

General troubleshooting guide

Safety recommendations



These checks must be performed with the detector isolated from all installations and supplied with the correct electrical power.



It is assumed that the connection and the electrical continuities have been checked beforehand.

Note: The present troubleshooting guide is not exhaustive but follows a chronological order and a methodology which are the result of the experience of ALCATEL customer service.

It is therefore recommended to follow this order so as to locate the faults effectively.

The leak detector displays information, fault indicators and clear messages which help identify and locate problems: **refer to C 170**. These messages will help eliminate some unexpected situations. The present section serves as an additional tool.


Symptoms classified by when they occur.

Power supply

Nothing happens when the power is switched ON  **D 30**

No display appears on the control panel  **D 30**

Dry pump (ACP 20/28)

No noise from the dry pump  **D 40**

ACP 20/28 pump has stopped during cycle  **D 40**

Molecular pump (MDP 5011/5006 HDS)

Molecular pump failure  **D 50**



Molecular pump speed  **D 50**

Check molecular pump connector  **D 50**

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Symptoms classified by when they occur (continued)






Turbomolecular pump (TMP 5154)

Turbomolecular pump failure	 D 60
Turbomolecular pump speed	 D 60
Check the turbomolecular pump connector	 D 60

Analyzer cell fault

Cell pressure >0.01 mbar	 D 70
Cell pressure >1x10 ⁻⁴ mbar	 D 70
Cell gauge failure	 D 70
Filaments #1 & #2 bad	 D 70
Fil1- collector short	 D 70
Fil2- collector short	 D 70
No collector voltage	 D 70
Cell pressure safety	 D 70
Triode safety	 D 70
Emission failure.	 D 70








Inlet pressure (PI3C Pirani gauge)

Inlet pressure display does not show atm pressure	 D 80
No VENT (VENT ON requested)	 D 80
No inlet pressure display	 D 80
No inlet pressure drop at start of a cycle	 D 80
Impossible to reach high sensitivity test mode	 D 80




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Symptoms classified by when they occur (continued)

Calibration

Auto-cal failure: cal. leak year error	 D 90
Auto-cal failure: helium pollution	 D 90
Temperature too low Auto-cal failure temperature limits	 D 90
Cell zero limits or cell zero stability	 D 90
Auto-cal failure: peak locating error	 D 90
Auto-cal failure: peak adjust error	 D 90
Auto-cal failure: emission loss	 D 90





Helium measurement

High helium background signal (in stand-by mode)	 D 100
High helium background signal (in hard vacuum test mode)	 D 100
Helium signal unstable	 D 100

LDS test

High helium background signal	 D 110
Helium signal unstable	 D 110
Sniffer probe clogged	 D 110



Operator interface

"!" or "i" appear at the end of line 1 on the LCD	 D 120
Helium signal digital display flashing	 D 120
Password lost	 D 120
Timekeeper ram failure	 D 120








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Symptoms classified by when they occur (continued)

Temperature

Temperature too low	 D 130
Temperature too high	 D 130

Appearance of information messages

Maintenance required	 D 140
Auto-cal required	 D 140
Auto-cal aborted	 D 140
Manual calibration	 D 140
New fil#1 required	 D 140
New fil#2 required	 D 140
External request set	 D 140
Filament request off	 D 140