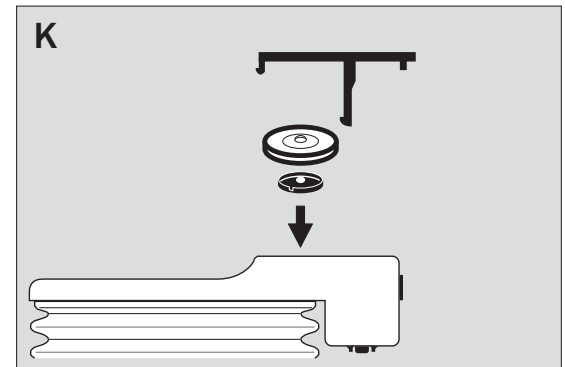
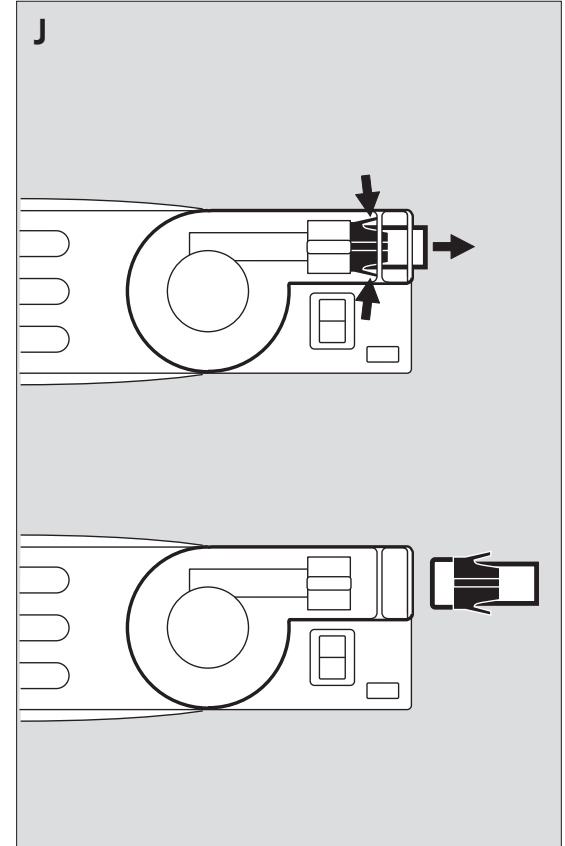
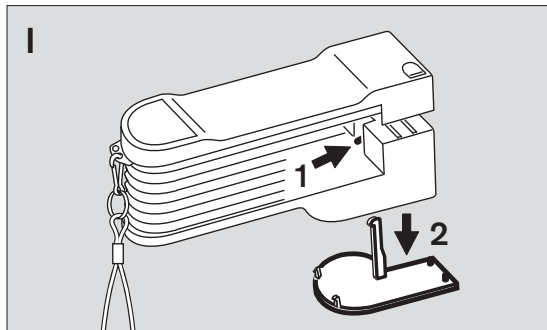
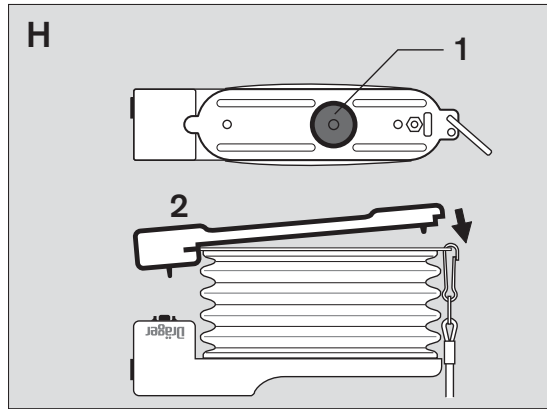
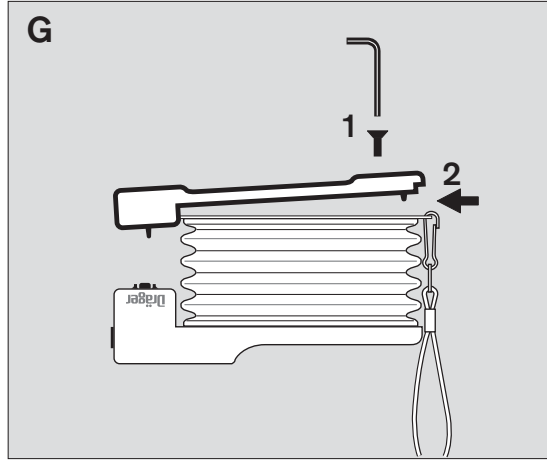
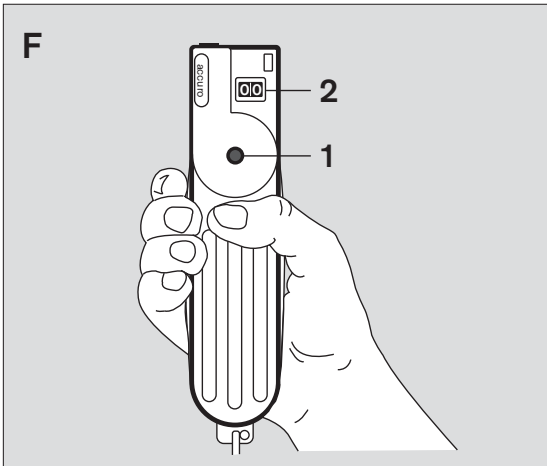
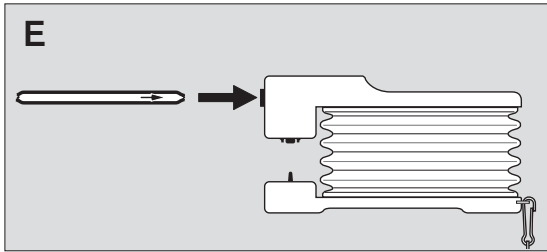
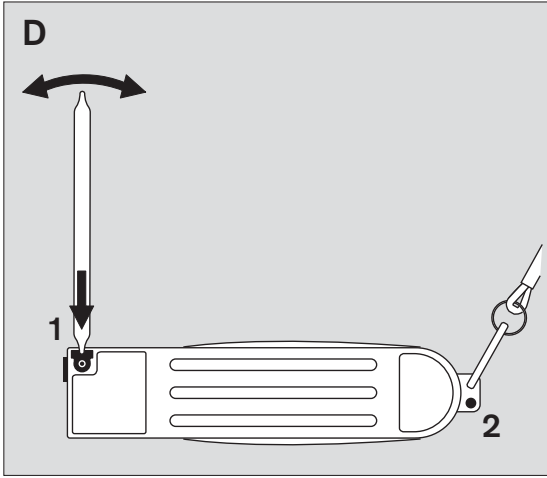


00221003.eps



For Your Safety

Strictly follow the Instructions for Use

Any use of the apparatus requires a full understanding and strict observation of these instructions. The apparatus is only to be used for purposes specified here.

Maintenance

The apparatus must be inspected and serviced regularly by suitably qualified persons.

Repairs to the apparatus may only be carried out by trained service personnel.

We recommend that you enter into a service contract with Dräger Safety and that all repairs be conducted by Dräger Safety.

Only authentic Dräger spare parts may be used for maintenance.

Accessories

Do not use accessory parts other than those listed in the order list.

Use in areas subject to explosion hazards

Equipment or components which have been inspected and approved in accordance with national regulations concerning electrical equipment in explosion-hazard areas (ExeV) or European explosion-protection regulations, may be used only under the conditions explicitly specified in the approval.

The equipment or components may not be modified in any manner. The use of faulty or incomplete parts is forbidden.

The appropriate regulations must be observed (e.g. EIEV and EN 50014) when carrying out repairs on the equipment or components.

Liability for proper function or damage

The liability for the proper function of the apparatus is irrevocably transferred to the owner or operator, to the extent that the apparatus was serviced or repaired by personnel not employed or authorized by Dräger Safety or when the apparatus was used in a manner not conforming to its intended use.

Dräger Safety cannot be held responsible for damage caused by non-compliance with the recommendations given above.

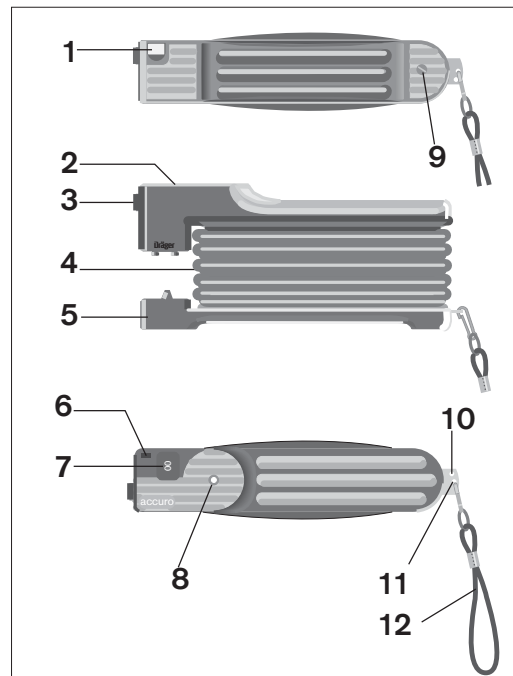
The warranty and liability provisions of the terms of sale and delivery of Dräger Safety are likewise not modified by the recommendations given above.

Dräger Safety AG & Co. KGaA

Intended Use

Gas Detector Pump for all Dräger short term tubes and sampling tubes.

What is What



- 1 Tube opener with ceramic cutter
- 2 Cover plate
- 3 Socket
- 4 Rubber bellows
- 5 Lower pump plate
- 6 Stroke Counter Reset Button
- 7 Stroke counter
- 8 End-of-Stroke Indicator (End-of-Stroke membrane)
- 9 Bolt to secure lower pump plate in place
- 10 Hole to break off the tube tip
- 11 Hole for attachment of loop handle
- 12 Loop handle with snap hook

Preparation

Pump leak test (A)

- Insert unopened Dräger tube into socket (A1).
- Squeeze pump **completely** and release (A2).
- Pump is adequately leak-proof if the end-of-stroke indicator (B) has not appeared after 15 minutes. If it has, then see chapter "Fault, Cause, Remedy".
- Remove unopened Dräger tube from socket.
- Press button to reset counter to zero (C); button is recessed to prevent accidental resetting.

Preparing the tube (D)

- Select appropriate Dräger tube for the measurement required. Follow the relevant Instructions for Use!
- Open tip with Dräger tube opener (item no. 64 01 200).

Or:

- Insert the tip into the opening of the lower pump plate (D1); keep it pressed against ceramic edge while turning it, so that the glass is scored.
- Pull the tube over at an angle until the tip breaks off.
- Discard broken tip.
- Open the other end of tube in the same way.

Or:

- Turn handle of pump to the side and insert tube tip in the free hole of the plate (D2).
- Tilt tube sideways until the tip breaks off.
- Open other end of tube in the same way.

Be careful when opening the Dräger tube as glass splinters may come off! Keep the pump facing downwards by holding the loop handle, so to prevent glass splinters from entering the pump!

- Insert Dräger tube (now open at both ends) into pump, the arrow must point towards the pump (E).

Caution: the tips of the tube may have sharp edges; risk of injury!

Making a Measurement

- Check number of strokes required from the Instructions for Use of the Dräger tube.
- Hold pump so that the End-of-stroke indicator and the stroke counter are facing the user (F).
- Squeeze pump until **stop**.
- Release pump until bellows are fully expanded.
- When the end-of-stroke indicator (F1) appears, squeeze pump completely again.
- Repeat until the number on the stroke counter (F2) corresponds to that given in the Instructions for Use.
- Evaluation of the result in accordance with the Instructions for Use of the tube in question.
- Remove used Dräger tube from socket.
- Flush pump with a few pump strokes in clean air.

Maintenance

To clean or replace the exhaust valve

- Unscrew bolt by using the hexagonal screwdriver supplied (G1).
- Lift off lower pump plate, e. g. by using a coin. (G2).
- Pull valve disc from its seating (H1).
- Wipe valve seating with a damp cloth.
- Moisten the stem on a new valve disc and push it firmly into the center hole of the valve seat.
- Check correct seating by pulling on valve disc lightly.
- Put back lower pump plate and press it into place (H2).
- Insert bolt again and screw down handtight. Perform the leak test as described (A).

Replacing the socket/

Replacing the membrane

- Press spring hook down with a suitable tool (e. g. ball pen) (I1).
- Take out cover plate (I2).
Cover plate holds End-of-Stroke Indicator assembly in place.
- Press spring flanges together and remove socket. (J).
- Insert new socket.
- Using a new End-of-Stroke Indicator Membrane, place parts into the housing in the sequence illustrated (K).
Observe appropriate position.
- Insert spring hook of cover plate and push on firmly.
- Perform the leak test as described (A).

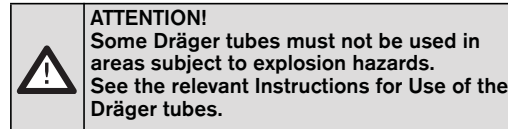
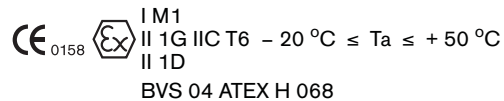
Technical Data

Stroke volume	100 ±5 cm ³
Length	170 mm
Width	45 mm
Height	85 mm
Weight	250 g
Ambient conditions (Operation and storage)	
Temperature	-20 °C to +50 °C
Humidity	0 to 95 % non condensing

Tests and Approvals

Ex-Approvals

ATEX:



Fault, Cause, Remedy

Fault	Cause	Remedy
End-of-stroke indicator visible within 15 min	Foreign matter in exhaust valve, Defective valve disc	Clean valve and valve seating. Replace valve when required, (K)
	Tube too loose in socket	Insert tube tightly into socket, (E)
Pump does not open	One of the tube ends has not been opened	Open tube at both ends, (D)
	Clogged socket	Replace socket, (J)

Order List

Name	Item no.
accuro Gas detector pump	64 00 000
Spare part kit	64 00 220
Loop handle, complete	64 00 208
Opener for Dräger tubes	64 01 200
Extension hose 3 m	64 00 077
Gas detector kit	64 00 260
accuro 2000	64 00 200



TTT Environmental
Instruments and Supplies

*The preferred source for instrument
Rentals, Sales, Service and Supplies!*

4201 B Street
Anchorage, AK 99503
(907) 770-9041

www.tttenviro.com

25420 74th Avenue S.
Kent, WA 98032
(253) 373-9041

info@tttenviro.com