

Start-Up Guide

EN

Mandatory signs



Wear protective goggles



Wear gloves



Refrigerating agent cylinder
Secure CO₂ (R744)



Wear protective shoes



Wear respiratory protection

SAFETY INSTRUCTIONS FOR CARBON DIOXIDE CO₂ (R744)

Always observe the manufacturer's safety data sheet.



WARNING



Contact with the product can cause cold burns or frostbite.

Gases/vapors are heavier than air. High concentration due to accumulation in closed rooms, work pits, cellars, etc. can cause asphyxiation, among other things. Symptoms: Loss of motor ability and consciousness. Affected persons do not realize that they are suffocating.

Do not allow carbon monoxide to enter sewage systems, pits or similar enclosures where gas accumulation may be dangerous.

Precautions and behavior rules



WARNING



Storage: Store container in a well-ventilated place at a temperature below 50 °C. Protect container against impacts and falls (secure with chain).

Handling: Avoid contact with eyes and skin. Do not inhale the gas. Ensure that no water enters the gas cylinder/container.

Prevent the gas from flowing back into the gas tank. Only use equipment that is suitable for this product and the intended pressure and temperature. Check fittings, connections and lines for leaks. Eating, drinking and storing food in the working area are prohibited.

Respiratory protection: Self-contained breathing apparatus. **Eye protection:** Tightly fitting protective goggles.

Hand protection: Protective gloves (material: leather). **Body protection:** Protective clothing.

Behavior in the event of danger

After a **gas leak:** Keep unprotected persons away. Ventilate rooms well. Wear protective gear and self-contained breathing apparatus. Close valves / stop gas leak. Avoid entry into cellars, pits and similar enclosures (danger of suffocation).

In case of fire: Wear protective gear and self-contained breathing apparatus. Stop gas leak if possible. Cool cylinders with a water jet from a secure position and remove them from the fire zone if possible to prevent explosion. The product itself is non-flammable. **Extinguishing agents:** All known extinguishing agents can be used. **Escape routes:** Escape routes must be known to staff. **Accident phone:** The accident phone must be known to staff.

First aid



Please observe the instructions for use and safety of your refrigerant supplier.

SAFETY INSTRUCTIONS FOR NITROGEN N₂

Always observe the manufacturer's safety data sheet.

Further safety information can be found in the operating manual

**WARNING**

Placing into service must be performed by qualified personnel under strict observance of these instructions.

Unpacking

VAS 581 009 is supplied without a refrigerant bottle CO2 (R744). This is done to avoid damage in transit.

**WARNING****Risk of crushing**

The VAS 581 009 can topple from the pallet. Carefully lift the VAS 581 009 from the pallet with the help of another person.

1. Cut the packaging tape and remove the cardboard box.
Keep the cardboard box in case you need to return the device.
2. Carefully remove the protective foil from the VAS 581 009.
3. Use the scissors/side cutter to cut the four zip ties used to additionally secure the VAS 581 009 to the pallet.
4. Carefully lift the VAS 581 009 from the pallet with the help of another person.

Installation location / stability**WARNING**

Make sure that the VAS 581 009:

- is horizontal and stable
- is located in a room with adequate ventilation and/or air exchange
- is at least 10 cm away from other objects
- is protected against rain, excessive humidity, direct sunlight and/or excessive dust
- is not operated in explosive environments

Checking the vacuum pump oil

Check the oil level through the gauge glass.
Top up with vacuum pump oil if necessary;
see operating instructions, Sec. 6.2.1.

**Power connection**

Use the supplied power cable to connect the VAS 581 009.
Connect the power cable to the power supply.

Connecting the refrigerating agent cylinder CO2 (R744)

The VAS 581 009 is suitable for standard CO2 (R744) refrigerating agent cylinders with a built-in riser tube. The following cylinder sizes can be used: 5 kg, 6 kg, 10 kg or 20 kg. Bottle diameter max. 210 mm possible. Required purity equal or better than carbon dioxide 3.0 (99.9% purity).



WARNING



Risk of frostbite from refrigerant CO2 (R744)

Direct contact with the skin / eyes can lead to frostbite / blindness.



WARNING



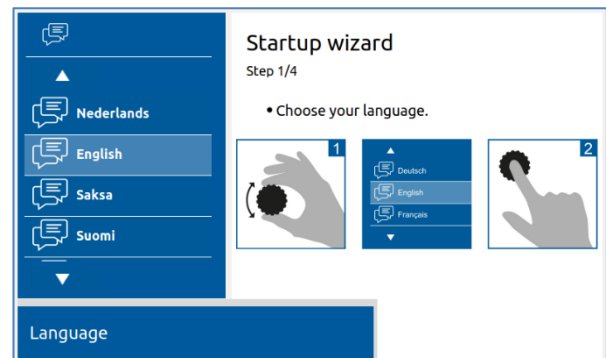
Wear personal protective equipment - safety glasses, protective gloves and safety shoes. Always secure the refrigerant bottle CO2 (R744) mechanically.

Apply the wheel brakes and switch on the VAS 581 009.



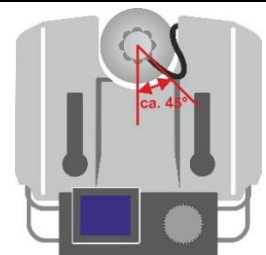
Startup Wizard

After switching on for the first time, an automatic one starts Sequence that you through the steps "Language setting", "Set date / time", "Workshop data entry" as well as "Initial installation of the refrigerant bottle".



WARNING

Only replace the bottle with assembly gloves. Install the bottle heater in the lower third of the bottle. The bottle heater cap must be on the opposite side the outlet valve of the refrigerant bottle. Mounting the bottle adapter: Torque: 30... 32 Nm (max. 35 Nm) Assembly of the hose: Torque: 16... 18 Nm (max. 20 Nm) Turn the bottle as shown.








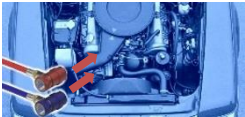





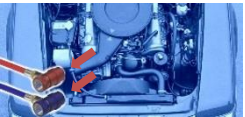


Note: All oil containers must be empty when commissioning for the first time.

Filling the oil and UV additive container










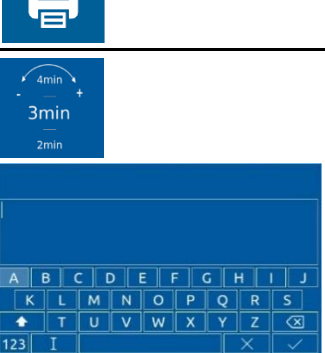
1. Slotted nut slightly upwards (fresh oil container) or downwards (UV additive container) and remove the container.
2. Unscrew the cover.
3. Fill in fresh oil (upper container) or UV additive (lower container).
4. Attach the container by pressing the lock nut up (down) a little.



Quick start guide

 	<p>OBSERVE SAFETY INSTRUCTION.</p> <p>Wear personal protective equipment.</p>
	<p>Switch on VAS 581 009; Self-test runs automatically.</p>
	<p>Select "Automatic cycle" in main menu.</p>
	<p>Enter parameters:</p> <ul style="list-style-type: none"> - Configuration name - Refrigerating agent [g] - Oil quantity [g] - Oil filling mode [REC+/ABS/NO] - UV additive quantity [g] - Vacuum time [min] - Vacuum test time [min] - Connection type [LP / HP+LP] - Pressure test [OFF / 10% / 20%] - Pressure test time [min] - Pressure loss [mbar] - Customer data <p>Check and confirm inputs</p>
 	<p>Connect quick connectors with vehicle and confirm</p>
 	<p>Open gas supply of quick connectors</p>
<p>"Automatic cycle" runs automatically</p>	<p>Automatic cycle</p> <ul style="list-style-type: none"> - Safety self-test - Drain refrigerating agent - Vacuum generation - Filling of air conditioning system
 	<p>Close gas supply of quick connectors and confirm. Hoses are emptied in VAS 581 009.</p>
 	<p>Disconnect quick connectors from vehicle and confirm.</p>
	<p>Print report [Yes/No]</p>



	Up Selects previous function
	Down Selects next function
	Back Goes back one step.
	Start Starts functions.
	Cancel Cancels an ongoing operation. Confirms questions with "No".
	RESET Resets values.
	OK Confirms questions with "Yes" or "OK".
	Next Continues to the next step.
	Print Prints logs
 <p>The image shows a dial with a timer (4min, 3min, 2min) and a keyboard with letters A-J, K-S, and numbers 1-0. The dial is currently showing '3min'.</p>	Text and number inputs If a number or letter is expected as an input, turning the dial will show the letters and numbers in sequential order. Pressing the dial will select the letter or number.

Registration

Register your device here: <https://avlditest.com/index.php/en/vas581009.html>

Product videos

Please also note our product videos: <https://avlditest.com/index.php/en/vas-581-009-confirmation.html>

Questions

For further questions please contact **AVL DiTEST Germany**

Tel.: +49 9103 7131-200

FAX: +49 9131 7131-112

Email: vas.service@avl.com