

Dräger

**DEUTSCHER TEXT:
BITTE UMDREHEN!**

OPERATING MANUAL

**Precom II - Respiratory pressure gauge
with alarm system**

BA 6462.1 e

40922

From Dräger: Precom II Respiratory pressure gauge with alarm system

OPERATING INSTRUCTIONS

Important Notice

For correct and effective use of the device, and to avoid hazards, we would point out the following:

- 1 Any use of the device requires precise knowledge and observation of these operating instructions.
- 2 The device is intended only for the purposes specified in the Operating Manual or for purposes confirmed in writing by Drägerwerk AG.
- 3 The device should be inspected by experts at regular time intervals. An official report of the inspections should be drawn up.
- 4 Only original Dräger spare parts should be used for maintenance and repairs. Repairs and maintenance, and the replacement of spare parts should only be carried out by experts.
- 5 We recommend having inspections and repair work carried out by the Technical Customer Service of your Dräger Branch or Agent.

Regular inspection is best ensured by entering into an Inspection Service Contract with the Technical Customer Service of your Dräger Branch or Agent.

- 6 Responsibility for the reliable function of the device passes to the owner or operator in all cases where the device has been inexpertly maintained or repaired by persons not employed by the Dräger Organization or where it has been used in a manner which does not conform to the normal conditions of use.
- 7 For reasons of safety, pressure reducers should be overhauled at least every 6 years.

We would also point out that the national recommendations, regulations and laws governing the use of technical equipment should be observed.

DRÄGERWERK AG LÜBECK

Intended Use and Approvals

The respiratory pressure gauge with alarm system is used in conjunction with a ventilator for indicating and monitoring the airway pressure during ventilation of a patient who is connected to the system.

Precom II can also be used for monitoring spontaneous respiration when the continuous positive airway pressure (CPAP) is in excess of 5 mbar.

The respiratory pressure gauge with its alarm system is not for use with explosive

anaesthetics (e.g. ether and cyclopropane), and it is not to be used in areas where there is a risk of explosion as per VDE¹⁾ 0750 Section 1/6. 77, paragraph 33.5.2.)

The appliance bears a spark protection marking.

¹⁾ VDE = Verband Deutscher Elektrotechniker (German Association of Electro Engineers)

Technical Data

The appliance consists of two assemblies:

- a) the respiratory pressure gauge;
- b) the alarm system.

The **respiratory pressure gauge** has an indication range of 0 to +80 mbar. The alarm threshold can be infinitely adjusted within the range of +5 to +70 mbar.

Readings of airway pressures in the negative range to max. -30 mbar can only be carried out quantitatively.

The **alarm system** features an acoustic alarm signal which sounds, when the airway pressure does not reach the preselected alarm threshold for a period of 15 seconds.

The alarm system is switched on by turning the adjusting ring **3**, whereby the red mark **4** of the alarm-free field is set to the preselected alarm threshold.

Batteries

Model Baby, 1.5 V, IEC R 14, such as the Pertrix 235 Baby, Daimon 259, Super Dry 281 from Varta.

Use only leak-proof batteries.

Weight

Respiratory pressure gauge with alarm system (without batteries) weighs 1.5 kg.

Dimensions see Fig. 1 (Page 4)

Contents

Contents	Page	Page	
Important Notice	2	Operational Use	7
Intended Use and Approvals	3	Shut down Actions	7
Technical Data	3	Care and Maintenance	7
What's what?	4	Trouble Shooting	9
Initial Preparation	6	Order List	9

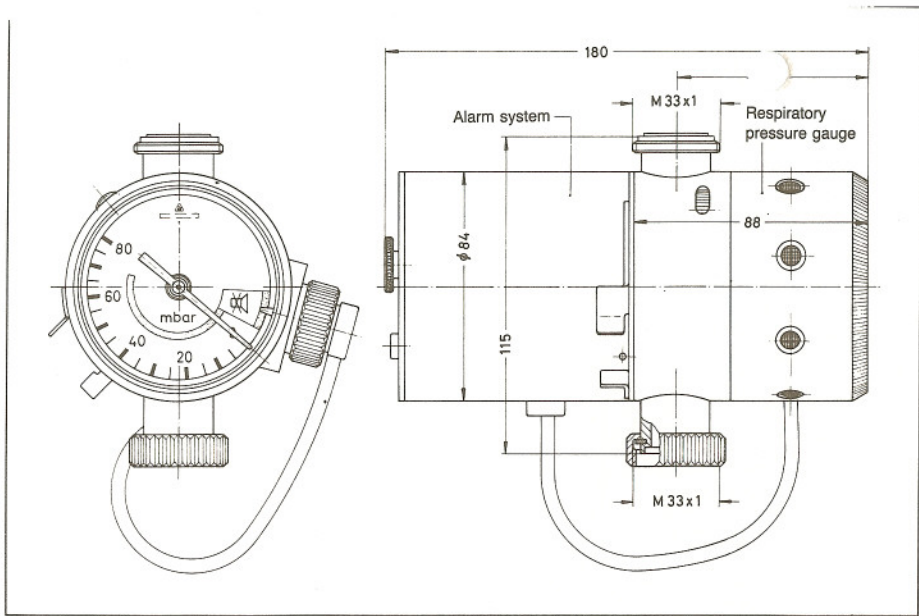


Fig. 1 Dimensions

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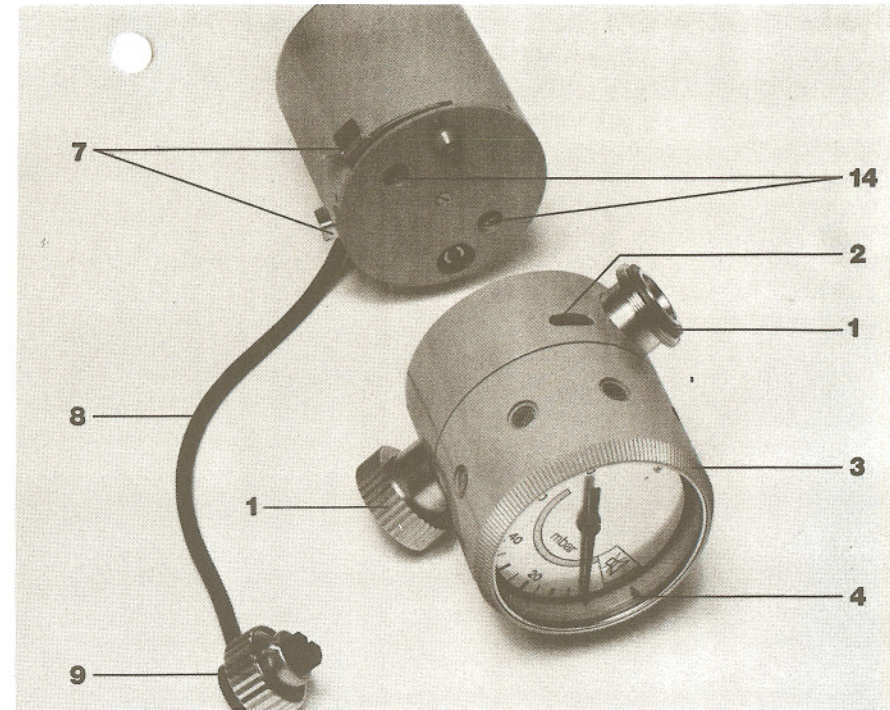


Fig. 2

40923

What's what? (Fig. 2 and 3)

Respiratory Pressure Gauge

- 1 Screw connection for coupling to the ventilator
- 2 Knurled wheel to adjust scale zero point
- 3 Adjusting ring to set the red mark 4 (monitoring light)
- 4 Red mark to indicate the respiratory pressure to be monitored (positioning of monitoring light)
- 5 Screw connection to take and hold tight the plug 9 of the monitoring light
- 6 Coupling bolts to connect the respiratory pressure gauge and alarm system

Alarm System

- 7 Catch levers to lock the connection between the respiratory pressure gauge and the alarm system
- 8 Connecting cable between the alarm system and the plug of the monitoring light
- 9 Plug of the monitoring light
- 10 Battery compartment cover
- 11 Knob to attach battery compartment cover
- 12 Alarm signal emitter
- 13 Battery check button
- 14 Holes to take the coupling bolts 6

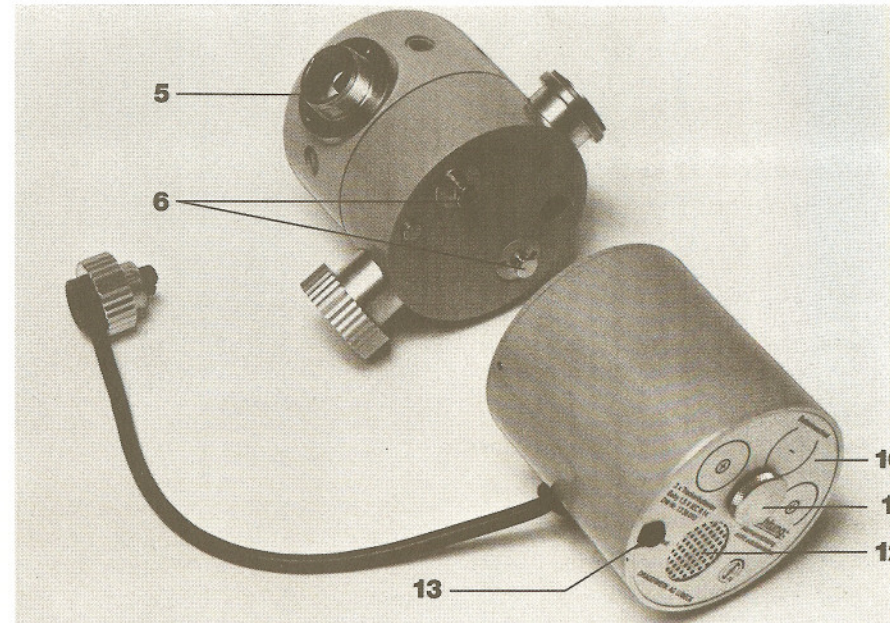


Fig. 3

40924

Initial Preparation

- 1 To connect the alarm system to the respiratory pressure gauge (Fig. 4), first move each of the catch levers 7 apart until they come to stop. Insert the coupling bolts 6 of the respiratory pressure gauge in the holes 14 of the alarm system sub-assembly until the two housings come together. To lock together, press together both catch levers 7. Both sub-assemblies are properly connected when the locking mechanism notably engages.

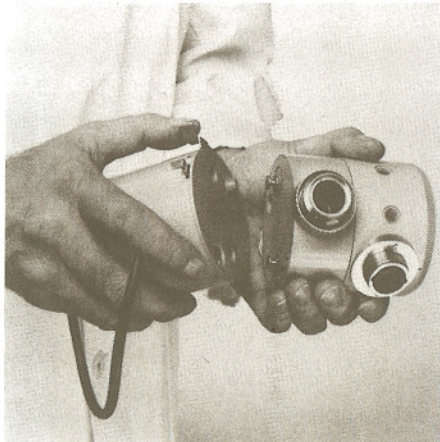


Fig. 4 Connection of sub-assemblies

- 2 Insert the plug of the monitoring light 9 into the screw connection 5 and then tighten the screw cap (Fig. 5).

Note!

Do not put the fingers into orifice 5. Both the needle indicator and the mechanism could be damaged.

- 3 Insert the dry batteries in the alarm system assembly. Loosen knob 11 and take off the battery compartment cover 10. Insert the batteries while making

sure the battery poles are in the proper direction (Fig. 6). Replace the cover 10 and tighten down with knob 11.

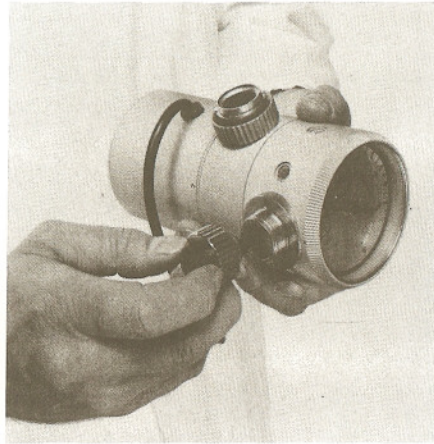


Fig. 5 Plugging in the plug of the monitoring light

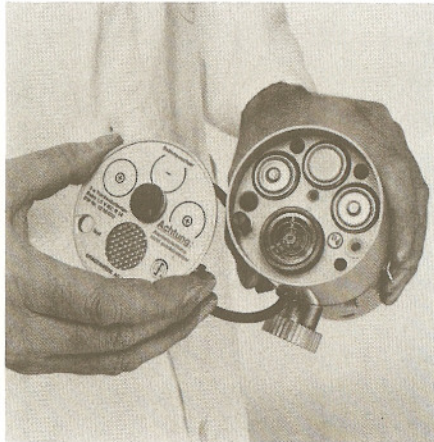


Fig. 6 Inserting batteries

- 4 Press the battery check button 13. When the batteries are properly inserted and the battery voltage is sufficient, the alarm signal will sound. This demonstrates that the apparatus will be operational for the least 8 hours.

- 5 Connect up the respiratory pressure gauge with its alarm system to the ventilation system. Check that the needle indicator of the pressure gauge is aligned with the zero point of the mbar dial scale when there is no pressure. If necessary, turn the knurled wheel 2 until the needle indicator comes into line with the zero point (Fig. 7).

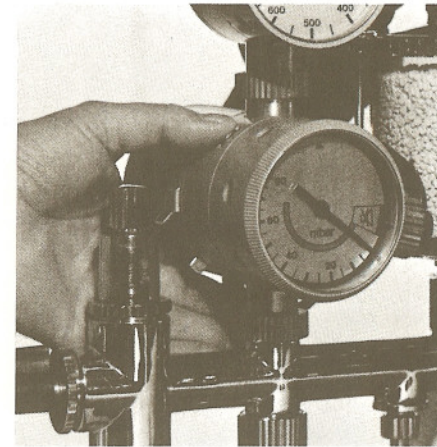


Fig. 7 Setting zero point

- 6 Check the operation of the alarm system. The alarm is switched on by turning the adjusting ring 3 until the red mark 4 is moved out of the alarm-free field.

The warning signal will then sound about 13 to 25 seconds later.

This shows that the respiratory pressure gauge with its alarm system is operational.

Note!

If the red mark is set to the 0-value of the mbar scale, the alarm does not sound, since it is interrupted in this position.

- 7 **Switch off** the apparatus! By turning the adjusting ring 3, set red mark 4 back to the alarm-free field until it engages.

If this is neglected, the alarm system is still switched on, thus reducing the service life of the batteries.

Operational Use

Using adjusting ring 3, set red mark 4 to an airway pressure to be attained or monitored. The device is thus switched on. There is no warning the alarm limit is set within the range of 0 to +5 mbar!

Shut down Actions

By turning the adjusting ring 3, set red mark 4 back to the alarm-free field until it engages. The alarm system is thus switched off.

Care and Maintenance

Cleaning

Visible dirt on the outside can be wiped off with a damp cloth. Be careful however that detergent does not ingress into the device.

Sterilization –

Applies **only** to the respiratory pressure gauge

To sterilize the device, the alarm sub-assembly must be separated from the pressure gauge. Disconnect the plug of the monitoring light 9 from the respiratory

pressure gauge. Actuate the catch levers 7 to separate the two sub-assemblies (Fig. 8).

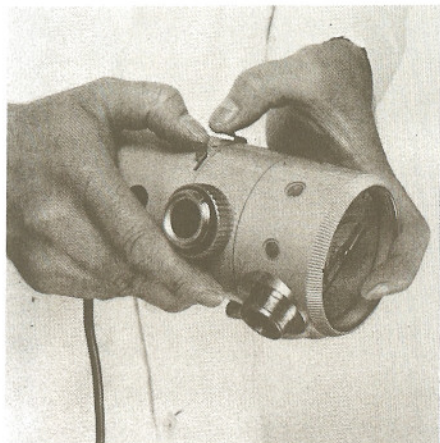


Fig. 8 Separating sub-assemblies

40929

Only the mechanical respiratory pressure gauge can be sterilized (at about 120°C). The alarm system assembly must in no case be subjected to high sterilization temperatures.

When the plug 9 of the monitoring light is removed from the connection 5 of the

pressure gauge, do not put anything into the opening 5. The needle indicator and measurement mechanism can be damaged.

After sterilization of the respiratory pressure gauge, allow to cool to room temperature before use. Do not move the adjusting ring 3 when hot.

Disinfection –

Applies only to the alarm system assembly.

The alarm assembly is to be wiped with a disinfectant. Be careful that disinfectant solution does not get into the apparatus. When using a disinfectant spray, the disinfectant should not be sprayed directly onto the alarm apparatus.

Disinfection in the Dräger-Aseptor® with formaldehyde is permissible. Please refer to the "Manual for disinfection in the Dräger-Aseptor®" (Operating manual 6751.10 e).

After each maintenance procedure, the operation of the alarm system is to be checked when coupled to the respiratory pressure gauge. This is described in the section "Initial Preparation".

Trouble Shooting

Fault	Cause	Remedy
Alarm signal does not sound	Insufficient battery voltage	Change batteries
	Batteries improperly inserted	Insert batteries with poles in proper direction
	Alarm system faulty	Call nearest Dräger branch/agency
The indicator needle of the pressure gauge is blocked by the monitoring light or is carried along when the monitoring light is inserted	The indicator needle of the pressure gauge bent by hard impact	Call nearest Dräger branch/agency
Adjusting ring to set the monitoring light catches or turns only with difficulty	Slide pin defective	Call nearest Dräger branch/agency

Order List

Designation and description	Order No.
Precom II Respiratory pressure gauge with alarm system The device consists of two assemblies: a) Respiratory pressure gauge b) Alarm system	E 11431 E 11430 83 01 450
Spare and wearing parts Sealing ring for connection 1 (Fig. 2) (Set of 10 ea) Dial glass	M 22154 E 9285

Subject to modification!