VULKAN LOKRING

LOKTRACE

TRACE GAS LEAK DETECTION

Every leak leaves a trace now.

§ STRICTER LAWS!
Avoid fines of up to 50,000 euros.

STRICTER LAWS
HAVE YOU HEARD?

Numerous garages are uncertain how to behave properly with regard to leak detection following changes in legislation. R134a is extremely harmful to the environment, and for this reason it must not be charged into a leaking air-conditioning system. Previous legislation already covered this case.

All around the world, legislation has become stricter through EC guideline 2006/40/EC and directive 307/2008. An air-conditioning system that has lost a disproportionately large amount of refrigerant may only be refilled if it can be guaranteed that it is no longer leaking.

Service technicians who violate these regulations now face fines of up to 50,000 euros.

LEAK DETECTION – GREATEST CHALLENGE IN A/C SERVICING

WHAT SERVICE TECHNICIANS EXPECT FROM A LEAK DETECTION METHOD

Whenever we talked to service technicians in air-conditioning service garages about their work, it always became apparent that leak detection is one of the greatest challenges in air-conditioning servicing. The following requirements on leak detection methods were mainly described as important, particularly with a view to stricter legislation:

COMPLIANCE WITH LEGAL REGULATIONS

R134a is harmful to the environment and must not be charged into a leaking air-conditioning system.

DIRECT IMPLEMENTATION

Customers should not have to come back into the garage a second time.

EASY CHECKING OF THE EVAPORATOR

This saves complex work and thus time.

RELIABILITY

If a leak is indicated, this must mean that there really is a leak at this spot.

DETECTING SMALLER LEAKS

The method should not only be able to be used for large leaks, but detect the smallest of leaks too.

CONVENTIONAL LEAK DETECTION METHODS

We found that garages often use several leak detection methods, since none of the conventional methods meet all service technicians' expectations.

UV DYE

has to be distributed in the air-conditioning system first. This means customers have to return to the garage. The evaporator in the vehicle air-conditioning system is very difficult to check. Since UV dyes are oil-based, small leaks cannot be traced, and this leak detection method must not be used when the air-conditioning system is empty.

ELECTRONIC REFRIGERANT LEAK DETECTORS

react to external gases such as oil or petrol vapours that can be in the engine compartment. This makes leak detection extremely unreliable. This leak detection method must not be used when the air-conditioning system is empty either.

NITROGEN AND BUBBLE SPRAY

do not find small leaks due to the size of the nitrogen molecules. Checking the evaporator is very difficult too.

LOKTRACE
THE LEAK DETECTION SYSTEM

Trace gas leak detection has been used successfully by the industry for years. We have developed this method further especially for servicing vehicle air-conditioning systems.

LOKTRACE gas, which is made up of nitrogen and hydrogen, is filled into the air-conditioning system for leak detection. LOKTRACE gas is not flammable, non-toxic, non-corrosive and not harmful to the environment. The hydrogen share is used as the trace gas.

Hydrogen molecules are the smallest naturally occurring particles and escape from even minimum leaks. With the aid of the hydrogen leak detector LOKTRACER TLD.500, even the smallest of leaks can be traced.

LOKTRACER TLD.500 reacts almost exclusively to hydrogen. Which in its turn means leak detection is extremely reliable. The evaporator can be checked over easily through the ventilation slots in the central console.

LOKTRACE is the first method that meets all the requirements on a leak detection system for vehicle air-conditioning systems and transforms the leak detection "guessing game" into a process that guarantees results.

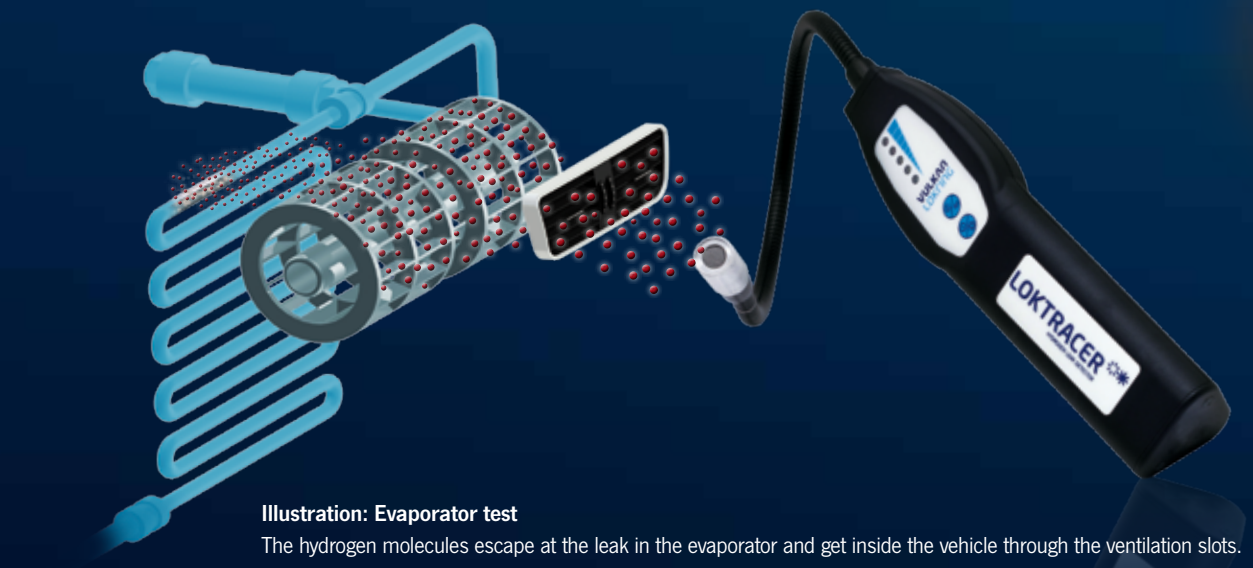

Illustration: Evaporator test
The hydrogen molecules escape at the leak in the evaporator and get inside the vehicle through the ventilation slots.

LOKTRACE COMPARED TO CONVENTIONAL LEAK DETECTION METHODS

	Compliance with legal regulations	Direct implementation	Detecting smaller leaks	Reliability	Easy checking of the evaporator
LOKTRACE	✓	✓	✓	✓	✓
UV dye	✗	✗	✗	✓	✗
Electronic refrigerant leak detectors	✗	✓	✓	✗	✓
Nitrogen and bubble spray	✓	✓	✗	✓	✗

Illustration: Leak detection in the engine compartment
Hydrogen is lighter than air. The air-conditioning pipes and hoses can be checked conveniently from above.

LOKRING: Weltweite Verbindungen
LOKRING: connecting worldwide

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VULKAN LOKRING

LOKTOOL: LOKTRACER TLD.500 | Trace gas leak detector

LOKTOOL trace gas leak detector

- Especially developed for vehicle air-conditioning systems
- No cross-sensitivity to external gases
- Step-by-step convergence on large leaks (zero setting)
- Automatic self-regulation of the sensor
- Without pumps or filters thanks to diffusion technology
- Integrated LED torch
- Acoustic and optical alarm

Article no.	Article name	Description
L13005099	LOKTRACER TLD.500	Trace gas leak detector

Technical data

Time until ready to operate	< 90 sec
Reaction time	1 to 2 sec
Power supply	Rechargeable batteries

LOKSET: LOKTRACE KA W21,8-14 | Trace gas leak detection

LOKSET trace gas leak detection

- LOKTRACER TLD.500 trace gas leak detector
- LOKTOOL CT.10/20 cylinder trolley
- LOKTOOL PR-TG.10 W21,8-14 pressure reducer
- LOKTOOL PA-1/LT.10 manifold gauge
- LOKPLUS quick couplers (HP and LP)
- LOKPLUS service hoses
- LOKPLUS dust cover

LOKTRACE gas cylinder not included in the scope of supply.

Article no.	Article name	Thread (Pressure reducer)
L13005004	LOKTRACE KA W21,8-14	W21,8-14-LH
L13005029	LOKTRACE KA CGA350	CGA350
L13005030	LOKTRACE KA 1/2-14-BSP	1/2-14-BSP-LH
L13005031	LOKTRACE KA 5/8-14-BSP	5/8-14-BSP-LH
L13005032	LOKTRACE KA W20-14	W20-14-LH
L13005033	LOKTRACE KA W22-14	W22-14-LH

LOKBOX: TG-AUTO-500-2L | Trace gas leak detection set

LOKBOX trace gas leak detection set

- LOKTRACER TLD.500 trace gas leak detector
- LOKTOOL PR-TG.10 W21,8-14 pressure reducer
- LOKTOOL PA-1/LT.10 manifold gauge
- LOKTOOL TGB2 trace gas cylinder 2 litres
- LOKPLUS quick couplers (HP and LP)
- LOKPLUS service hoses
- LOKBOX plastic case

Article no.	Article name	Description
L13005106	LOKBOX TG-AUTO-500-2L	LOKTRACE set