

CONDENSED MANUAL

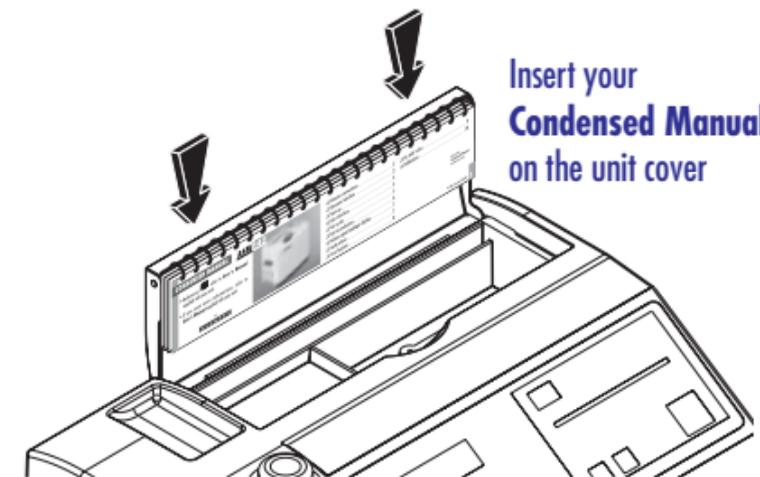
ASM 142/142 D/GRAPH/GRAPH D

- References  refer to a specific chapter of the **User's Manual**.
- For further information, please refer to **User's Manual** supplied with your unit.

adixen
by Alcatel Vacuum Technology



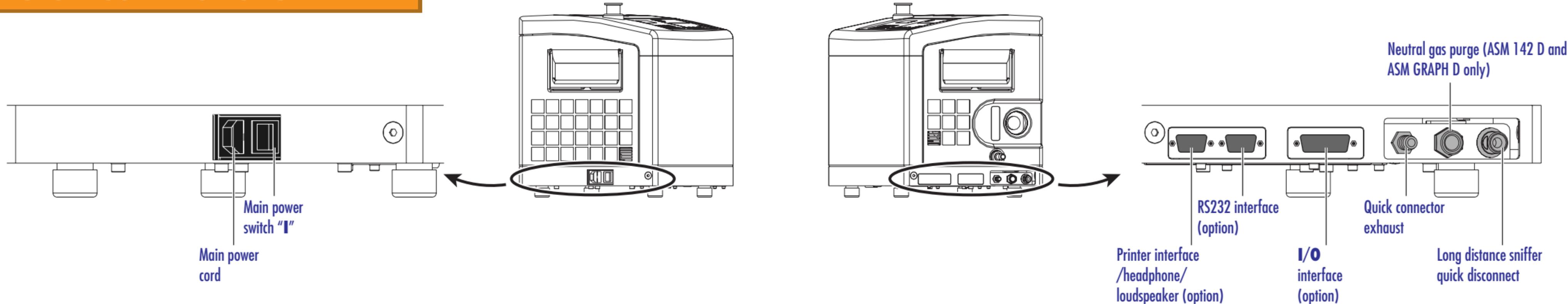
<input type="checkbox"/> Detector connections.....	2	<input type="checkbox"/> Air inlet vent	9
<input type="checkbox"/> ASM 142/142 D Operator interface	3	<input type="checkbox"/> Calibration.....	10
<input type="checkbox"/> ASM GRAPH/GRAPH D Operator interface	4	<input type="checkbox"/> Assistance to the test.....	11
<input type="checkbox"/> Start-up.....	5		
<input type="checkbox"/> User interface level	5		
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<input type="checkbox"/> Helium signal analog display.....	7		
<input type="checkbox"/> Audio alarm.....	7		
<input type="checkbox"/> Zero function	8		



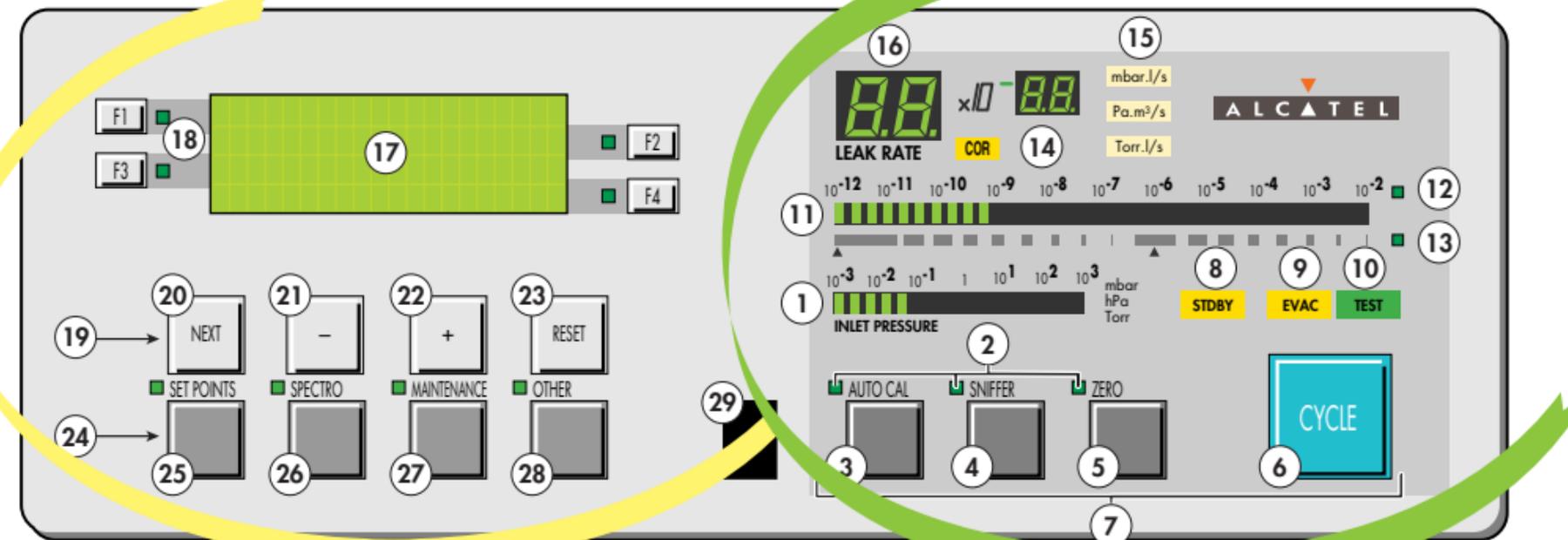
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DETECTOR CONNECTIONS

Left side Right side



OPERATOR INTERFACE ASM 142/142 D

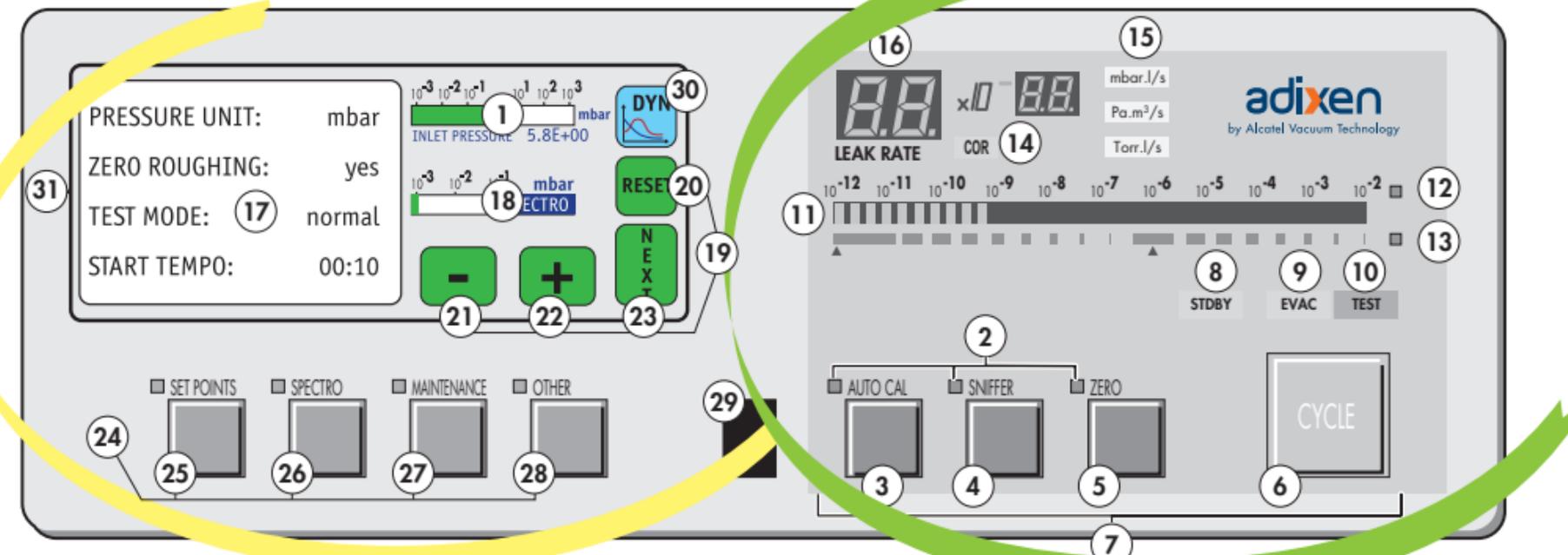


Setting and maintenance part

Operation part

- 1 Inlet port pressure analog display
- 2 Control and menu selection indicators (ON when activated)
- 3 Auto-calibration START/ABORT control key
- 4 Sniffing mode ON/OFF control key
- 5 Auto-zero ON/OFF control key
- 6 Cycle START/STOP control key
- 7 Control keys (4 keys)
- 8 Standby ON/OFF indicator
- 9 Evacuation ON/OFF indicator
- 10 Test ON/OFF indicator
- 11 Helium signal analogic display
- 12 Helium signal analogic scale ON/OFF indicator
- 13 Helium signal Zero scale ON/OFF indicator
- 14 Correction factor COR indicator (applied to digital display)
- 15 Units ON/OFF indicator
- 16 Helium signal digital display
- 17 Alphanumeric display (4 lines x 20 characters)
- 18 Parameter function keys (1 key per display line)
- 19 Modification access keys (4 keys)
- 20 NEXT : next display/parameter circular function
- 21/22 Plus or minus value adjustment, parameter selection, audio volume adjustment keys
- 23 RESET of previously displayed values (cancels temporary inputs)
- 24 Menu selection access key (4 keys)
- 25 SET POINT menu selection key
- 26 SPECTRO calibration and analyzer cell configuration menu selection key
- 27 MAINTENANCE menu selection key
- 28 OTHER menus selection key (test mode selection, inlet VENT selection, date/time)
- 29 Remote control connection

OPERATOR INTERFACE ASM GRAPH / GRAPH D



Setting and maintenance part

Operation part

- 1 Inlet port pressure analog display
- 2 Control and menu selection indicators (ON when activated)
- 3 Auto-calibration START/ABORT control key
- 4 Sniffing mode ON/OFF control key
- 5 Auto-zero ON/OFF control key
- 6 Cycle START/STOP control key
- 7 Control keys (4 keys)
- 8 Standby ON/OFF indicator
- 9 Evacuation ON/OFF indicator
- 10 Test ON/OFF indicator
- 11 Helium signal analogic display
- 12 Helium signal analogic scale ON/OFF indicator
- 13 Helium signal Zero scale ON/OFF indicator
- 14 Correction factor COR indicator (applied to digital display)
- 15 Units of measurement selection
- 16 Helium signal digital display
- 17 Menu display (4 lines)
- 18 Spectro pressure analog display
- 19 Modification access keys (4 keys)
- 20 RESET: next display/parameter circular function
- 21/22 Plus or minus value adjustment, parameter selection, audio volume adjustment keys
- 23 NEXT of previously displayed values (cancels temporary inputs)
- 24 Menu selection access key (4 keys)
- 25 SET POINT menu selection key
- 26 SPECTRO calibration and analyzer cell configuration menu selection key
- 27 MAINTENANCE menu selection key
- 28 OTHER menus selection key (test mode selection, inlet VENT selection, date/time)
- 29 Remote control connection: **connect if before switching on the detector**
- 30 Graphic interface selection key
- 31 Color touch screen

START-UP

ASM 142/GRAPH

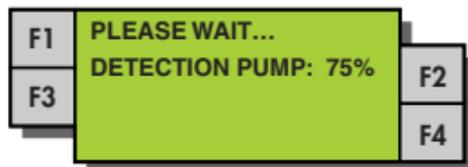
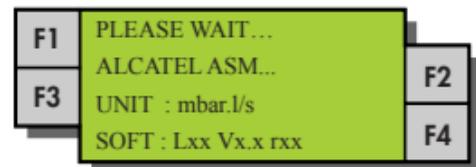
After unpacking the unit, please fill up the roughing pump with oil, as indicated in the User's Manual



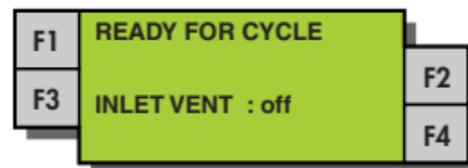
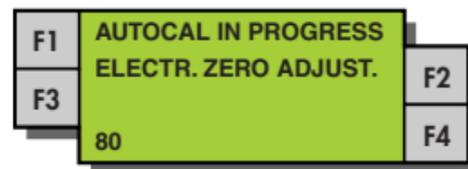
E 750



- 1 Connect the main cable from the detector to the proper power outlet.
- 2 Depress the main switch to position "I". On the control panel, the indicator lights flash.
- 3 The following screens are shown on the LCD.



- 4 When the detection pump reaches its nominal speed, the unit autocalibrates itself.
- 5 When calibration is completed, the unit is ready to start a cycle.



USER INTERFACE LEVEL

The detector offers 4 user interface levels for this section to accommodate any application requirements.

	Setting and maintenance part	User part
LEVEL ①	This level has very limited information on the alphanumeric display (LCD). This level is generally selected for production types of applications.	No access to control keys (Cycle key included).
LEVEL ②	This level allows the operator to visualize some parameters without the possibility of making any changes. Same as Level ①, this level is usually selected for production types of applications.	
LEVEL ③	Same as level ② but with possibility to set some parameters. This level is generally selected for maintenance applications.	Access to all the control keys.
LEVEL ④	This level allows access to all the parameters and is generally used for settings all the parameters. Note: When switching from level ④ to any other level, the switch can be performed without using the password. This level is generally selected for R&D applications.	

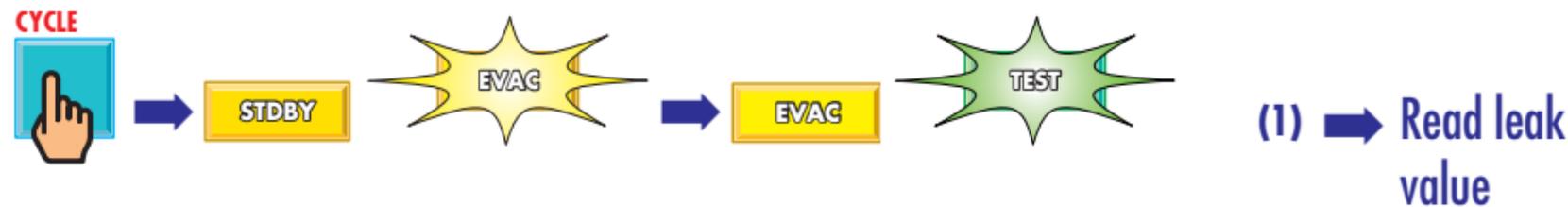
To know your user interface level and to change it  **C 120**

TEST CYCLES

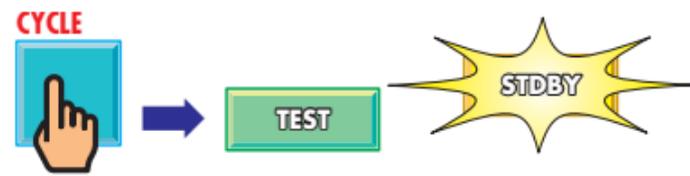
❑ HARD VACUUM TEST MODE

Leak detector in stand-by mode; connect the part or assembly to be tested to the detector.

Starting a cycle



Ending a cycle

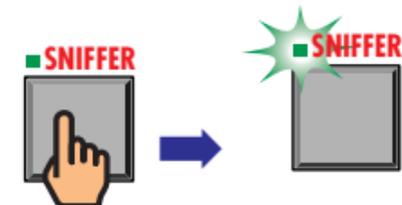


(1) As soon as the inlet pressure reaches 10 mbar (7.5 torr), the unit goes in gross leak test mode, or when the pressure has reached $5 \cdot 10^{-1}$ mbar (0.37 torr), the unit goes in fine leak test mode.

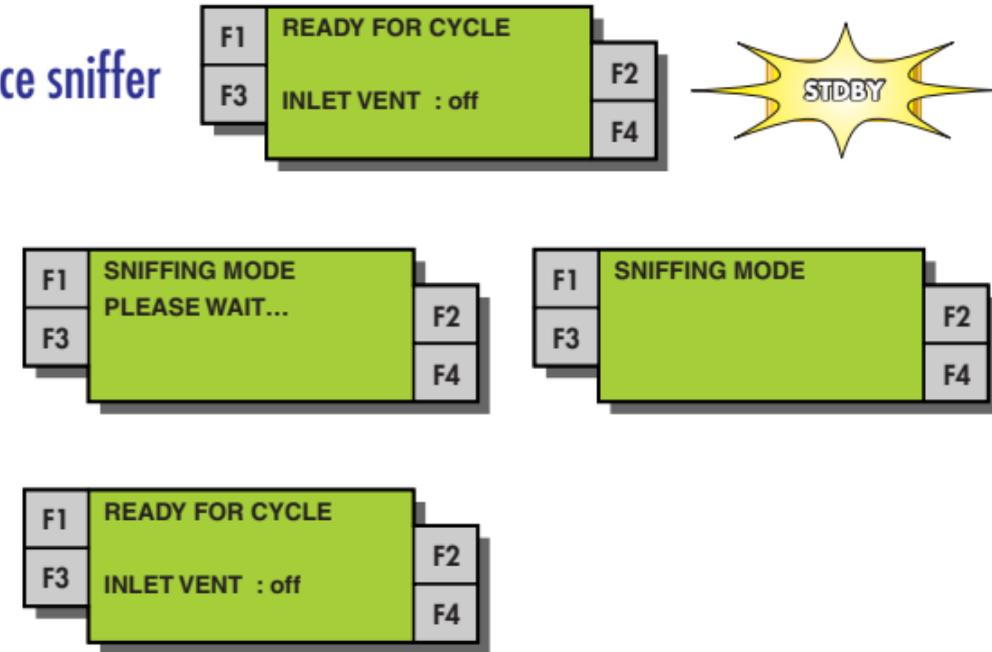
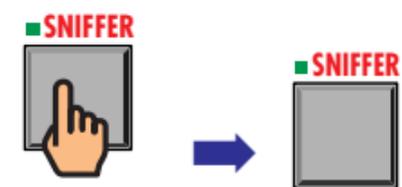
❑ SNIFFING TEST MODE

Leak detector in stand-by mode; connect the long distance sniffer probe to the quick connector.

Starting Sniffing test mode



Ending Sniffing test mode



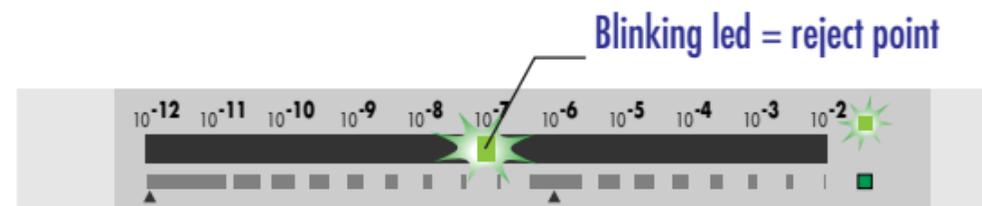
Selecting a test mode  **C 210**

He SIGNAL ANALOG SCALE DISPLAY

□ How to read the He signal analog scale?

- ➔ reject point is visualized by a blinking led.
- ➔ if the leak value exceeds the reject point, the leds will be turned red (the blinking led will turn orange).
- ➔ if the leak value remains under the reject point, the leds will remain green.

Example : Reject point = 1×10^{-7} mbar.l/s



Leak detector in hard vacuum or sniffing test mode and zero function not activated.

AUDIO ALARM

- The audio alarm offers 2 modes of operation. They are both linked to the zero function.
 - ➔ zero function not activated: the audio alarm starts when the He signal exceeds a fixed set point: this set point is programmable.
 - ➔ zero function activated: the audio alarm is modulated with respect to the position of the helium background.

To active/deactive audio alarm  **C 520**

ZERO FUNCTION

❑ **Purpose:** the zero function offers the operator the possibility to detect small leaks that are smaller than the helium background.

❑ **Activation of zero function:** connect the part or installation to be tested.

CYCLE



➔ on the digital display, the detector He background displays.

ZERO



➔ the digital display becomes 0.0E-00. On and after this time, it will display only Helium variation.

Operator could find an example in the User's Manual  **C 540**

❑ **Deactivation of zero function:**

ZERO



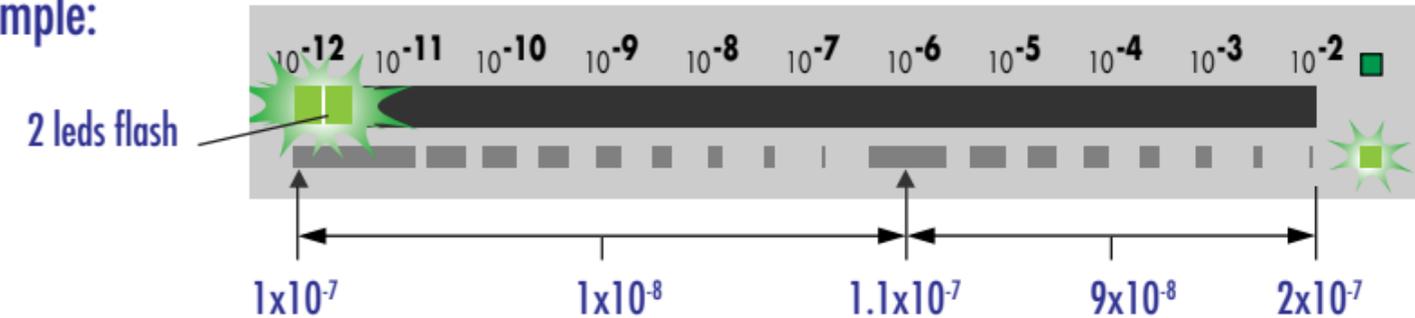
the digital display shows the standard He signal.

Use Helium signal analog scale.

❑ **Analog display:**

- When zero function is activated, use the Helium signal zero scale.
- The He signal zero scale displays 2 leds signal centered around the zero value.

Example:



AIR INLET VENT

□ **Purpose:** the air inlet valve vents the inlet of the detector back to atmosphere at the end of the test.

- The indicator "inlet valve = off" indicates that the venting valve is not activated (= closed) at the end of cycle.



- The setting by default is «off» (= valve closed).

Opening / closing air inlet valve

(user level 2, 3 or 4)



To open/close air inlet valve with user level 1  C 500

CALIBRATION

- Internal:** The internal autocalibration is automatically activated during the start-up process. It doesn't require any operator action. Thanks to the initial autocalibration, the leak detector can be immediately operational.

Internal autocalibration on request: it can be started by the operator whenever needed (the unit has to be off-cycle).



The result of the autocalibration process is displayed.

F1	AUTOCAL IN PROGRESS ELECTR. ZERO ADJUST.	F2
F3	80	F4

F1	READY FOR CYCLE	F2
F3	INLET VENT : off	F4

F1	READY FOR CYCLE	F2
F3	INLET VENT : off	F4

- External:** The external autocalibration allows direct readout in cases of operation with an auxiliary pumping system.

To perform an external calibration



C 303

ASSISTANCE TO THE TEST

The leak detector offers to the user 4 interesting functions in order to improve test.

- MEMO FUNCTION** Memorization of the latest He signal measured after depressing the CYCLE key at the end of the cycle.
- CYCLE END** Automatic control of the roughing and measure timers.
- BARGRAPH ZOOM ON THE REJECT POINT** Display a greater resolution of the He signal around the reject point.
- HELIUM POLLUTION PREVENTION** Device that prevents the unit from getting polluted with Helium.

- Memo function** *To active/deactive this function and adjust display time of the leak value*  **C 550**
- Cycle end** *To active/deactive this function and adjust roughing and measure times*  **C 530**
- Bargraph zoom on the reject point** *To active/deactive this function*  **C 510**
- Helium pollution prevention** *To active/deactive this function*  **C 560**