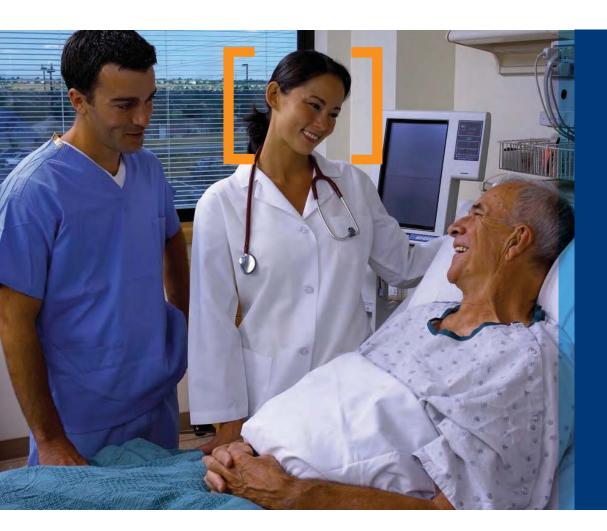


PURITAN BENNETT 840™ VENTILATOR



Nellcor™

Mon-a-therm[™]

Puritan Bennett™

Airox™

Mallinckrodt™

DAR™

Shiley™

Sandman™



WORKING WITH YOU TO IMPROVE VENTILATION OUTCOMES

Healthcare providers and patients throughout the world depend on Covidien for state-of-the-art ventilation therapy. Whether your needs include acute care for critically ill patients with chronic respiratory failure or a solution to transition patients to home care, we have the right system for the task at hand.

Healthcare professionals know all too well the range of issues that impact ventilation outcomes today. At Covidien, our innovations are systematically tackling the issues that truly matter - patient safety, medical efficacy and healthcare efficiency. The Puritan Bennett 840™ Ventilator is another example of how we're helping medical professionals to improve ventilation outcomes and quality of life for their patients.

Three dimensions of excellence built into every Puritan Bennett 840 Ventilator

- Patient Safety Alarm systems, high efficiency filters, state-of-the-art-flow sensors and self-diagnostic testing work together to keep the Puritan Bennett 840 Ventilator running effectively and efficiently.
- Clinician Support DualView™ LCD touch screens display monitored data separately from ventilator settings so clinicians can easily change settings and view the impact. It also provides seamless recorded data transfer into a patient's electronic medical record.
- Healthcare Efficiency An accessible technical support staff, reliable components for low maintenance costs and custom software options meet institutional requirements for dependable technology that is in-line with the budget.

ASSURED SAFETY FOR PATIENTS AND CLINICIANS

TUBE COMPENSATION

- Offers a spontaneous breath type that reduces the patient's work of breathing
- Automatically compensates for the flow-dependent pressure drop across the endotracheal or tracheal tube and controls the patient's carinal pressure to a constant PEEP value

CIRCUIT DISCONNECT DETECTION

- Relies on low pressure and effective patient volume to detect circuit disconnection
- When a circuit disconnects, gas flow stops and clinicians are alerted

OCCLUSION AND AUTOMATIC PATIENT DETECTION

• Designed to prevent the clinician from inadvertently putting the ventilator into any type of standby condition in which there is no ventilation

SAFETY NET

- Refers to how the ventilator responds to patient problems and system faults
- Ongoing background checks assess the ventilator's electronics and pneumatics hardware continuously during ventilation to ensure patient safety
- Redundant safety features ensure maximum uptime and patient safety



PURITAN BENNETT 840

The Puritan Bennett 840 Ventilator is highly responsive, offers superior comfort, and delivers sensitive, precise breaths to critically ill patients of all ages.

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COLLABORATING TO IMPROVE EFFICIENCIES SURROUNDING PATIENT CARE

EASE OF USE

The innovative design of the 840 ventilator makes it easy to set up and navigate, minimizing training requirements for your staff.

- The 840 supports communication with all major patient monitoring and hospital information systems, and provides seamless data transfer.
- DualView LCD touchscreens display monitored data separately from ventilator settings.

FLEET MANAGEMENT

- The 840 spans the age spectrum in its capabilities.
- In addition to serving as an invasive vent, the 840 ventilator comes standard equipped with noninvasive ventilation (NIV) software.

BEST IN CLASS SERVICE

Covidien offers one of the most comprehensive field service programs in the ventilator industry.

- Our field-based sale and service organizations provide customers with warranty and repair services, as well as education and insight.
- The 840 ventilator is designed with rugged and reliable components, and its modular design provides easy serviceability and low cost of ownership. It can also be upgraded and customized with various software options.

EDUCATION AND TRAINING EXCELLENCE

The Center for Clinical Excellence (www.ccexcellence.org) provides free online educational programs for nurses and respiratory therapists. It is accredited by the American Nurses Credentialing Center (ANCC), the California Board of Registered Nursing, and the American Association for Respiratory Care (AARC). Online certificates are available to all successful participants.



ADVANCED TOOLS TO IMPROVE SYNCHRONY AND DECISION SUPPORT

PATIENT/VENTILATOR SYNCHRONY

Proportional Assist Ventilation (PAV+)

• Offers clinicians a new method of tackling synchrony, as well as work of breathing for patients being weaned from ventilation

BiLevel[™] Software

 Promotes patient/ventilator synchrony and allows the patient to breathe spontaneously at two levels of PEEP

NeoMode[™] Software

• Accomodates the high respiratory rates, large leaks and high ET tube resistance that are unique to neonate ventilation

Volume Ventilation Plus[™] Software

• Combines Volume Control Plus (VC+) for delivery of mandatory breaths in A/C and SIMV, and Volume Support (VS) for delivery of spontaneous breaths in SPONT only

ESENS

 Defines the percentage of the projected peak flow at which PRESSURE SUPPORT is terminated

Rise Time %

 Allows the clinician to tailor the rate of pressure application during all pressure based breath types

Flow Triggering

• Can allow for decreasing the imposed work to initiate a breath while minimizing the possibility for autocycling

CLINICIAN DECISION SUPPORT

Trending Software

- Monitors up to 53 parameters over a 72-hour period
- Features a Lung Recruitment Monitoring (LRM) preset

Respiratory Mechanics

 Makes determining weaning readiness easier than ever with coached respiratory maneuvers

Tube Compensation Software

• Accurately overcomes the work of breathing through an artificial airway

NIV

• Safely and easily ventilate all patient ranges with Non-Invasive Ventilation



Ventilator Settings

Ideal body weight (IBW): 7.7 to 330.7 lb (3.5 to 149 kg) 1.1 to 330.7 lb (0.5 to 149 kg) with NeoMode® Option

Modes: Assist/Control (A/C), synchronous intermittent mandatory ventilation (SIMV), or spontaneous (SPONT). Optional BiLevel,™ Volume Ventilation Plus™ (Volume Control Plus™ and Volume Support™), Tube Compensation. Proportional Assist™ Ventilation Plus (PAV™+) and NeoMode software options

Mandatory breath types: Volume control (VC), pressure control (PC) or Volume Control Plus with Volume Ventilation Plus option

Spontaneous breath types: Pressure supported (PS), Volume supported (VS), Proportional Assist (PA), none or Tube Compensation option

Vent type: INVASIVE or NIV

Pressure support (P_{SUPP}): 0 to 70 cm H₂O

Rise time %: 1% to 100%

Expiratory sensitivity (E_{SSIS}): 1% to 80%; 1 L/min to 10 L/min with PAV+ Tidal volume (V₂): 25 to 2,500 mL, 5 to 315 mL with NeoMode

Respiratory rate (f): 1.0 to 100 /min, 1 to 150 /min with NeoMode

Peak inspiratory flow ($\dot{V}_{\rm MAX}$): 3 to 150 L/min for IBW > 24 kg; 3 to 60 L/min for IBW \leq 24 kg, 1 to 30 L/min with NeoMode

Flow pattern: Square or descending ramp

Plateau time (T_{DI}): 0.0 to 2.0 seconds

Inspiratory pressure (P₁): 5 to 90 cm H₂O

Constant during rate change: Inspiratory time (T_I) , I:E ratio, or expiratory time (T_E)

Inspiratory time (T_i): 0.2 to 8.0 seconds

I:E ratio: ≤ 1:299-4.00:1

Expiratory time (T_E) : $T_E \ge 0.2$ second

Trigger type: Pressure (P_{TRIG}) or flow $(\dot{V}_{TRIG}, Flow-by@ flow triggering)$

Pressure sensitivity (P_{SENS}): 0.1 to 20 cm H₂O below PEEP

Flow sensitivity (V_{SENS}): 0.2 to 20 L/min, 0.1 to 10 L/min with NeoMode

O₂%: 21% to 100%

PEEP: 0 to 45 cm $\rm H_2O$

Apnea ventilation: Apnea mandatory type-volume control (VC) or pressure control (PC)

Apnea flow pattern: Square or descending ramp

Apnea peak flow (\dot{V}_{MAX}): 3 to 150 L/min for IBW > 24 kg; 3 to 60 L/min for IBW \leq 24 kg

Apnea inspiratory pressure (P_i): 5 to 90 cm H₂O

Apnea inspiratory time (T_I): 0.2 to 8.0 seconds

Apnea interval (T_A): 10 to 60 seconds

Apnea respiratory rate (f): 2.0 to 40 /min

Apnea O₂%: 21% to 100%

Apnea I:E ratio: ≤ 1.00:1

Apnea expiratory time (T_E) : ≥ 0.2 second

Disconnect sensitivity (D $_{\rm SENS}$): 20% to 95% or OFF in NIV

Humidification type: Heat-moisture exchanger (HME), nonheated expiratory tube, or heated expiratory tube

Humidification volume: 100 to 1000 mL

Patient circuit type: Pediatric, adult or neonate with NeoMode option

ORDERING INFORMATION

ORDERING INFORMATION	
Standard Accessories Number	Catalog
Flex arm	4-032006-00
Inspiratory bacteria filter	4 032000 00
Disposable filter (<i>D/Flex</i> ,™ carton of 12)	4-074601-00
Expiratory bacteria filter and collector vial	107100100
Disposable filter (D/X800,™ carton of 12)	4-076887-00
Test hose	4-018506-00
Test lung	4-000612-00
Oxygen hose assembly, DISS (U.S.)	4-001474-00
Air hose assembly, DISS (U.S.)	4-006541-00
Power cord (North America)	4-071420-00
	4-071420-00
Operator's and technical reference manual	4 075500 00
English	4-075609-00
Spanish	4-070147-00
Software Options	
PAV™+ Option Kit	4-078203-00
BiLevel™ Software Option	4-076064-00
Tube Compensation Software Option	4-076371-00
NeoMode™ Software Option	4-076441-00
Volume Ventilation Plus® Software Option	4-078126-00
Respiratory Mechanics Option Kit	10019218
Trending Software Option	10020408
Optional Accessories	
Service manual, English	4-070089-00
Wall air water trap kit	4-075315-00
Reusable, adult, with heated wire, for Fisher & Paykel	G-061235-00
Reusable, adult, without heated wire	G-061208-SP
Reusable, pediatric, with heated wire, for Fisher & Paykel	G-061237-00
Reusable, pediatric, without heated wire	G-061223-00
Inspiratory bacteria filter	
Reusable filter (<i>Re/Flex</i> ,™ each)	4-074600-00
Neo filter and adapter	
Neo disposable filter (carton of 12)	4-076408-00
Neo filter adapter	4-076405-00
Expiratory bacteria filter and collector vial	
Reusable filter (<i>Re/X800</i> ,™ each)	4-070305-00
Reusable collector vial (<i>Re/X800</i> ,™ each)	4-074647-00
Drain bag, disposable (package of 25)	4-048491-00
Drain bag tubing, disposable (package of 10)	4-048493-00
Clamp, reusable (package of 5)	4-048492-00
Drain cap	4-074613-00
Seal, expiratory filter	4-070311-00
Mounting kit, humidifier, Fisher & Paykel 480/730	4-075313-00
Oxygen sensor*	4-072214-00
Battery replacement kit	4-070523-SP
10,000-hour preventive maintenance kit,* BDU/GUI	4-078179-00
15,000-hour preventive maintenance kit, sbordor	4-076805-00
Filter, foam, compressor inlet	
	4-074374-00
Aeroneb Pro Nebulizer	4-AP6000-US
Humidifier Base	4-MR850-00
PB MR 850 Starter Kit	4-070773-00

^{*}Oxygen sensor to be replaced every 2 years or as necessary by a qualified service technician. Preventive maintenance kits must be installed by a qualified service technician.

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