warranty conditions can be found in the terms and conditions on the manufacturer's website.

Customer service

Always include the item number and, if available, the serial number with any product queries. Both numbers are found on the product.

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