

# VOLKSWAGEN

AKTIENGESELLSCHAFT



## Operating manual

Diagnostic adapter VAS 611 009



Revision	Date	Reason
<b>V00</b>	01.05.2018	First edition
<b>V01</b>	28.02.2022	Complete revision Transfer to Stodia
<b>V02</b>	24.01.2024	Updating of certificates: China RoHS, UL

## Legal notice

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### Image sources

Symbols for warnings, prohibitions, mandatory actions and standards are taken from publicly accessible sources, such as the Internet. CAD product images and product photos are provided by the manufacturer. Images showing the product in use are provided with a reference to the source.

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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.

The operating manual is 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 manual must be handed over to the new operator.

In addition to this operating manual, you must observe all relevant regulations for diagnostics or fault finding of intrinsically safe high-voltage systems in road vehicles. This includes but is not limited to: instructions for the vehicle manufacturer's diagnostics systems, company-specific safety requirements and the state of the art for working with high-voltage systems.

# 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.

This operating manual is only valid for the following product:

Item number 22101863

Designation Diagnostic adapter VAS 611 009

## 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** result in minor physical 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 of fatal electric shock!**

The electrical voltage in other systems is lethal and will cause death by electric shock!

- Do not use the product for measurements on utility power circuits!
- Never attempt to power other devices with the product!



## WARNING

### **Danger of fatal electric shock!**

The electrical voltage in high-voltage systems is lethal and can cause death by electric shock!

Liquids, condensation and high humidity can cause short circuits!

- Do not let the product come into contact with liquids!
- Use the product only in dry and enclosed spaces!



## WARNING

### **Danger of fatal electric shock!**

The electrical voltage in the product is dangerous and can cause serious injury or death from electric shock!

Defective and damaged products cannot guarantee protection against electrical voltage!

- Do not let the product come into contact with chemicals!
- Replace a defective or damaged product immediately!
- Never attempt to repair or tamper with the product!

## Intended use

The product is a diagnostic adapter that is used for performing diagnostics (identification, measurement values, event log) and software updates on the e-tron 2nd generation charging system (2018 and later).

The product is connected between the charging system and the various cables on the infrastructure side.

The product may only be connected to the vehicle plug connection that the vehicle 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.

## Requirements for the target group

Only qualified personnel may work with this product!

In this operating manual, qualified personnel is defined as personnel meeting all requirements for working on motor vehicles and their diagnostics systems that are applicable in the country of operation, as defined by:

- Regulations applicable in the country of operation
- Specifications from the vehicle manufacturer and/or the operator.

At all times while using the product, staff must wear the personal protective equipment prescribed by the vehicle manufacturer for work on motor vehicles and their diagnostics systems.

## Duties of the operator

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

Furthermore, the operator is responsible for ensuring the following:

- The diagnostic adapter is always in perfect working order.
- The regular inspection intervals for the diagnostic adapter are observed and recorded.

## 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.

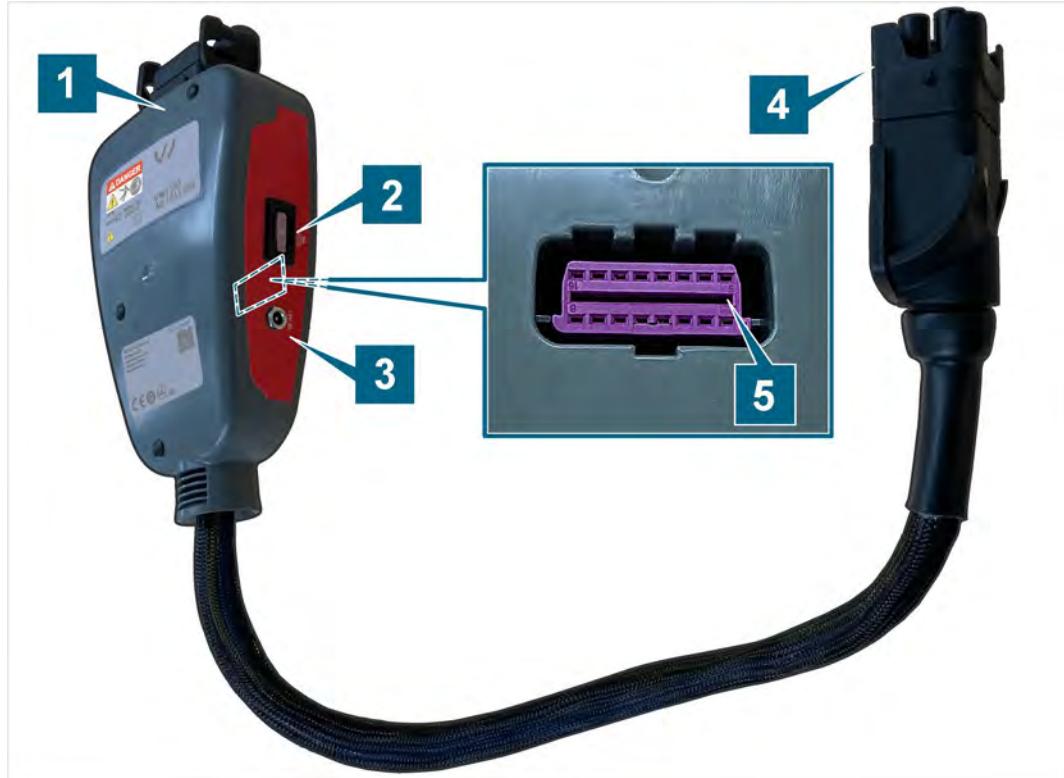


- (1) Carrying case VAS 611 009/3
- (2) Diagnostic adapter VAS 611 009
- (3) Universal power supply VAS 611 009/1
- (4) EU power supply cable VAS 611 009/2
- (5) USB stick with operating manual



## Design





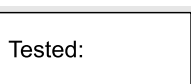






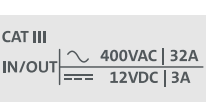
Product design:



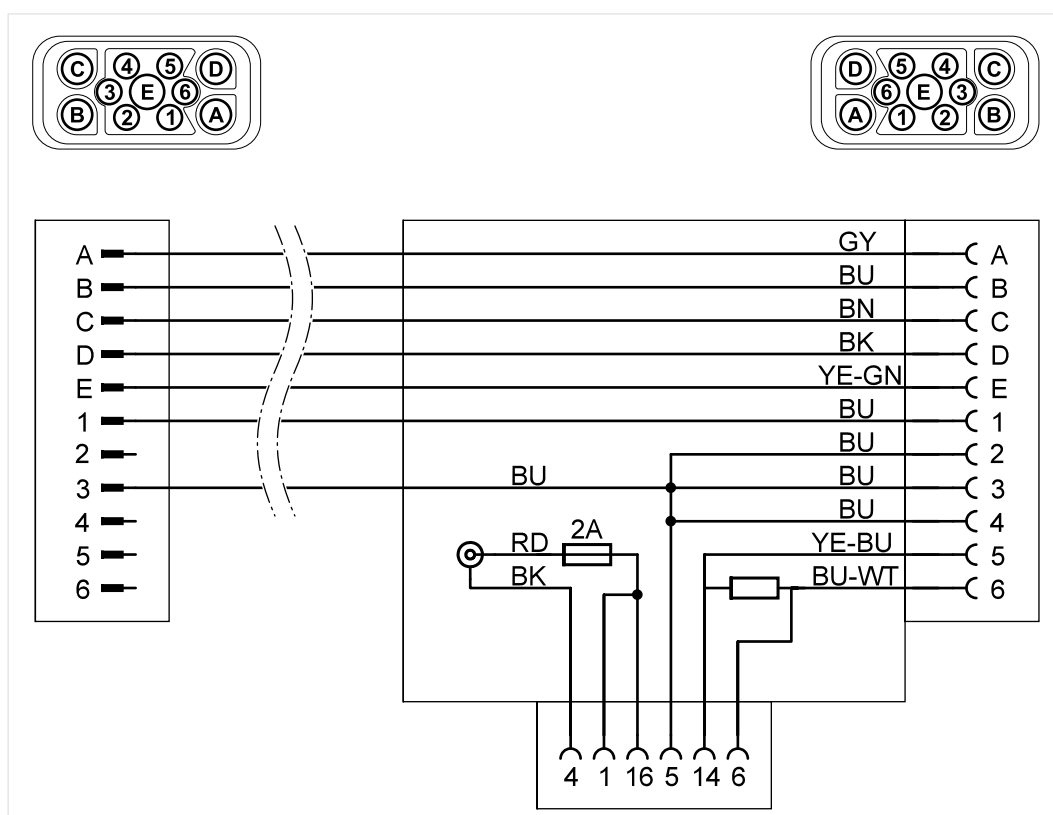
- (1) Socket for universal charging cable
- (2) Vehicle blade fuse, 3 A, 32 V, violet (ISO 8820-3)
- (3) Power supply socket
- (4) Plug for plug connection on vehicle
- (5) OBD socket (on rear)

## Symbols and connections

The following symbols are shown on the product:

Symbol	Meaning
	General warning symbols
	Electrical hazard! 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.
	Date of manufacturer's test
	The product complies with protection class II, meaning it has increased or double insulation between active and accessible parts in accordance with VDE 0100, Part 410/412.1.
	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.
	This label certifies that the product complies with the limits of GB/T 26572-2011 ("China-ROHS").
	The TÜVus mark indicates that the product has been tested and certified by an NRTL in accordance with applicable standards.
	The test seal identifies the product as having been approved for use in workshops and production facilities belonging to the vehicle manufacturer.
	Indicates that the product is intended for measurements up to a maximum of AC 300 V in accordance with IEC 61010-31. The maximum permissible input and output currents are specified.
	Schematic wiring diagram (see wiring diagram)

# Wiring diagram



## Technical data

Rated data	Values
Manufacturer number	22101863
Rated voltage	AC 400 V
Max. rated current	32 A
Input voltage	DC 12 V
Input current	Max. 3 A
Fuses	Vehicle blade fuse, 3 A, DC 32 V, violet (ISO 8820-3)
Protection class	II / double insulated
Weight	~ 900 g
Dimensions L/H/W	~ 200 mm / 130 mm / 50 mm
Cable length	~ 440 mm

Ambient conditions	Operation	Storage	Transportation
Temperature	5°C to 40°C	-20°C to 60°C	-20°C to 60°C
Elevation above sea level	Max. 2000 m	No limitation.	
Humidity	Max. 80% up to 31°C, decreasing linearly to 50% at 40°C	Max. 85%	
	Condensation not permitted. Maximum permissible relative humidity: 60% in environments with corrosive gas/air.		



## WARNING

### Danger of fatal electric shock!

The electrical voltage in high-voltage systems is lethal and can cause death by electric shock!

- Use the product only for the applications intended by the vehicle manufacturer!



## WARNING

### Risk of explosion!

Product components may produce sparks and electric arcs.

- Never disconnect high-voltage plug connections while under load!
- Do not use the product in potentially explosive atmospheres!
- Ensure that the product is at least 50 cm above the ground during operation!



## CAUTION

### Risk of damage!

Products can be damaged if they fall.

- Be sure never to throw or drop the product!



## CAUTION

### Risk of damage!

Plug connections lock into place when attached.

- Unlock the plug connections before you detach them! (See chapter “Detaching the plug connections”)

# Startup

## Connecting the power supply



The following illustration of the power supply plug and power socket is only an example and may differ from the equipment in your country.



1. Follow the safety instructions.

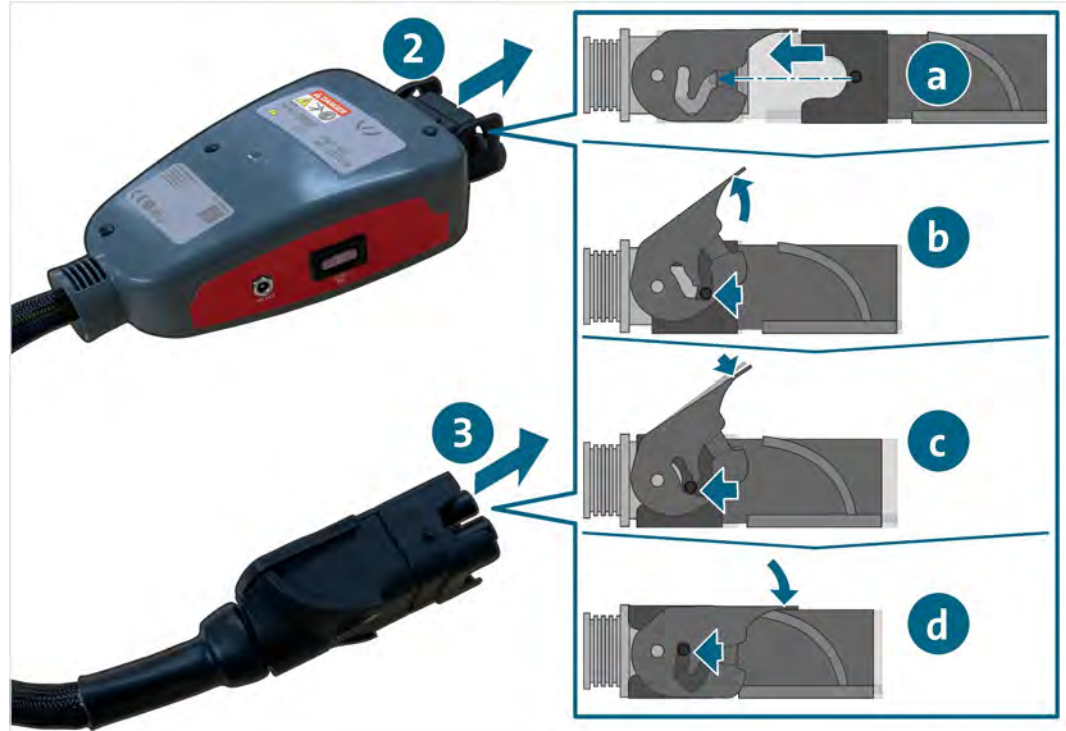


2. Plug the power supply connector into the power supply.
  3. Plug the power supply plug into the power socket.
  4. Connect the power supply to the power supply socket on the diagnostic adapter.
- ✓ The power supply is now connected and you can begin using the diagnostic adapter.

## Connecting the diagnostic adapter to the universal charging cable



1. Follow the safety instructions.

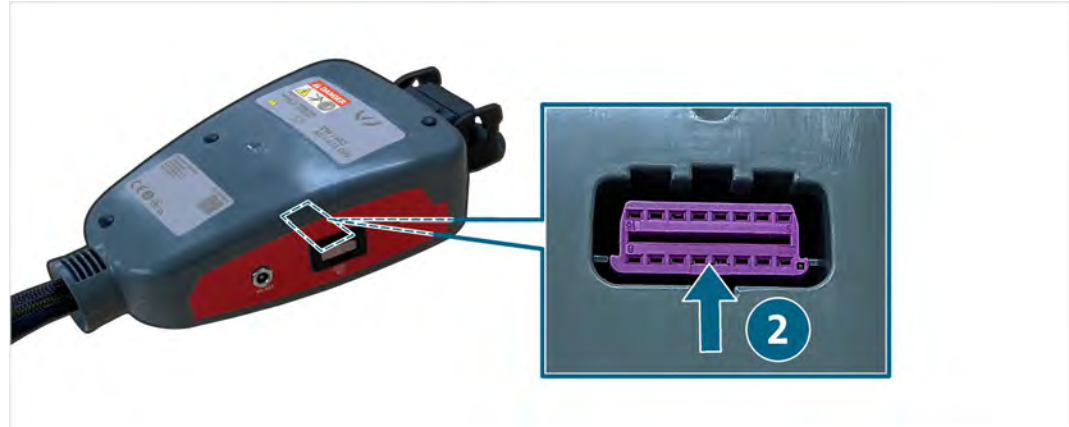


2. Connect the socket to the universal charging cable. Follow steps a) to d) to lock the plug connection.
  3. Connect the plug to the plug connector on the vehicle. Follow steps a) to d) to lock the plug connection.
- ✓ You can now perform measurements on the universal charging cable.

## Connecting the diagnostic adapter to the OBD interface



1. Follow the safety instructions.



2. Connect the OBD interface to the OBD socket on the rear of the diagnostic adapter.
- ✓ You can now read out the error log via the OBD interface.

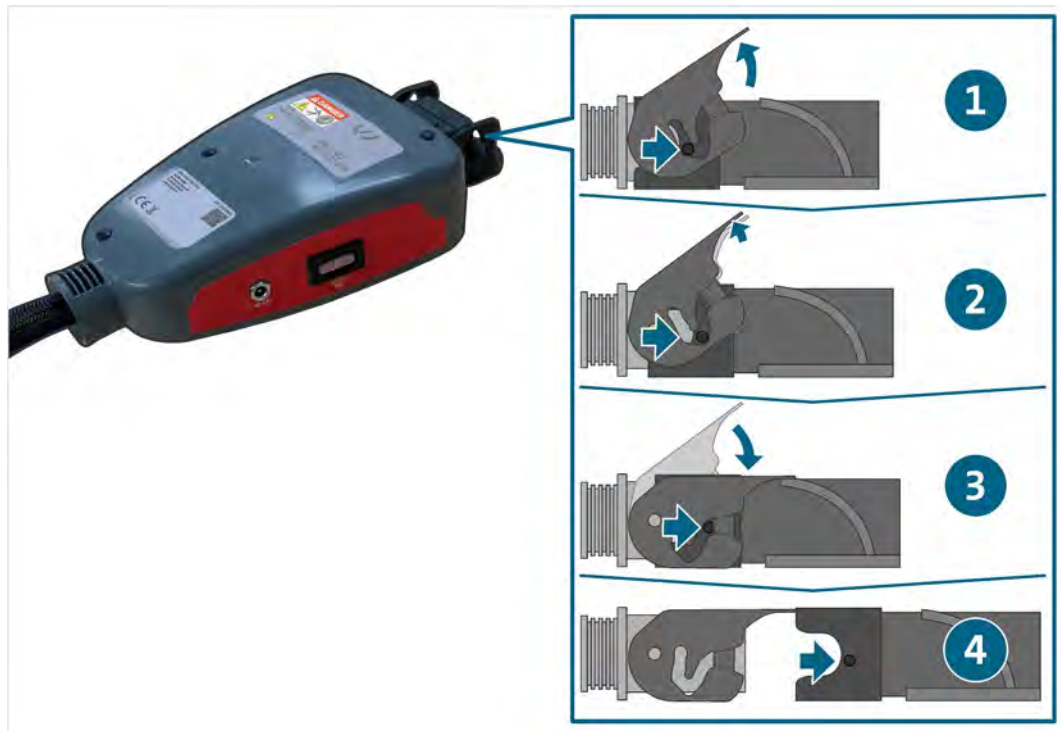


# Detaching the plug connections

## Detaching the universal charging cable plug connection

The plug connections have a locking mechanism. To detach a plug connection:

1. Swivel the handle slightly upward and pull the plug connection apart slightly.
2. Pull the plug connection further apart with the handle as far up as it will go.
3. Swing the handle down as far as it will go.
4. Pull the plug connection apart.



✓ The plug connection is now detached.

## Cleaning



### **DANGER**

#### **Danger of fatal electric shock!**

The electrical voltage in high-voltage systems is lethal and will cause death by electric shock!

- Disconnect the product from all power sources before cleaning the product!

Observe the safety instructions!

Use only a dry cloth to clean the product.

## Storage

Store the product in a dry and dust-free location when not in use.

## 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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