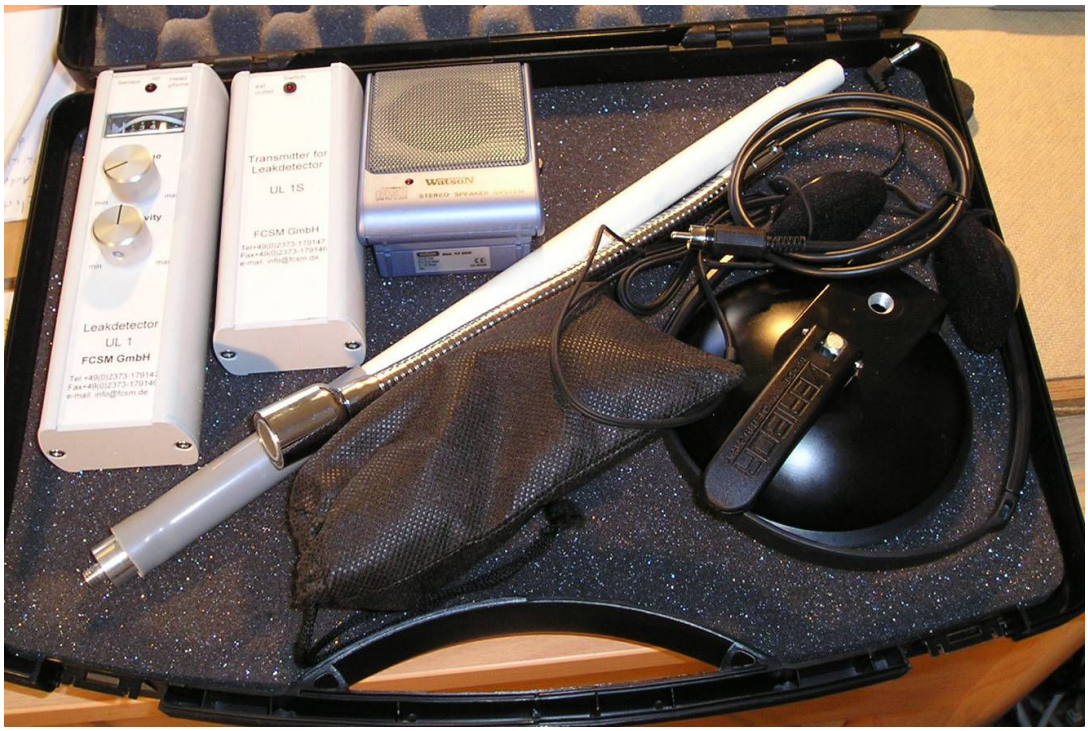
Welcome at the FCSM GmbH Homepage

With the Leak Detector UL 1 you will be able to detect even the smallest gaps in joints in construction as well as in construction units e.g. Windows, doors etc.

Checking and tracing leakages in pressurized or negative pressurized (piping) systems. In combination with the transmitter UL1 S checking of tightness and locating of leaks in closed areas without pressure difference.



Leak Detector UL 1

For exact localization of leaks wave the external receiver and find the direction of the loudest noise (highest turn of range finder).Follow this direction, if necessary, turn volume and/or sensitivity lower. The volume can be adjusted individually and does not effect the sensitivity, but gets louder as nearer you come to the leak. After following the noise you find exactly the leak.

Dimensions: Length 170 mm, Width 55 mm,
Height 36 mm

Weight: appr. 315 g

Housing: Aluminum

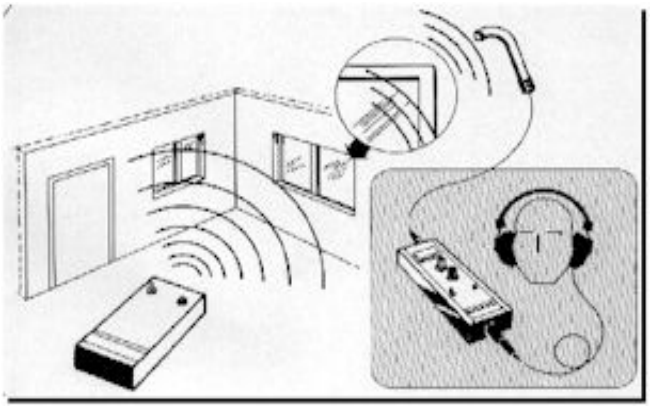
Power supply: 9 V-Battery

Scope of supply:
1 Leak-Detector **UL1**
1 Transmitter **UL1 S**
1 Headphone
1 External receiver with appr. 1 m cord
1 Transport Case
1 Users information

Leak-Detector UL1

Checking of tightness and locating of leaks in closed areas without pressure differences.

Without pressure difference there is no creation of ultrasonic sound. Therefore it is necessary to have a transmitter (UL1 S), creating an intensive ultrasonic sound. Metal, wood, glass etc. reflect this sound, but even the smallest gaps are no obstacles so you can receive the sound on the opposite side of the wall with the UL1 detector.



Examples for closed areas without pressure differences are:

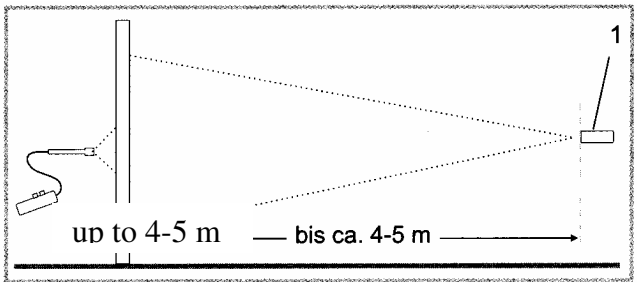
1. Motor vehicles e.g. passenger cabins, trunk compartments, caravans, vending trailers etc.

2. Building trade e.g. Windows, doors, conservatories, joints in construction and construction parts

3. Industry e.g. container, cauldrons etc.

Checking and tracing leakages with the Leak Detector in buildings

The Leak Detector finds leakages by using ultrasonic sound created by the Transmitter UL 1 S. The length of these longitudinal waves are less than 1 cm and able to penetrate even the smallest gaps. Therefore they are most suitable to detect gaps in joints in construction as well as in construction units e.g. Windows, doors etc. The receiverunit is equipped with the amplifier (in the casing) and an external receiversensor with an appr. 1 m cord, and a Headphone (or optional an active loudspeaker) Both have to be connected to the correct outlet to the Detectorcasing.



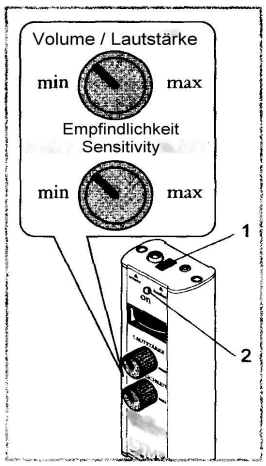
Picture 1

To detect the leakages, the receiver and transmitter have to be placed each on the opposite side of the object (Wall, door, window etc.) which has to be measured. The Distance of the transmitter to the object can be several meters (see picture 1). The ultrasonic sound will find its way through the smallest gap untill it will be stopped by an airtight obstacle. In case of a leakage the ultrasonic sound can be detected and located by the receiver. To avoid that the created waves will find the way to the receiver, openings as doors and windows in the vicinity of the receiver have to be closed.

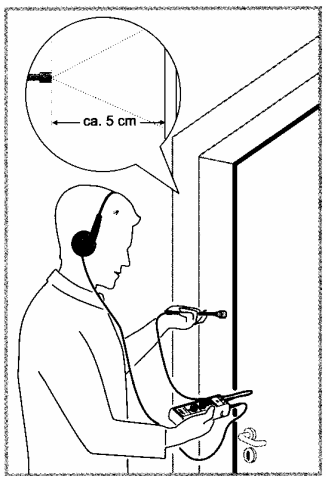
Operation:

After connecting the Leak Detector to the external receiver and the Headphones, place the transmitter on the opposite side of the object which has to be measured and turn it on (On/Off Switch; red light is on). Close all windows and doors, adjust Volume and Sensitivity to 45° from “min”(see picture2) and turn on the Leak Detector (On/Off Switch; red light is on).

For exact localisation of leaks lead the external transmitter in a distance of ca. 5 cm along the assumed leakage (see picture 3)/(Volume and Sensitivity can be adjusted individually if necessary) In case of a leakage there will be a sound in the Headphone and the nearer you come to the leak the sound increases. If no leak has been detected you can check the result by opening a window- or door handle very slightly, so that the sealing is not “press” anymore. Immediately you will hear the created sound.



Picture 2



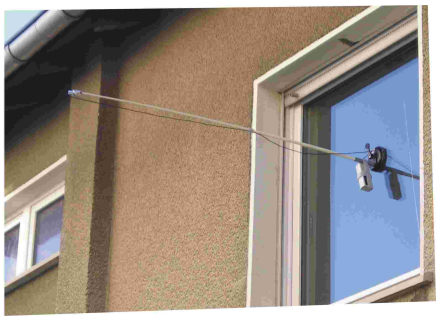
Picture 3

Please keep in mind:

In case that water comes in, the transmitter should be placed inside the room and the localisation has to be made from the outside. Because the point where the water comes in does not have to be identical with the point where the water shows up. Leak localisation can only be made during dry weather, otherwise leakages can be filled with water which prevents the transit of ultrasonic sound.

The Blower-Door-Test detects the amount of air which escapes from a building. The Leak Detector however localises the exact leak. Without great loss of time it is possible to find leaks from a distance of several meters and point them out exactly even if they are in windows, doors, joints in construction or construction parts. Companies which assemble windows and doors can easily proof the density of their work, together with Architectures and Owners. The simple handling of the Leak Detector and the guarantee of a perfect control has already solved several proceedings at law at once because Lawyers as well as Judges were convinced of the determined power of evidence.

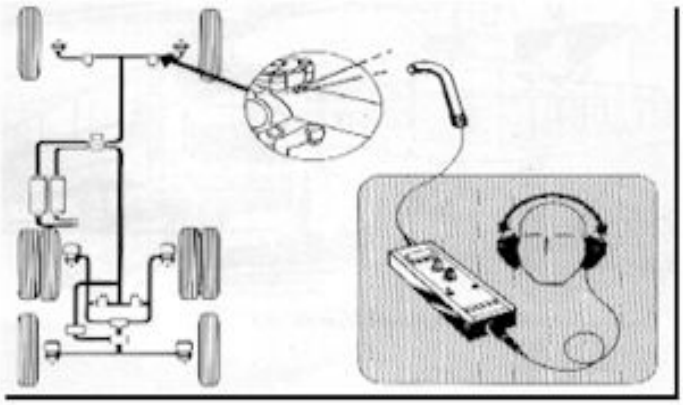
Technical accessories for ckecking leakages in higher levels



The telescopic pole will be screwed on the suction cup, the transmitter is fixed at the top of the telescope and the extension of the transmitter is connected to the correct outlet. Now turn on the transmitter, pull out the telescope completely and fix the suction cup on the outside of the window. After the window has been closed the checking can start.

Checking and tracing leakages in pressurized (piping) systems

Without great loss of time it is possible to carry out a safety check of pneumatic breaks in combination with inspection or repairs of motor vehicles.
It is very difficult to find leaks in pressurized systems The well known leak spray can only be used punctual. This means, just a small part of the system can be traced at a time. Besides this, you need a visible contact to the unknown leak. Naturally this is not always possible so a safety check can not be carried out.
If you use the Leak detector UL1 you will find leaks from a distance of several meters and point them out exactly. Interference is filtered off so work can be done even in noisy places.



Examples for pressurized (piping) systems are:

1. All pressurized pipes and equipments in factories etc.
2. Brakes in Trucks and Busses

In addition to the Leak Detector UL 1 there are closed sensors available to check Valves and the transmission of sound in closed areas e.g. buildings.

Checking and tracing leakages in negative pressurized (piping) systems

In the same way you test the pressurized systems, you are able to find leaks in sub-atmospheric pressure systems.

Range of applications: All equipment in combination with vacuum pumps...

The simple handling of the leak detector UL1 and the guarantee of a perfect control helps you to avoid to waste time and gives you safety.

Video: Leak in a Building

please click here:

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