POWERING ON THE VENTILATOR

To turn the ventilator on, set the I/O switch (a covered, rocker-type switch located at the rear of the ventilator) to the I position, as shown in the figure below.

The following events occur:

The front panel indicators flash (except for the indicator showing the type of power supply in use, which remains lit).

- The audible alarms briefly sound.
- The display’s backlight turns on.
- The Puritan Bennett™ brand name is displayed momentarily.
- The blue VENT STDBY indicator to the right of the VENTILATION ON/OFF key illuminates, indicating the device is in standby mode.
INITIATING VENTILATION
Press VENTILATION ON/OFF button on the front panel.
The blue light indicator, at the upper right of the VENTILATION ON/OFF key, turns off.
- A “beep” sounds.
- The ventilation starts.
- The values of the monitored parameters are displayed in the right-hand window.

STOPPING VENTILATION
1. Hold the VENTILATION ON/OFF button for 3 seconds.
2. A double “beep” sounds.
3. Release the VENTILATION ON/OFF button. Upon release, ventilation stops, and the blue LED illuminates, indicating that the ventilator is in standby mode.

POWERING OFF THE VENTILATOR
Set the I/O switch to the O position to power off the ventilator
- The blue LED (to the right of the VENTILATION ON/OFF button) turns off.
- The ventilator screen switches off.

SYMBOLS AND DEFINITIONS

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✇️</td>
<td>Software lock enabled</td>
</tr>
<tr>
<td>ABS/REL</td>
<td>Peak inspiratory pressure monitoring convention</td>
</tr>
<tr>
<td>- ABS setting indicates the inspiratory pressure setting will determine the peak inspiratory pressure (monitoring) regardless of the PEEP setting.</td>
<td></td>
</tr>
<tr>
<td>- REL setting indicates the PEEP is added to the inspiratory pressure setting to determine the peak inspiratory pressure (monitoring).</td>
<td></td>
</tr>
<tr>
<td>🛠️</td>
<td>Internal battery indicator. Indicates remaining internal battery life in hours and minutes.</td>
</tr>
<tr>
<td>⌀</td>
<td>Exhalation valve detected</td>
</tr>
<tr>
<td>⌀</td>
<td>No exhalation valve detected</td>
</tr>
<tr>
<td>🔒</td>
<td>Apnea alarm has been deactivated</td>
</tr>
<tr>
<td>🚲</td>
<td>Audio paused symbol. The sounding of audible alarms is currently disabled.</td>
</tr>
<tr>
<td>🛑</td>
<td>Alarm paused symbol. One or more alarms have been paused, or reset/cancelled.</td>
</tr>
</tbody>
</table>
ALARMS

The alarm conditions are indicated by priority level.

<table>
<thead>
<tr>
<th>VERY HIGH PRIORITY (VHP)</th>
<th>HIGH PRIORITY (HP)</th>
<th>MEDIUM PRIORITY (MP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMMEDIATE CRITICAL SITUATION: VENTILATION NOT POSSIBLE</td>
<td>CRITICAL SITUATION IN THE SHORT TERM</td>
<td>CRITICAL SITUATION IN THE LONG TERM</td>
</tr>
<tr>
<td>CONTINUOUS RED LED ILLUMINATION</td>
<td>FLASHING RED LED ILLUMINATION</td>
<td>FLASHING YELLOW LED ILLUMINATION</td>
</tr>
<tr>
<td>CONTINUOUS SOUND SIGNALING</td>
<td>INTERMITTENT HIGH SPEED SOUND SIGNALING</td>
<td>INTERMITTENT MEDIUM SPEED SOUND SIGNALING</td>
</tr>
</tbody>
</table>

To silence the audible portion of activated alarms for 60 seconds:
Press the ALARM CONTROL key once. The AUDIO PAUSED symbol displays on the screen.

To manually pause the alarm, press the ALARM CONTROL key twice. The ALARM PAUSED symbol displays on the screen. The audible portion, light indicator, and message are all halted.

WHAT TO DO IF A VENTILATOR FAILURE OCCURS
If a problem with the ventilator is suspected, FIRST CHECK THAT THE PATIENT IS NOT IN DANGER. If necessary, remove the patient from the ventilator and provide an alternate means of ventilation. Keep in mind that troubleshooting information is available in the manual to assist you in the event of a problem. Refer to the chapter, “Alarms and Troubleshooting”. If you cannot determine the cause of a problem, contact your equipment supplier or Covidien.

POWER SUPPLY OPTIONS
The “mains” AC electrical supply (115/230 V nominal) should be used as the primary source of power whenever available.

The ventilator is equipped with a 12-30 VDC power connector, for usage with an external battery or car adaptor cable. The ventilator should only be operated on the internal battery when no other power source is available.

INTERNAL BATTERY CAPACITY
With a fully charged battery at a normal room temperature of 25 °C (± 5 °C), the ventilator can be expected to operate on internal battery power for 4 to 11 hours.1

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1. On fully charged battery at a setting of PIP = 10 cmH₂O, V₁ = 200 ml and rate = 20 bpm.
Level adjustments, environmental conditions and physiological characteristics of the patient affect battery operating time.
FRONT
1 LCD Display
2 Control Panel
3 FiO₂ Sensor Connection
4 Patient Connection Port
5 Patient Pressure Monitoring Port
6 Exhalation Valve Port
7 Lateral and Front Openings
8 From Patient Port
9 Exhaled Gas Outlet

BACK
1 Ergonomic carrying handle
2 On/Off (I/O) switch with protective cover
3 AC power (“Mains”) cable connector
4 AC power (“Mains”) cable holding system
5 Access cover for the internal battery
6 DC power cable connector with key
7 PC Cable Connector
8 O₂ Inlet Port
9 Nurse Call Output Connector
10 USB Memory Device connection
11 Air Inlet Filter

KEYBOARD
1 Alarm indicators
2 ALARM CONTROL key
3 Display screen
4 UP/UNFREEZE key
5 ENTER key
6 DOWN/FREEZE key
7 MENU key
8 VENTILATION ON/OFF button
9 Ventilation status indicator
10 Electrical power source indicators
TO CONNECT A SINGLE LIMB CIRCUIT WITH AN EXHALATION VALVE

1. Inspect the components of the patient circuit for any signs of damage, such as cracks (which might cause leakage). Do not use damaged components to assemble the patient circuit.

2. Install the bacteria filter (item 1) on the **TO PATIENT** outlet port, as shown.

3. Attach one end of the short circuit tubing (item 2) to the bacteria filter (item 1).

4. Attach the other end of the circuit tubing (item 2) to the inlet port of the humidifier (item 3).

5. Place a water trap (item 4) between the outlet port of the humidifier and the inlet of the exhalation valve (item 5).

6. Ensure the exhalation valve (item 5) as close as possible to the patient.

7. Connect one end of the proximal pressure tubing (item 7) to the proximal pressure port on the exhalation valve (item 5) and the other end onto the ventilator patient pressure port (item 8).

8. Connect one end of the exhalation valve tubing (item 6) to the exhalation valve port on the exhalation valve (item 5) and the other end onto the ventilator exhalation valve port (item 9).

9. To protect the exhalation port (as it will not be used in this configuration), place the cap (if provided with the breathing circuit) over the exhalation port opening (item 10).

TO CONNECT A SINGLE LIMB CIRCUIT WITHOUT AN EXHALATION VALVE

1-4. Follow steps 1-4 above.

5. Place a water trap (item 4) between the outlet port of the humidifier and the patient end.

6. Place a vented interface to the end of the patient circuit.

7. Connect one end of the proximal pressure tubing (item 7) to the proximal pressure port on a **T** connector, and the other end onto the ventilator patient pressure port.
TO CONNECT A DOUBLE LIMB CIRCUIT:

1. Inspect the components of the patient circuit for any signs of damage, such as cracks (which might cause leakage). Do not use damaged components to assemble the patient circuit.

2. Install the bacteria filter (item 1) on the TO PATIENT outlet port.

3. Attach one end of the short circuit tubing (item 4) to the filter (item 1).

4. Attach the other end of the circuit tubing to the inlet port of the humidifier (item 2).

5. Place a water trap (item 3) between the outlet port of the humidifier and the patient wye (item 5) on the double limb circuit.

6. Place a water trap (item 3) between the patient wye (item 5) and the inlet port of exhalation bacteria filter (item 12).

7. Connect the exhalation bacterial filter to the FROM PATIENT inlet port.

8. Connect one end of the small proximal pressure tubing (item 6) to the double limb patient wye circuit connection (item 5) and the other end on the ventilator patient pressure port.

9. Place the exhalation valve assembly (item 9) on the exhaust port. Place an exhalation bacteria filter (item 14) between the exhalation block (item 10) and the exhalation limb of the patient circuit (item 11). Connect the tubing (item 8) from the exhalation valve assembly to the exhalation valve port (item 15).
IMPORTANT: Please refer to the package insert for complete instructions, contraindications, warnings and precautions.

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