Babylog 8000

Getting Started

When the machine is turned on it will run through a self-test. Once this is complete you need to calibrate the Flow Sensor.
To do this you press the Cal. Config.

                V Cal.

                occlude the Y-piece (Flow Sensor unit)

                press Start.

A message 'Flow sensor calibrated' will be displayed when done.
Also the machine calibrates the Oxygen Cell. The screen will display 0_2 Calibration Meas switched off. This is displayed so you are aware it is being calibrated and that there will not be a MEAS 1 0_2 reading until it is complete.

Modes of Ventilation

CPAP (Continuous Positive Airway Pressure)

A continuous flow, which is adjustable, goes through the machine and your CPAP is maintained at your setting via the expiratory valve.

IPPV/IMV (Intermittent Positive Pressure Ventilation /Intermittent Mandatory Ventilation)

You set a rate (using Ti and Te), inspiratory pressure (Pinsp), expiratory pressure (PEEP/CPAP). The rate you have set is delivered at timed intervals regardless of patient effort. Spontaneous breaths can be taken from the continuous flow through the circuit.
*Can be used with VIVE (Variable Inspiratory and Expiratory Flow)

SIMV (Synchronised Intermittent Mandatory Ventilation)

You set a rate (using Ti and Te), inspiratory pressure (Pinsp), expiratory pressure (PEEP/CPAP). The ventilator attempts to synchronise the set rate with the patients breathing efforts. A synchronous window is established based on the set rate. If the patient triggers the ventilator during this synchronous period, a pressure ventilated breath is delivered. During the rest of the cycle time the patient breaths spontaneously from the flow through the circuit. A new synchronous period is started at the beginning of each new cycle time. * Trigger must be set appropriately to respond to patient efforts.
*Can be used with VG (Volume Guarantee) and VIVE (Variable Inspiratory and Expiratory Flow)

SIPPV (Synchronised Intermittent Positive Pressure Ventilation)

You set a rate (using Ti and Te), inspiratory pressure (Pinsp), expiratory pressure (PEEP/CPAP). The patient is able to trigger the ventilator and a full pressure breath is delivered every time. Therefore all spontaneous breathing above set rate is synchronised and delivered at set pressures. * Trigger must be set appropriately in order to respond to patient efforts.
*Can be used with VG (Volume Guarantee) and VIVE (Variable Inspiratory and Expiratory Flow)

PSV (Pressure Support Ventilation)

You set an inspiratory pressure (Pinsp) and expiratory pressure (PEEP/CPAP). The breath rate and inspiratory time are determined by your patient. Although you still set an Inspiratory time (Ti) which is the maximum inspiration you would allow the patient to take. Expiratory time (Te), is set to give you a rate to be delivered in case of apnea. *Trigger must be set appropriately in order to respond to patient efforts.
* VG (Volume Guarantee)

Additional Functions

VG (Volume Guarantee)

Is designed to aid in self weaning your patient. To set up VG you must first determine how much volume you are wanting your patient to generate and what pressure is required to achieve these volumes. Once you have determined the pressure add approximately 5cmH20 to that pressure and use that as your inspiratory pressure (Pinsp.). The ventilator will use the least amount of pressure to deliver the volume you have chosen. It will NOT deliver the volume if a pressure higher than what you have set is needed. The ventilator looks at the previous 4-5 breaths and takes the mean pressure that was required to deliver the set volume.

VIVE (Variable Inspiratory and Variable Expiratory)

This function allows you to adjust expiratory flow independently. If it is turned on then you adjust expiratory flow using the keypad, and inspiratory flow with the dial.

Alarms

Adjustable Alarms:
High and Low Minute Volume- Can be adjusted between 0-15L/min. *There is also an automatic adjust of +/- 30% of MV.

Alarm Delay- Delayed time before MV alarms will be activated.

Apnea Time- Can be set from 5-20 seconds.

Panting- Is essentially a high breath rate alarm and can be set from 20-200bpm. Off if below 20bpm.

Internal Alarms:
Upper Alarm Limit- 5cmH$_2$0 above the inspiratory pressure (Pinsp) set

Upper Alarm Limit for CPAP- 4cmH$_2$0 above the expiratory pressure (PEEP/CPAP)

Lower Alarm Limit- 2cmH$_2$0 below the expiratory pressure (PEEP/CPAP) set

Disconnection- (Pinsp - PEEP ÷ 4) + PEEP

0$_2$ Alarms- 4% above or below the set value

Controls and Displays

0$_2$ Concentration- Adjusted using dial, under SET 1 value dialed in is displayed MEAS 1 displays actual 0$_2$ reading.

Rate- Is determined using **Ti** and **Te** dial. SET 1 Displays dialed in value and respiratory rate. MEAS 1 displays only rate as **f** (frequency)

Insp. Flow V (Flowrate) - Adjusted using a dial. Displayed in SET 1. Note: Expiratory Flow = Inspiratory Flow when VIVE is not used.

Pinsp. (Inspiratory Pressure) – Is adjusted with the dial and setting displayed in SET 1 and actual measurement displayed in MEAS 1.

PEEP/CPAP- Is adjusted with the dial and setting displayed in SET 1 and actual measurement displayed in MEAS 1.

Vent. Mode – Softkey push button, select mode and then depress ON to activate.

Vent. Option- Softkey push button. This is where you set VG (Volume Guarantee) and VIVE (Independent Inspiratory and Expiratory Flow). These options can also be found under Vent. Mode, and when a mode has been selected which these options are available.

Manual Inspiration- Softkey push button that delivers a manual breath regardless of set Ti but with a maximum of 5 seconds. Pressure is limited with **Pinsp.**

OK- A message can be cleared from the screen by acknowledging it and pressing the **OK** button.

Alarm Silence- Alarms are silenced for 2 minutes

Trigger- Uses a trigger volume which the patient must breathe in order to have the ventilator respond. Can be adjusted under Vent. Mode, when a mode of ventilation is selected which triggering is permitted. Ranges from 1 to 10 corresponding to volumes of 0.02 to 3ml. The value set is displayed on SET 1 screen.