WÖHLER

Operating instructions
Refrigerant Leak Detector

EN

Wöhler RL 200

Best.-Nr. 25211– 2025-02-24

Content

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1 General

1.1 Information on the operating instructions

These operating instructions enable you to operate the Wöhler RL 200 safely. Keep these operating instructions permanently.

The Wöhler RL 200 may only be used by qualified personnel for the intended purpose.

We accept no liability for damage resulting from failure to observe these operating instructions.

1.2 Notes in the operating instructions

WARNING!
Indicates instructions which, if not followed, may result in injury or death.

ATTENTION!
Indicates hazards that may result in damage to the unit.

NOTE!
Highlights tips and other useful information.

1.3 Intended use

The Wöhler RL 200 is a fast-response refrigerant detector for leak detection on refrigeration systems and heat pumps in accordance with EN 14624:2012. The presence of a refrigerant is indicated by a visual as well as an acoustic signal.

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1.4 Disposal

Electronic devices must not be disposed of in household waste, but must be disposed of in accordance with the applicable environmental regulations.

Defective batteries are considered hazardous waste and must be taken to the designated collection points for disposal.

1.5 Address

Wöhler Technik GmbH

Wöhler Platz 1

33181 Bad Wünnenberg

Phone: +49 2953 73-100
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E-mail: info@woehler.de

2 Specifications

Descriptions	Indication
The following specifications apply to the refrigerant R134a.	
Sensitivity	3 g/a (R134a)
Response time	< 1 s (R134a)
Recovery time	12 s
Sensor	Heated Diode - Gas Sensor
Sensor life under normal use	≥ 1 year (shortened in case of constant use with high refrigerant concentration)
Detectable refrigerants	FCKW: R11, R12, R500, R503 HFCKW: R22, R123, R124, R502 HFC: R134a, R404a, R410a, R407C, R32 Others: R290, R600a, R1234YF Forming Gas (95% N_2 + 5% H_2)

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Descriptions	Indication
Alarm function	Visual and acoustic
Warm-up time	approx. 30 s
Ambient conditions: Working temperature	-0 to 50 °C
Rel. humidity	< 80% RH (non-condensing)
Sensor zeroing	Automatic/manual
Power supply	3 AA cells (alkaline)
Service life of the Battery	7 h
Automatic switch off	After 30 minutes
Packing dimensions	430 x 245 x 70 mm
Flexarm	440 mm long
Weight	340 g

3 Important notes

WARNING!
The Wöhler RL 200 must not be used in an explosive environment. The batteries must also not be removed from the unit and/or changed in such an environment.

ATTENTION!
During leak detection, the pressure in the refrigeration system must be ≥ 3,5 bar. In addition, the area being investigated should be draught-free. If there is a draft, the leaked refrigerant gas will be quickly diluted or blown away from the leak source, which will affect the detection accuracy. If refrigerant is leaking from a known source in the vicinity, it should be blown away with a fan before leak detection to avoid its influence on accuracy.

ATTENTION!
Automatic sensor zeroing is preset as standard. After the warm-up phase, the Wöhler RL 200 automatically sets the value of the current ambient refrigerant concentration to zero. If the user has deactivated the automatic sensor zeroing, he can manually set the current ambient refrigerant concentration to zero by briefly pressing the "Reset" button, cf. chapter 7.2.

4 Product description

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1	Flexarm	9	On/Off button
2	Sensor holder with internal sensor	10	Mute button (mute alarm)
3	Display	11	Sensitivity button (SENS)
4	Battery indicator	12	Battery compartment (back)
5	Icon: Signal tone		
6	Icon: Automatic sensor zeroing (A)		
7	Icon: Sensitivity (S)		
8	Reset button for sensor zeroing		

5 Commissioning

- Before first use, open the battery cover and remove the battery foil.

6 Alarm function

Visual:

Indication of the leakage level in the display: 1 - 7

(7 is the highest leakage level)

Acoustic:

Signal tone: Frequency increases with increasing refrigerant concentration

NOTE!
After switching on the unit, the signal tone is automatically activated.

- Press the mute button to deactivate or reactivate the signal tone.

7 Operation

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7.1 Switch on/off

NOTE!
Switch on the unit in a non-contaminated environment, e.g. outdoors.

- To switch on, briefly press the on/off button.
- To switch off, press and hold the on/off button for 3 seconds.

After switching on, a warm-up time of 30 seconds starts. During this time, a red bar flashes in the display.

As soon as a 0 appears in the display and the signal tone sounds, the unit is ready for operation.

- To deactivate or reactivate the beep, press the mute button.

The beep icon only lights up when the beep is activated.

7.2 Sensor zeroing / reset

Automatic reset
(default setting)

To reduce the influence of background concentrations of other gases or refrigerants in the environment, the Wöhler RL 200 automatically zeroes the sensor after the warm-up phase. In this case, the unit only warns if it detects a higher concentration than the ambient concentration.

NOTE!
At low refrigerant concentration, a sensor zero increases the sensitivity of the unit. At high refrigerant concentration, a sensor zero reduces the sensitivity.

Manual reset

Important: With a manual reset, the user can zero the sensor at any time.

7.2.1 Procedure

After the warm-up time, the automatic sensor zeroing function is activated. “A" lights up in the display.

- To switch to manual sensor zeroing, press and hold the reset button for 2 seconds.

"A" no longer lights up in the display.

- Briefly press the reset button to zero the sensor.
- To switch back to automatic sensor zeroing, hold the reset button back for 2 seconds.

7.3 Sensitivity selection

After the warm-up time, the highest level of sensitivity is preset by default. The sensitivity symbol "S" (Sensivity) lights up red.

- If necessary, press the SENS button to change the sensitivity.
- red: high sensitivity
- yellow: medium sensitivity
- green: low sensitivity

NOTE!
It is recommended to start the search with high sensitivity.

To locate the leak when the refrigerant concentration is high, the sensitivity should be reduced so that the alarm only sounds in the immediate vicinity of the leak.

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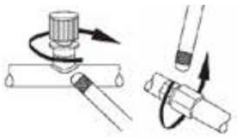
7.4 Leak detection

NOTE!
Leakages often occur at oil-contaminated or dusty points, connecting valves or pipe connections. These locations should be investigated as a priority.

ATTENTION!
The probe of the Wöhler RL 200 should be guided 3 mm to 5 mm away from the suspected leakage point during leak detection to prevent it from becoming contaminated by oil and other impurities. This would affect the accuracy. Move the probe at a speed of about 25-50 mm/s during leak detection.



- Slowly guide the sensor along both sides of the refrigeration system pipes.
- Slowly drive around critical points.

As the unit approaches a leak, the display level and the signal tone rate increase in proportion to the refrigerant concentration.

Display levels: 1 - 7

NOTE!
After a leak has been detected, the Wöhler RL 200 should be moved outside the leak area for 10 seconds before searching for further leaks.

7.5 Battery change

WARNING!

A very low battery level can lead to an inaccurate result display. In this case, change the batteries.

If the battery is low, the unit switches off automatically after 10 minutes.

- Slide the cover of the battery compartment downwards.
- Insert 3 AA alkaline batteries into the battery compartment. Pay attention to the polarity.

8 Error codes

Error code	Error	Measure
1E	Probe error	Send in for repair
2E	Sensor defective or sensor missing	Sensor exchange
3E	Fan overload	Send in for repair

NOTE

If several errors occur simultaneously, the error code appears with the following priority:
1E>2E>3E.

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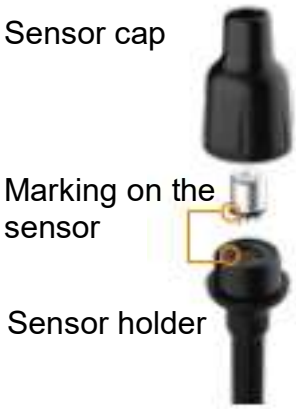
9 Maintenance

The service life of the sensor is about 1 year in normal use. It is shortened with constant use when the refrigerant concentration is high. Proper maintenance can extend the life of the sensor.

- Switch off the unit.
- Unscrew the sensor protection cap and wash and dry it.
- Blow impurities off the sensor with dry air. Important: Never expose the sensor directly to compressed air!
- Store the unit in a dry and clean place and remove the batteries if you are not going to use it for a long time.

9.1 Sensor exchange

If the sensor is defective, error message 2E appears in the display. In this case, replace the sensor as follows:



- Unscrew the sensor cap.
- Note the exact position of the sensor and pull the sensor out of its holder by hand.
- Place the new sensor in the holder. Make sure that the marking on the sensor housing is positioned correctly, see the adjacent figure. Also make sure that all the sensor legs are properly seated in the holder.

10 Accessoires

Replacement Sensor Wöhler RL 200:
Art. No.13028

11 Declaration of conformity

This product:

Product name: Wöhler RL 200 Refrigerant Leak Detector

complies with the key safety requirements set down in the guidelines of the Council for the Harmonization of the Legal Requirements of the Member States in relation to the electromagnetic compatibility (EMC 2014/30/EU).

The following standards were availed of to evaluate the product in respect of the electromagnetic compatibility:

EN 14624:2012

EN IEC 61326-1:2021

EN IEC 61000-3-2:2019 + A1:2021

EN 61000-3-3:2013 + A1:2019 + A2:2021

Bad Wünnenberg, 04.11.2024

Dr. Michael Poeplau, Geschäftsführer/Managing Director

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12 Warranty and service

12.1 Warranty

Every Wöhler RL 200 gas detector is tested in the factory in all its functions and only leaves our factory after a detailed quality control.

If used properly, the warranty period for the Wöhler RL 200 is 12 months.

Batteries are excluded from the warranty.

This warranty is void if repairs and modifications have been made to the unit by a third party who is not authorised to do so.

12.2 Service

SERVICE is very important to us. That is why we are of course also there for you after the warranty period.

- You send the meter to us, we repair it within a few days and send it to you with our parcel service.
- Immediate help is available from our technicians on the phone.