



Warning: For full information concerning the performance characteristics of the Dräger Medical devices described in this Workbook, each user must first carefully read and fully comprehend the Instructions for Use before operating the device.

This workbook belongs to

Name	Date of Training
Hospital	Training Facilitator
Department	

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Overview of Workbook

Workbook Objectives

This Workbook is designed to help you learn how to operate the device effectively and with confidence.

How to Use this Workbook.

A Dräger accredited facilitator should facilitate the use of this Workbook.

Each section of the Workbook contains learning objectives, questions, practical tasks and knowledge checks for you to work through. Please follow the instructions carefully and write your answers in the box provided.

Task

Indicates where an action and/or a written answer is required.

Where appropriate, throughout the Workbook, there are note, warning and caution boxes which provide the user with important additional information relating to the use of the device.

WARNING!

A WARNING statement gives important information that, if ignored, could lead directly to personal injury.

CAUTION!

A CAUTION statement gives important information that, if ignored, could lead directly to equipment damage and indirectly to personal injury.

NOTE:

A NOTE statement gives important additional information relating to the use of the device.

Section One – Identify major components (10 Minutes)

1

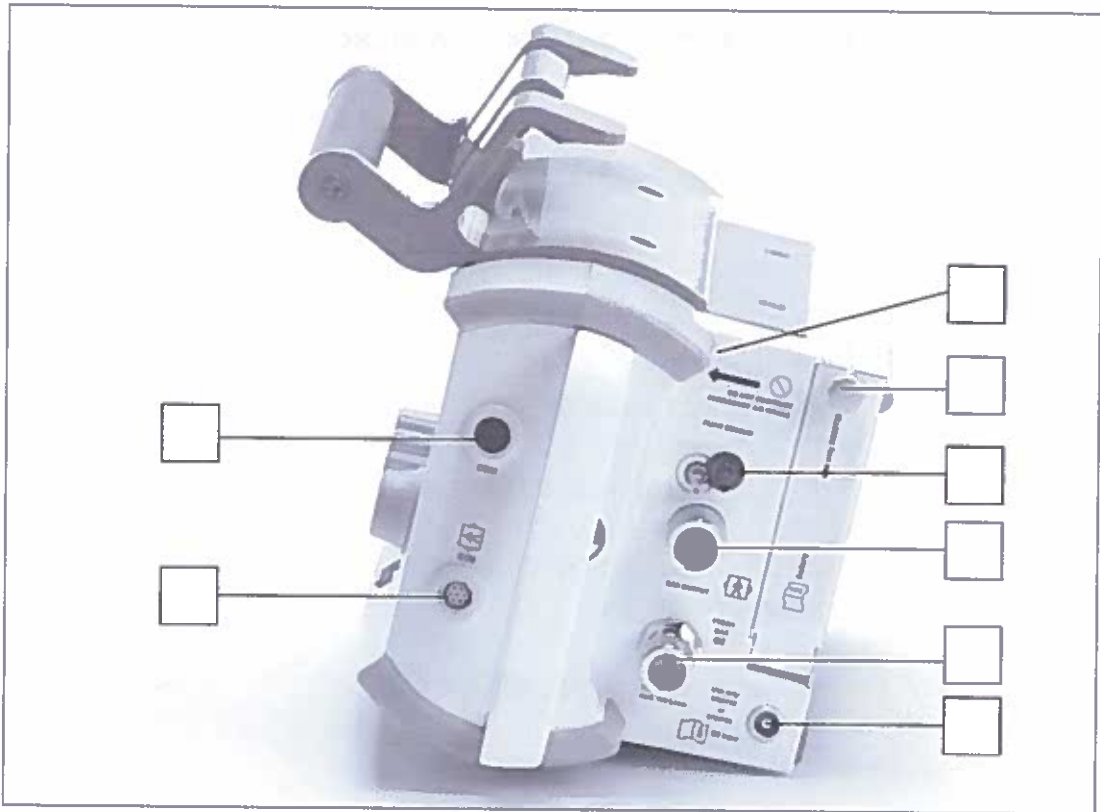
At the end of this section you should be able to:

- Identify the different components
- Locate the connections for external devices

Task

To familiarise yourself with the Oxylog 3000 *plus* controls please fill in the blank boxes with the appropriate identification number, for all the exercises in this section. If you are unsure of any point please ask your facilitator.

Side view, right

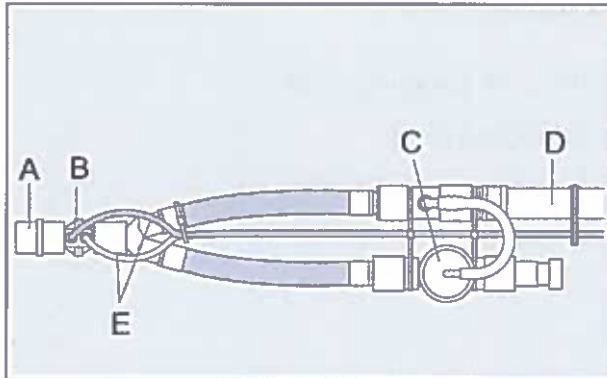


Task

Label the indicated components with the correct letter:

- | | |
|--|--|
| A Emergency air intake | E Connector for O ₂ supply |
| B Knob to secure the battery compartment cover | F Connector for power supply |
| C Connectors for flow measuring hoses | G Connector for CO ₂ sensor |
| D Gas outlet for ventilation hose | H Connector for data communication cable |

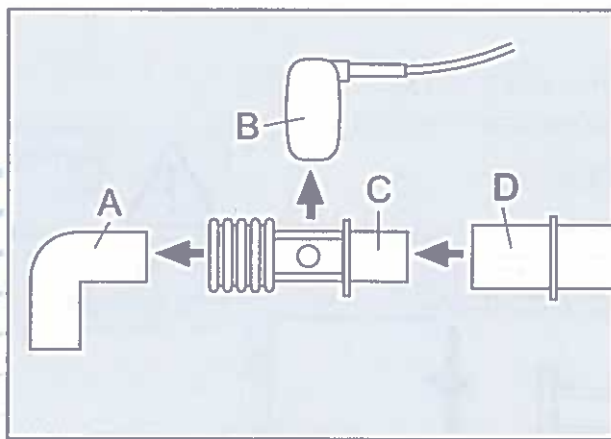
Paediatric hose system, disposable



Note: For tidal volumes < 250 mL, use a paediatric hose system. For tidal volumes > 250 mL, use an adult hose system.

- A Angled connector
- B Flow sensor
- C Breathing valve
- D Ventilation hose
- E Flow and pressure measuring hoses


Remove the CO₂ sensor and cuvette

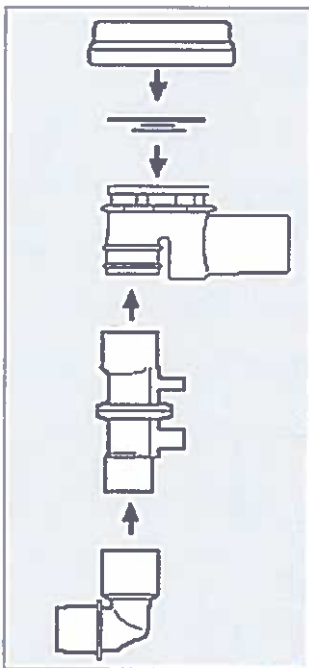


1. Unplug the CO₂ sensor connector at the side of the Oxylog 3000 *plus*.
2. Remove the CO₂ sensor (B) from the CO₂ cuvette (C).
3. Remove the CO₂ cuvette (C) from the flow sensor (D).
4. Remove the angled connector (A) from the cuvette (C).

Assemble the reusable breathing valve

1. Place the diaphragm in the breathing valve with the small raised section facing downwards.
2. Fit the cover and turn 90 degrees clockwise to lock in place – see the diagram below.
3. Push the flow sensor into the breathing valve, the grooves show the preferred position.
4. Push the angle connector onto the flow valve - see the diagram below.

 **Warning:** Always use an angled connector to ensure accurate minute volume readings.



Cleaning the breathing valve, flow sensor and hoses

Disposable/single use sets should be discarded after use.

Reusable valves and hoses should be sterilized in-between patient use in accordance with your hospital policy/procedure and the Instructions for Use.

Section Three – Connectivity (10 Minutes)

3

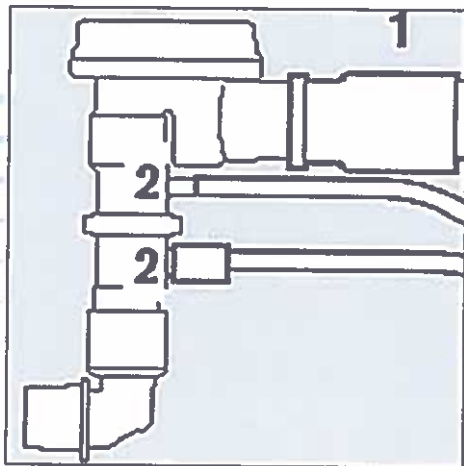
At the end of this section you should be able to:

- Connect a circuit to the device
- Connect CO₂ monitoring
- Connect the power supply
- Determine the battery charge
- Connect the device to a gas supply

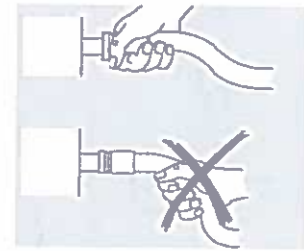
Please complete the sections that are applicable to your hospital.

Connecting a reusable circuit

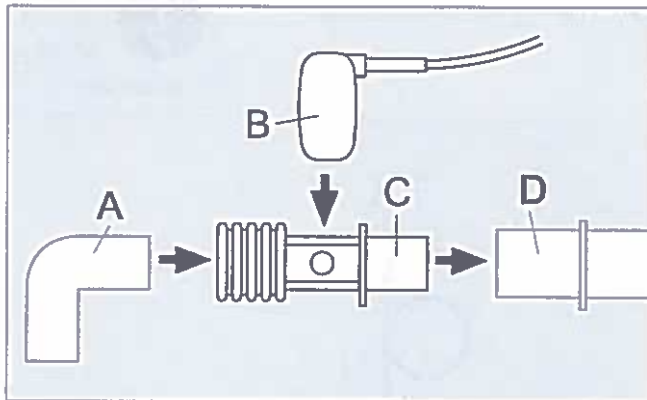
1. Connect the ventilation hose (the end that has the two separate flow hose connections – see the diagram below) to the socket of the breathing valve, marked as inspiration (1).
2. Connect the flow measuring hoses to the flow sensor – note the diameter of the tubing to determine where each hose fits, as shown in the diagram below (2).



Note: Handle hoses carefully to avoid damaging them.



Connecting the CO₂ sensor and the cuvette



1. Disconnect the angled connector (A) from the flow sensor (D).
2. Attach the cuvette (C) to the flow sensor (D), with the cuvette windows facing the side.
3. Attach the angled connector (A) to the cuvette (C).
4. Push the CO₂ sensor (B) onto the cuvette (C), with the cable towards the device.
5. Plug the CO₂ sensor into the connector of the Oxylog 3000 *plus*. For the connector location, please refer to the section to the Instructions for Use.
6. Insert the CO₂ sensor cable in the cable clips on the hose.

Connect the power supply

The Oxylog 3000 *plus* has three ways of obtaining power to be able to function:

1. Internal supply with a rechargeable battery.
2. External DC voltage from an onboard power supply using a DC/DC converter. (e.g. For use in ambulances).
3. Using the AC/DC power pack connected to an external power supply.

For the purpose of the exercises in the book we are going to use the AC/DC power pack.

For more information concerning all the options please refer to the Instructions for Use.

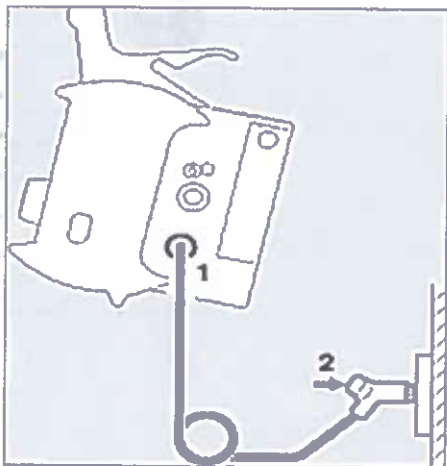
Connect the Oxylog 3000 plus to a gas supply

Gas can be supplied to the Oxylog 3000 plus from either a cylinder or from a piped medical gas source.

For the purpose of this exercise we will be using a piped gas supply.

Gas supply from a piped medical gas source

1. Take the gas hose and visually check the fittings for damage.
2. Screw the gas hose into the Oxylog 3000 plus, make sure that the connection is tight and secure – see picture below (1).
3. Plug the non-interchangeable gas hose into the corresponding wall outlet gas supply – see the below picture (2).
4. Make sure the connection is secure by giving the hose a couple of firm pulls i.e. "tug test" to ensure it will not become disconnected from the outlet.
5. Visually and audibly check the gas supply for kinks and leaks – characterized by a hissing sound.



Caution: If medical air is selected as the gas supply the device should be set in the customer service mode or else the display will indicate incorrect O₂ concentrations.

Warning: The Oxylog 3000 plus can be run on either oxygen or medical air. If medical air is used the maximum O₂% that can be delivered will be 21%.

Caution: The gas connections used on the Oxylog 3000 plus are gas specific, non interchangeable connectors to prevent errors.

Note: Gas consumption can be viewed at the bottom left corner of the Oxylog 3000 plus screen when in use.

Knowledge checks:

1. Name the 3 ways that electrical power can be supplied to the Oxylog 3000 *plus*?

2. Where is the battery life indicated on the screen display?

3. What gasses can be used with the Oxylog 3000 *plus*?

4. True or False - only gas cylinders can be used with the Oxylog 3000 *plus*?

5. Approximately how long does it take to fully recharge an exhausted battery?

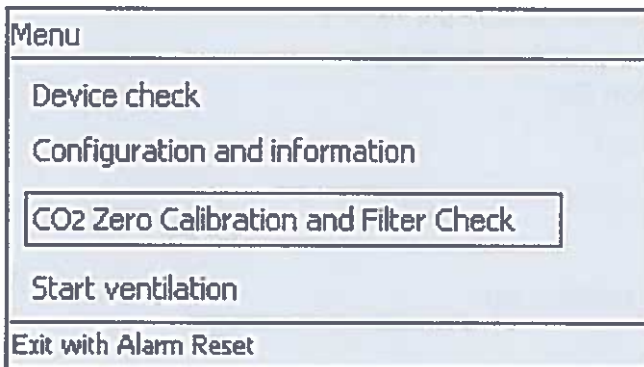
7. Follow the on screen commands
8. When asked adjust the VT, Freq., Pmax and O₂ to match those on the screen.
9. When the device check is finished, the results will be displayed on the screen. The Oxylog 3000 *plus* asks you to confirm the results by pressing the Rotary Knob. This will enable you to return to the menu screen.



Warning: If the device check was not successful repeat the device checks, if still unsuccessful refer to the Instructions for Use, your hospital procedure/ policy and your local authorised DrägerService organisation.

CO₂ zero calibration and filter check

If using CO₂ option select CO₂ calibration and filter check from the menu.



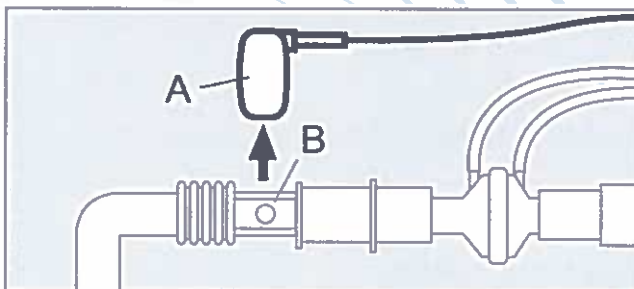
1. Select **CO₂ zero calibration and filter check** in the start-up menu and confirm.

The function **CO₂ Zero Calibration and Filter check** is displayed only if the option is available.

Note: The CO₂ zero calibration and filter check can be discontinued at any time by pressing the **Alarm Reset** key.

Zero calibration before ventilation

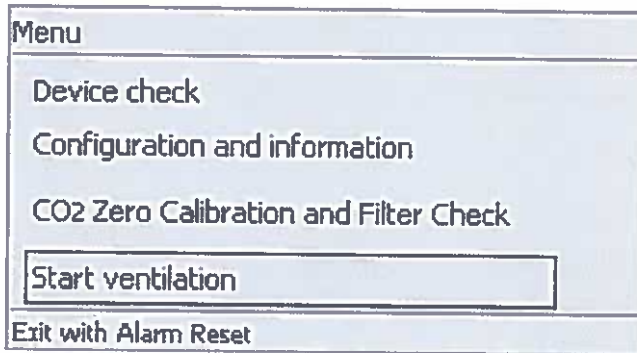
The zero calibration is performed with a clean CO₂ sensor that has been removed from the cuvette!



1. Remove the CO₂ sensor (A) from the cuvette (B).

Note: Do not breathe on the CO₂ sensor during zero calibration, otherwise the zero calibration can fail or the zero calibration can pass with an invalid zero value.

Using the Rotary Knob, scroll down to select Ventilation and confirm the selection by pressing the Rotary Knob



Calibration

The pressure and flow sensor are calibrated automatically by the Oxylog 3000 *plus* at regular intervals. Calibration readings are retained when the Oxylog 3000 *plus* is switched off.

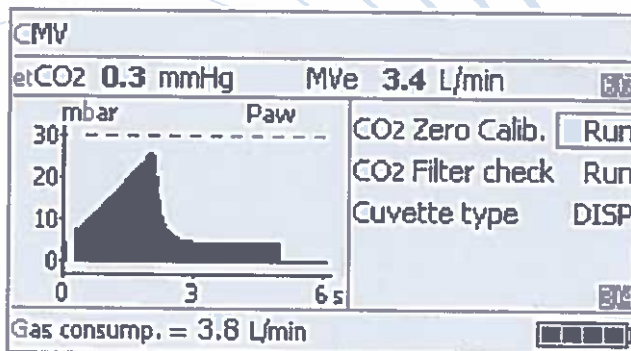
Determining the approximate running time of your gas cylinder

To determine the approximate running time of a cylinder you can use the equations below:

Cylinder pressure = the pressure that is shown on the pressure gauge of the cylinder (it is recommended that only full cylinders are used – 200 bar – 2900.75 psi)

Medical gas supply = total capacity of O₂ (2.5L) x cylinder pressure (200bar – 2900.75 psi) = 500L

Operation time = $\frac{\text{medical gas supply (500)}}{\text{Minute Volume (frequency x tidal volume) + 0.5 (gas consumption by the ventilator)}}$



– Cuvette type (optional)

Note: The cuvette windows of the reusable cuvette and disposable cuvette have different optical properties. Therefore, the correct cuvette type must be selected in the Setting menu. Otherwise the zero point is shifted by up to ± 8 mmHg of CO₂.

Section Five – Device functions (15 Minutes)

5

At the end of this section you should be able to:

- Start ventilation
- Set ventilation modes
- Set apnea ventilation
- Select oxygen concentration
- O₂ blending - (Optional)

Starting ventilation

There are 2 ways to start ventilation.
Ventilation can be started after the device check.

1. Use the Rotary Knob.
2. Scroll down the menu.
3. Select ventilation.

Or:

1. Press the **On/Off** key until the LED light stops flashing.
2. Wait 5 seconds.

Questions:

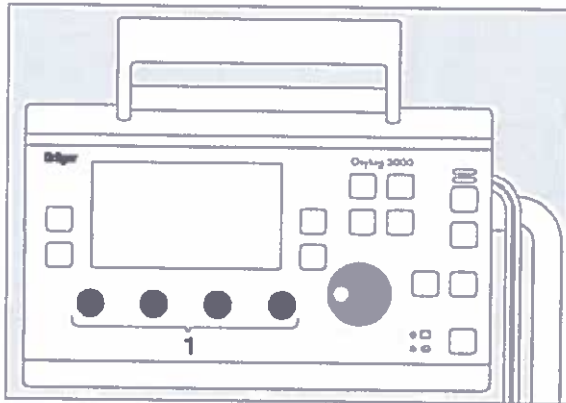
1. What happens to the test lung?

2. What mode of ventilation is displayed in the top left-hand side of the screen?

Note: The Oxylog 3000 *plus* will automatically begin ventilation as soon as the self-test is complete. The settings displayed will either be the manufacturers default setting or default setting chosen by your hospital. To adjust the default setting see the Instructions for Use, your hospitals procedure/ policy and your local authorized DrägerService organisation.

Setting ventilation modes

1. Set the following values O_2 – 60%, Pmax –50, Freq. – 16 and VT - 700, using the four control knobs (1) at the bottom of the Oxylog 3000 plus (see the diagram below).
2. Observe the screen display while adjusting the dials – this is to confirm the accuracy of the settings.



Note: There are two ways of changing the mode of ventilation. Hold down the mode key for approximately 3 seconds until the LED light stops flashing OR press the mode key and confirm the choice by pressing the Rotary Knob.

3. Change the mode of ventilation to VC (CMV) or VC-SIMV by pressing the **(CMV) key** or the **SIMV key**. Use both of the methods, found in the note box, to change the mode of ventilation.
4. Place the Oxylog 3000 plus into VC (CMV) mode – if it is not already in that mode.
5. The extra settings pertaining to that mode of ventilation can be found on the right-hand side of the screen.

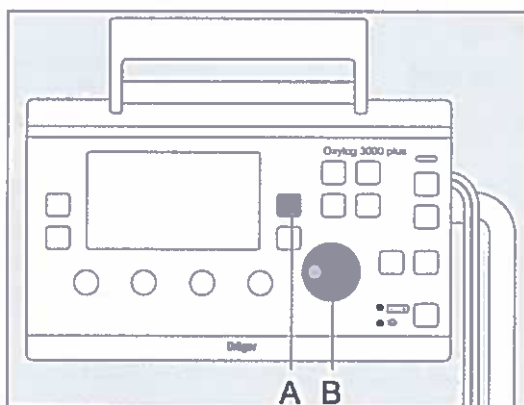
Question:

What are the settings displayed for VC (CMV) on the right-hand side of the screen display?

Apnoea back-up ventilation is only applicable when using the SpnCPAP mode. In the event of an apnoea, the ventilator will automatically activate volume-controlled mandatory ventilation - (VCCMV).

When an apnoea occurs, the device simultaneously issues an alarm signal and switches to volume controlled ventilation with the parameters respiratory rate **RRapn**, tidal volume **VTapn**, and the maximum airway pressure **Pmax** when the apnoea time **Tapn** has been reached. The ventilation time ratio I:E = 1:1.5 and the plateau time **Tplat** % = 0 are preset during apnoea ventilation.

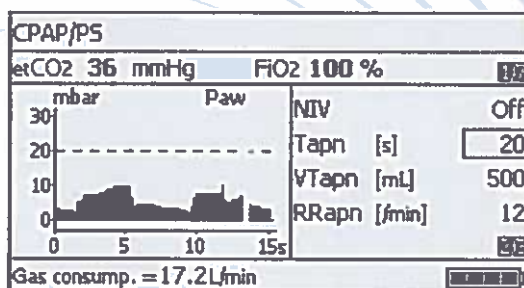
Setting apnoea ventilation



On the display:

- Set **Tapn** with the rotary knob (B) to a value between 15 and 60 seconds.

The parameters **RRapn** and **VTapn**, which are required for setting apnoea ventilation, are now displayed:



3. Set **RRapn** and **VTapn**.
4. Set **Pmax**. This determines the maximum airway pressure allowed during apnoea ventilation.

12. Press the Rotary Knob to select and rotate the Rotary Knob to change the apnea time (Tapn) to **OFF**.
13. Confirm the selection by pressing the Rotary Knob
14. Do not manipulate the test lung and wait a few seconds.

Question:

What happens to the test lung and what alarm is being displayed?

15. Change the mode of ventilation to VC CMV/ VC-AC by pressing the **VC-CMV mode key** and confirm this by pressing the Rotary Knob.
16. Set the frequency to -10 and the VT to - 500.
17. Press the **Alarm Reset key** to clear alarms from the screen.

Note: Apnea ventilation can only be used in the CPAP mode of ventilation with the Non-Invasive Ventilation Mode off.

Selecting oxygen concentration

On the Oxylog 3000 *plus* the FIO₂ can be set between 40% and 100%.

1. To change the concentrations, rotate the control dial.
 2. Change the O₂ concentration to 100%.
- If your Oxylog 3000 *plus* does not have O₂ blending please skip this paragraph.

Selecting oxygen concentration with optional O₂ Blending (Optional)

If your hospital has purchased the O₂ blending option this enables you to choose oxygen concentrations between 40% and 100%.



Warning: If there are any concerns regarding the quality of the surrounding air the patient must be ventilated on 100% O₂ as the Oxylog 3000 *plus* uses entrained air from its surroundings.

Section Six – Understanding Alarms (10 Minutes)

6

At the end of this section you should be able to:

- Recognize the different alarm priorities
- Set alarm limits
- Dealing with an alarm that has been activated

Alarm priorities

On the Oxylog 3000 *plus* there are three alarm priorities, these are:

Warning

This is an alarm with a top priority.
The red alarm light flashes.
Warnings are displayed with three exclamation marks.
Audible alarm sounds every 7 seconds.
Example: !!! Apnea.

Caution

This is an alarm of medium priority.
The yellow alarm light flashes.
Warnings are displayed with two exclamation marks.
Audible alarm sounds every 20 seconds.
Example: !! No int. battery?

Advisory

This alarm is a low priority alarm.
The yellow alarm light lights up.
Warnings are displayed with one exclamation mark.
Alarm sounds only once.
Example: ! Settings not confirmed.



In the event of an alarm

1. Rapidly squeeze the test lung. (You may have to do this a few times).
2. To silence the alarm press the Alarm Mute key

Questions:

1. What alarm was breached and where can this be seen on the screen?

2. What priority alarm was it and how did you know this?

3. What happened to the alarm once the alarm mute key was pressed?

3. Repeatedly squeeze the test lung

Question:


Do you hear an audible alarm and if not why?

4. To reset audible alarms press the Alarm mute key.

Question:

Is the alarm message clear from the display screen?

5. To clear old/corrected alarm messages press the **Alarm Reset key.**

 **Warning:** If the gas failure alarm is generated the Oxylog 3000 *plus* must be replaced with another method of ventilation immediately.

Note: By pressing the Alarm Mute key the Oxylog 3000 *plus* is silenced for 2 minutes. To cancel the Alarm mute press the Alarm mute key again.

Section Seven – Locating data (5 Minutes)

7

At the end of this section you should be able to:

- Record measured values
- Change the display curves

Measured values

1. Values are displayed above the curves on the screen.

Question:

How many values are displayed and what are they?

2. Press the **Values key** on the left side of the screen.

Question:

Have the values remained the same and if not what are the new values?

3. Press the Values key again.

Questions:

1. What mode of ventilation is displayed in the screen?

2. How many pages of measured values are there for that mode of ventilation?

Congratulations

You have completed the workbook. You should now feel more confident about using the Oxylog 3000 *plus*.

It is important to carry on using the Oxylog 3000 *plus* to reinforce what you have learnt today. If you do not have the opportunity to use the Oxylog 3000 *plus* on a patient soon after completing the workbook, practice the exercise again using the test lung. The best way to feel confident is to practice what you have learned.

The following sections in this workbook are optional and are at the discretion of the facilitator. It is suggested that you go through the relevant materials and exercises provided. There is useful information to assist you in using the Oxylog 3000 *plus*, effectively and with confidence.

For any queries or further information please contact your local authorized service organization or DrägerService.

For further information on the modes of ventilation ask your facilitator about the Adult Ventilation Course offered by Dräger.

Perform the device check

Set the following settings:

Mode: VC-CMV	Trigger - 4
VT - 600	O ₂ - 100%
RR - 18	PEEP - 5
Pmax - 50	

Set the following alarm limits:

MVe upper - 40

MVe lower - 10

RRspn - 10

Questions:

1. What alarm was breached?

2. Rectify the alarm and state how you rectified it?

Record the following measured values:

MVe -	P _{MEAN} -
P _{ip} -	PEEP -

By pressing the Insp. hold key once, the user is able to initiate a ventilated breath.

If the Insp. hold key is held down the inspired breath can be held for up to 15 seconds, less if the user released the key earlier.

100% O₂ Key (Optional)

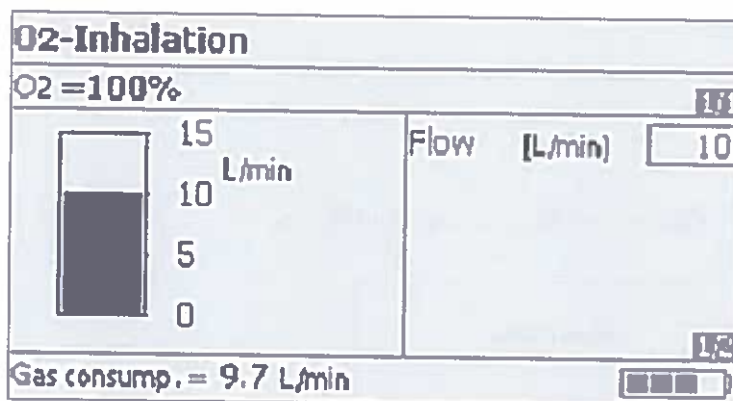
Pressing this key administers 100% oxygen regardless of the set O₂ value for a maximum of 3 minutes or until the user cancels the instruction.

1. Press the **100% O₂ key**, the LED light remains lit.
2. To cancel the 100% O₂, press the 100% O₂ key again.

Question:

What is the O₂ value on the screen of your Oxylog 3000 *plus*? Is it changing?

1. Press and hold down the **O₂ inhalation key** for approximately 3 seconds.
2. Connect the inhalation mask to the inspiration socket via an adaptor.
3. Using the Rotary Knob select the required O₂ flow of 10 L/min and confirm the flow by pressing the Rotary Knob.



4. When this option is no longer required and a mode of ventilation is needed, press the **SIMV mode key** and confirm the choice by pressing the Rotary Knob.



Caution: The O₂ inhalation function is not a mode of ventilation and can only be used on spontaneously breathing patients via an inhalation mask.

Switch off the Oxylog 3000 *plus* by pressing and holding down the ON/OFF key and confirming the choice using the Rotary Knob.

Knowledge checks:

1. What function(s) does the Insp.hold key perform?

2. Does the Oxylog 3000 *plus* compensate for leaks in the NIV function?

3. Can NIV be used on intubated patients?

VC-AC

Volume Controlled - Assist Control

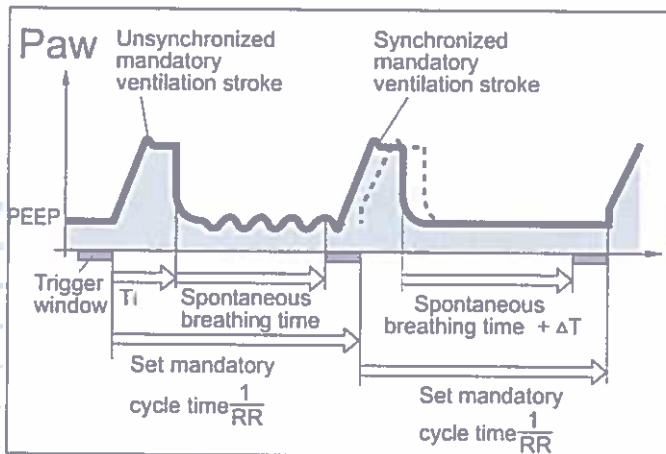
Assisted ventilation with continuous positive airway pressure

VC-AC provides volume controlled strokes. These strokes can be synchronized with the patient's spontaneous breathing. The mandatory ventilation pattern is specified as VC-CMV, but the mandatory ventilation stroke begins when the patient reaches an inspiratory flow corresponding at least to the set flow trigger.

The actual ventilation respiratory rate may be higher than the set respiratory rate.

VC-SIMV

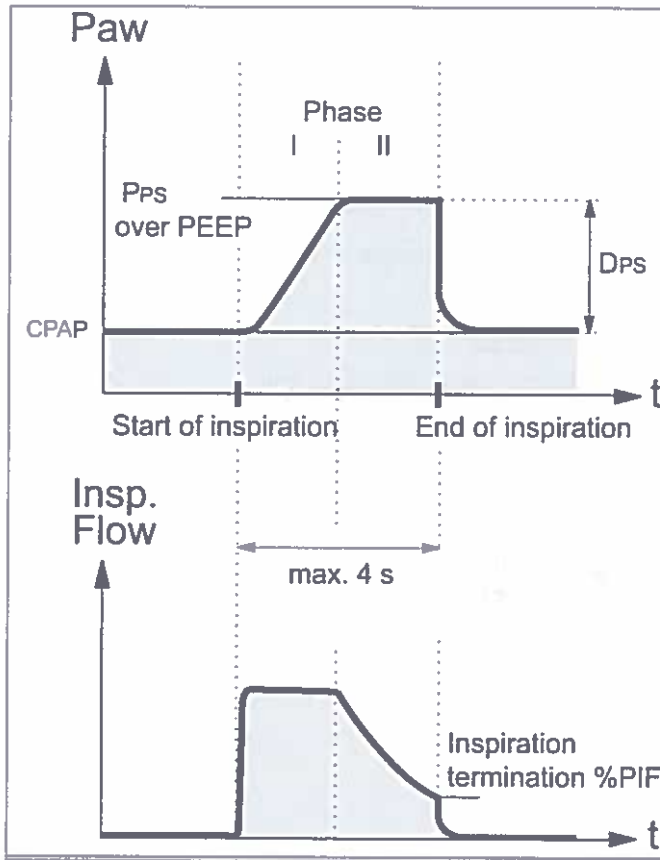
Volume Controlled - Synchronized Intermittent Mandatory Ventilation



VC-SIMV provides a combination of mandatory ventilation and spontaneous breathing. It enables the patient to breathe spontaneously, with the mechanical mandatory ventilation strokes providing minimum ventilation. The minimum ventilation is controlled by the two set values of the tidal volume **VT** and respiratory rate **RR** and is determined from the product of $VT \times RR$.

PS

Pressure Support



Pressure support for insufficient spontaneous breathing.

PS can be used in combination with VC-SIMV, PCBIPAP and Spn-CPAP. With PS the device supports the inhalation. The patient has control of the spontaneous breathing frequency. During PS strokes, the spontaneously breathing patient is supplied with breathing gas, even if the inspiration effort is weak.

The pressure support is started when the spontaneous inspiration flow reaches the set flow trigger level. The device then increases the airway pressure up to the preselected pressure ΔP_{supp} above PEEP, which is adjustable to the condition of the patient.

The constant option of spontaneous breathing allows the transition from controlled ventilation to independent spontaneous breathing to take place smoothly during the weaning phase, without requiring any change of the ventilation mode. To adapt easily to the patient's spontaneous breathing pattern, the changeover from inspiratory pressure level to expiratory pressure level and visa versa, are synchronized with the patient's spontaneous breathing.

The rate of the changeover is kept constant, even when synchronization occurs via a trigger window. This smooth adaptation to the patient's spontaneous breathing requires less sedation. This means that the patient returns to spontaneous breathing more rapidly.

As in all pressure-controlled ventilation modes, the patient is not prescribed a fixed tidal volume V_T . The tidal volume V_T results principally from the pressure difference between the **PEEP** and **P_{insp}** and from the lung compliance. An increase in this pressure difference will cause an increased tidal volume V_T .

The measured expiratory tidal volume **V_{Te}** must be used to set the required difference between **PEEP** and **P_{insp}**.

Changes in lung compliance and in the airway, as well as active 'fighting' by the patient can lead to changes in tidal volume V_T . This is a desired effect in this ventilation mode. Because the tidal volume V_T and the resulting minute volume MV are not constant, the alarm limits for minute volume MV_e must be set with care.

Appendix A – Mounting the Oxylog 3000 *plus*

A

At the end of this section you should be able to:

- An Equipment Holder
- Or on a Wall Holder which is needed to secure the Carrying System on a wall

Using the Equipment Holder

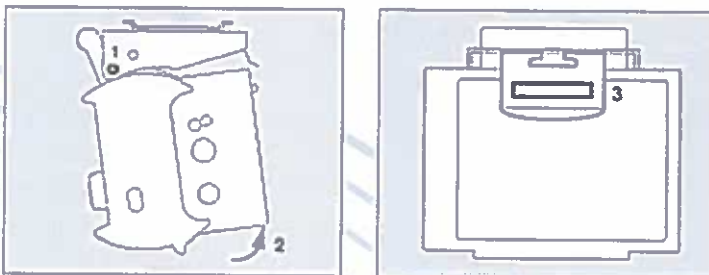
The Equipment Holder consists of two parts:

- A ceiling Holder for mounting the Oxylog 3000 *plus* on a ceiling.
- Wall adapter for mounting the Oxylog 3000 *plus* on a side panel or a wall.

Caution: All the mountings need to be mounted by expert technicians.

Inserting the Oxylog 3000 *plus* into the Holder

1. Hook the claw recess of the Oxylog 3000 *plus* onto the cross bar of the Equipment Holder.
2. Swing the ventilator backwards.
3. Engage the back slide rim of the Oxylog 3000 *plus* in the metal leaf spring of the Equipment Holder.



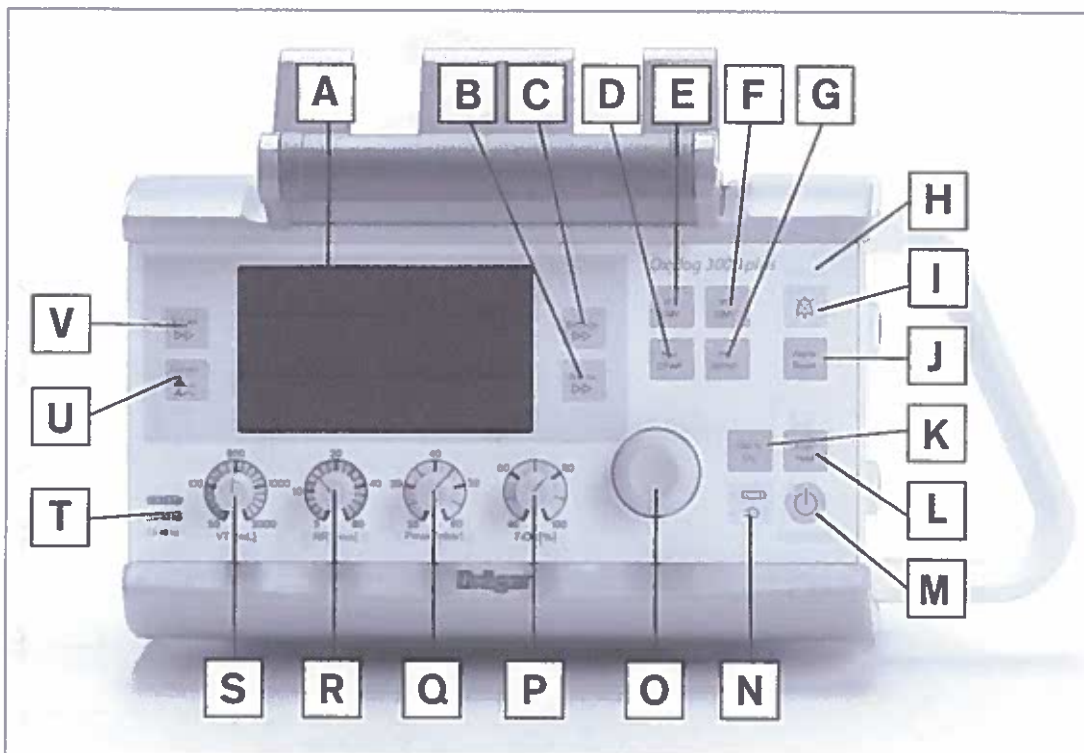
Abbreviation Explanation

100 % O ₂	100 % O ₂ flow
AF	AutoFlow
BF	Body Floating
bpm	Breaths per minute
BTPS	Body Temperature, Pressure Saturated
C	Lung compliance
CO ₂	Carbon dioxide
CSM	Customer Service Mode
ΔP _{supp}	Positive pressure above PEEP
EMC	Electromagnetic Compatibility
ESD	Electrostatic Discharge
etCO ₂	End-tidal CO ₂ concentration
FiO ₂	Fractional inspired oxygen concentration
FRC	Functional Residual Capacity
HME	Heat and Moisture Exchange
I:E	Ratio inspiratory time to expiratory time
IPX2	Ingress Protection level 2
IPX4	Ingress Protection level 4
MVe	Expiratory minute volume
MVi	Inspiratory minute volume
MV _{spn}	Spontaneous minute volume
NIV	Non-Invasive Ventilation – mask ventilation
O ₂	Oxygen
O ₂ -Inhalat.	O ₂ Inhalation
Paw	Airway pressure
PC-BIPAP	Pressure Controlled - Biphasic Positive Airway Pressure
PEEP	Positive End Expiratory Pressure
PIF	Peak Inspiratory Flow

Abbreviation Explanation

P _{insp}	Inspiratory pressure
PIP	Peak Inspiratory Pressure
P _{max}	Maximum allowed inspiratory pressure
P _{mean}	Mean airway pressure
P _{plat}	Plateau pressure
PS	Pressure Support
R	Resistance
RF	Radio Frequency
RR	Respiratory Rate (frequency)
RR _{apn}	Respiratory Rate during apnoea ventilation
RR _{sp}	Spontaneous Respiratory Rate
SpnCPAP	Spontaneous Continuous Positive Airway Pressure
SPO ₂	Saturation of Peripheral Oxygen
Tapn	Time before apnoea is recognized
Te	Expiratory time
Ti	Inspiratory time
T _{plat} %	Plateau time in % of inspiratory time
UN	United Nations
VC-AC	Volume Controlled - Assist Control
VC-CMV	Volume Controlled - Controlled Mandatory Ventilation
VC-SIMV	Volume Controlled - Synchronized Intermittent Mandatory Ventilation
VT	Tidal volume
VT _{apn}	Tidal volume during apnoea ventilation
VT _e	Expiratory tidal volume
VT _i	Inspiratory tidal volume

Section 1 – Identify major components



Task

Label the indicated components with the correct letter:

- | | |
|---|--|
| <p>A Screen with screen pages for the specific application</p> <p>B Key Alarms \gg to display the alarm settings in the "Settings and Alarms" window and to change screen pages</p> <p>C Key Settings \gg to display ventilation parameters (ventilation screen) in the "Settings and Alarms" window and to change screen pages</p> <p>D Key for setting the ventilation mode SpnCPAP</p> <p>E Key for setting the ventilation modes VC-CMV / VC-AC</p> <p>F Key for setting the ventilation mode VC-SIMV</p> <p>G Key for setting the ventilation mode PC-BIPAP</p> <p>H Red and yellow alarm indicators</p> <p>I Key bell for suppressing the audible alarm for 2 minutes</p> <p>J Key Alarm Reset for acknowledging alarm messages</p> <p>K Key O₂-Inhalation for O₂ inhalation or key 100 % O₂ for 100 % O₂ application, depending on the option installed at manufacture</p> | <p>L Key Insp. Hold for initiating a manual inspiration or for extending the current inspiration time</p> <p>M Key power Start/Standby</p> <p>N Display symbols for the power supply
 battery Charge status of the internal battery
 mains Mains power supply connected</p> <p>O Rotary knob for making selections, changing and confirming settings</p> <p>P Control knob for setting the O₂ concentration FiO₂</p> <p>Q Control knob for setting the maximum inspiratory pressure P_{max}</p> <p>R Control knob for setting the respiratory rate RR</p> <p>S Control knob for setting the tidal volume VT</p> <p>T Explanation of colour codes for quick pre-setting of RR and VT</p> <p>U Key Curves curves to change between the pressure, flow or CO₂ (optional) curve in small and large presentation</p> <p>V Key Values \gg to change screen pages in the "Measured Values" window</p> |
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Section Two – Testing the Device

Page	Question	Answer
14	<p>1. What cleaning solutions do you use in your hospital to clean your device?</p> <p>2. How many times can you use a disposable circuit?</p> <p>3. What type of hoses does your hospital use?</p>	<p>Refer to your hospital policy.</p> <p>Once only.</p> <p>Reusable, disposable or paediatric.</p>

Section Three – Connectivity

Page	Question	Answer
18	<p>1. Where on the front panel of the Oxylog 3000 <i>plus</i> can you tell if the power supply is working?</p> <p>2. What symbol indicates that the Oxylog 3000 <i>plus</i> is using an external power supply?</p> <p>3. What symbol indicates that the Oxylog 3000 <i>plus</i> is charging its internal battery?</p>	<p>Marked as no. 6 on the task in section one.</p> <p>A small light next to a power plug symbol is illuminated.</p> <p>A small light next to a battery symbol is illuminated.</p>
21	<p>1. Name 3 ways the power can be supplied to the Oxylog 3000 <i>plus</i>?</p>	<p>Internal supply with rechargeable battery, external DC power supply and a DC/DC converter and AC power using AC/DC power supply.</p>

Section Five – Device functions

Page	Question	Answer
27	<p>1. What happens to the test lung?</p> <p>2. What mode of ventilation is displayed in the top left hand side of the screen?</p>	<p>It begins to ventilate.</p> <p>This will depend on the settings chosen by your hospital.</p>
29	What are the settings displayed for VC (CMV) on the right side of the screen display?	Trigger, PEEP, I:E and Tplat.
32	How does the Oxylog 3000 <i>plus</i> respond?	It alarms -!!! Apnea Ventilation, audible alarm and red flashing alarm lights visible Apnea ventilation begins.
32	What did pressing the Alarm Reset key do to the Oxylog 3000 <i>plus</i> ?	<p>It cancelled the Apnea Ventilation function and the mode of ventilation returns to CPAP.</p> <p>The test lung is not ventilating.</p>
33	What happens to the test lung and what alarm is being displayed?	The test lung is no longer ventilating and there is a warning alarm - Apnea with 3 exclamation marks.
34	<p>1. Name the modes of ventilation that can be found on your Oxylog 3000 <i>plus</i>?</p> <p>2. Can you preset values before changing the mode of ventilation on the Oxylog 3000 <i>plus</i>?</p> <p>3. In which modes can pressure support be added.</p>	<p>VC-CMV, VC-AC, VC-SIMV, PC-BIPAP, Spn-CPAP.</p> <p>No. You have to change the mode of ventilation and then the settings.</p> <p>VC-SIMV, PC-BIPAP, Spn-CPAP.</p>



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Version 3.0

Ref Number: LY2013