

Dräger



Evita 2 dura – Short guide

01

Evita 2 dura – System overview

Evita 2 dura– Short guide

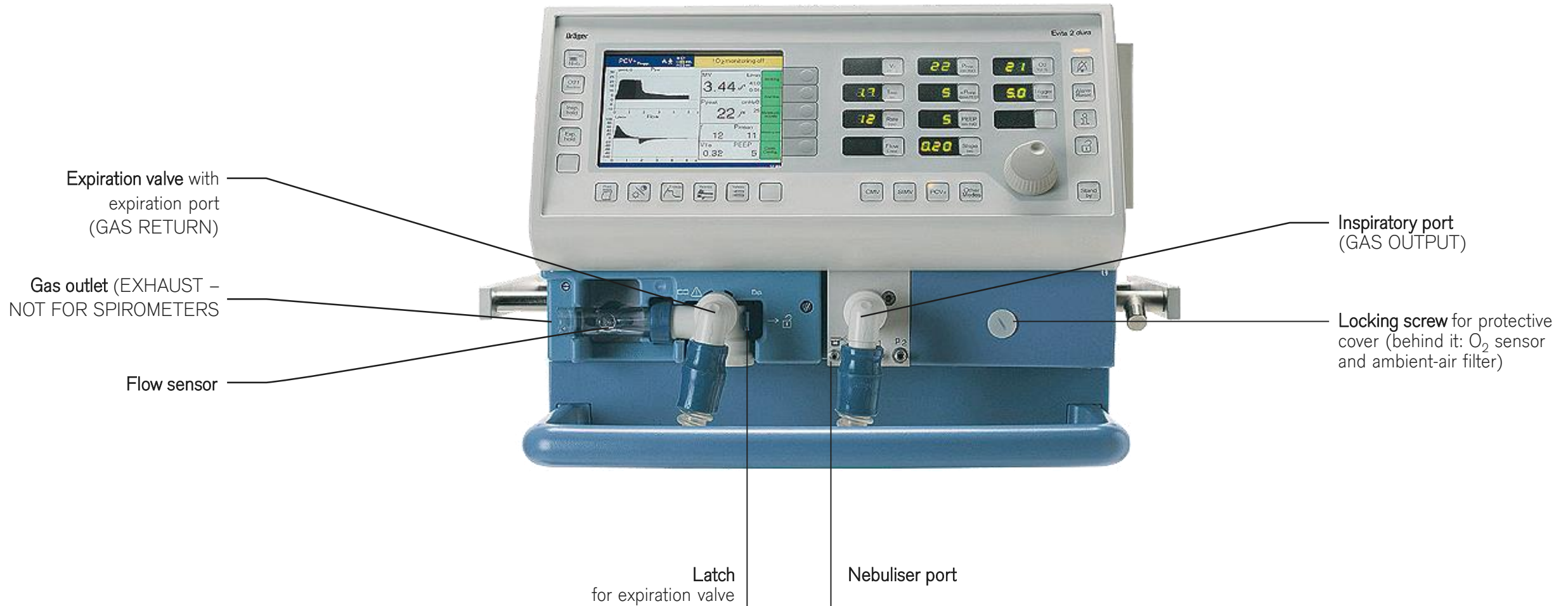
This Evita 2 dura short guide is intended for informational purposes only. It is not a replacement or substitute for the Instructions for Use.

The completion of this guide does not relieve you from reading and understanding the current versions of the instructions for use associated with the relevant device.

It is also not a replacement for mandatory instructions or training courses.

Evita 2 dura – System overview

Front connections



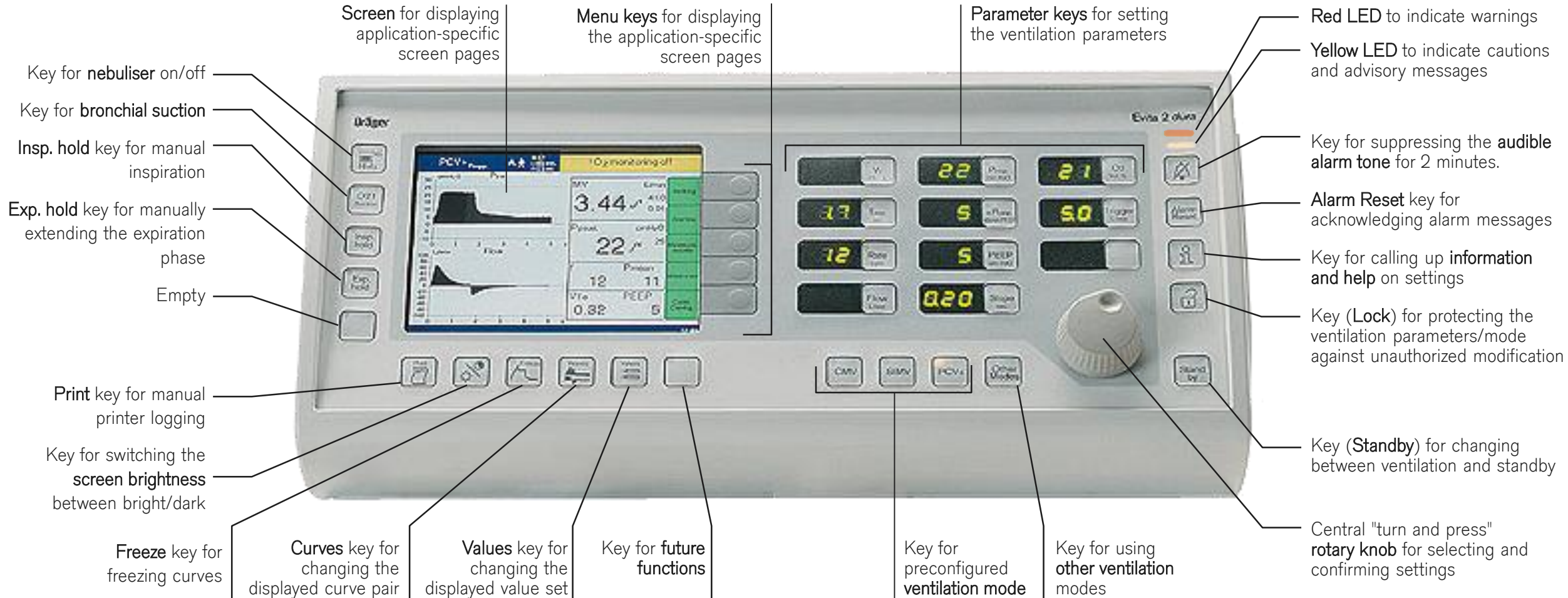
Evita 2 dura – System overview

Back panel



Evita 2 dura – System overview

Control unit



02

Evita 2 dura – Operating concept

Evita 2 dura – Operating concept

Ventilation controls

Ventilation controls

1. Keys for selecting the ventilation modes
2. Keys for selecting/setting ventilation parameters
3. Central "turn-and-push" rotary knob for setting the parameters



Evita 2 dura – Operating concept

Screen operating controls

Menu keys for selecting the menu on the screen.

1. Menu keys for selecting the menu on the screen

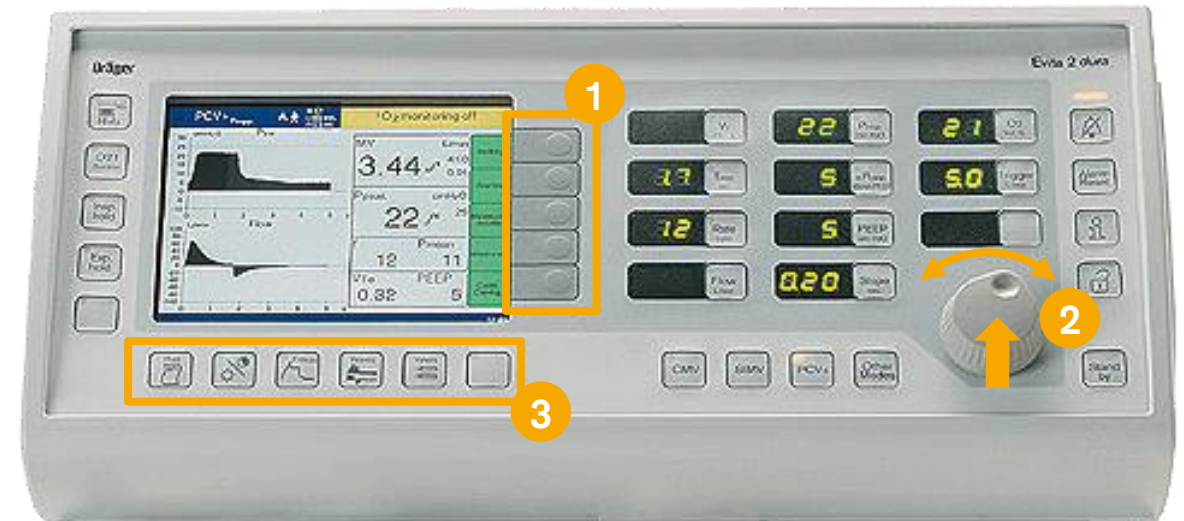
- Settings
- Alarms
- Measurements
- Measurement manoeuvre (optional)
- Calib./Config.

2. Central "turn-and-push" rotary knob for selecting and setting the options displayed on the screen.

To select/set = turn the rotary knob
To confirm = press the rotary knob

3. Screen operating keys:

- **Print key** for manual printer logging
- **Day/Night key** for setting the screen brightness to bright or dark
- **Freeze key** for freezing the curves
- **Curves key** for displaying a different pair of curves
- **Value key** for displaying a different combination of measured values
- Empty

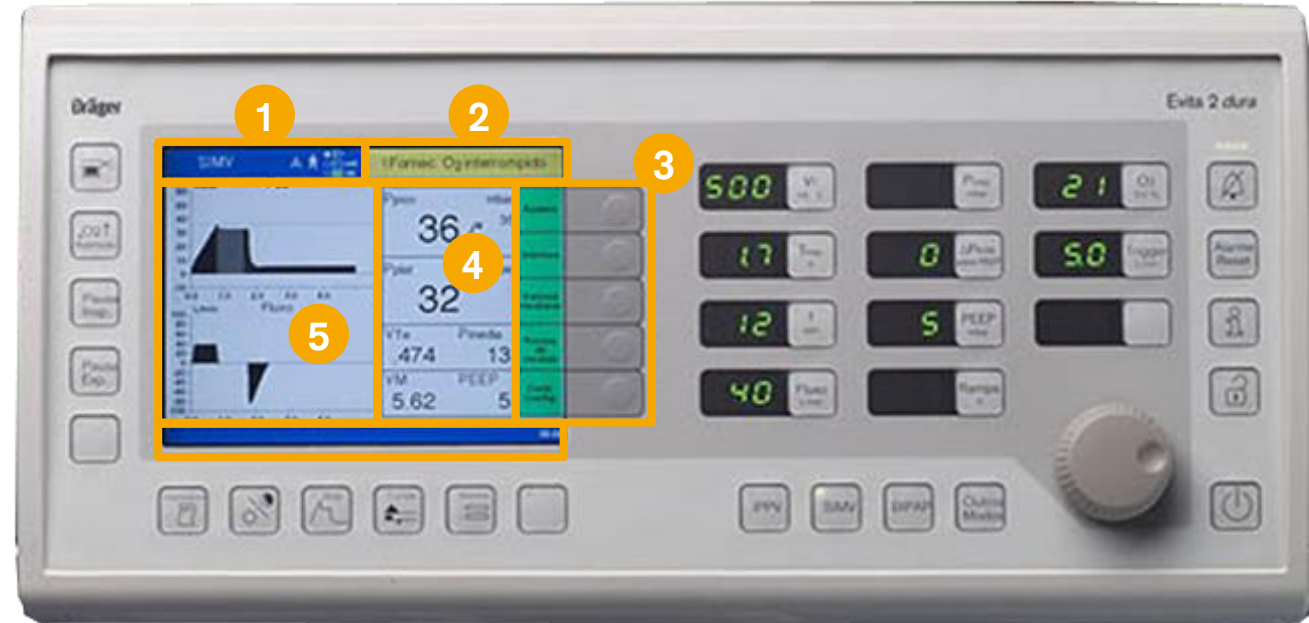


Evita 2 dura – Operating concept

Screen pages

Structure of the main page

1. Line for the active ventilation mode, patient mode and trigger indicator
2. Bar for alarm, warning and advisory messages
3. Field for menu selection keys
4. Field for measured values
5. Field for curves
6. Bar for information and help



Evita 2 dura – Operating concept

Screen pages

1. Screen page **Settings**

- For setting apnoea ventilation
- For setting intermittent PEEP (sigh)

2. Screen page **Alarms**

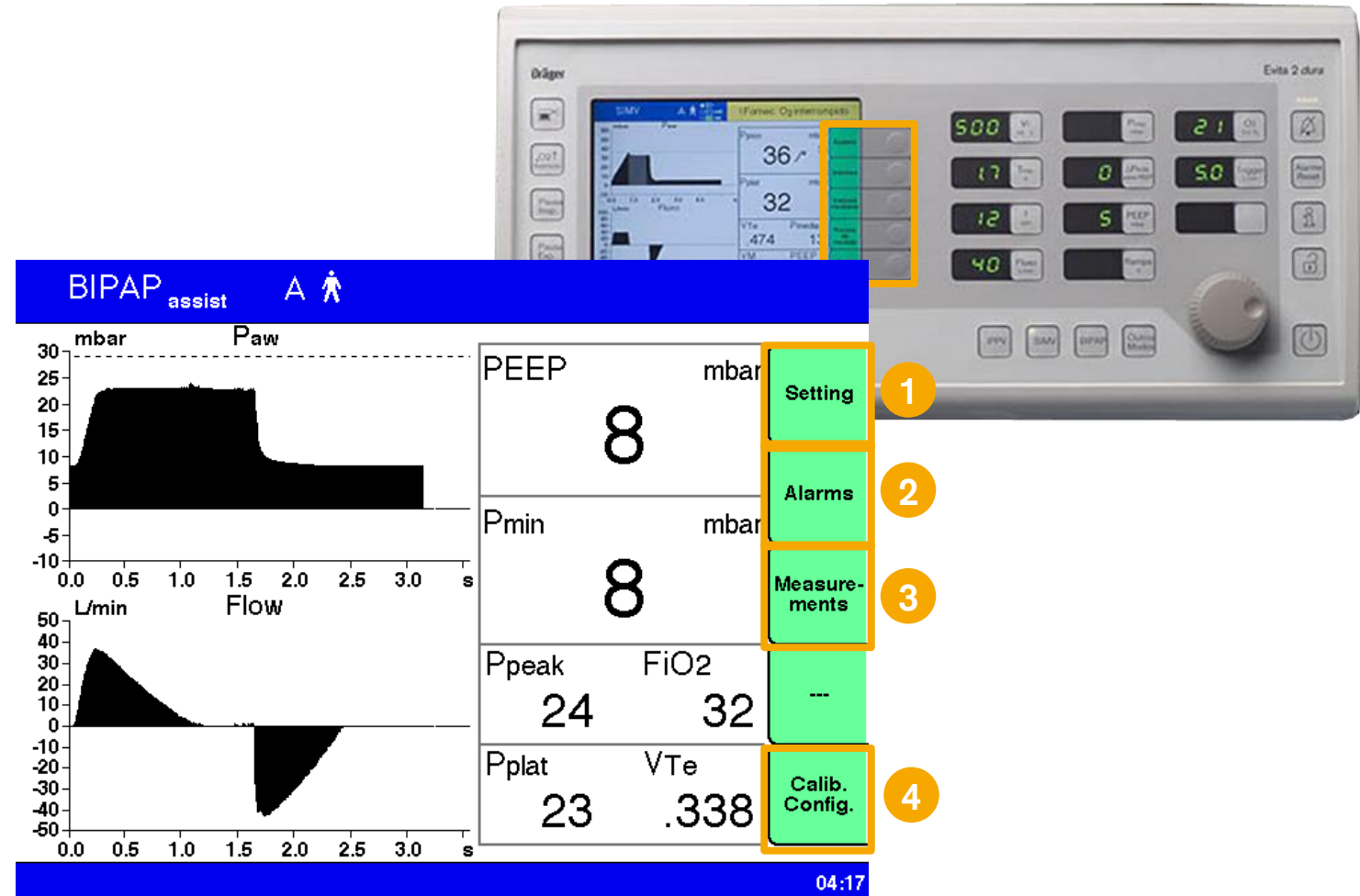
- For displaying the measured values with their alarm limits
- For setting the alarm limits

3. Screen page **Measured values**

- For displaying all the measured values in the current ventilation mode

4. Screen page **Calibration/Configuration** sensors

- Calibrating the sensors for O₂ and flow
- Switching the monitoring system on and off



03

Evita 2 dura – Preparation

Evita 2 dura – Preparation

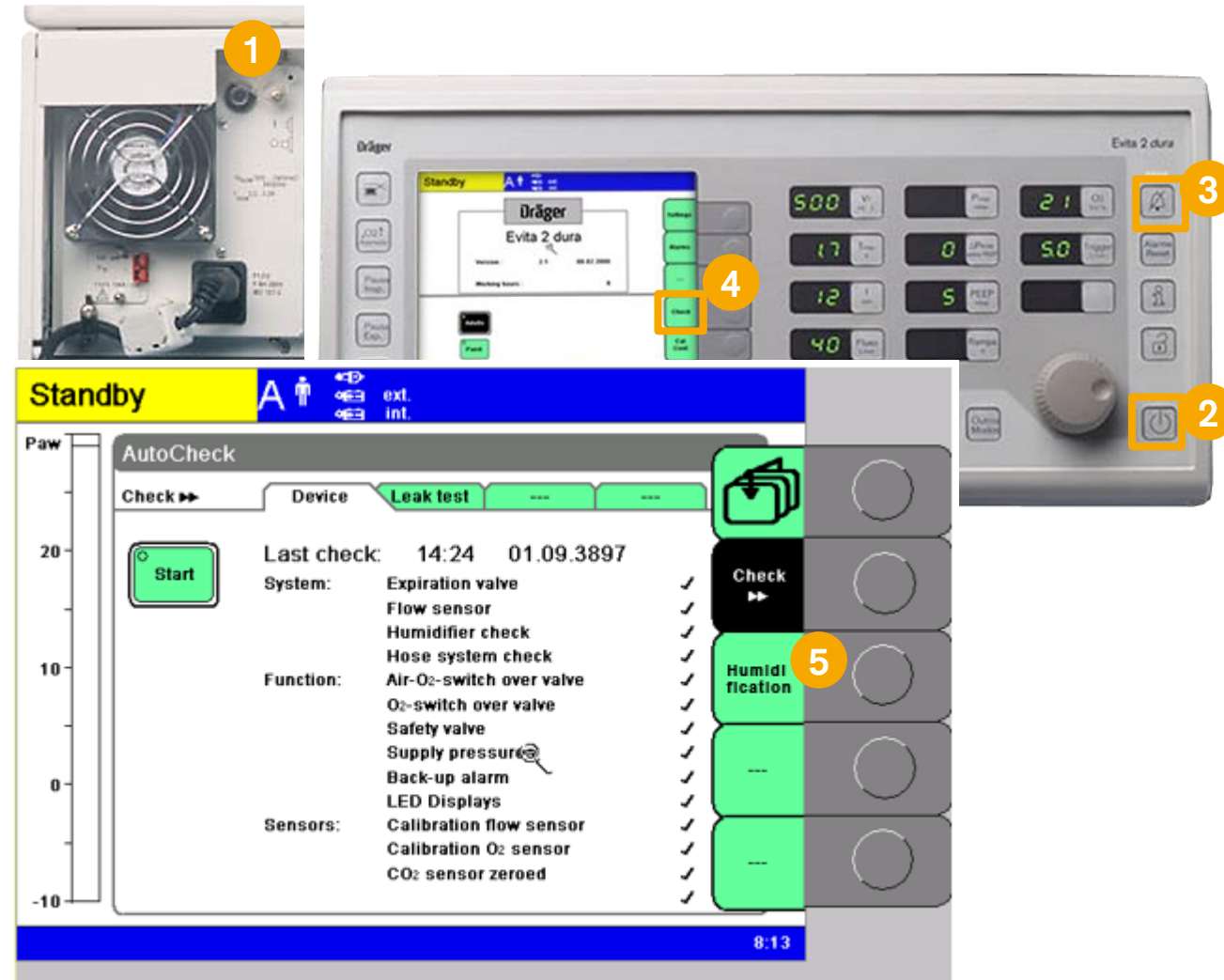
Device check

Device check

Must be carried out immediately before use on the patient in order to confirm that the ventilator is operating correctly.
The device check comprises of the **Device test** and **Leakage test**.

Performing the device check

1. Switch on the machine by pressing the **power switch** on the back panel until it clicks into position. Evita 2 dura runs through its self-test procedure. Wait until the 10-second test phase has been completed.
- After the self-test:
2. Switch Evita 2 dura to **standby** = hold down key for about 3 seconds
 3. Switch off the standby alarm tone with the **Alarm Reset** key
 4. Touch the **Device check** menu key. The standby alarm tone cannot be switched off
 5. Before starting the device check and leak test enter the selected type of **humidifier** (either active or HME) must be entered.



Evita 2 dura – Preparation Device check

Select type of humidifier

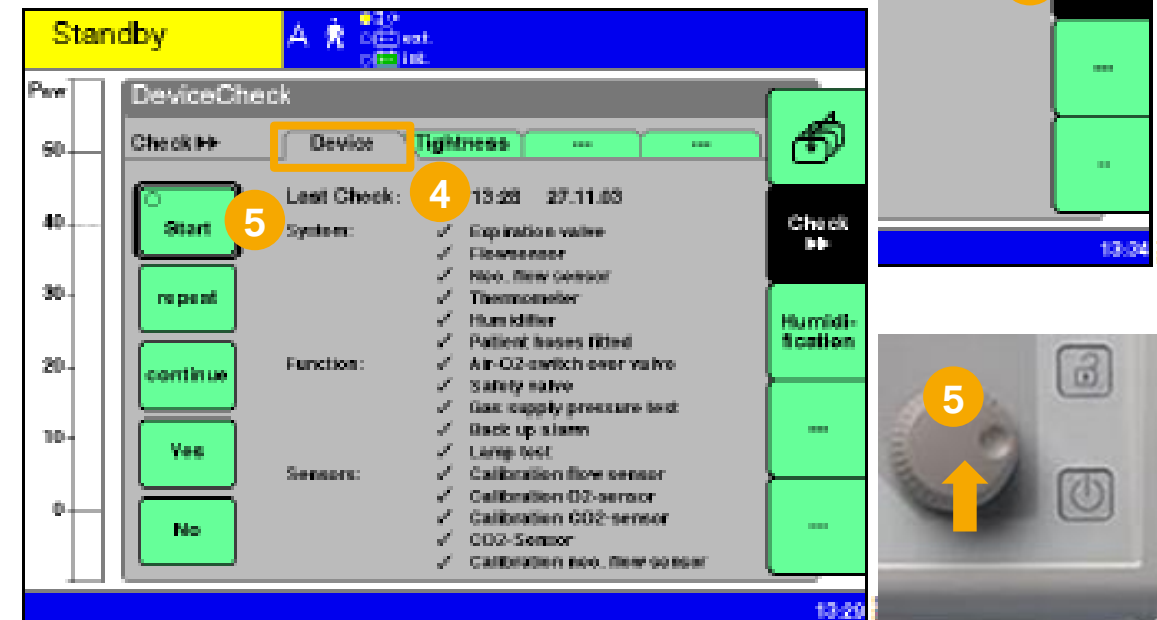
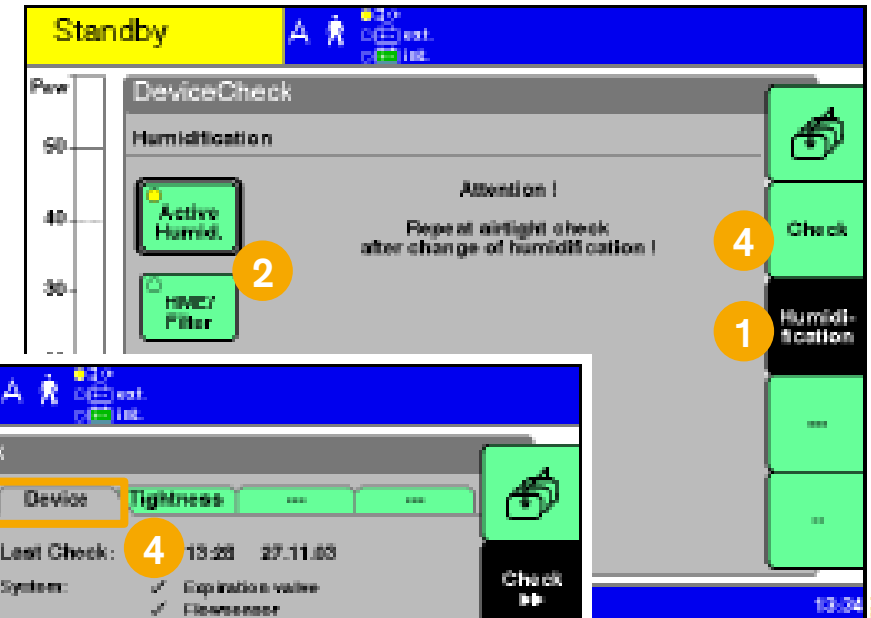
If the type of humidifier is known, Evita 2 dura can take the temperature and moisture situation into account when measuring the volume parameters.

1. Touch the **Humidification** screen key
2. Touch the **Active Humid.** screen key
or
2. Touch the **HME/Filter** screen key = turn rotary knob
3. Confirm selection by pressing the rotary knob

Start Device check

4. Press the **Check** menu key and select the menu **Device**
5. Activate the **Start** screen key and confirm by pressing the rotary knob

Evita 2 dura starts with the dialogue-oriented check. The check procedure is semi automatic. The Evita 2 dura user is instructed to carry out specific actions on the device.



Evita 2 dura – Preparation Tightness (Leak) test

Perform Tightness (Leak) test

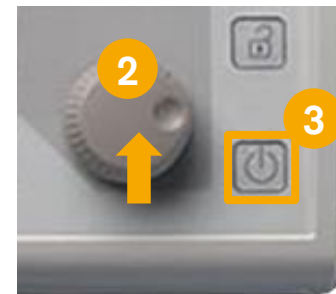
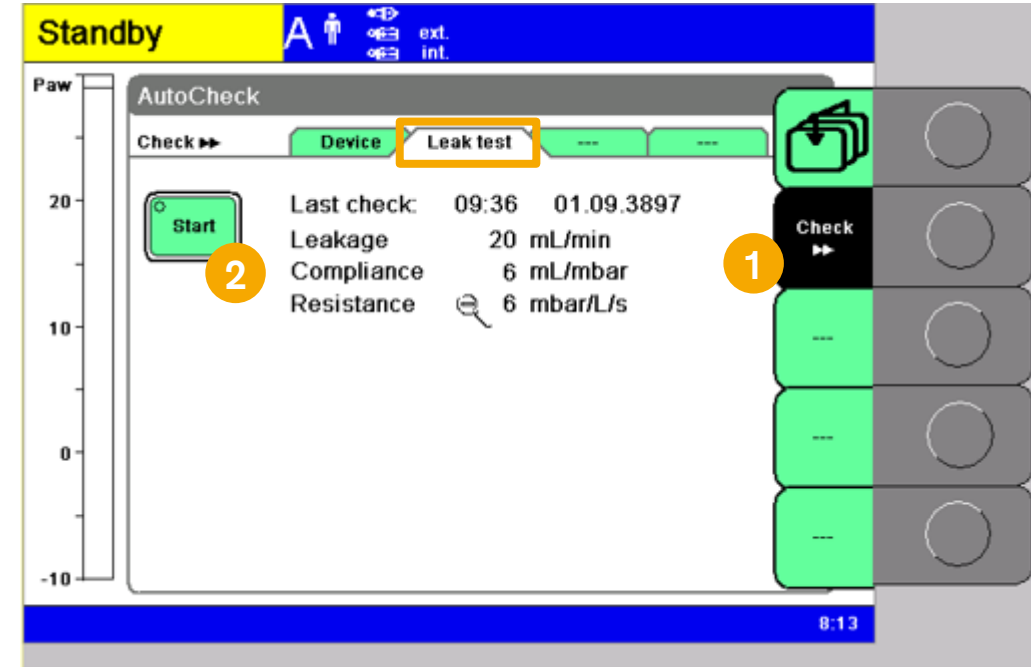
After the Device check perform the leak test

1. Select the menu **Tightness** via the menu button **Check**
2. Activate the screen key **Start** and confirm by pressing the **rotary knob**

Evita 2 dura is ready for use when the device check and leak test have been successfully completed.

Either:

3. Leave Evita in **Standby** mode and if necessary preselect the ventilation mode and ventilation parameters, or immediately start up Evita 2 dura, by pressing **standby**



04

Evita 2 dura – Starting up

Evita 2 dura – Starting up Patient mode

Patient mode

The patient mode can be selected after switching on Evita 2 dura

1. Select the **Adults** key or the **Paed.** key or the **Neo.** key (option) or the **prev. patient** key by turning the **rotary knob**.
2. Confirm = press **rotary knob**

Evita 2 dura starts ventilation with the ventilation mode configured by the user and with the specific start settings for the patient or with the settings valid before the machine was last switched off.



Evita 2 dura – Starting up Ventilation mode

Setting ventilation modes

To activate the relevant ventilation mode

1. Hold down the relevant key for 3 seconds,
or
briefly press and release the relevant key and confirm by pressing the rotary knob

The selected ventilation mode will now be active.



Evita 2 dura – Operating concept

Ventilation parameters

Setting ventilation parameters

1. To set a ventilation parameter = press the corresponding **parameter key**. The yellow LED in the key lights up
2. To set the value of the ventilation parameter = turn the **rotary knob**. The value is displayed next to the parameter key
3. To confirm the value = press the **rotary knob**
The yellow LED turns off
4. To prevent settings being changed inadvertently press the **Lock** key. Its yellow LED will light up. The parameter keys and ventilation mode keys will be protected against inadvertent setting.
Before setting a new value press the Lock key again. The yellow LED turns off.

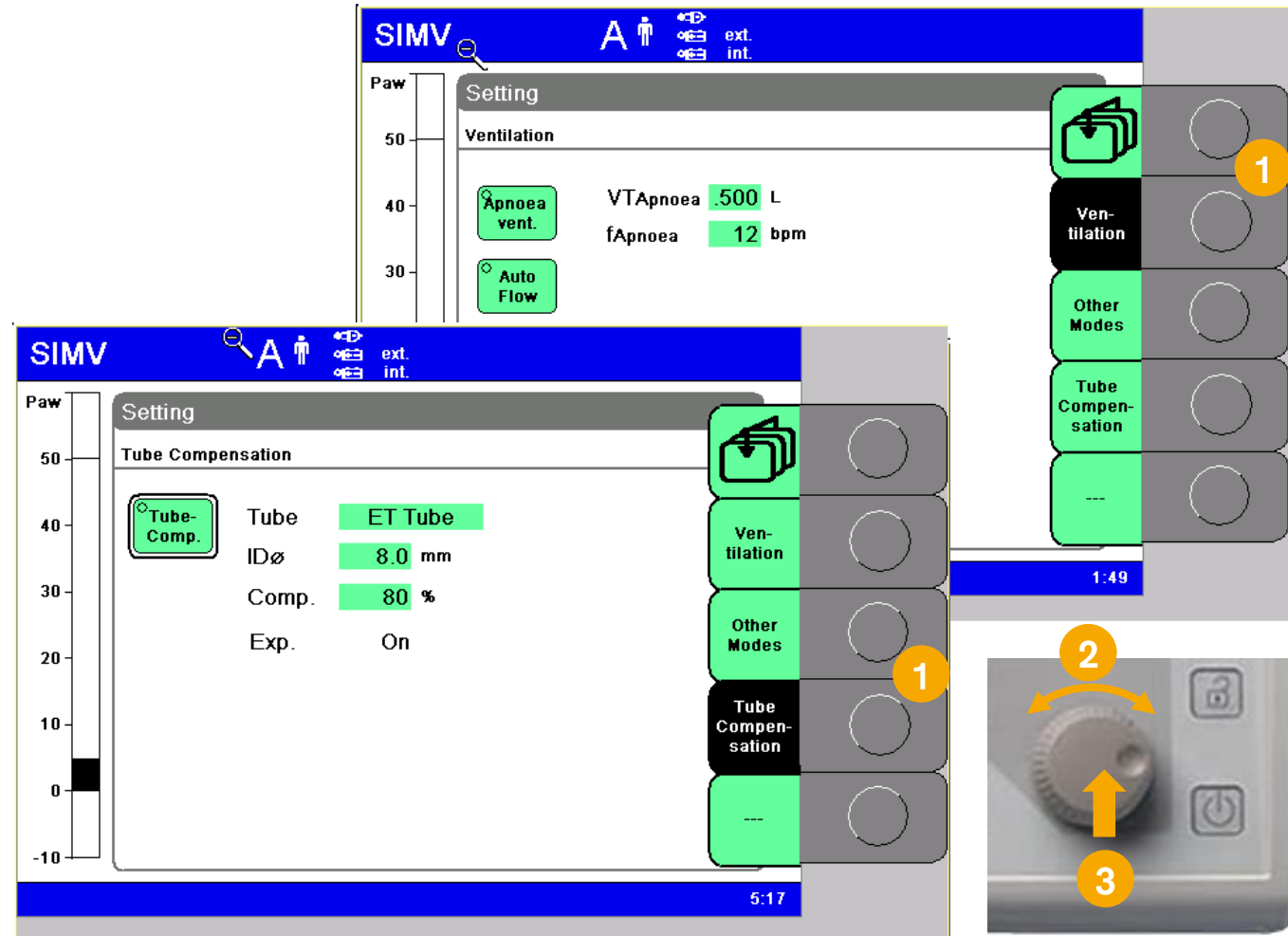


Evita 2 dura – Operating concept

Additional settings

Additional settings

1. Touching the keys on the right side of the screen allows for access to **additional settings**
2. To select the relevant settings = turn **rotary knob**
3. Confirm settings by pressing the **rotary knob**



04

Evita 2 dura – Alarms

Evita 4/4 edition – Alarms

In the event of an alarm

In the event of an alarm

1. The red or yellow lamp flashes.
2. The alarm message is displayed in the right-hand corner of the top line of the screen.

Alarm priorities

Evita 2 dura assigns the alarm message its respective priority. It marks the text with exclamation marks and differently colored backgrounds. Evita 2 dura generates the corresponding alarm tone sequences.

Warning	!!!	High-priority alarm message	five-tone alarm sequence which is sounded twice and repeated every 7 seconds
Caution	!!	Medium-priority alarm message	three-tone alarm sequence which is repeated every 20 seconds
Note	!	Low-priority alarm message	two-tone alarm sequence which is sounded once



3. Suppressing the audible alarm for max. 2 minutes: press the **audible alarm tone** key, its yellow LED lights up and the acoustic alarm is cancelled for 2 minutes.

If the fault that triggered the alarm is still not remedied, the audible alarm starts up again after this period.

Evita 2 dura– Alarms

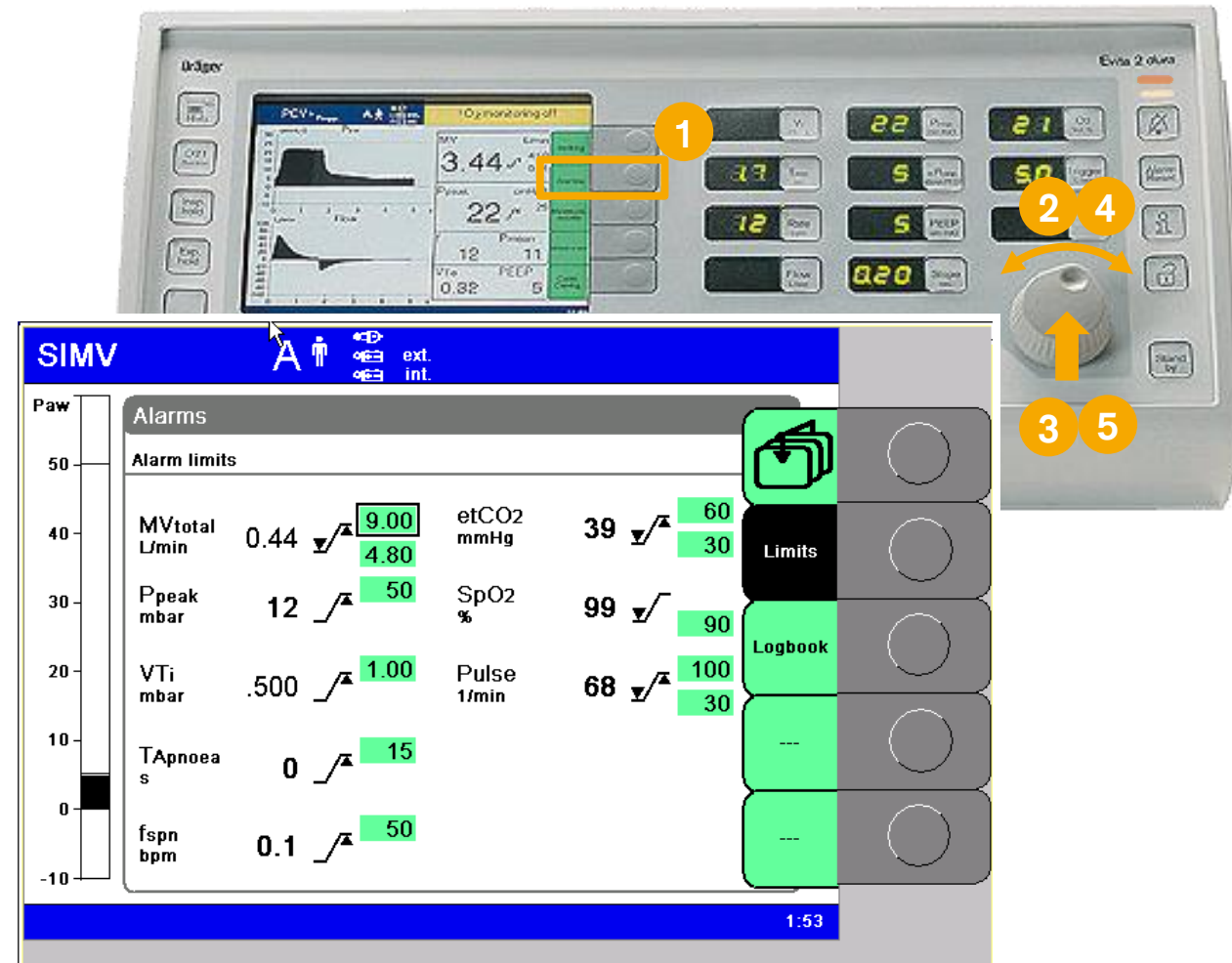
Setting alarm limits

Setting alarm limits

1. Press the **Alarms** menu key. The page (**Limits**) displays all the alarm limits that can be set/adjusted
 - Lower alarm limit ∇/\surd
 - Upper alarm limit \surd/\blacktriangle
2. Select required screen field by turning the **rotary knob**
3. Confirm by pressing the **rotary knob**
4. Set the desired value by turning the rotary knob
5. Confirm by pressing the **rotary knob**

The lower alarm limit does not have to be set for the airway pressure Paw, because it is automatically coupled with the PEEP setting.

The alarm limits do not have to be set for the O₂ concentration. These limits are automatically coupled to the O₂ concentration setting.



Example display: Limits

04

Evita 2 dura – Cleaning, disinfection, and sterilization

Evita 2 dura – Cleaning, disinfection, and sterilization

Safety information on reprocessing

WARNING

Risk of infection or damage to device

Clean, disinfect, and sterilize the device and accessories using validated processes.

CAUTION

Risk of infection

If reusable medical devices are not reprocessed, there is an increased risk of infection to both hospital staff and patients.

Clean and disinfect reusable medical devices after each use.

Protective clothing, eye protection etc. must be worn.

Observe the hospital hygiene regulations!

Reprocess the device after every patient.

Recommendation:

Change the breathing circuit and expiration valve every 24 hours. Keep replacement systems ready.

CAUTION

The screen is made of Plexiglas. Do not treat with alcohol or agents containing alcohol. Danger of cracking.

Evita 2 dura – Cleaning, disinfection, and sterilization

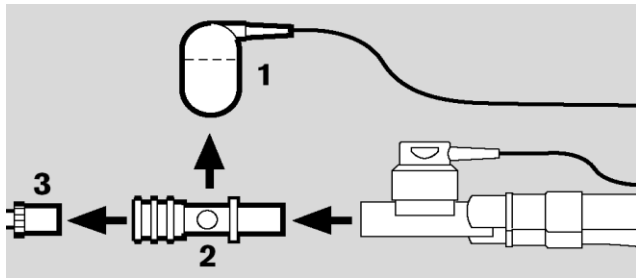
Dismantling

Before dismantling

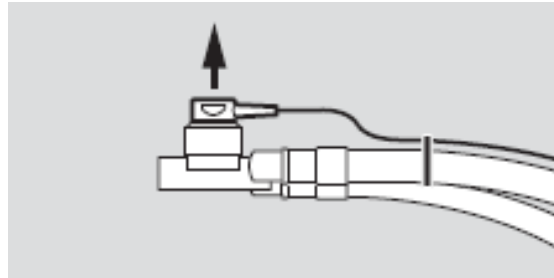
- Switch off the ventilator and humidifier, and remove their power plugs.
- Drain the water traps and ventilation hoses.
- Drain the water container of the humidifier.

Evita 2 dura – Cleaning, disinfection, and sterilization

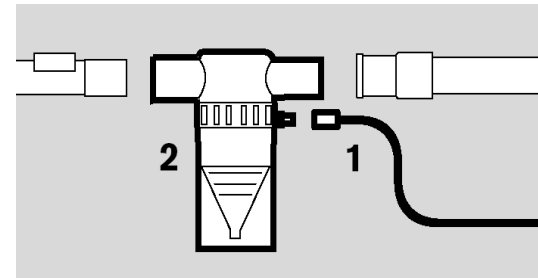
Disassembling



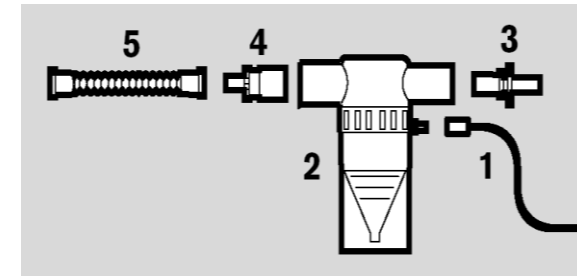
CO₂ sensor (optional): (1) Remove from the cuvette. Unplug the connector from the back of the unit.; (2) Remove the cuvette of the CO₂ sensor from the Y-piece.; (3) Remove the catheter cone from the cuvette; Prepare the CO₂ sensor for wipe disinfecting; Reprocess the reusable cuvette e. g. in a washer-disinfector (do not use rinse aid); The disposable cuvette cannot be reprocessed and must be disposed of.



Temperature sensor: Remove from the Y-piece or from the mounting of breathing circuit; Do not pull the cable; Unplug the connector from the back of the Evita 2 dura; Prepare the temperature sensor for wipe disinfecting; the temperature sensor is designed for wipe-disinfection; the temperature sensor must not be placed in a cleaning and disinfection machine or disinfectant bath.



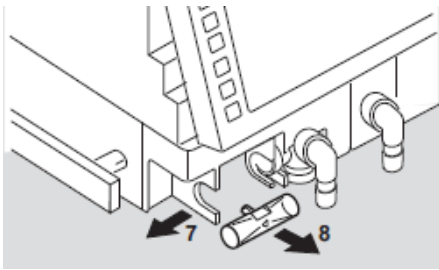
Nebulizer (optional): (1) Remove the nebuliser hose from the nebuliser and from the port on the device; (2) Remove the medication nebuliser from the adult breathing circuit.



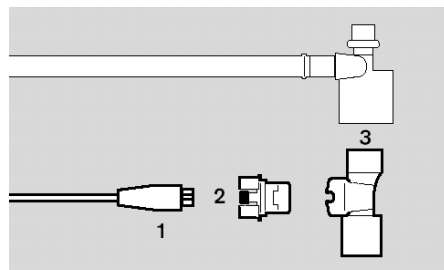
Nebulizer (optional): (1) Remove the nebuliser hose from the nebuliser and from the port on the device; (2) Dismantle the medication nebuliser from the paediatric hose system; (3) Remove the catheter connector from the inlet; (4) Remove adapter from the outlet. (5) Remove corrugated hose from the adapter; Dismantle and reprocess the medication nebuliser in accordance with its specific Instructions for Use. Reprocess the adapter parts in a washer-disinfector.

Evita 2 dura – Cleaning, disinfection, and sterilization

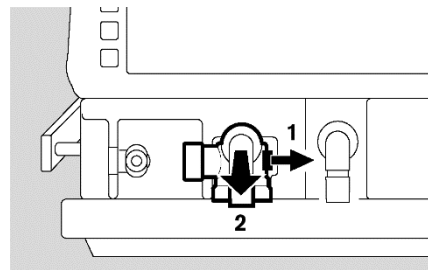
Disassembling



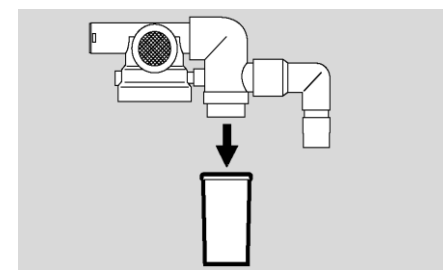
Flow sensor: (7) Push the flow sensor to the left as far as it will go and (8) pull out; The flow sensor cannot be disinfected/cleaned in a machine, nor can it be sterilised by the hot steam method; Disinfect flow sensor for about 1 hour in 70 % ethanol solution; The flow sensor may be re-used as long as calibration can be carried out successfully.



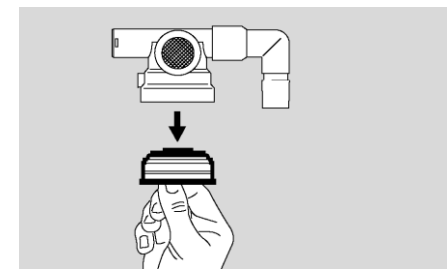
Neonatal flow sensor: Unplug sensor connector at the back of Evita 2 dura; Disconnect the flow sensor cable (1) from the neonatal flow sensor; Press the buttons (2) on both sides while pulling the flow sensor insert (3) out of its housing. Pull housing out of the Y-piece.



Expiration valve: Push the catch (1) to the right while at the same time pulling out the expiratory valve (2).



Expiration valve: If the expiration valve has an optional water trap, remove the collecting jar; Remove the flow sensor sleeve.



Reusable expiration valve: Only strip down the expiration valve if badly soiled: unscrew the stopper by hand and remove together with the diaphragm; Do not disassemble the expiration valve any further; Prepare the expiration valve for cleaning and disinfection in a cleaning and disinfection machine, then for sterilisation by the hot steam method.

Evita 2 dura – Cleaning, disinfection, and sterilization

Disinfecting/Cleaning

Use surface disinfectants. For surface compatibility, use disinfectants based on:

- aldehydes,
- quaternary ammonium compounds.

To avoid the possibility of damage to material, do not use any disinfectants based on:

- alkylamine-based compounds
- phenol-based compounds,
- halogen-releasing compounds,
- strong organic acids,
- oxygen-releasing compounds.

Parts must not be sterilised in ethylene oxide – health hazard!

To avoid all risk of infection by hospital staff and other patients, the ventilator must be disinfected and cleaned before it is used on the next patient (Use protective clothing, eye protection, etc.).

Evita 2 dura – Cleaning, disinfection, and sterilization

Disinfecting/Cleaning

Ventilator without ventilation hoses, gas supply hoses, temperature sensor:

- Wipe disinfect e.g., with Buraton 10 F or Terralin (Schülke & Mayr, Norderstedt, Germany). Comply with the manufacturer's instructions.

Cooling air filter, room air filter:

- Filters must be cleaned or replaced when soiled or at the latest after 4 weeks.

Ventilation hoses, water traps and their collectors, Y-piece, expiratory valve (or in the event of severe soiling, its individual components):

- Disinfect in a moisture saturated environment at 93 °C (200 °F) for 10 minutes using a cleaning and disinfecting machine. Use detergent only.
- After disinfecting with moist heat, we recommend that the expiratory valve or its disassembled components be autoclaved at 134 °C (273 °F) to remove any remaining liquid in the pressure measuring canal in the block.

Alternatively: If a cleaning and disinfection machine is not available:

- Bath disinfect, e.g. with Sekusept from Henkel. Comply with the manufacturer's instructions.
- Then rinse with clean water, preferably from a soft water supply. Shake water out thoroughly, and leave the products to dry.

Expiration valve and its individual parts after disinfection:

- Rinse thoroughly with clear water, preferably from a soft water supply. Shake water out thoroughly.
- After rinsing thoroughly, dry expiration valve.
- After drying, sterilise in hot steam at 134 °C, otherwise liquid may remain in the pressure measuring line and impair correct functioning.

Ventilation hoses, water traps and their collectors, Y-piece, expiratory valve, temperature sensor:

- Can be autoclaved at 134 °C (273 °F).

Evita 2 dura – Reprocessing list

Care list for Evita 2 dura Intensive Care Ventilator

Applicable for use with non-infectious patients.

For infectious patients, all parts that conduct breathing gas must be additionally sterilised after disinfecting and cleaning.

The parts in contact with breathing gas and listed below can be sterilised in hot steam at 134 °C. Refer to the column "Sterilising".

The below/above table contains the manufacturers recommended guidelines. Please note that these are merely guidelines and are not intended to take precedence over the hospitals hygiene/infection control protocols!

Part Reusable components	How often Recommended cleaning intervals	How			Sterilising Steam 134°C 10 minutes
		Cleaning and disinfection machine, 93°C 10 minutes	Disinfecting and cleaning		
			Wiping	Bath immersion	
Evita 2 dura, basic device	Per patient	No	outside	No	No
Trolley, hinged arm, medical gas hoses	Per patient	No	Outside	NO	No
Ventilation hose, Y-piece, water traps, collecting jar	Per patient/weekly	Yes	No	Possible	Yes
Expiration valve	Per patient/weekly*	Yes**	No	Possible	Yes
Temperatur sensor	Per patient/weekly*	No	Yes	No	Yes
Flow sensor	daily	No***	Outside	Possible***	No

* Nebulisation may lead to formation of more extensive deposits necessitating more frequent replacement.

** After disinfecting/cleaning: sterilise at 134 °C. Otherwise risk of malfunction due to residual liquid in pressure measuring line.

*** The flow sensor cannot be disinfected/cleaned in a machine, nor can it be sterilised by the hot steam method.

Thank you

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