Bear Cub 750 VS Infant Ventilator

**Features:**
- Integrated Synchronized Ventilation
- Tidal Volume Monitoring
- Independent Base & Inspiratory Flows
- Internal Battery Back-Up
- Exclusive Volume Limit
- Assist Control
- Flow Cycled AC
- SIMV/IMV
- Flow Cycled SIMV
- CPAP
- SIMV with Pressure Support

**Specifications**

**CONTROLS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mode:</strong></td>
<td>AC, Flow cycle AC, SIMV/IMV, Flow Cycled SIMV, SIMV/PSV, PSV, CPAP</td>
</tr>
<tr>
<td><strong>Ventilator Rate:</strong></td>
<td>1.0 to 150 BPM</td>
</tr>
<tr>
<td><strong>Inspiratory Time:</strong></td>
<td>0.1 to 3.0 sec</td>
</tr>
<tr>
<td><strong>Inspiratory Flow:</strong></td>
<td>1.0 to 30 LPM</td>
</tr>
<tr>
<td><strong>Base Flow:</strong></td>
<td>1.0 to 30 LPM</td>
</tr>
<tr>
<td><strong>Volume Limit:</strong></td>
<td>5.0 to 300 ml</td>
</tr>
<tr>
<td><strong>PEEP:</strong></td>
<td>0 to 30 cmH2O</td>
</tr>
<tr>
<td><strong>Inspiratory Pressure:</strong></td>
<td>0 to 72 cmH2O</td>
</tr>
<tr>
<td><strong>Manual Breath:</strong></td>
<td>x One</td>
</tr>
<tr>
<td><strong>Assist Sensitivity:</strong></td>
<td>0.2 to 5.0 LPM; Minimum to Maximum bar</td>
</tr>
<tr>
<td><strong>Over Pressure Relief:</strong></td>
<td>15 to 75 cmH2O; % O2: 21 to 100%</td>
</tr>
<tr>
<td><strong>Alarm Loudness:</strong></td>
<td>Min 60 to Max. 75 dbA</td>
</tr>
<tr>
<td><strong>Audible Off Volume Limit:</strong></td>
<td>LED On/Off</td>
</tr>
</tbody>
</table>

**ALARMS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Breath Rate:</strong></td>
<td>3.0 to 255 BPM</td>
</tr>
<tr>
<td><strong>Low PEEP/CPAP:</strong></td>
<td>-5.0 to 30 cmH2O</td>
</tr>
<tr>
<td><strong>Low Inspiratory Pressure:</strong></td>
<td>1.0 to 65 cmH2O</td>
</tr>
<tr>
<td><strong>Patient Circuit:</strong></td>
<td>LED On/Off</td>
</tr>
<tr>
<td><strong>Failed to Cycle:</strong></td>
<td>LED On/Off</td>
</tr>
<tr>
<td><strong>Low Gas Supply:</strong></td>
<td>LED On/Off</td>
</tr>
</tbody>
</table>
Apnea Alarm: 5, 10, 20, 30 sec
Settings Incompatible: LED On/Off
Pressure Settings Incompatible: LED On/Off
Prolonged Inspiratory Pressure: LED On/Off
Flow Sensor: LED On/Off
Low Battery: LED On/Off
Alarm Silence: 60 sec
Visual Reset: Push Button
High Pressure Limit: 10 to 75 cmH2O
Low Minute Volume: Off to 99 lpm

MONITORS
PEEP: 0 to 30 cmH2O
Breath Rate: 0 to 255 BPM
Breath Type (Patient Initiated): LED
Minute Volume: 0 to 30.0 LPM
Tidal Volume (Exhaled): 0 to 500 ml
% Tube Leak: 0 to 100%
Inspiratory Time: 0.1 to 3.10 sec Expiratory Time 9 to 99.9 sec
I:E Ratio: 9.9:1 to 1:9.9
Peak Inspiratory Pressure: 0 to 99 cmH2O
Mean Airway Pressure: 0 to 75 cmH2O
Air Pressure: 0 to 100 psig; 0 to 99 psig
O2 Pressure: 0 to 100 psig; 0 to 99 psig
Proximal Airway Pressure: -10 to 100 cmH2O
Hour meter: 0 to 99,999 hours
Test: Push Button
Line Power: Green/Red LED
Battery: LED On/Off
Inspired Tidal Volume: 0 to 500 ml

Limits to Ventilation (Fixed)
Minimum Expiratory Time: 0.15 seconds
Maximum Inspiratory Time: 3:10 seconds
Maximum settable I:E Ratio: 4:1

TOLERANCES

Monitors
Breath Rate: ± 1 BPM or ± 20 msec, whichever is greater
Inspiratory Time: ± 0.02 sec
Expiratory Time: ± 0.02 sec
I:E Ratio: $\pm 0.1$ or $\pm 20$ msec (on the calculation based on the monitored inspiratory and expiratory times), whichever is greater

Airway Pressure: Continuous: $\pm 1$ cmH2O (-10 to 20 cmH2O); $\pm 2$ cmH2O (20 to 65 cmH2O); $\pm 3$ cmH2O (65 to 100 cmH2O)

Peak Inspiratory Pressure: $\pm 2$ cmH2O or $\pm 5\%$, whichever is greater

Mean Airway Pressure: $\pm 2$ cmH2O or $\pm 3\%$, whichever is greater

PEEP: $\pm 2$ cmH2O or $\pm 5\%$, whichever is greater

Air/O2 Pressure: $\pm 5$ psig

Minute Volume Accuracy: Based on the Tidal Volume and Breath Rate Monitors

Inspiratory Tidal Volume: $\pm 1$ ml or $\pm 10\%$, whichever is greater

Expiratory Tidal Volume: $\pm 1$ ml or $\pm 10\%$, whichever is greater

% Leak: $\pm 1$ ml or $\pm 2\%$, whichever is greater (when compared to the Inspired and Expired Tidal Volume Monitors)

Hour Meter: $\pm 2\%$ of reading

Alarms/Limits

Low PEEP/CPAP: $\pm 2$ cmH2O

High Breath Rate: $\pm 1$ BPM

Low Minute Volume: $\pm 10$ ml/min (0 to 99 ml/min); $\pm 0.1$ L/min (0.1 to 9.9 L/min)

High Pressure Limit: $\pm 4$ cmH2O

Prolonged Inspiratory Pressure: $\pm 2$ cmH2O

Volume Limit: $\pm 2$ ml or $\pm 10\%$ of setting, whichever is greater

Apnea: $\pm 1$ sec

Maximum (Pop-off) Pressure: $\pm 4$ cmH2O

Controls

Ventilator Rate: $\pm 1$ BPM or $\pm 20$ msec (applied to the breath interval), whichever is greater

Inspiratory Rate: $\pm 0.020$ sec (0.10 to 0.50 sec); $\pm 0.025$ sec (0.50 to 3.00 sec)

Assist Sensitivity: Not a calibrated scale

PEEP/CPAP and Inspiratory: $\pm 1$ cmH2O or $\pm 5\%$, whichever is greater (breath to breath)

Base/Inspiratory Flow: $\pm 0.5$ LPM or $\pm 10\%$ of setting, whichever is greater (0 to 60 cmH2O)

Oxygen %: $\pm 3\%$

Degree of Safety in Presence of Flammable Anesthetics: None

Mode of Operation: Continuous
Breathing Circuit Parameters
Inspiratory Resistance: 0.42 cmH2o/l/min
Expiratory Resistance: 0.08 cmH2o/l/min
Compliance: 1.34 ml/cmH2o
Internal Volume: 1370 ml

Outputs
Digital: RS-232 Bi-Directional
Analog: See Manual
Proximal Pressure: -10 to 100 cmH2O, 1 cmH2O/25 mV
Proximal Inspiratory: -40 (expiratory) to 40 (inspiratory) LPM, 1 LPM/50 mV
Proximal Expiratory Flow: -40 (expiratory) to 40 (inspiratory) LPM, 1 LPM/50 mV
Machine Delivered Flow: 0 to 30 lpm, 1 LPM/50 mV
Breath Phase: 0.5V Logic Signal
Remote Nurse Call: 0.5 amps max at 24 vdc
Auxiliary Blended Gas Outlet: 7 to 17 psig, 0 to 8 LPM

Inputs
Electrical
Voltage: 100 V - 80 to 110 VAC; 120V - 96 to 132 VAC; 220V - 176 to 242 VAC; 240V - 192 to 264 VAC
Current: 100V - 1.0 A maximum; 120V - 1.0 A maximum; 220V - 0.5 A maximum; 240V - 0.5 A maximum
Frequency: 100V - 50.60 Hz; 120V - 50/60 Hz; 220V - 50/60 Hz; 240V - 50/60 Hz
Fuses: 100/120V - T 0.5 A, 5 x 20 mm; 230/240V - T 0.5 A, 5 x 20 mm
(For 220V operation, set the power entry module selector switch to 230V setting)

Pneumatic
Oxygen and Air: 30 to 80 psig, 50 LPM Supply Ratings KPa (206 to 551)

DIMENSIONS
Ventilator Weight: 12 kg / 13.6 kg
Graphics Display Weight: 2.5 kg
Pedestal Stand Weight: <4.1 kg
Compressor Weight: 50 kg
Ventilator Dimensions: 13.5"W x 10"D x 11"H
Graphics Display Dimensions: 13"W x 2.5"D x 9.5"H
Pedestal Stand Dimensions: 24" x 40.5"H
Compressor Dimensions: 22"W x 21.5"D x 36"H