Fault/information indicator and display

Fault and information

At any time, the leak detector can display on LCD clear Information or Fault messages based on the analysis of the status of the leak detector.

There are 3 basic types of faults: **minor fault, major fault** and **critical failure**.

There are 2 basic types of information: **user information** and **service information**.

The messages are displayed on a specific display by order of importance:

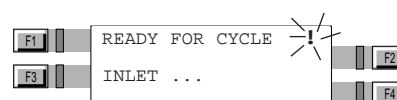| 1. critical failure |
| --- |
| 2. major fault and minor fault |
| 3. user information and service information |

Faults

3 fault types: minor fault, major fault and critical failure.

Minor fault

■ **Warning**

➪ on the LCD, a « **!** » flashing at the right end of the 1ˢᵗ line.

➪ on the digital display alternatively the helium signal and « **Er** » are shown.

➪ The digital voice advises the operator in the processus to follow.
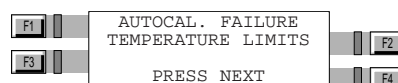
■ **Result**

This will not stop the functions of the leak detector but can affect the validity of the test result.

■ **Message**

To read the messsage

A clear message describes the error on line 2 and 3.

The most important warning message is displayed on the 1ˢᵗ line.

Up to 3 messages may be displayed on the message display.

Fault/information indicator and display

Minor fault
(continued)

■ **Term**   May be temporary or permanent

⇨ temporary if the fault appears and then disappears without a corrective action from the user

⇨ permanent as long as the default is present and its origin must be eliminated in order to erase it.

■ **Remedy**

⇨ Temporary   The indicator disappears and the warning message is suppressed.

⇨ Permanent   Both indicator and message are memorized until the fault is eliminated.
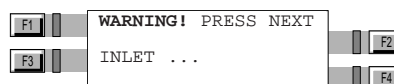
Major fault

■ **Warning**

⇨ on the LCD

⇨ on the digital display
Alternatively display of the helium signal and « **Er** ».

```
F1    WARNING! PRESS NEXT        F2
F3    INLET ...                   F4
```

```
E.r.  ×10⁻ ▢
LEAK RATE   COR
```

⇨ The digital voice advises the operator in the process to follow.

■ **Result** May prevent the leak detector from making a vacuum test or an autocalibration

■ **Message** To read the messsage   [NEXT]

■ **Note:** A major fault can behave like a temporary minor fault if the origin of the error has disappeared.
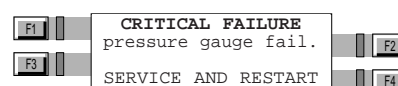
Critical failure

■ **Warning**

⇨ on the LCD
The clear message of a critical failure is directly displayed on the LCD.
Details are displayed on line 2 and 3.

```
F1    CRITICAL FAILURE
      pressure gauge fail.      F2
F3    SERVICE AND RESTART       F4
```

⇨ The digital voice advises the operator in the process to follow.

Fault/information indicator and display

Critical failure
(continued)

⇨ on the digital display
Permanently « **Er** ».
Only the inlet pressure display remains on.
All other indicators are turned off.

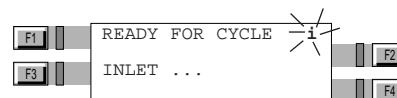■ **Result** Complete shut down of the leak detector is required.

■ **Remedy** Need the servicing of the leak detector before starting it again.

Information

2 information types: **user** and **service information**.

■ **Warning**

⇨ on the LCD
a « **i** » flashing at the right end of the 1st line

⇨ on the digital display: no indicator.
⇨ The digital voice advises the operator in the process to follow.

■ **Result** Doesn't affect the functions of the leak detector
⇨ User information
Only an indication that the leak detector is in a particular status which may require an action from the user in order to return to a standard situation
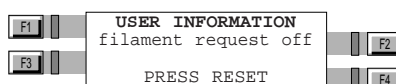⇨ Service information
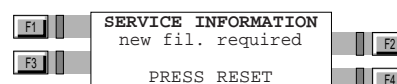Only an indication that the leak detector requires a service or maintenance action.

■ **Message** To read the messsage
A clear message describes the fault on line 2 and 3.

● User information display:

| USER INFORMATION |
| filament request off |
| PRESS RESET |

● Service information display:

| SERVICE INFORMATION |
| new fil. required |
| PRESS RESET |

Fault/information indicator and display

Information
(Continued)

■ **Term**

After display of the clear message, the indicator and the clear message are erased but they will be reactivated at the next start-up of the leak detector or at each unauthorized request by the user or 30 min later, if the origin of the message is still present.

■ **Remedy**

⇨ User information:
Can be eliminated by an action which is accessible by the user.

⇨ Service information:
Can be eliminated by a service action on the involved component and by resetting the corresponding configuration parameter. This is accessible at the service level only or to customer service.

Service instructions 📖 E

List of messages

For all messages, note their contents in order to identify the origin of the message and take the corresponding corrective action if necessary.

General trouble shooting guide 📖 D 20

Fault/information indicator and display

⚠️ *The RS 232 codes of these messages are described in the specific RS 232 user manual.*

Fault messages

mF ⇨ minor failure

cell zero limits	temperature too low
cell zero stability	temperature too high
autocal failure	autocal failure
temperature limits	cal. leak year error
autocal failure	autocal failure
peak locating error	peak adjust error
autocal failure	
helium pollution	
autocal failure	
emission loss	

MF ⇨ major failure

cell pressure safety	emission failure
triode safety	snif. probe clogged
check MDP connector	MDP speed

CF ⇨ critical failure

cell pres.> 0.01 mbar	fil1-collector short
high vac. pump failure	fil2-collector short
high vac. pump speed	no collector voltage
cell pres.>1e-04mbar	timekeeper ram fail.
filaments #1&#2 bad	cell. gauge failure

Fault/information indicator and display

Information messages

UI ➪ user information

auto. cal. required	manual calibration
	external request set
auto. cal. aborted	filament request off

SI ➪ service information

new fil#1 required	maintenance required
new fil#2 required	roughing pump failure
MDP pump failure	roughing pump failure
MDP pump connection	High vac.pump connection