

# LOKATOR VL20 MULTI GAS LEAK DETECTOR

## INSTRUCTION MANUAL





## TABLE OF CONTENTS

<b>1 INTRODUCTION .....</b>	<b>3</b>
<b>2 GENERAL SAFETY INSTRUCTIONS .....</b>	<b>3</b>
<b>3 DESCRIPTION OF THE APPLIANCE.....</b>	<b>4</b>
<b>3.1 FUNCTIONALITIES .....</b>	<b>4</b>
<b>3.2 DETECTOR MODULES .....</b>	<b>4</b>
3.2.1 FRONT PANEL OF ELECTRONIC UNIT .....	5
3.2.2 LEFT & RIGHT PANEL OF ELECTRONIC UNIT .....	5
3.2.3 DUAL CONNECTOR CABLE .....	6
3.2.4 SUCTION BLOCKS.....	6
<b>4 INSTALLATION &amp; START-UP .....</b>	<b>6</b>
<b>4.1 ASSEMBLY.....</b>	<b>6</b>
4.1.1 ASSEMBLING THE SUCTION BLOCK TO THE UNIT .....	6
4.1.2 CONNECTION TO MAIN POWER.....	6
4.1.3 OPERATION WITH INCORPORATED BATTERIES PACK .....	7
<b>4.2 LOKATOR VL20 FIRST START .....</b>	<b>7</b>
4.2.1 VERIFICATIONS BEFORE START-UP.....	7
4.2.2 START-UP.....	7
4.2.3 STARTING SEQUENCE .....	8
<b>5 USE OF LOKATOR VL20.....</b>	<b>8</b>
<b>5.1 PRECAUTIONS OF USE.....</b>	<b>8</b>
<b>5.2 DETECTION INTERFACE .....</b>	<b>9</b>
5.2.1 DETECTION LIGHT RAMP and SOUND SIGNAL .....	9
5.2.2 DETECTION SCREEN.....	10
<b>5.3 LEAK REASEARCH &amp; DETECTION .....</b>	<b>10</b>
5.3.1 LEAK RESEARCH PROCEDURE .....	10
5.3.2 ZEROTTING STABILITY .....	11
5.3.3 « SATURATION - CONTAMINATION » CONTROLE .....	11
<b>5.4 CALIBRATION FUNCTION.....</b>	<b>11</b>
5.4.1 CHECK OF CALIBRATION.....	11
5.4.2 PRECAUTIONS TO BE TAKEN BEFORE CALIBRATION PROCEDURE .....	11
5.4.3 CALIBRATION PROCEDURE .....	12
<b>5.5 SELF-CHECKING .....</b>	<b>12</b>
<b>6 OPTIONS MENU .....</b>	<b>13</b>
<b>6.1 OPTION 1 .....</b>	<b>13</b>
6.1.1 SELECTION OF THE TYPE OF GAS.....	13
6.1.2 SELECTION OF THE CALIBRATION REFERENCE GAS.....	13
<b>6.2 OPTION 2 .....</b>	<b>13</b>
6.2.1 ADJUSTING THE THRESHOLD A .....	13
6.2.2 ADJUSTING THE THRESHOLD B .....	13
<b>6.3 OPTION 3 .....</b>	<b>14</b>
6.3.1 UNIT ADJUSTMENT .....	14
6.3.2 LANGUAGE SETTING.....	14
6.3.3 RESET – FACTORY SETTING .....	14
<b>7 ERROR &amp; FAULT MESSAGES.....</b>	<b>14</b>

<b>8</b>	<b>MAINTENANCE - WARRANTY .....</b>	<b>15</b>
8.1	REPLACING THE DETECTION BLOCK .....	15
8.2	FILTERS .....	15
8.3	PERIODIC CONTROL .....	16
8.5	WARRANTY .....	16
<b>9</b>	<b>DISPOSAL.....</b>	<b>16</b>
<b>10</b>	<b>TECHNICAL DATA .....</b>	<b>16</b>
<b>11</b>	<b>CE DECLARATION .....</b>	<b>17</b>

---

## 1 INTRODUCTION

---

The LOKATOR VL20 Leak Detector has been designed for leak testing by direct sniffing on potential points of leakage.

The LOKATOR VL20 Detector can be equipped according to its use:

- A Detection Cell for refrigerant gases, HFO, HFC, HC and H<sub>2</sub>/N<sub>2</sub> Tracer Mixture

LOKATOR VL20 can be operated intermittently or continuously on a production line. Optimal operating temperature between 10 °C and 35 °C. Choose a clean, dry place, away from rain or splashing. Avoid corrosive or salt environments.

---

## 2 GENERAL SAFETY INSTRUCTIONS

---

- **Proper use for the intended purposes:** The LOKATOR VL20 should only be used for leak detection method described in this manual. The appliance is a gas leak detector and should not be used for measuring or controlling ambient air. In the event of improper use and / or control, the user or third parties may be exposed to hazards. Any deviations from the intended use described in this manual result in warranty restrictions and manufacturer's liability for damage.

- **Personnel and user:** The LOKATOR VL20 may only be operated by qualified personnel trained for these activities. The contents of this manual must be explicitly communicated to the user and the user agrees to follow the instructions to ensure the correct functioning of the detector.

- **Surrounding environment:** The LOKATOR VL20 should not be used in environments at risk of explosion and / or other hazardous environments. Smoking is prohibited in the surrounding area of LOKATOR VL20. The environment of use and the storage environment must be free from contamination and contamination and must in particular be protected against the influence of chemical substances such as silicones. Silicon and sulfur-containing media or inorganic impurities, oils, greases and liquids that evaporate can cause poisoning phenomena on the gas sensor that may alter the sensitivity and / or selectivity of the sensor. Reduced sensitivity, unstable calibration or false detection may be a possible consequence.

- **Commissioning and operation:** Connecting the device to the socket must only be done by connecting a right cable. The appliance must only be repaired by the after-sales service. Any unauthorized intervention threatens the safety, the correct operation of the device and restricts the rights to guarantee. The connection cable between the device and the hand-held sensor must be guided in such a way as to avoid the risk of tripping for the operator and the rapid deterioration of the cable.

- **Emergency stop circuit:** In case of emergency, put the LOKATOR VL20 off by pressing the power switch located on the rear of the housing and pull the plug. LOKATOR VL20 turns off immediately.

- **Shock:** Before opening the unit, turn off the system and disconnect the power plug. Servicing, maintenance and repair work should only be carried out by the manufacturer's after-sales service or by specialists authorized by the manufacturer.

- **Ventilation:** Ensure that the ventilation devices on the LOKATOR VL20 and accessories are operable. Clogged grids and ventilation slots may cause overheating, causing malfunction or damage to the unit.

- **Repairs, cleaning and maintenance:** Interventions on the device as well as maintenance and repair work has only the right to be conducted by the manufacturer after-sales service or by specialists authorized by the manufacturer. Failure to observe this could result in damage to the unit. Any unauthorized intervention exposes the user to a risk, threatens the safety of the device and restricts the warranty rights. The activities described in the chapter "MAINTENANCE" are an exception.
- **Sensitive electronics:** The sensor must always be connected or disconnected when the LOKATOR VL20 is off. The suction unit contains a suction system, avoid vibrations or shocks that may damage the system.
- **Accessories / Spare parts:** Use only the accessories and spare parts from the manufacturer.

## 3 DESCRIPTION OF THE APPLIANCE

### 3.1 FUNCTIONALITIES

The LOKATOR VL20 provide the following functions:

#### GENERAL

- Multi gas library
- Automatic Calibration
- Display threshold value in g/year when exceeding

#### INTERFACE / DISPLAY

- 4 line LCD screen
- Two configurable sensitivity profiles
- Light ramp with tone sound signal
- Indication of environmental contamination

#### SELF-CHECKING

- Permanent self-checking
- Self-checking of the Detection Block
- Short-circuit protection in the double-plug cable.

### 3.2 DETECTOR MODULES

The device includes 3 modules:

- 1 Electronic box
- 1 double-socket cable, connecting the Detection Block to the electronic box
- 1 Detection Block: Detection Block + Flexibles Pipe

The sniffing pipe has a standard length of 13 cm.  
Special length pipes can be supplied according to customer needs.



• Electronic unit



• Double-socket cable



• 1 Detection Block



### 3.2.1 FRONT PANEL OF ELECTRONIC UNIT



- 1 > light ramp
- 2 > self checking light
- 3 > 4 lines LCD screen
- 4 > power on indicator light

- 5 > mains supply indicator light
- 6 > battery charge indicator light
- 7 > directional selection pad

### 3.2.2 LEFT & RIGHT PANEL OF ELECTRONIC UNIT



- 1 > ON/OFF power switch
- 2 > power adaptor socket – Output 9v, 1A
- 3 > fuse 1A

- 4 > Double-socket cable connector

### 3.2.3 DUAL CONNECTOR CABLE



Dual-plug cable connecting the probe to the electronic unit. The cable connects on the front face cabinet [chap. 3.2.1]. The standard cable length is 2.50 m.

### 3.2.4 SUCTION BLOCKS



Detection block, with cell, pump and detection light, directly interchangeable by quick plug.

The detection block of the LOKATOR VL20 have an universal detection cells for Refrigerant gas & H<sub>2</sub> / N<sub>2</sub> mixture.

1 > threshold detection light

2 > cable socket

#### • DETECTION CELL « REFRIGERANTS GASES & H<sub>2</sub>/N<sub>2</sub> »

*The detection cell allows:*

- The detection of all the refrigerant gases currently used, HFC, HFO and Mixture.
- Detection of the R600 & R290.
- Detection of the H<sub>2</sub> / N<sub>2</sub> Tracer Mixture

MINIMUM SENSITIVITY 1234ze	: 0.5	g/yr
MINIMUM SENSITIVITY R134a	: 0.5	g/yr
MINIMUM SENSITIVITY HFC & Mixtures	: 0.5	g/yr
MINIMUM SENSITIVITY HFO & Mixtures	: 0.5	g/yr
MINIMUM SENSITIVITY R290	: 0.5	g/yr
MINIMUM SENSITIVITY R600	: 0.5	g/yr
MINIMUM SENSITIVITY H <sub>2</sub> /N <sub>2</sub> Equivalent R134a	: 0.5	g/yr

After calibration of the detector, the gas selection automatically changes the sensitivity of the detector according to the detected gas. The sensitivity positions correspond to the leakage value detected in g/y or its equivalent when using the H<sub>2</sub>/N<sub>2</sub> Tracer Mixture.

## 4 INSTALLATION & START-UP

### 4.1 ASSEMBLY

#### 4.1.1 ASSEMBLING THE SUCTION BLOCK TO THE UNIT

- Connect the detection Block to the electronic control unit using the cable fitted with 2 quick-release screwed-in connectors, push the plugs in fully, before screwing in the rings.

#### 4.1.2 CONNECTION TO MAIN POWER

- Connect the LOKATOR VL20 to the mains power with his adapter sector:  
**Input - 110v to 250v 50/60 Hz. Output - 9v, 1A**  
**Fuse of 1A** are located on the left side of the cabinet, near the adapter sector plug.

---

#### 4.1.3 OPERATION WITH INCORPORATED BATTERIES PACK

---

The LOKATOR VL20 Detector have a power supply with a built-in battery pack that provides a full battery life of approximately 4 hours of operation.

- The batteries are charging when the detector is connected to the mains, Red light ON. [chap. 3.2.1], the charge is around 12 hours for a full charge.
- If the Detector is not used for a long time, it is best to avoid battery overcharge from disconnecting it from the mains.
- The batteries are also recharged when the Detector is in operation.
- The **ORANGE light** battery charge [chap. 3.2.1] indicates the good charge of the batteries. The light is ON when the battery is charging and will progressively fade OFF or dimly lit when the battery is fully charged.

---

## 4.2 LOKATOR VL20 FIRST START

---

### 4.2.1 VERIFICATIONS BEFORE START-UP

---

- Check whether the probe and the connection cable to the cabinet are mechanically intact. The connecting cable must not be wrinkled, crushed, deformed or tear.
- Connecting or disconnecting the probe or the cable to the LOKATOR VL20 Cabinet must only be done when the LOKATOR VL20 is not operating.
- Check that the cabinet is correctly connected to the mains power supply.  
The RED LED on the front panel of the cabinet lights up to indicate Mains power.

### 4.2.2 START-UP

---

- Toggle the ON / OFF power switch on the left side of the cabinet.
- The green LED on the front panel lights up to indicate that the Detector is ON.



### 4.2.3 STARTING SEQUENCE

The LOKATOR VL20's light ramp and the LCD screen will light on and display successively:

#### 1 system initialisation



#### 2 Warm-up of the probe

- Indicates the countdown of the heating period: 180 seconds
- Each led of the detection lights ramp cyclically one by one.



#### 3 DETECTION screen

- The detector has completed its initialization and automatically switches to detection mode.
- The GREEN light of the zero is lit and the RED light of the Probe is off.
- The LOKATOR VL20 is ready for operation !



## 5 USE OF LOKATOR VL20

### 5.1 PRECAUTIONS OF USE

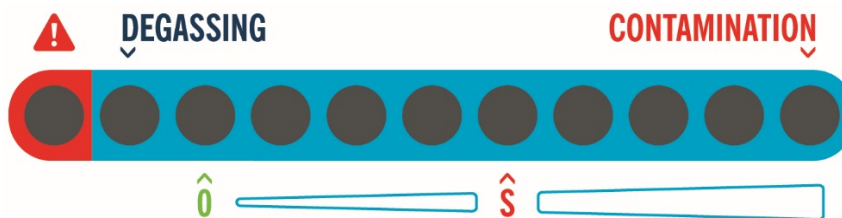
- Avoid unnecessary operation of the Detector during periods when it is not in use.
- Avoid detections in environments contaminated with gases, vapours or solvents, which unnecessarily tires the detection cell and limit by masking the efficiency of the detection.
- In cold temperatures, wait a few more minutes after the heating period to obtain the full sensitivity of the detector.
- Avoid any contact of the pipe with water, oil, grease or other soiling.  
Clean the areas to be tested (Wipe with a cloth to remove soiling and condensation)
- Avoid aspirating condensation, fatty vapours, oils or grease (especially silicone oils), and dust (especially metal).
- Avoid performing a "bubble test" before using the Detector.  
Wipe the points to be tested very carefully if a "bubble test" is performed before using the detector.
- **Handle the Detection Block carefully, do not hit it, do not knock it down.**
- **A circular seal protects the block head against shocks.**
- **At rest, hang the detection block on the support provided with the detector.**
- **A fibre filter after the semi-rigid pipe protects the sensor cell.**  
This filter should be replaced regularly and as needed.  
Never use the Detection Block without filter.



**THE DETECTOR IS NOT EXPLOSION PROOF  
NEVER USE IT IN HAZARDOUS AREAS.**

## 5.2 DETECTION INTERFACE

### 5.2.1 DETECTION LIGHT RAMP and SOUND SIGNAL



On detection of a leak, the light ramp will light on according how big is the leak detected. Associate with the light ramp a tonality loud signal will be heard.

#### SELF-CHECKING



The indicator lights up if an error is detected. [chap. 5.5]

#### YELLOW LIGHT

- DEGASSING - Indicates that the detector is degassing, a countdown

#### « DEGASSING »

on the LCD shows the remaining time. It is necessary to wait for the light off before continuing the leak research.

- The red probe light comes on if the set point has been exceeded.

#### GREEN LIGHT

« 0 »

Indicates that the detector is ready to detect, Level 0 of detection.

#### YELLOW LIGHT

At the beginning of the light ramp. These lights indicate the presence of leakage less than the set point.

#### RED LIGHT

« S »

Illuminates for the threshold value corresponding to the indicated value on the LCD screen. [chap. 5.2.2]

- Turning the light on the Remote Detection unit.
- Triggering the 1st tone sound.

#### RED LIGHT

Lights up for the threshold value greater than the value indicated on the LCD screen.

#### RED LIGHT

« CONTAMINATION »

Leakage Value Detected 10 times the threshold value. Indicates the SATURATION/CONTAMINATION of the cell.

### 5.2.2 DETECTION SCREEN

- 1 > Selecting A or B customizable detection threshold
- 2 > Selecting the detection threshold
- 3 > CALIBRATION Menu
- 4 > Battery level display [BATTERY Option]
- 5 > OPTIONS Menu



#### • SELECTION OF PROFILE A or B 1

Select one of the two preset detection thresholds A or B. The user can switch from one detection threshold to another to quickly adapt the detector to the type of leak detected. The selected threshold configure the detection threshold automatically 2. Profiles A and B are configured in the "OPTIONS" menu. [chap. 6.2]

#### • SELECTION OF DETECTION THRESHOLD 2

Used to select the detection threshold of the LOKATOR VL20. The value of the indicated threshold corresponds to the leakage value for which the red "S" indicator will light up.

#### • CALIBRATION MENU 3

Provides access to the LOKATOR VL20 calibration procedure. [chap. 5.4]

#### • BATTERY LEVEL display 4

Indicates the charge level of the internal battery of the LOKATOR VL20 : 100%, 75%, 50%, 25%, 10%. Only works with the built-in battery pack option. [chap. 4.1.4]

#### • OPTIONS MENU 5

Provides access to the various setting options of the LOKATOR VL20. [chap. 6]

## 5.3 LEAK RESEARCH & DETECTION

### 5.3.1 LEAK RESEARCH PROCEDURE

- **The response time for detection is approx. 1 second.**  
The response time depends on the length of the sniffing tube used.
- **To obtain a quick response and an efficient detection, the sniffing tube must be brought as close as possible to the place being tested.** (A few millimeters)
- **Avoid holding the sniffing tube on the leakage point excessively, as detector sensor fatigue will result.**
- **Always work by successive contacts, pulling back the tube from the leak point when a detection.**

**STEP 1 >** When the warm-up period over, the red light goes out and the "0" green light of the light ramp is ON indicating that the unit is ready for detection.

**STEP 2 >**

- Check leak potential points.
- Always work by successive contacts, pulling back the tube from the leak point when a detection.

**STEP 3 >**

- On pulling back the detection pipe from the leakage point, the ramp gradually decreases and resets to zero. The **GREEN "0"** light will light ON after the degassing time of the sensor.

**It is imperative to wait for The GREEN "0" light will light ON before continuing the detection.**

### 5.3.2 ZEROTTING STABILITY

- With a new Sensor the manipulation of the Detection Probe can cause the zero to be unstable, especially in high sensitivity positions. This instability will normally disappear after a few uses.
- Avoid manipulating the Detection Probe roughly and knocking it against the object being tested.
- Atmospheric contamination (Gases, Refrigerant gases or Solvents) at an excessive level can also cause zero instability and lead to false readings.
- Atmospheric contamination at an excessive level cannot be compensated for by the auto-zero and will produce a permanently illuminated display (especially when using the positions of high sensitivity).

### 5.3.3 « SATURATION - CONTAMINATION » CONTROLE

The "CONTAMINATION" light at the right end of the light ramp is normally off. This light comes on for two reasons :

- **The saturation of the Sensor when detecting a very big leak.**  
In that case it is necessary to wait for the light to be fully OFF before continuing the detection.
- **A very high atmospheric contamination** can makes difficult or impossible an efficient tightness control and will cause a premature wear of the Sensor. In such a case, it is essential to reduce the atmospheric contamination level by ventilation of the premises, and to stop all sources of contamination before continuing the detection.

## 5.4 CALIBRATION FUNCTION

Access to the CALIBRATION function by selecting on the main DETECTION screen "CAL. " [chap. 5.2.2 N°3]

During its use, the sensitivity of the detection cell may vary depending on various factors such as the frequency of detection, ambient contamination and other soiling factors.



- Before the start of a CALIBRATION procedure, the probe should be at least in operation for 10 minutes minimum and in a atmosphere not or very little contaminated to ensure optimum calibration.
- The CALIBRATION procedure must be carried out in a room with a low airflow.
- A CALIBRATION on a leakage value less than 3 g/yr must be ONLY performed in an environment without NO CONTAMINATION.

### 5.4.1 CHECK OF CALIBRATION

- Use a calibrated leak corresponding to the type of gas and set its value.  
- GAZ REFRIGERANT & H2/N2 Cell : **CALIBRATED Leak 1234ze**      3 and 5 g/yr
- Select "TEST" to start a calibration check procedure.
- At the end of the check, the display indicates whether the TEST CALIBRATION is "OK" or "FALSE".
- Following a TEST CALIBRATION, if the TEST is "FALSE", initiate a CALIBRATION procedure.

### 5.4.2 PRECAUTIONS TO BE TAKEN BEFORE CALIBRATION PROCEDURE

- If the calibrated leak is adjustable pressure, check the pressure corresponding to the calibration value.
- During the calibration procedure, move the probe smoothly.
- Position the nozzle of the probe pipe directly into the orifice of the calibrated leak.

### 5.4.3 CALIBRATION PROCEDURE

Use a calibrated leak for the type of detection cell and then press the **CALIBRATION** button. You can select the calibration reference gas in the **OPTION 1** menu [chap. 6.1.2] :

- GAZ REFRIGERANT & H2/N2 Cell : **CALIBRATED Leak 1234ze**      **3 and 5 g/yr**


- Then follow the different steps of the CALIBRATION protocol displayed on the screen.
- At any time, you can cancel the CALIBRATION procedure by selecting « CANCEL ».
- If the CALIBRATION protocol ran without errors, the new calibration value is saved automatically.
- It is possible to reset the calibration value to the factory calibration value in the **OPTION 3** menu of the LOKATOR VL20. [chap. 6.5]



**If the message CALIBRATION FAIL is displayed, it is possible that the flow of the calibrated leak is too low or that the sensing cell is desensitized ; making the calibration impossible. Check the calibrated leak or the sensor cell.**

### 5.5 SELF-CHECKING

The detector is equipped with a self-check function that verifies the proper connection of the cell, its power supply, its heating and the cut or the short circuit of the cable.

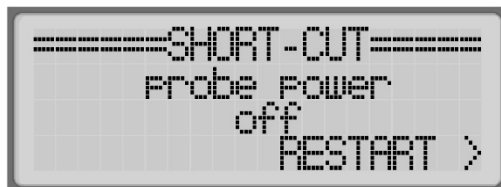
- In the event of a fault, the red "AUTO CHECK" light flashes.  The main cause is the destruction of the detection cell or the cutting of the connecting cable.

**Attention the self-check operation does not control the good calibration of the detector, nor the obstruction of the sniffing pipe.**

- As a result of wear due to use or following a pinch or crush, a short circuit of the internal wires of the cable may occur. The LOKATOR VL20 will automatically turn off the power of the Detection Block.

Check the cable and replace if necessary then select **"RESTART"**.

**Warning the use of a defective cable can seriously damage the detector.**



## 6 OPTIONS MENU

The LOKATOR VL20 has 3 options screen « OPTION 1 », « OPTION 2 », « OPTION 3 ». It is accessed by selecting « OPTIONS » <sup>1</sup>



### 6.1 OPTION 1

- <sup>1</sup> SELECTION OF THE TYPE OF GAS [6.1.1]
- <sup>2</sup> SELECTION OF THE CALIBRATION REFERENCE [6.1.2]
- <sup>3</sup> « BACK » return to the screen « DETECTION »
- <sup>4</sup> « NEXT » access to the screen « OPTION 2 »



#### 6.1.1 SELECTION OF THE TYPE OF GAS

Selects the type of gas to be detected. The LOKATOR VL20 automatically adjusts the detection curve according to the type of gas to match the sensor calibration.

The types of gases in the list depend on the calibration reference configured in the OPTION menu of the LOKATOR VL20. [chap. 6.2]

To optimize the reading of the leakage value, it is preferable to calibrate the detector with the target gas.

- **1234ze** CALIBRATION Reference with **REFRIGERANTS GAS & H2 / N2** Cell :  
> 1234ze, 1234yf, R448, R449, R452, R600, R290, H2/N2, R134a, R404, R407, R410, R32

#### 6.1.2 SELECTION OF THE CALIBRATION REFERENCE GAS

Selects the reference gas for LOKATOR VL20 calibration.

Depending on the **REFERENCE GAS** selected, the LOKATOR VL20 can detect one or more **TYPES OF GAS** and automatically adjusts the detection curve according to the selected gas:

To optimize the reading of the leakage value, it is preferable to calibrate the detector with the target gas.

- **1234ze** CALIBRATION Reference with **REFRIGERANTS GAS & H2 / N2** Cell :  
> 1234ze, 1234yf, R448, R449, R452, R600, R290, H2/N2, R134a, R404, R407, R410, R32

The selected reference gas is indicated in the "CALIBRATION" menu. Before starting a calibration procedure check that the **REFERENCE GAS** corresponds to the gas of your calibrated leak.

### 6.2 OPTION 2

- <sup>1</sup> ADJUSTING THE THRESHOLD A [6.2.1]
- <sup>2</sup> ADJUSTING THE THRESHOLD B [6.2.2]
- <sup>3</sup> « BACK » return to the screen « OPTION 1 »
- <sup>4</sup> « NEXT » access to the screen « OPTION 3 »



#### 6.2.1 ADJUSTING THE THRESHOLD A

Set the value of the "THRESHOLD A" detection threshold displayed on the detection screen. [Chap. 5.2.2]. Allows the user to switch from one detection threshold to another quickly.

#### 6.2.2 ADJUSTING THE THRESHOLD B

Set the value of the "THRESHOLD B" detection threshold displayed on the detection screen. [Chap. 5.2.2]. Allows the user to switch from one detection threshold to another quickly.



## 6.3 OPTION 3

- 1 UNIT ADJUSTMENT [6.3.1]
- 2 LANGUAGE SETTING [6.3.2]
- 3 « BACK » return to the screen « OPTION 2 »
- 4 « RESET » access to the screen « FACTORY SETTING »



### 6.3.1 UNIT ADJUSTMENT

Used to set the display unit for the detection threshold value [g / yr]. The LOKATOR VL20 work only in g/yr.

### 6.3.2 LANGUAGE SETTING

Used to set the language of the LOKATOR VL20 : [FR] French – [EN] English

### 6.3.3 RESET - FACTORY SETTING

Resets the LOKATOR VL20. All settings and the CALIBRATION value will be reset to their default values.

<BACK return to the screen « OPTION 3 »

## 7 ERROR & FAULT MESSAGES

### THE DETECTOR DOES NOT START

When the POWER switch is set to ON, the green start LED will not light and the detector will not start.

- 1 Check that the power cord is firmly connected to the back of the cabinet.
- 2 Check that the red power indicator on the front of the cabinet is lit. [Chap. 3.2.1]  
 > If this is not the case, replace the fuse in the power supply unit on the left side of the cabinet. [Chap. 3.2.2]  
 If the detector still does not start, contact the After Sales Service.

### SHORT CIRCUIT

The display shows SHORT CIRCUIT. [Chap. 5.5] and the red "AUTO CONTROL" indicator flashes.

- 1 Check that the cable is in good condition, and does not show signs of cuts, tears or crushing. It may exist in a cable in bad condition SHORT CIRCUITS.  
 > Replace the cable if necessary then select "RESTART".  
 Be careful using a faulty cable can seriously damage the detector.
- 2 If the SHORT CIRCUIT message persists, the problem may come from the Detection Block that is being damaged.  
 > You may need to replace the Detection Block.  
 If the SHORT CIRCUIT message still displayed, contact the After Sales Service.

### PROBE ERROR

The screen displays PROBE ERROR. [Chap. 5.5] and the red "AUTO CONTROL" indicator flashes.

- 1 Stop the detector with the POWER switch.
- 2 Check the right connection of the Detection Block [chap. 4.1.1]
- 3 Check that the cable is in good condition, and does not show signs of cuts, tears or crushing. A cable in poor condition may have WIRES CUT INSIDE.  
 > Replace the cable if necessary.
- 4 Restart the detector with the POWER switch.
- 5 If the ERROR PROBE message persists, the most common cause is that the Sensor Cell is worn or damaged.  
 > It is necessary to replace the Detection Block.  
 If the ERROR PROBE message persists, contact the After Sales Service.

**LOW SENSITIVITY  
OR  
NO DETECTION**

*After checking on a Calibrated Leak of known value, the detector detects little or no.*

- 1** Check that the red "AUTO CHECK" indicator is off.  
Check that the "CONTAMINATION" indicator is off.  
*> If the light is on, the ambient working atmosphere is too polluted. Ventilate the work area and wait for the indicator to go out.*
- 2** *> If the light does not go out, either the work area is still polluted or the Sensor Cell is over used and it is necessary to replace it.*
- 3** Check the detector settings: GAS Type and DETECTION Threshold.
- 4** Check the CALIBRATION of the detector [chap. 5.4.1]  
*> If necessary, make a new calibration with a Calibrated Leak of known value. Otherwise, it is possible to restore the factory settings of the detector. [Chap. 6.4.3]*  
*> If calibration is not possible, either check your Calibrated Leak or the Detection Block is used and it is necessary to replace it.*
- 5** Unscrew the detection block from the cable.
- 6** Unscrew the sniffer pipe from the detection block.
- 7** Check that the sniffing pipe is not clogged, bent or crushed.  
*> If this is the case try to unclog the pipe, otherwise it is necessary to replace the sniffing pipe.*
- 8** Check that the detection block is equipped with a fibre filter and that it is not obstructed or room.  
*> If this is the case replace the fibre filter.*
- 9** Check that you hear the sound of the suction turbine in the detection block.  
He must be gentle and steady.  
*> In the event that the turbine does not rotate, emits whistles or is irregular in operation, it is necessary to replace the DETECTION BLOCK.*
- 10** The most common cause of low sensitivity or inability to detect is a used detection block.  
*> It is necessary to replace the detection block.*

*If the problem persists, contact the After Sales Service.*

**OPERATING  
INSTABILITY**

*The detector operates normally, but is unstable. Moving the suction block and the cell causes untimely detections.*

- 1** Check the detector settings: GAS Type and DETECTION Threshold.
- 2** Check the CALIBRATION of the detector [chap. 5.4.1]  
*> If necessary, make a new calibration with a Calibrated Leak of known value. Otherwise, it is possible to restore the factory settings of the detector. [Chap. 6.4.3]*
- 3** Check that the "CONTAMINATION" indicator is off.  
*> If the light is on, the ambient working atmosphere is too polluted. Ventilate the work area and wait for the indicator to go out.*  
*> If the light does not go out, either the work area is still polluted or the Detection Block is used and it is necessary to replace it.*
- 4** Check that you hear the sound of the suction turbine in the suction unit.  
He must be gentle and steady.  
*> In the event that the turbine does not rotate, emits whistles or is irregular in operation, it is necessary to replace the DETECTION BLOCK.*
- 5** The most common cause of operating instability is an over used detection block.  
*> It is necessary to replace the detection block.*

*If the problem persists, contact the After Sales Service.*

## **8 MAINTENANCE - WARRANTY**

### **8.1 REPLACING THE DETECTION BLOCK**

- Replacement of the Detection Cell must be done with the LOKATOR VL20 switched OFF or on a Detection Block not connected to the electronic box.
- When replacing the Detection Block, it is preferable to also replace the Sniffing Pipe whose internal duct is often contaminated.
- Replacement of the Detection Block must be accompanied by a new calibration of the detector.

### **8.2 FILTERS**

- The **fiber filter** mounted at the entrance to the Detection Block is replaceable by unscrewing the sniffing pipe. **This filter must be changed regularly and as soon as necessary.**

### 8.3 PERIODIC CONTROL

---

- We recall that a **calibrated leak** is the **only instrument** to a valid and reliable control of the performance of a leak detector.
- Using a **calibrated leak** check **regularly** that the **sensitivity** corresponds to the required value and the sensor **response time** is normal.
- A too long response time may be due to clogging of the filter or the sniffing pipe, or a malfunction of the suction motor.
- The periodicity of the control must be determined by the user according to the operating conditions of the detector.

### 8.5 WARRANTY

---

- The equipment is warranted for one year parts and labor against manufacturing defects, materials delivered free of charge, packaging and insurance at the manufacturer.
- This warranty applies primarily to manufacturing defects and does not apply to normal wear and tear of the equipment under normal use or to the consequences of improper, incompetent or Carelessness.
- The warranty does not cover accidental wear or damage to parts such as Dual-Outlet Cable, Detection Block, Snuff Pipe, or other wear parts whose service life depends on operating conditions.
- The warranty does not apply to the wear of the detection unit or to the desensitization of the detection cell, whose qualities and performances are checked before shipment, but whose duration of use depends directly on the operating conditions.
- The warranty can not be claimed by the user for routine maintenance of the equipment for 1 year or for repairs due to misuse.
- The warranty is strictly limited to the repair of the detector. The manufacturer can not be, under Any Circumstances, linkable for live or indirect consequences of the use of equipment.

## 9 DISPOSAL

---

- Dispose of the packaging as waste paper.
- Dispose of plastic packaging as recycling waste.
- On finally decommissioning the LOKATOR VL20, take it to the next recycling center.

## 10 TECHNICAL DATA

---

- Warm-up time: 180 sec.
- Reaction time: 1 sec.
- Operating temperature: 10°C – 40°C
- Power supply: rechargeable battery (9 V - 1.5 A max.)
- Battery life: 4 hours
- L x H x D in mm: 220 x 220 x 80
- Weight: approx. 550 g

## 11 CE DECLARATION

### 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 :*

<b>Produit</b> <i>Product</i>	Détecteur de Fuite / <i>Leak Detector</i>
<b>Fabricant</b> <i>Makers</i>	SAPRE
<b>Modèle</b> <i>Model</i>	LOKATOR VL 20
<b>Directives</b> <i>Directives</i>	2014/35/EU [ <i>Low Voltage</i> ] 2014/30/EU [ <i>Electromagnetic Compatibility</i> ]
<b>Normes</b> <i>Harmonised Standards</i>	EN 61010-1:2011 EN 61326-1:2013

Aix-en-Provence, le 12/11/2019

Jean François JOANIN  
*lead supervisor*

**SAPRE**  
TECHINDUS Bat. A  
Z.I. Les Milles  
645, rue Mayor de Montricher  
F-13290 Aix-en-Provence  
Tél : +33(0)4.42.21.90.48  
E-mail : [contact@sapre.fr](mailto:contact@sapre.fr)