

DXH 240-U

EN | LEAK DETECTOR / USER MANUAL



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1. Information

It is advisable to read this manual carefully to make the best use of the features of the DXH 240 detector and to avoid incorrect handling that could damage it.

2. Safety Instructions

Intended use : The DXH 240 may only be used for the leak detection procedure described in this manual. The device is a gas leak detector and

must not be used for measuring or monitoring ambient air or for personal safety. In the event of improper use, the user or third parties may be exposed to danger. Any deviation from the intended use described in this manual will result in warranty restrictions and the manufacturer's liability for damages.

User : The DXH 240 should only be operated by qualified personnel who have received training for these activities. The contents of this operating manual must be explicitly communicated to the user and the user agrees to follow the instructions to ensure the proper operation of the detector.

Surrounding environment : The DXH 240 **must not be used in explosive atmospheres or other hazardous environments.** Smoking is prohibited in the surrounding area. The operating and storage environment must be free from dirt and contamination by chemicals liquids or gas, and others fluid.

Sensitive electronics : The DXH 240 must be handled with care and avoid any shock or dropping. Check the device for damage before each use. The leak detector's aspiration probe suction port must always be kept clean and free of oil or grease. **Do not hold the detector sensor over a leak or gas cylinder opening.**

Graphics screen: It should only be cleaned with a soft cloth and a suitable cleaning product.

Repairs, cleaning and maintenance : Interventions on the device as well as maintenance and repair work are only allowed to be carried out by the manufacturer's after-sales service or by competent specialists. In case of non-compliance, the device may be damaged.

Any unauthorized intervention exposes the user

Battery Pack : The DXH 240 is equipped with a Ni-MH battery pack. Do not disassemble, open, crush, pierce, throw into fire or water the battery pack. Do not store above 60°C.

Accessories / Spare parts : Use only the manufacturer's accessories and spare parts.



CAUTION: DETECTOR IS NOT EXPLOSION-PROOF, NEVER USE IN AN EXPLOSIVE ATMOSPHERE!



Do not dispose of your electronic device with household waste. Return it to SAPRE Company at the end of its useful life. In accordance with Directive 2002/96 / EC on WEEE, we provide separate collection for environmentally friendly treatment.

3. Precautions of use

- The detector must be charged before first use. Disconnect the charger from the detector and the power source after a charging period of **no more than 12 hours**.
- To prevent the suction probe from becoming clogged, avoid any contact between the probe and water, grease or various dirt.
- Replace the filter tip at the end of the sniffing probe regularly and as often as necessary by unscrewing it.
- Be careful with 'bubble' test products and silicone oils, which can irreparably desensitize the detection cell. Clean the points to be checked (wipe with a cloth to remove various dirt, condensation, grease).
- Please note that the detector is designed for **optimal leak detection of less than 1 10-4 cc/s**. In the event of large leaks, **do not leave the detector on the leak point**, which saturates the cell and can reduce its sensitivity.
- After use, store the detector in its case, which must remain clean and dry.

4. Device Description

DXH 240 leak detector is designed to detect leaks of N₂/H₂ tracer mixtures by sniffing at atmospheric pressure. It allows the location of potential leaks.

The device is delivered complete, in a plastic case.

Front panel and detector housing :



fig. 3a

1. Detector housing includes the battery pack, suction system, and detection cell located at the top of the case (in the suction probe cover).
2. Flexible suction probe with cell cover.
3. Illuminated LED for dark areas.
4. Interchangeable filter tip that screws onto the end of the suction probe.
5. USB-C battery charging port.
6. Interchangeable 'Wide area' detection cone.

Detection interface and function buttons :

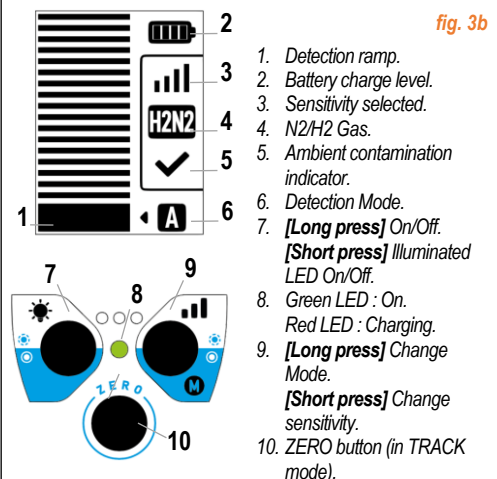


fig. 3b

1. Detection ramp.
2. Battery charge level.
3. Sensitivity selected.
4. N₂/H₂ Gas.
5. Ambient contamination indicator.
6. Detection Mode.
7. **[Long press]** On/Off. **[Short press]** Illuminated LED On/Off.
8. Green LED : On. Red LED : Charging.
9. **[Long press]** Change Mode. **[Short press]** Change sensitivity.
10. ZERO button (in TRACK mode).

5. Startup

- Read the user manual.
- Charge the detector before use. **[see 9]**
- Check that all components of the detector are properly connected.

- Press for **2 seconds** on the 'On' button [fig. 3b n°6] until the green LED lights up [fig. 3b n°8].
- The detector 'beep' and the screen lights up.
- The detector begins its 60 seconds initialization sequence and then displays the detection interface.



If the detector has not been used for several weeks, please wait several minutes for it to regain full sensitivity.

6. Use

At the end of the initialization sequence, the detector emits a 'beep' and the detection screen is displayed.

Application Type: The DXH 240-U detector can be used for various applications using H₂/N₂ tracer gas.

- Leak testing, indoors or outdoors, **on exposed pipes or piping systems.**
- Leak testing, indoors or outdoors, **on buried pipes or piping systems.** The "wide area" detection cone can be used.


Detection : The response time for detection is one to two seconds. The operator must wait, for each point to be checked, the time necessary for possible detection.

- To achieve a quick response and good detection, the sniffing probe should be as close as possible to the leak point to be checked.
- When a leak is detected, the graphic ramp increases in proportion to the flow of the detected leak. The audible signal is proportional to the leak.
- Immediately move the probe away from the leak point to avoid saturating the cell.
- Wait for the detector to zero again and for the graphic ramp to decrease before continuing detection.

Factory calibration : The detector is pre-calibrated upon delivery. It reaches full sensitivity after a few minutes of operation.

7. Detection Mode selection

To allow the user to adapt to different application cases, the detector has 2 detection modes: **AUTO mode 'A'** to quantify a leak or **TRACK mode 'T'** to locate a potential leak point.

To change the detection mode, **press and hold** the button  on the right side of the front of the detector. [fig. 3b n°9]

AUTO Mode 'A': Allows you to quantify a potential leak. The detector automatically sets its zero to the ambient temperature.



After detection, move the probe away from the leak point. If you remain on the leak, the detector will zero out on the pollution and the leak will no longer be detectable.


TRACK 'T' mode: Allows you to locate a potential leak point. The variation in the gas concentration level will remain displayed for a certain time as long as the operator remains in the leak area. The detector is reset by moving away from the leak point or by pressing the '**Zero**' button [fig. 3b n°10]. However, by remaining on the leak point, a slow automatic zeroing will gradually occur.


Ambient contamination : The detector has an ambient contamination indicator. [fig. 3b n°5] If the indicator is on, it is advisable to limit the duration of use of the detector in the area as much as possible in order to avoid accelerated desensitization of the detection cell. **Working in a contaminated area greatly reduces the sensitivity of the detector. The lower the ambient contamination, the more it will be possible to detect small leaks.**







Heavy contamination can lead to zero instability. In this case, it is essential to ventilate the room.

8. Sensitivity adjustment

The detector has four sensitivity thresholds:  The lower the sensitivity, the greater the amplitude of the ramp.

To change the sensitivity profile, you must make a **short press** on the button  located on the right on front panel. [fig. 3b n°7]

	Graphic ramp amplitude up to 3 10-5 cc/s.
	Graphic ramp amplitude up to 1 10-4 cc/s.
	Graphic ramp amplitude up to 3 10-4 cc/s.
	Graphic ramp amplitude up to 6 10-4 cc/s.

9. Battery life & charging

Autonomy : The detector is equipped with a Ni/Mh battery pack which provides a **continuous operating autonomy of approximately 6 hours** when fully charged.

Recharging the batteries : Connect the USB-C type socket of the charger to the detector. [fig. 3a n°5]

The red LED indicating the charge should light up. [fig. 3a n°8]

A full charge lasts 12 hours.

The batteries have little memory effect and can be recharged at the user's convenience.

Always use a compliant charger with an output power of 5v DC 1A.

10. Operating anomalies

The main operating anomalies of the detector are **a too long response time or a too low sensitivity** following the detection of a leak :

- Check for filter or aspiration aspiration probe clogging.
- Check that the cap is properly tightened.
- Check that the batteries are properly charged.
- Check the normal noise of the suction turbine in the box.
- Check the detection cell and replace it if necessary.

Sensor error : 'NO SENSOR'

- Check Check that the sensor is properly positioned in its location.
- Check that the cover at the end of the box is securely tightened. [Fig. 3a No. 2]
- Replace the detection sensor.



Never expose the detector to a jet (even very weak) of pure gas to test its sensitivity at the risk of desensitizing or destroying its detection cell.

11. Maintenance

The manufacturer provides maintenance for the detector, please contact the after-sales service of the company from which you purchased this equipment.

Any handling and replacement of spare parts must be done with the detector switched off.

Replacing the filter tip :

1. Unscrew the used filter tip. [fig. 3a n°4]
2. Screw the new filter tip back on, tighten without locking.

Replacing the flexible probe and the cap :

1. Unscrew the cover at the end of the box. [fig. 3a n°2]
2. Check that the detection cell is correctly positioned.
3. Screw the new cover back on, tighten without locking.

Replacing the detection cell :

1. Unscrew the cover at the end of the box. [fig. 3a n°2]
2. Pull-off the used detection cell.
3. Gradually push in the new detection cell without forcing, respecting the direction of the key.
4. Screw the cap back on, tighten without locking.

Routine maintenance parts :

- DXH240-C-H2 Selective detection cell for H2/N2 tracer mixture.
- DXH240-EFV-8/100 Filter tip
- DXH240-EFV-8/100 'Wide area' detection cone
- DXH240-PMF50 50 cm flexible shape memory aspiration probe

12. Technical characteristics

Housing	Shockproof plastic case. Height 22 cm, Width 6.5 cm, Depth 4 cm, Weight 0.350 kg.
Power supply	USB-C type mains charger, 5v DC
Batteries	Rechargeable Ni- Mh batteries. Charging time 12 hours. Continuous running time approx. 6 h.
Use	For workshop or production. Optimal performance between 10° and 40°C.
Detection cell	Selective N2/H2 tracer mixture cell.
Warm-up	60 seconds.
Response time	Less than 1 second.
Minimum Sensitivity	N2/H2 mixture : 1.10-5 cc/s [equ. approx. 1 g/year R134a]
Display	OLED graphic display.
Control	Permanent self-monitoring of the detection cell. Contamination indicator.
Carrying case	Detector delivered complete in carrying case with mains charger and instructions.

13. Specification standSard NF EN14624

The DXH 240 gas leak detector complies with the standard NF EN 14624:2020 which determines the following éléments :

	N2/H2 (Nidron)
Minimum static sensitivity	1 10-5 cc/s [equ. approx. 1 g/year R134a]
Minimum dynamic sensitivity	1 10-5 cc/s [equ. approx. 1 g/year R134a]
Response time	1 sec.
Recovery time	From 1 to 15 seconds depending on <i>the detection level and sensitivity threshold.</i>
Minimum sensitivity in a polluted atmosphere	2 10-5 cc/s [equ. approx. 1 g/year R134a]

Calibration frequency

Once a year

14. Warranty

The equipment is guaranteed for 1 year for parts and labor against any manufacturing defect, equipment returned free of charge, packaging and insurance to the manufacturer's address.

This warranty does not apply to normal wear and tear of the equipment under normal conditions of use, nor to the consequences of incorrect, incompetent or negligent use.

The warranty cannot be claimed by the user to ensure normal maintenance of the equipment for one year, or to carry out recalibrations or repairs due to improper use.

The warranty does not apply to the desensitization of the detection cell, the qualities and performances of which are checked before shipment, and the duration of use of which depends directly on the operating conditions.

Non-exclusive list of damages or repairs not covered by the warranty:

- Desensitization of the detection cell.
- Suction turbine blockage.
- Tearing, crushing or obstruction of the suction probe.
- Breakage or cracking of the graphics screen.
- Breakage of the cabinet, an element of the cabinet or the suitcase.

The warranty is strictly limited to the repair of the detector, the manufacturer cannot be held responsible under any circumstances for the direct or indirect consequences of the use of the equipment.

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DECLARATION DE CONFORMITE EU
EU DECLARATION OF CONFORMITY



SAPRE, confirme que le produit suivant, s'il est utilisé avec les principes de sécurité fondamentales et conformément à l'usage auquel il est destiné, est conforme aux exigences essentielles des directives et de la législation d'harmonisation de l'Union pertinente ci-dessous :

SAPRE, confirm that the following product, if used with the main safety requirement and according to their intended purpose, is in conformity with essential requirement of the directives and the relevant Union harmonisation legislation below :

Produit <i>Product</i>	Détecteur de Fuite / <i>Leak Detector</i>
Fabricant <i>Makers</i>	SAPRE
Modèle <i>Model</i>	DXH 240-U
Directives <i>Directives</i>	2014/35/EU [<i>Low Voltage</i>] 2014/30/EU [<i>Electromagnetic Compatibility</i>]
Normes <i>Harmonised Standards</i>	EN 61010-1:2011 EN 61326-1:2013

Aix-en-Provence, le 06/01/2025

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