Pocket Guide

Babylog® VN500

Software version 2.n
The Babylog® VN500 Pocket Guide is not a replacement or substitute for the Instructions for Use. It is for informational purposes only. Any use of the device requires full understanding and strict observation of the Instruction for Use.

The availability of functionality depends on the country and availability. Options may not be included in a present device or may come at extra costs.

The pocket guide may not reflect the latest software version of the device.
Intended use

**Babylog VN500 ventilation unit**
The Babylog VN500 ventilation unit of the Infinity Acute Care System is intended for the ventilation of pediatric patients and neonates. Babylog VN500 provides mandatory ventilation modes and ventilation modes for supporting spontaneous breathing and also airway monitoring. The Babylog VN500 ventilation unit is used with Dräger Infinity C Series Medical Cockpits. The Babylog VN500 ventilation unit is intended for use in different medical care areas.

**Infinity Medical Cockpit**
Medical Cockpits are intended to be used to monitor waveforms, parameter information, and alarms as well as to control settings. The Infinity Series Medical Cockpits are intended to be used in environments where patient care is provided by trained healthcare professionals.
System overview

Intensive care ventilator

Control and display unit Infinity C500

Ventilation unit

Gas supply unit GS500

Power supply unit PS500

Trolley with 4 brakes

Babylog® VN500
System overview

Cockpit Front Panel

- Alarm bar
- Touch screen
- ON/OFF button
- AC power LED – lights up when the device is connected to AC power
- Battery LED – indicates battery status
- Rotary knob
- Audio paused button

Audio paused button
ON/OFF button
AC power LED – lights up when the device is connected to AC power
Battery LED – indicates battery status
Rotary knob
Touch screen
Alarm bar
System Overview

Cockpit Back Panel

- Alarm bar
- VESA mounting holes
- USB ports
- Serial communication ports
- Isolated network connectors
- Single-link Digital Visual Interface (DVI)
System Overview

Ventilation unit, front panel

- Flap
- Expiratory flow sensor
- Nebulizer port
- Operation display of ventilation
- Expiration valve
- Inspiration valve
- Emergency air intake
- Water trap
Operating concept

Main screen
Operating concept

Main screen

- **Patient category**
- **System data, e.g., state of charge of the batteries**
- **Therapy status:** Therapy type, ventilation mode, additional settings
- **Alarms, messages and instructions for the user**
- **Alarm status:** Alarm silence and display of remaining time
Operating concept

Alarm priorities

A certain priority, indicating the urgency, is assigned to each alarm. The following table shows the differences between the alarm priorities with respect to identification and the action required.

<table>
<thead>
<tr>
<th>Colour</th>
<th>Alarm priority</th>
<th>Action required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>High !!!</td>
<td>Immediate action is necessary in order to avert an acute danger</td>
</tr>
<tr>
<td>Yellow</td>
<td>Medium !!</td>
<td>Prompt action is necessary in order to avert a danger</td>
</tr>
<tr>
<td>Turquoise</td>
<td>Low !</td>
<td>Attention is necessary, but a delayed response is sufficient</td>
</tr>
</tbody>
</table>

Alarm message field:
- Airway pressure high: High priority alarm
- VT low: Medium priority alarm
- Battery activated: Low priority alarm
Operating concept

**Touch – Turn – Confirm**

Selecting and setting parameters and functions

**Touch**
the control element.
The control element turns yellow.

**Turn**
the rotary knob to the right or to the left to make the setting.
The value is displayed in the control element.

**Confirm**
by pressing the rotary knob.
The setting is applied, and the control element turns gray or blue again.
Getting started

Switching on Babylog VN500 and Infinity C500

Prerequisites:
- Babylog VN500, Infinity C500, PS500 and GS500 are reprocessed and assembled ready for operation.
- The mains power supply and the gas supply are connected.
- The Babylog VN500 toggle switch is set to On

1. Press the key on Infinity C500. The system is started. The start dialog is displayed.

Babylog VN500 provides you with two options:
- Use settings of previous patient
  or
- Admit new patient
- If the Start dialog is closed using the X button, Babylog VN500 adopts the settings of the previous patient.
Getting started

Selecting the breathing circuit and the breathing gas humidifier

The breathing circuit and the breathing gas humidifier can only be selected in standby mode.

1. Touch the Start/Standby... button in the main menu bar.
2. Touch the Br. circuit/ Humidifier tab.
3. Touch the ▼ button.
4. Select the breathing circuit used from the selection list. If the breathing circuit used is not included in the selection list select Other from the selection list.
5. Confirm with the rotary knob.
6. Select the humidification type.

Performing the device check

The device check is only possible in standby mode.

1. Touch the Start/Standby... button in the main menu bar.
2. Touch the System check tab.
3. Touch the Device check tab.
4. Touch the Start button.
5. Confirm with the rotary knob.
6. The questions must be answered by touching the Yes or No buttons. The Next test button can be used to skip the test steps.
Getting started

Performing the breathing circuit check

After the device check, the user is requested to perform the breathing circuit check.

The check is only possible in standby mode.

Prerequisite: The System check page is opened.

1. Touch the Breathing circ. check tab.
2. Confirm with the rotary knob.
3. When requested by Babylog VN500 in the instruction field: Seal the patient connection port, e.g., with a sterile glove.
4. Confirm with OK.
5. When requested, open the patient connection port.
6. Confirm with OK.
Getting started

Selecting a patient

Admitting a new patient

For a new patient, Babylog VN500 determines the ventilation parameters' start-up settings based on the patient category or the body weight (height in ped. patients).

Ventilation parameter start-up settings by body height/body weight

Prerequisite: The Weight function was configured and a new patient was admitted.

1. Touch the button for the body weight (height in ped. patients).

2. Set the weight/body height by turning the rotary knob and push to confirm.

Ventilation parameter start-up settings by patient category

The Start/Standby page contains the buttons for the patient category:

1. Touch the button for the desired patient category.

2. Confirm with the rotary knob.
Getting started

Selecting the Tube or NIV application mode

Babylog VN500 can switch between non invasive ventilation and tube ventilation.

The application mode can only be selected in standby mode.
1. Touch the **Start/Standby** ... button in the main menu bar.
2. Touch the **Tube/NIV** tab.
3. Touch the **Tube** or **NIV** button.
4. Confirm with the **rotary knob**.

Observe the information on changing the application mode!

Selecting the therapy type

Babylog VN500 can choose between therapy types Ventilation and O₂ Therapy.

The therapy type can only be changed in standby mode.
1. Touch the **Start/Standby** ... button in the main menu bar.

The Start/Standby page is displayed.
2. Touch the **Ventilation** or the **O₂ Therapy** button.
3. Confirm with the **rotary knob**.
Operation

Setting ventilation

Opening the Ventilation settings dialog window.

The Ventilation settings dialog window can be opened as follows:

1. Touch the Ventilation settings... button in the main menu bar.
   or
2. Touch the ⬆ button in the therapy bar.
   or
3. Touch the displayed ventilation mode in the header bar.

Selecting ventilation modes

The Ventilation settings dialog window contains tabs for selecting the ventilation modes.

1. 4 tabs have ventilation modes permanently assigned to them
2. The Other modes tab can be used to select another ventilation mode, which can be selected from the available ventilation modes.
Operation

Setting ventilation parameters

1. Prerequisite: The General settings page is opened.
2. Touch the corresponding therapy control, e.g., RR. The colour turns yellow.
3. Set the value by turning the rotary knob and push to confirm.
4. Information is displayed in the message field, e.g., when the setting limit of a parameter has been reached.

Additional settings for ventilation

The ventilation modes can be combined with additional settings to optimize ventilation.

1. Touch the Additional settings tab.
2. Touch the tab of the respective additional setting.
3. Use the buttons to activate or deactivate the additional setting.
4. Touch the corresponding therapy control.
5. Set the value by turning the rotary knob and push to confirm.
Operation

Switching on O₂ Therapy

O₂ therapy can only be switched on in standby mode.

1. Touch the Start/Standby ... button in the main menu bar.

   Babylog VN500 opens the Start/Standby dialog window. Touch the Standby button and confirm with the rotary knob.

   Babylog VN500 is in standby mode.

2. Touch the O₂ Therapy button.

   The message field displays the information to use specific masks for O₂ therapy.

   Connect a mask, hood, or nasal cannula for the O₂ therapy.

3. Touch the Start ventilation button and confirm with the rotary knob.

   O₂ therapy is switched on. Babylog VN500 displays the main screen with the therapy bar for O₂ therapy. The message O₂ Therapy is displayed in the header bar.

Ending operation

1. Switch Babylog VN500 to standby mode: Touch the Start/Standby ... button in the main menu bar.

2. Touch the Standby button and confirm with the rotary knob.

3. Press the key on Infinity C500.

   Babylog VN500 opens the Shut down device dialog. Touch the OK button and confirm with the rotary knob.

   Babylog VN500 ends operation.
Alarms

Display of alarms – Optical alarm signals

Display of alarms – Acoustic alarm signals

Babylog VN500 generates different alarm tone sequences to indicate alarms acoustically.

The acoustic alarm signal can be suppressed for 2 minutes maximum.

1. Press the alarm silence key.
Alarms

Displaying current alarms

To display the current alarms, proceed as follows:

1. Touch the alarm message in the header bar.
   
   or

2. Touch the Alarms ... button in the main menu bar.

3. Touch the Current alarms tab.

   Acknowledging all alarm messages that are no longer active:

4. Touch the Reset all button.

5. Confirm with the rotary knob.

Setting alarm limits

1. Touch the Alarms ... button in the main menu bar.

   The Limits page appears by default.

2. Touch the corresponding button for the upper or lower alarm limit.

3. Set the value by turning the rotary knob and push to confirm.
Flow monitoring

Calibrating the neonatal flow sensor

Manual calibration of the neonatal flow sensor is necessary:

- During the device check and before use
- At least once a day
- After replacing the neonatal flow sensor
- After medication nebulization

Recalibration is not necessary if the neonatal flow sensor has been unplugged only briefly.

1. Port for the neonatal flow sensor  
Neonatal flow sensor
Flow monitoring

Starting calibration of the neonatal flow sensor

1. Touch the Sensors Parameters ... button in the main menu bar.
   Babylog VN500 opens the Sensors/Parameters dialog window. The Neonatal flow sensor page appears by default.
2. Select the sensor type being used:
   – Touch the Y flow sensor
   or
   – ISO 15 flow sensor button.
3. Touch the Start button.
4. The instruction field displays
   the instructions for performing calibration. The Confirm button is preselected.

Removing the neonatal flow sensor

– Remove the tube connector.
– Put on a sterile glove.
– Seal the neonatal flow sensor.

Performing calibration

5. Press the rotary knob.
   Babylog VN500 calibrates the neonatal flow sensor.
6. Babylog VN500 displays calibration information in the message field.
   Once calibration is complete, the Start button turns pale green.

The following neonatal flow sensors are available:

- Flow sensor Y-piece
- Flow sensor ISO 15

Sealing the neonatal flow sensor
(wear a sterile glove when sealing the flow sensor)
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