Short operating instructions / Operating manual

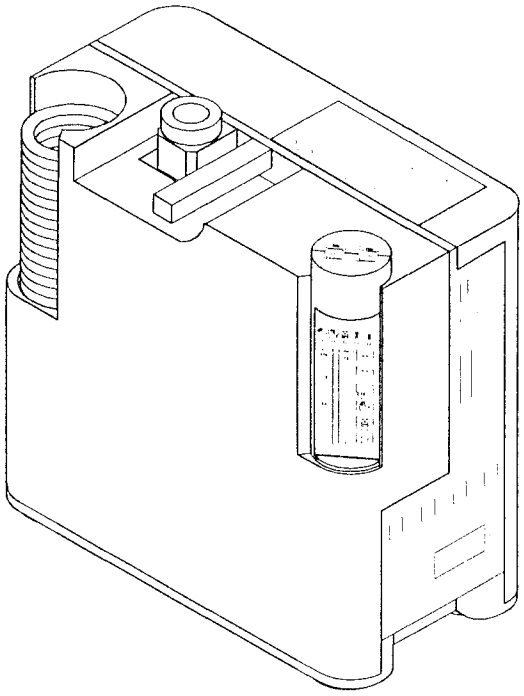
Addenda to BG 800 386 BE / A (9311)
and BG 800 387 BE / B (9401)

balzers

Instruments

Helium leak detector

HLT 160



Modifications on firmware versions "BG 447 092 FT" and " BG 447 092 GT"

1 Modifications with firmware version "BG 447 092 FT"

1.1 Ready function

When switching (e.g. emission high ⇒ low, low ⇒ high, »counterflow principle« ⇒ »split counterflow principle«), «not ready» is displayed.

»ready« is activated, if:

- the leak detector is switched on and
- it is in »pump« mode and
- there is no error message and
- no switchover (e.g. emission, valves)
- no calibration going on.

1.2 Emission switchover

Measurement intermissions due to emission switchover (high ⇔ low) have been substantially reduced.

1.3 TCP error

TCP errors are only displayed, when they have been occurring for more than 30 seconds.

1.4 Parameter setting

No changes.

NOTE

However, the changes between version "C" and "D" have to be taken into consideration, especially:

Generally

- »ready« function (→ [1], section 4.9)
- control of the gas ballast valve (→ [2], section 1.6.2)

With sniffer probe (LP 160 standard
LP 166 with auxiliary pump (→ [1], section 4.5.3))

- »cal sniff«
- »sniff–ready« function
- »calibrate« in »sniffer« mode
- »calibrate« in »fast sniffer« mode

2 Modifications with firmware version "BG 447 092 GT"

2.1 Switching thresholds <set point>

One of **seven** different operating modes can be chosen for each setpoint (see also BG 800 386 BE, section 4.9).

New functions:
off, ⊗ ↑ ↓, ⊗ ↑ ↓ hold, ⊗ ↑, ⊗ ↑ hold, ready **to measure** and **ready to pump**

Operating mode "Ready to measure"

When the HLT is ready for measurement, the relay is energized. The ready status is defined by the following:

1. Leak detector switched on
2. Leak detector in **<pump>** mode
3. No error messages
4. No calibration going on
5. No switchover (e.g. emission, valves)

Operating mode "Ready to pump"

When the HLT is ready for pumping ("Standby"), the relay is energized. "Standby" is defined by the following:

1. Leak detector switched on
2. Leak detector in **<vent>** mode
3. No error messages
4. No calibration going on

1. Important information

1.1 Safety information

DANGER:
Information important for preventing personal injury or extensive equipment damage.

CAUTION:
Special information on damage prevention.

NOTE:
Special information on cost-effective use.

1.2 Explanation of symbols

The following symbols are used in the text:

<enter>	Exact lettering on the key, the connector, etc.
«sen»	LED display
«13-2»	7-segment display

1.3 Validity

This manual applies to leak detectors with the following part numbers

BG Z04 750 ... BG Z04 751

and with the software version

BG 447 092 -E

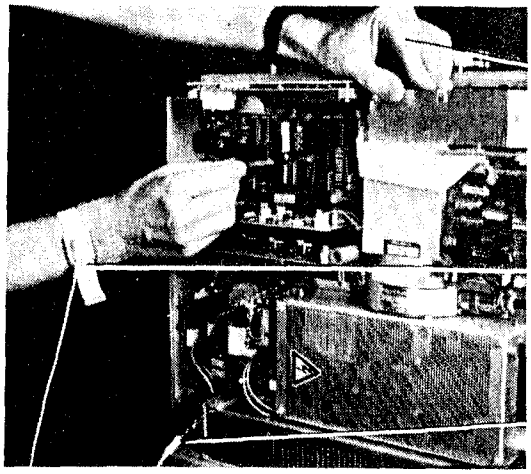
The part number can be taken from the nameplate, the software number can be read out according to section 2.2.6.

The functions described, as well as the illustrations and data contained in this manual, are subject to change without notice.

CAUTION

Electrostatic charges are eliminated by means of a grounding band connected to the HLT 160 and tied around your wrist. If no grounding band is available, first establish an electric contact by holding on to a conducting point at the cover of the HLT 160 with one hand, and then take the EPROM into your other hand (→ fig. 2).

Don't touch the contact pins of the EPROM.



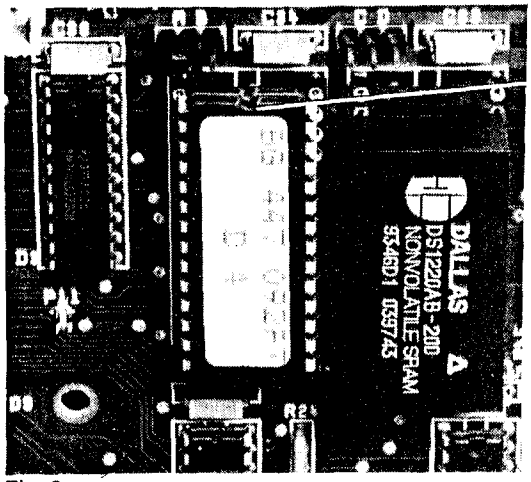
Grounding with your hand

Grounding band

Connection of the grounding band at the cover

Fig. 2

- Carefully remove the old EPROM by means of an offset screwdriver (→ fig. 2).
- Insert the new EPROM with its notch looking upwards (→ fig. 3).



Notch of the EPROM in mounting position; same orientation as notch on print socket

Fig. 3

- Put the rear cover back.
- Plug in the mains connector and start up the HLT 160.
- Set the old parameters again.
- Calibrate according to the Short operating instructions (BG 800 386 BE, section 4.7).

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