

VOLKSWAGEN AG

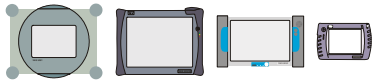
Vehicle Diagnostic and Service Informations system VAS 5053

Operating Manual A01.3

08/04

Ausgabestand: 06.08.04, A01.3





Safety Instructions

Meaning of symbols

The safety instructions in the Operating Manual, the Startup/Unpacking Instructions or in other documentation provided, on screen displays on the tester during operation and on the products themselves use symbols with the following meanings:



Warning!


Text with this symbol contains information for your safety and how you can reduce the risk of severe or fatal injury.

The **WARNING**  symbol warrants particular attention for your safety.



Caution!


Text with this symbol contains information about how you can avoid damage to the vehicle and the tester.

The **Caution**  symbol tells you that if the information is ignored, damage to the vehicle and/or the tester could result (e.g.: Ensure that the touchscreen is not touched with sharp, edged objects).



Note

Text with this symbol contains additional, useful information.

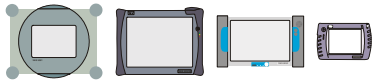
A **Note**  symbol contains other, special instructions for using the device, and related information.



Note

The general safety instructions are listed in the following. Further instructions are to be found in the Operating Manual. Therefore read **the Operating Manual** before use.

Safety instructions may also appear on the screen of the tester. Follow all the instructions displayed.



IMPORTANT SAFETY INSTRUCTIONS



1. Warning!

Read all instructions.



2. Warning!

Do not operate equipment with a damaged cord or if the equipment has been damaged - until it has been examined by a qualified serviceman.



3. Warning!

Do not let cord hang over edge of table, bench or counter, or come in contact with hot manifolds or moving fan blades.



4. Warning!

An extension cord is not allowed. For testing use only specified cables.



5. Warning!

Always unplug equipment from electrical outlet when not in use. Never yank cord to pull plug from outlet. Grasp plug and pull to disconnect.



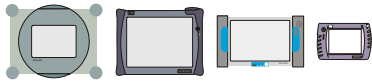
6. Warning!

To protect against risk of fire, do not operate equipment in the vicinity of open containers of fuel (gasoline).

Risk of explosion

This equipment has internal arcing or sparking parts which should not be exposed to flammable vapour.

This equipment should be located at least 460 mm (18 inches) above the floor.

**7. Warning!**

Adequate ventilation should be provided when working on operating combustion engines.

**8. Warning!**

Use only as described in this manual. Use only manufactures's recommended attachments.

**9. Warning!**

When connected to electrical power supply, the devices correspond to protection class 1 and are fitted with a safety-tested power cable. They may only be connected to electrical networks with an earthed protective conductor (TN networks) or electrical outlets with earthed protective conductors.

**10. Warning!**

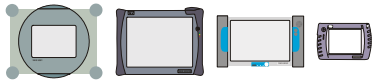
All measurement probes shall be used within their specifications and as described within these instructions. All measurement clamps shall be used on appropriate insulated wiring. Do not conduct measurement, if the wiring is damaged.

**11. Warning!**

During test drives, secure the tester with a strap on the vehicle's back seat and connect it to the vehicle using the diagnostic cable. A second person must operate the tester from the back seat. Operation from the front seat is too dangerous, e.g. in the event of airbag activation.

VAS 5051

To supply the VAS 5051 with power from the vehicle battery, use only the 3 m diagnostic cable.

**12. Warning!**

Electrical ignition systems carry currents of up to approx. 30 kV. Observe general safety guidelines for workshops at all times.

**13. Warning!**

If you open the tester or its accessories without authorisation or carry out improper alterations to them, considerable risk to you and to the device may result.

**14. Caution!**

Fluctuations and deviations in the power supply beyond the permitted range of tolerance can lead to malfunctions and damage.

**15. Caution! VAS 5051 - changing fuse**

For inline current measurement with the VAS 5051, only a replacement fuse of the same type and same amperage may be installed in order to avoid risks of fire and to protect the device. To order original parts, refer to the corresponding chapters of the Operating Manual.

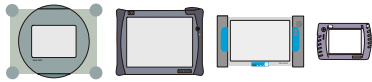
**16. Caution! when connecting other vehicle makes**

The VAS 505x diagnostic devices were developed for vehicles from the Volkswagen group. If the tester is connected directly to vehicles from other manufacturers, damage to the vehicle could result.

Therefore if vehicles of other makes are to be tested using the general OBD functions in the self-diagnosis application, the OBD adapter cable VAS 5052/16 needs to be connected between the diagnostic cable and the diagnostic connection on the vehicle (with fewer cable connections).

**17. Caution!**

- Battery change may only be performed by qualified personnel.
 - Do not short out the battery.
 - Do not incinerate the battery.
 - Dispose/recycle the battery in accordance with local environmental regulations.
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**Warnings because of built-in Bluetooth transceiver****18. Warning!**

FCC 15.105: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.
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**19. Warning!**

FCC 15.19: This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada.

Operation is subject to the following two conditions:

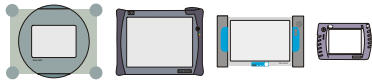
1. this device may not cause harmful interference, and
 2. this device must accept any interference received, including interference that may cause undesired operation.
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**20. Warning!**

FCC 15.21: Changes or modifications made to this equipment not expressly approved by COMPANY may void the FCC authorization to operate this equipment.

**21. Warning!**

For body worn operation, this device has been tested and meets FCC RF exposure guidelines when used with a carry accessory that contains no metal. Use of other carry accessories may not ensure compliance with FCC RF exposure guidelines.



SAVE THESE INSTRUCTIONS

Trade Name: Siemens AG
Model No: VAS 5053



FCC ID: LYHVAS5053

IC: 267AA-VAS5053

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions. (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



Note

A Bluetooth interface application for communication with external devices, e. g. diagnostic head VAS 5054 is projected.



2 Technical Data

2.1 Docking Station

Dimensions (W x H x D)	250 x 200 x 105 mm
Weight	2 kg
Ambient conditions	
Operation	Ambient temperature +5 to +40 °C Relative humidity 25 to 80 %, non-condensing
Transportation and storage	Ambient temperature -20 to +60 °C Relative humidity 25 to 80 %, non-condensing
Electrical protection and safety	Safety regulations - Workshop devices: UL 201 - Devices for information processing: DIN EN 60950 (VDE 0805), EN 60950, IEC 950, UL 1950, CSA-C22.2 No. 950 - Testing devices: DIN EN 61010-1 (VDE 0411 Part 1), EN 61010-1, IEC 1010-1 Protection class I (as per DIN EN 60950), for the external adapter unit only Protected from water and foreign objects as per DIN VDE 0470 Part 1 (EN 60529, IEC 529) - Tester: degree of protection for housing: IP 20 For company-internal use only Pollution Degree II Overvoltage category I
External interfaces	
DC input	
USB interface	2 USB 2.0 standard, type A 1 USB standard, type B
LAN	IEEE802.3 10BaseT//100BaseTX RJ45
Docking interface	
Total electrical connected load	According to nameplate on underside of docking station and rear side of operating unit (underneath the strap): 24 V / 2 A

**Power adapter**

The power adapter supplies the VAS 5053 from the 230 (110) Volt mains network. When the operating unit is placed on the docking station, the optional battery is recharged.

2.2 VAS 5053 Operating Unit (Tester)

2.2.1 Operating Data

Dimensions (W x H x D)	Approx. 223 x 61 x 148 mm
Weight	1.3 kg (without optional battery)
Ambient conditions	
Operation	see section 2.1
Electrical protection and safety	see section 2.1
Power supply	Power is supplied by one of the following, depending on the application: - The docking station - Battery (optional) - Vehicle electrical system
Power supply from the docking station	see section 2.1
Power supply from the optional battery	Battery buffer in the event of power outage (vehicle electrical system or mains)
Battery type	Li-ION, 14.8 V
Weight	0.2 kg
Buffer time	Usually 3 h (depending on operating mode, battery state and the external consumers)
Recharge time (on mains)	Approx. 2.5 h



Power supply from the vehicle electrical system Rated voltages Current consumption in the load range Protection	The tester can be powered from the vehicle electrical system. DC 12 V, DC 24 V Approx. 2.5 A with 12 V battery voltage The input is protected against disturbance variables to DIN 40839 part 1, test pulses 1 to 4, test severity IV. The input is protected against polarity reversal.
External interfaces Compact Flash PCMCIA slot Diagnostic interface Docking interface Multifunction interface Bluetooth	For Flash cards 1 x type I/II For PCMCIA cards 1 x type III or 2 x type II 18-pin mini SNAP socket, size 3 16-pin mini SNAP socket, size 2 wireless

2.3 Power Adapter

Power adapter	The power adapter supplies the VAS 5053 from the 230 (110) Volt mains network.
Rated voltage range Rated frequencies	AC 100 to 240 V 50 - 60 Hz
DC cable	The DC cable (1.8 m), permanently attached to the power adapter, is connected to the DC input on the rear side of the docking station. The operating unit is supplied with power via the docking interface.
Mains cable	The mains cable (3 m) can be replaced with a mains cable of the type applicable in the country of use. The mains cable must comply with the standard for operating appliances on an earthed power supply network. (VDE 0805, EN 60950, IEC 950, UL 1950, CSA 22.2 No. 950) For operation in the USA and Canada, use a UL-approved or a CSA-approved mains power cable.



2.4 Cables

Diagnostic cable	3 m, cable bend diameter 10 x cable diameter
USB cabel	2 m
USB/LAN adapter cable, optional	0.3 m
Plug cycles	> 1.000