

SniffIT

SniffIT X1[®] User's Guide



Specialist in leak testing &
leak detection since 1973

nolek

- Leak Testing -



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SIMPLE, MOBILE, ACCURATE & AFFORDABLE

The SniffIT X1®

Nolek, the world's leading expert in leak testing & detection since 1973, is proud to present a new unique product series of gas leak detectors. The first one to be released is: **SniffIT X1®** designed for sniffing both Helium and Hydrogen. **SniffIT X1®** is a handheld battery powered leak detector based on a novel patented **SniffIT technology®**.

SniffIT X1® is ergonomic and the smallest high quality instrument on the market, it weighs approximately 300g (0.66 lbs). The smallest detectable levels of Helium and Hydrogen with SniffIT technology® is 1×10^{-6} mbar.l/s, making the technology one of the most sensitive in the marketplace today. The flexibility to detect both Helium and Hydrogen makes SniffIT X1® independent of the tracer gas used for leak detection, and is the only one of its kind.

With SniffIT technology® the sensor never gets saturated and consequently the instrument has no variable costs unlike most alternatives. At the same time it has instantaneous reaction time and no start up time, just push the ON button and start sniffing. SniffIT X1® is built and developed to meet four criteria:

- **SIMPLE:** not operator dependent, simply press ON and if Helium or Hydrogen leaks from a product it is shown on a LED bar. The color on the LED scale changes depending on the leak rate detected.
- **MOBILE:** It is not bigger than a human hand, weighs 300g (0.66 lbs) and has 10 hours of battery capacity.
- **ACCURATE:** SniffIT gives very accurate results based on a reliable unique technology.
- **AFFORDABLE:** SniffIT X1® is the least expensive high quality sniffer on the market, less than half the price compared to alternatives and there are no hidden variable costs.

SniffIT X1® is the most revolutionary product ever launched within the leak testing and detection industry. It is smaller, more accurate and less expensive than all other comparable alternatives making the decision to invest in leak detection simple.

Checking the Package Contents

The SniffIT X1® comes with the following items:

1. Weatherproof carrying case
2. The SniffIT X1® Instrument
3. Sniffer Probe 20 cm
4. Sniffer Probe 5 cm
5. 2 extra filters
6. Charger 12 V

1.



2.



3.



4.



5.



6.



Preparing to use your SniffIT X1®

Charging the Battery



Before using the SniffIT X1® for the first time, fully charge the battery for 10 hours. Always try to charge the battery before using the instrument. The instrument's battery is charged by placing the charger cord into the power jack at the bottom of the SniffIT X1® handle (see 9 below).

The battery of the instrument discharges slowly even if it is turned off. If the instrument has not been charged for a week, the battery voltage will be low. Therefore, it is good to always charge the instrument before using it.

The SniffIT X1® at a glance



1. Replaceable filter
2. Flexible probe
3. Flashlight LED
4. Serial no.
5. Flashlight button
6. LED bar with indication bars
7. Auto Zero button
8. Power indicator
9. Power Jack
10. Charging indicator
11. On/Off switch

Getting Started

Assembling the SniffIT X1®

The SniffIT X1® is very easy to assemble. Take the SniffIT X1® out of the carrying case. Chose sniffer probe, and screw onto the front of the instrument. Filters are already assembled in each of the probe tops. The SniffIT X1® is now ready to be used.

ON/OFF



The SniffIT X1® starts up instantly with a simple push on the ON/OFF switch (1.). Simply push it upwards for high sensitivity and downwards for low sensitivity. When turned on, SniffIT X1® will perform an auto-calibration, which will be visualized by illumination of the LED-bars (2). After the auto-calibration, simply press and hold the Auto Zero button (3) for approximately 10 seconds and SniffIT is ready to be used. To turn off the unit push the switch (1) to the middle position.



Locating a leak with Helium/Hydrogen

The SniffIT X1® is designed to sniff and detect helium and hydrogen that leaks from a certain test object. Simply charge/fill the test object with a helium- or hydrogen mixture, and if there is a leak, the operator will locate it with the SniffIT X1®.

The helium mixture used for leak testing purposes is usually 5% He and 95% air. Hydrogen mixtures usually consist of 5% H₂ and 95% N₂ and are thus non-explosive.

Nolek sells charging stations that mixes and charges/fills test objects under the brand name ChargeIT®.

Locating a leak with the SniffIT X1®

Starting the operation

Press the auto zero button away from possible leaks. Move the instrument in a position where the top of the probe is positioned as close as possible to the suspected leak. The maximum distance between SniffIT® and the object depends on the amount of gas leaking out. When positioned move the probe gently around the area of the suspected leak, approximately 5-10 cm/sec.



Detecting the leak

When a leak is detected the LEDs will indicate the leak rate. The LED bar has two scales with indications. The one on the right shows leak rates when sniffing with low sensitivity (2×10^{-2} mbar.l/s to 2×10^{-4} mbar.l/s). The one on the left at higher sensitivity (2×10^{-4} mbar.l/s to 2×10^{-6} mbar.l/s).



Confirming the leak

To ensure a 100% recovery from helium/hydrogen exposure, simply press the Auto-zero button while turning the nozzle approximately 1 meter away from the potential leak and SniffIT X1® will reset in less than one second. To confirm the leak, move the sniffer to the area where the sniffer indicated a leak earlier. While detecting gases, SniffIT® should be reset every 10 seconds to ensure high quality detection.





Troubleshooting

Overexposure

If the probe gets exposed to a high level of gas a red LED at the top of the bar will indicate an overexposure. Hence, it is more helium or hydrogen than the scale indications.

Incorrect leak indication

After pushing the auto zero button the green LED should turn into a steady glow if located in a gas-free environment. If the first yellow LED is lit even though we are still in a gas free environment simply press the Auto-zero button and the product will be re-calibrated. This effect will be minimized after 10 minutes of operation.

Low battery

After approximately 10 hours the battery has to be re-charged. Simply plug the leak detector to the charger kit and connect to a power supply, a red LED next to power inlet is lit. When the red LED goes out the battery is fully charged and SniffIT® is ready to be used.

Precautions

Avoid fluids

The SniffIT X1® cannot sniff fluids and will break if it gets wet.



Avoid blowing compressed air into sniffer probe

The SniffIT X1® will not work properly if compressed air is blown straight into the probe or the sniffer.



Use only with clean helium and safe hydrogen mixtures

The SniffIT X1® will not detect other gases properly and will not work properly with an overexposure of dirty and oilfilled gases.

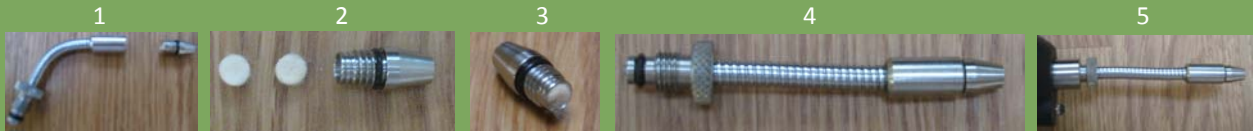


Maintenance

Self maintenance

The user can easily maintain the SniffIT X1® by following these simple measures:

1. Cleaning the SniffIT X1®. Only use a damp cloth when cleaning. Never rinse the sniffer under water. Never use strong cleaning fluids when cleaning the sniffer.
2. Keeping the sniffer in the weather proof case at all times when not in use or when not charging.
3. If filter gets wet or every six months it is recommended to change the filter in order to obtain a high level of accuracy during the leak detection procedure.



- 1) Unscrew the filter tip
- 2) Push out the filters from the top
- 3) Put in 2 new filters from bottom
- 4) Screw the filter tip back on
- 5) Screw the whole probe back to the SniffIT

Annual service

Users are advised to send the equipment to Nolek AB headquarters once every year for an annual check-up that will include full technical revision of all parts, change of battery and an advanced expert calibration.

Accessories & Spare parts

Accessories

There are several accessories for the SniffIT X1® such as, extra batteries, a carrying holster, different length sniffer probes. These accessories and others can be viewed at www.nolek.com.

Spare parts

Spare parts such as filters, can easily be ordered via www.nolek.com or by contacting a sales representative on Tel. +46 8 531 942 00



Limited Warranty

WARRANTY COVERAGE

Nolek's warranty obligations are limited to the terms set forth below: Nolek AB. ("Nolek") warrants this product against defects in materials and workmanship for a period of TWO (2) YEARS from the date of original purchase. If a defect exists, at its option Nolek will (1) repair the product at no charge, using new or refurbished replacement parts, (2) exchange the product with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product, or (3) refund the purchase price of the product. A replacement product/part assumes the remaining warranty of the original product or ninety (90) days from the date of replacement or repair, whichever provides longer coverage for you. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes Nolek's property. When a refund is given, your product becomes Nolek's property.

OBTAINING WARRANTY SERVICE

Deliver the product to any Nolek Authorized Service Provider. Be aware, however, that not all countries have Nolek Authorized Service Providers and not all Authorized Service Providers outside the country of purchase have all parts or replacement units for the product. If the product cannot be repaired or replaced in the country it is in, it may need to be sent to a different country or returned to the country of purchase at your expense for repair or replacement. When you contact the Nolek Authorized Service Provider, you will be asked to furnish the company name, address, telephone number, and proof of the original purchase (receipt) containing a description of the product(s), purchase date, and the appropriate Nolek serial number(s).

EXCLUSIONS AND LIMITATIONS

This Limited Warranty applies only to hardware products manufactured by or for Nolek that can be identified by the "Nolek" trademark, trade name, or logo affixed to them. The Limited Warranty does not apply to any non-Nolek products, even if packaged or sold with Nolek hardware. Non-Nolek manufacturers, suppliers, or publishers may provide their own warranties. This warranty does not apply: (a) to damage caused by accident, abuse, misuse, misapplication, or non-Nolek products; (b) to damage caused by service performed by anyone who is not an Nolek Authorized Service Provider; (c) to a product or a part that has been modified without the written permission of Nolek; or (d) if any Nolek serial number has been removed or defaced

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SIMPLE, MOBILE, ACCURATE & AFFORDABLE

Technical Data

| TECHNICAL DATA SniffIT X1® | |
|---------------------------------------|---|
| Battery capacity | 10 hours |
| Charging time | 1,5 hours |
| Dimensions H*W*D | 131x171x50 mm (5.16x6.73x1.97") |
| Weight | 296 gram (0.65 lbs) |
| Detectable gases | Helium and Hydrogen |
| Recommended concentration and mixture | Helium: 5-100% He, Hydrogen: 5%H ₂ , 95%N ₂ |
| Sensitivity Helium | 2x10 ⁻⁶ mbar.l/s |
| Sensitivity Hydrogen | 1x10 ⁻⁶ mbar.l/s |
| Response time | < 0,1 second |
| Recovery time | < 1 second |
| Operating Temperature | 10-40°C (50-104°F) |
| Storage temperature | -10°C to 60°C (14-140°F) |
| Humidity | 85% RH NC |
| Input Voltage | 9 V(dc) |
| Input Current | 600 mA max |
| Signal presentation | LED bar; green, yellow and red LEDs |
| Probe lengths included in package | 50mm (1.97") and 200mm (7.87")are included |
| Package | Airtight weather case included |

DIMENSIONS



SIMPLE: Turn it ON and start sniffing.

MOBILE: It is not bigger than a human hand, weighs 300g (0.66 lbs) and has 10 hours battery capacity.

ACCURATE: SniffIT has very accurate results based on a reliable technology.

AFFORDABLE: Least expensive sniffer on the market.

If you need to charge your product with either helium or hydrogen before you use your SniffIT, please see the Nolek ChargeIT-series of instruments which is built for that exact purpose.



For more information please visit: www.nolek.com

