

## Puritan-Bennett LP-20 Ventilator

### Basic Description

Manufacturer:	Puritan Bennett Corporation
Ventilator Type:	Positive Pressure Invasive Conventional
Ventilator Class:	Intensive Care Unit (ICU) Transport Subacute
Patient Population Range:	Adult Long-term (chronic)

### Characteristics

Modes--Invasive:	Volume-controlled modes --- ASSIST/CONTROL; SIMV Pressure-controlled modes --- ASSIST/CONTROL; SIMV
Operating Range of Controls:	Pressure Limit: Locking knob sets pressure from 15 to 50 cmH <sub>2</sub> O/hPa, or disables limit feature; Volume: Push-to-turn knob: continuously adjustable from 100 to 2200 ml; Breath Rate: Set breathing rate: 1 to 20 BPM in increments of 1 BPM and 22 to 38 BPM in increments of 2 BPM; Inspiratory Time: Set time from 0.5 to 1.0 sec in increments of 0.1 sec, 1.2 sec, and 1.5 to 5.5 sec in increments of 0.5 sec; Breathing Effort: Push-to-turn knob sets pressure level to detect breathing effort (- 10cmH <sub>2</sub> O/hPa to +10cmH <sub>2</sub> O/hPa)
Size:	9.75"x14.5"x13.25" (24.6x36.8x33.6 cm)
Weight:	Approx. 35 lbs (15.9 kg)
Other Characteristics:	Operating Environment: 5°C to 40°C (41°F to 104°F), 10% to 90% RH non- condensing Storage Environment: -15°C to 50°C (5°F to 122°F), 10% to 90% RH non-

condensing;  
allow at least 1 hour  
temperature stabilization before  
use when moving from non-  
operating to operating  
environment  
Indicators, Normal Events  
Patient Pressure Meter:  
Displays patient pressure -10 to  
+100 cmH<sub>2</sub>O/hPa; can also  
display battery charge and  
machine hours of operation;  
Breathing Effort: Green LED  
activated by adequate patient  
breathing effort;  
Power: LEDs indicate operating  
power source  
green: AC Pwr/Batt Chg;  
amber: External Battery;  
flashing amber: Internal Battery;  
Resistance Factor: Less than  
0.05 cmH<sub>2</sub>O/hPa/LPM;  
Emergency Pressure Relief:  
Approx. 100 cmH<sub>2</sub>O/hPa;  
Flow: 20-100 LPM

### **Characteristics (Non - Technical)**

List Price:	\$10745
Other Comments:	Originally manufactured by Aequitron Medical, now owned by Mallinckrodt. Recommend 6000 hr.preventative maintenance or 12 month recertification.

### **Specifications**

<b>Front Panel Controls:</b>	Front Panel Touch Pads Alarm Silence/Reset: Push button to silence alarm or to reset; used with Battery Test button to read operating hours on Patient Pressure meter; Battery Test: Push button to show charge level on lower window of Patient Pressure meter; Front Panel Controls Mode: Standby, Assist/Control, SIMV or Pressure Cycle; Pressure Limit; Low Alarm; High Alarm Limit; Volume; Breath Rate;
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**Alarm Controls:**

Inspiratory Time;  
Breathing Effort

Low Alarm: Set limit for Low Pressure alarm (2-32 cmH<sub>2</sub>O/hPa in increments of 2 cmH<sub>2</sub>O/hPa);  
High Alarm Limit: Set limit for High Pressure alarm (Assist/Control, SIMV Modes) or limit for Pressure Cycle mode (15-90 cm H<sub>2</sub>O/hPa in increments of 5 cmH<sub>2</sub>O/hPa)

**Non-Adjustable Alarms:**

Low Pressure/Apnea: Double-Pulsed tone, flashing red LED;  
Low Power: Single-Pulsed tone, flashing red LED;  
High Pressure: Single-Pulsed tone, flashing red LED;  
Setting Error: Single-Pulsed tone, flashing red LED;  
Power Switchover: Single-Pulsed tone;  
Loss of Microprocessor Control: Steady tone;  
Every 5 Minutes When Powered by Internal Battery: Reminder tone;  
Each Time Accessory Printer Generates Report: Reminder tone

**Other Specifications:**

Power Usage Maximum: 630 kW hours per year  
Nominal: 315 kW hours per year  
External Battery: Approximately 20 hours operation with 75-80 ampere-hour 12 VDC deep-cycle, gel-cell battery;  
approximately 10 hours with 35-40 ampere-hour 12 VDC deep-cycle, gel-cell battery  
Internal Battery: Up to 1 hour operation

Alarms classified by urgency.