

Newport NMI e500 Neoventilator

Neonatal ventilator for effective breath management with enhanced safety features and expanded monitoring. The device offers direct access to all ventilation controls along with other frequently used functions such as Inspiratory & Expiratory Hold, 3 minute O2, Pre-Silence Alarm and Preset Vent Settings. Ventilator-set bias flow flushes exhaled CO2 and stabilizes temperature, humidity and baseline pressure in the patient breathing circuit. Slope/Rise Adjustment, Expiratory (Cycling-off) Threshold and automatic leak compensation.

Features:

- Dual Control Breath Management.
- Preset Vent Settings, mode, Breath type and settings can be preset without affecting current ventilator operation.
- Circuit Compliance Compensation (calculate and enable breathing circuit compliance of flow/volume delivery), Altitude Compensation, Violation Message Log.
- Non-invasive Ventilation, Compatible with mask ventilation for continuous or short term use.
- O2 Calibration
- Pre-Silence Alarm, suspends ventilation while delivering continuous flow after a planned disconnect.
- Events History Log

Controls	
Patient Selection:	Pediatric/Infant - Adult
Breath Type:	Volume Control (VC), Pressure Control (PC), or Volume Target Pressure Control (VTPC)
Modes (in each Breath Type):	Assist/Control Mandatory Ventilation (A/CMV) Synchronized Intermittent Mandatory Ventilation (SIMV) Spontaneous (SPONT)
Spontaneous Breath Choices:	Pressure Support (Psupport) or none in VC or PC, Volume Target Pressure Support (VTPsupport using Plimit) in VTPC
Back Up Ventilation:	All modes
Slope/Rise:	1-19 (PC, VTPC, Psupport and VTPsupport)
Pressure Support (Psupport):	Pediatric/Infant: 0 to 50 cmH ₂ O/mbar Adult: 0 to 60 cmH ₂ O/mbar
Expiratory Threshold	5-50% (Psupport and VTPsupport)

V_T (Tidal Volume): (BTPS compensated)	Pediatric/Infant: 20 to 1000mL Adult: 100 to 3000mL
f (Frequency/Rate)	Pediatric/Infant: 1 to 120 b/min Adult: 1 to 80 b/min
\dot{V} (Inspiratory Flow)	Pediatric/Infant: 1 to 100 L/min Adult: 1 to 180 L/min
\dot{V} (Flow) Pattern	Square Descending Ramp
Pause:	Off, 0.5, 1.0, 2.0 sec
Sigh \emptyset (off) or On:	Delivers one sigh breath every 100 breaths, where sigh $V_T = 1.5 * V_T$ Setting
Plimit (Pressure Limit) (PC, VTPC & VTPsupport)	Pediatric/Infant: 0 to 70 cmH ₂ O/mbar Adult: 0 to 80 cmH ₂ O/mbar
tI (Inspiratory Time)	Pediatric/Infant: 0.1 to 3.0 sec Adult: 0.1 to 5.0 sec
I:E Ratio:	max. inverse 4:1
trig (sensitivity) type:	
P-Pressure Trigger:	0 to -5 cmH ₂ O/mbar
\dot{V} -Flow Trigger:	Pediatric/Infant: 0.1 to 2.0 L/min Adult: 0.6 to 2.0 L/min
F _I O ₂ (oxygen Concentration)	.21 to 1.00
PEEP/CPAP (Pbase)	Pediatric/Infant: 0 to 30 cm H ₂ O/mbar Adult: 0 to 45 cm H ₂ O/mbar
Leak Compensation: (on/off)	Pediatric/Infant: 8 L/min max Adult: 15L/min max
Bias Flow:	3 L/min
Manual Inflation:	5 seconds max
Insp. Hold:	5 seconds max
Exp. Hold:	20 seconds max
100% O ₂ :	Delivers 100% oxygen for 3 min

Alarms

Adjustable Alarms	Low $\dot{V}E$ (Exp. Minute Volume)
	High $\dot{V}E$ (Exp. Minute Volume)
	Low Paw (Airway Pressure)
	High Paw (Airway Pressure)
Automatic Alarms	
Patient Alarms:	O ₂ Variability ± 0.07 of setting
	Apnea
	Proximal Line Disconnect
	Low Baseline Pressure
	High Baseline Pressure
	Sustained High Baseline Pressure

Operator Alarms:	Insp. Time Too Long
	Insp. Time Too Short
	I:E Ratio inverse Violation
	Plimit below Pbase
	Low Paw below Pbase
	Vol Target Not Met
	(Alarm or Setting) Out of Range
Back Up Vent	
Gas Supply Alarms	
Power Fail Alarms	
Power Down Alarm	
Device Alert	

Dimensions	
Gas Delivery Unit	
Width:	9.8in (24.8cm)
Depth:	21.5in (54.6cm) (includes all fittings)
Height:	9.5in (24.1cm)
Weight:	41.3 lbs. (18.7kg)
Control Panel Module	
Width:	13.9in (35.3cm)
Depth:	1.5in (3.8cm)
Height:	12.1in (30.7cm)
Weight:	6.5lbs (2.9kg)
e500 Custom Cart	
Width:	20.5in (52cm) at base
Depth:	26in (66cm)
Height:	48in (121.9cm)
Weight:	81lbs (36.8kg) ship weight
Total Height:	62.5in (158.7cm) e500 and GDM mounted.