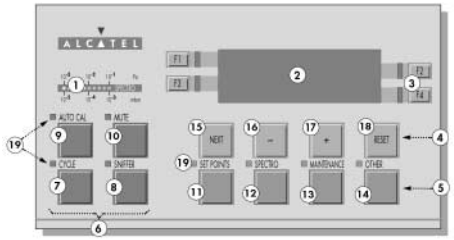
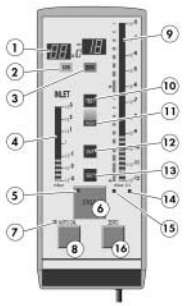
OPERATOR INTERFACE



Control panel

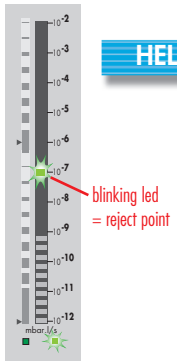
1 Spectro pressure status indicator
2 Alphanumeric display (4 lines x 20 characters)
3 Parameter function keys (1 key per display line)
4 Modification keys (4 keys)
5 Menu selection access keys (4 keys)
6 Control keys (4 keys)
7 Cycle Start/Stop control key
8 Sniffing mode ON/OFF control key
9 Autocalibration Start/Abort control key
10 Mute: Audio signal ON/OFF control key
11 SET POINT menu selection key
12 SPECTRO calibration and analyzer cell configuration menu selection key
13 MAINTENANCE menu selection key
14 OTHER menus selection key (test mode selection, inlet VENT selection, date / time)
15 NEXT: next display/parameter circular function
16 &17 Plus or minus value adjustment, parameter selection, audio volume adjustment keys
18 RESET of previously displayed values (cancels temporary inputs)
19 Control and menu selection indicators (ON when activated)

Remote control



1 Helium Signal digital display
2 Correction factor COR indicator (applied to digital display)
3 Zero function indicator (applied to analog + digital display)
4 Inlet port pressure analog display
5 Test cycle ON indicator (ON when activated)
6 Cycle Start/stop control key
7 Calibration in progress indicator: steady = internal autocal., blinking = external autocal.
8 Autocalibration start control key
9 Helium signal analogic display
10 Test ON indicator (Gross leak, Normal, High Sensitivity)
11 High Sensitivity test ON indicator
12 Sniffing test mode ON indicator
13 Inlet VENT ON indicator
14 Helium signal standard scale ON indicator
15 Helium signal Zero/Zoom scale ON indicator
16 Zero/Zoom ON/OFF control key

HELIUM SIGNAL ANALOG DISPLAY



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

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 turned red (the blinking led will turn orange).

➡ If the leak value remains under the reject point, the leds will remain geen.

Example: reject point = 1.10^{-7} mbar.l/s

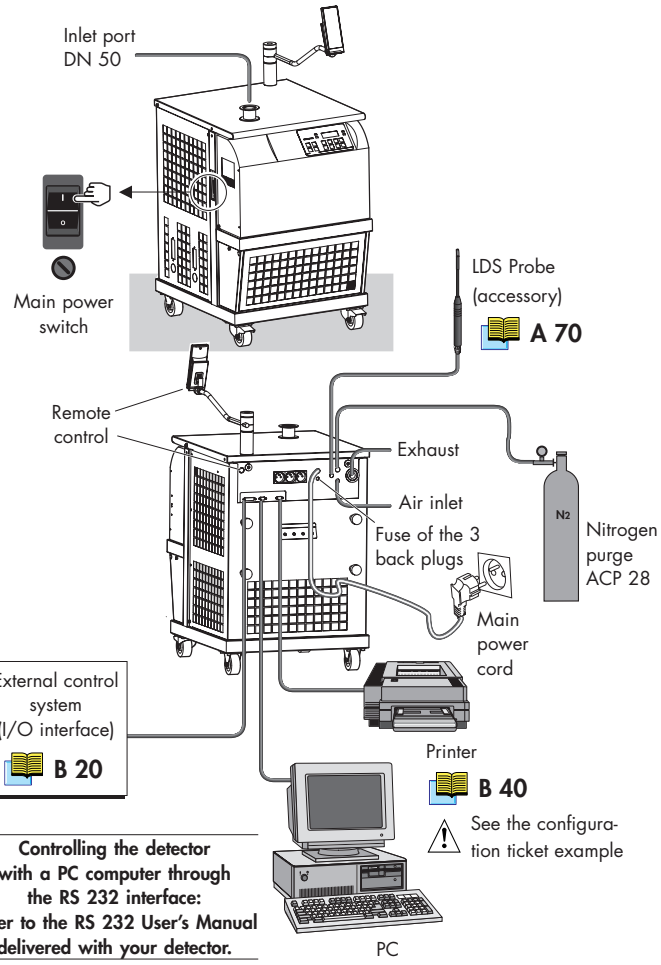
ALCATEL

CONDENSED MANUAL ASM 192 T2D+

References 📖 refer to a specific chapter of the User's Manual.

For further information, please refer to the User's Manual supplied with your unit.

DETECTOR CONNECTIONS

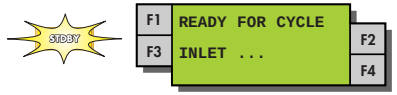


Controlling the detector with a PC computer through the RS 232 interface: Refer to the RS 232 User's Manual delivered with your detector.

TEST CYCLES

Hard vacuum test mode

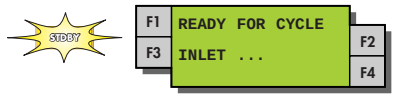
Leak detector in stand-by mode ; connect the part or assembly to be test to the detector.

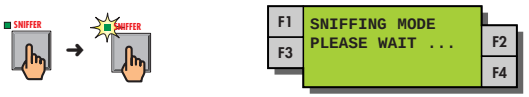


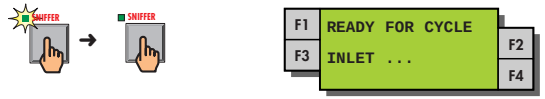
(1) As soon as the inlet pressure reaches 1 mbar, the unit goes in gross leak test mode or when the pressure has reached 2.10^{-2} mbar, the unit goes in high sensitivity test mode.

Sniffing test mode

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







❓ *Basic operation of the leak detector* 📖 C 60

ASSISTANCE TO THE TEST

The ASM 192 T2D+ leak detector offers to the user 5 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.

❓ *Memo function* 📖 C 130

Cycle end ..... Automatic control of the roughing and measure timers.

❓ *Cycle end* 📖 C 110

Bargraph zoom on the reject point ..... Display a greater resolution of the He signal around the reject point.

❓ *Bargraph zoom on the reject point* 📖 C 90

Helium pollution prevention ..... Device that prevents the unit from getting polluted with Helium.

❓ *Helium pollution prevention* 📖 C 140

Helium background suppression ..... Automatic zero function.

❓ *Zero function* 📖 C 120

USER INTERFACE LEVEL

The ASM 192 T2D+ offers 4 levels of user interface to accommodate any application requirements. All 4 levels of user interface are acessible by means of a four-digit password.

Level 1 This level has very limited information on the alphanumeric display (LCD). This level is generally selected for production types of applications.

Level 2 This level allows the operator to visualize some parameters without the possibility of making any changes. Some as level 1, this level is usually selected for production types of applications.

Level 3 Some as level 2 but with the possibility to set some parameters such as test mode, vacuum and sniffing corrections status, audio alarm and air inlet. This level is generally selected for maintenance applications.

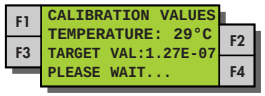
Level 4 This level allows access to all parameters and is generally used for settings all the parameters.

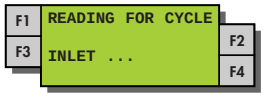
User interface level presentation C 30

CALIBRATION

Internal

The internal calibration is automatically activated during the start-up process. It doesn't require any operator action.
Thanks to the initial auto-calibration, the leak detector can be immediately operationnal.
The result of the auto-calibration process is displayed.





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

External

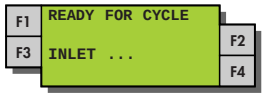
The external auto-calibration allows direct readout in cases of operation with an auxiliary pumping system.

Calibration of the leak detector C 70

AIR INLET

Purpose

The operator can connect the leak detector to the vent air function.
The indicator "inlet: vent off" indicates that the venting valve is not activated (= closed) at the end of the cycle.
The setting by default is "vent off" (= valve closed).



Air inlet C 80

ZERO FUNCTION

Purpose

The zero function offers the operator the possibility to detect small leaks that are smallers than the helium background.
The zero function could be activated manually by the operator or automatically (He background suppression).

Manual activation of the zero function

Connect the part or installation to be tested.

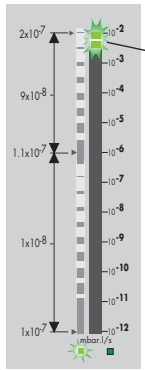
On the digital display, the ASM 192 T2D+ He background displays.

The digital display becomes 0.0E-00. On and after this time, it will display only He variation.

Manual deactivation of the zero function

Automatic activation/deactivation of the Helium background suppression

Refer to the User's Manual.



2 leds flash

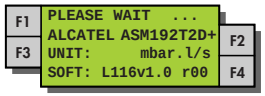
Analog display

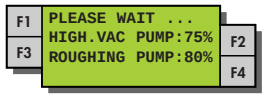
- When the zero function is activated, use the He signal zero scale.
- The He signal zero scale displays 2 leds signal centrered around the zero value.

Zero function C 120

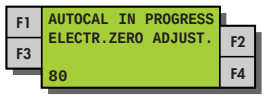
START-UP

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 indicators lights flash.
3 - The following screens are shown on the LCD.

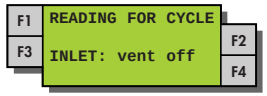




4 - When the TMP pump reaches its nominal speed, the unit autocalibrates itself.



5 - When calibration is completed, the unit is ready to start a cycle.



Starting up/Switching off the leak detector C 50

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 start 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.

Audio alarm C 100

INTERVAL MAINTENANCE OPERATIONS

FREQUENCY*	OPERATION	SEE CHAPTER
4 000 H(1) **or 6 months**(2)	Clean the vacuum lines, the valves and the gauges with alcohol - Dust the electronic boards and the fans - Clean filters (inlet filters,air inlet filter)	E 30 E 85
	Partial maintenance of the analyzer cell: Replace analyzer cell filaments and collector. Clean the analyzer cell with alcohol (this cleaning may be necessary in case of general internal contamination creating insulating deposits).	E 60
8 000 H(1) **or 1 year**(2)	Sniffer probe filter replacement if used.	E 80
	Pirani gauge adjustment.	Contact customer service
12 000 H(1)	Regrease the molecular pump MDP 5006 HDS. Regrease the turbomolecular pump TMP 5154. Regrease ATP 100 pump.	E 30 E 40 E 45
16 000 H(1) **or 2 years**(2)	Recalibration/exchange of the internal calibrated leak.	E 70
22 000 H(1) **or 1 year**(3)	Replace the ball bearings and the seals of the molecular pump and turbomolecular pump. Replace the ball bearings and the seals of the ATP 100 pump.	E 30 E 40 E 45
	Complete maintenance Dry pump (ACP 20/28).	Contact customer service
500 000 cycles	Clean the valves.	E 85

(1) running time
(2) running time or storage
(3) storage

**Service intervals: The service intervals given are for applications and work rates which conform to the normal operating conditions. If the machine is operating under more difficult conditions they can be shortened.*

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