

## Controls and Features

<b>Patient Selection:</b>	Pediatric/Infant – Adult
<b>Breath Types/Modes:</b>	Volume Control (VC) Pressure Control (PC) Volume Target Pressure Control (VTPC) Biphasic Pressure Release Ventilation (BPRV) Assist/Control Mandatory Ventilation (A/CMV) Synchronized Intermittent Mandatory Ventilation (SIMV) Spontaneous (SPONT) Non-Invasive Ventilation (All Breath Types/Modes)
<b>Spontaneous breath choices:</b>	Pressure Support (PS) Volume Target Pressure Support (VTPS)
<b>Back Up Ventilation:</b>	All modes
<b>Slope/Rise:</b>	Automatic or Manual adjustment 1 - 19 for PC, VTPC, Pressure Support and VTPS breaths
<b>Pressure Support:</b>	Pediatric/Infant: 0 to 50 cmH <sub>2</sub> O/mbar Adult: 0 to 60 cmH <sub>2</sub> O/mbar
<b>FlexCycle™ Expiratory Threshold:</b>	Automatic or Manual adjustment 5 – 55% peak flow for Pressure Support and VTPS
<b>Tidal Volume:</b>	Pediatric/Infant: 5 to 1000 mL Adult: 100 to 3000 mL
<b>Resp Rate (Frequency):</b>	Pediatric/Infant: 1 to 150 b/min Adult: 1 to 80 b/min
<b>Flow:</b>	Pediatric/Infant: 1 to 100 L/min Adult: 1 to 180 L/min
<b>Flow Wave Pattern:</b>	Square or Descending Ramp
<b>Pause:</b>	Off, 0.1 – 2.0 sec
<b>Sigh:</b>	Delivers one sigh breath every 100 breaths, sigh VT = 1.5 X VT setting
<b>Pressure Limit:</b>	Pediatric/Infant: 0 to 70 cmH <sub>2</sub> O/mbar Adult: 0 to 80 cmH <sub>2</sub> O/mbar
<b>Inspiratory Time:</b>	Pediatric/Infant: 0.1 to 3.0 sec Adult: 0.1 to 5.0 sec
<b>I:E Ratio:</b>	Max. inverse 4:1
<b>Trigger (sensitivity) P-Pressure Trigger: Flow Trigger:</b>	0 to -5 cmH <sub>2</sub> O/mbar Pediatric/Infant: 0.1 to 2.0 L/min Adult: 0.6 to 2.0 L/min
<b>FiO<sub>2</sub> (oxygen concentration):</b>	.21 to 1.00
<b>PEEP/CPAP (Pbase):</b>	Pediatric/Infant: 0 to 30 cmH <sub>2</sub> O/mbar Adult: 0 to 45 cmH <sub>2</sub> O/mbar
<b>Leak Compensation: (automatic)</b>	Pediatric/Infant: 8 L/min max Adult: 15 L/min max
<b>Bias Flow:</b>	3 L/min
<b>Manual Inflation:</b>	5 seconds max
<b>O<sub>2</sub> (3 min):</b>	Delivers 100% oxygen for 3 min
<b>Ideal Weight:</b>	1 - 375 kg
<b>Weight Units:</b>	kg or lb
<b>Volume Units:</b>	mL or mL/kg

<b>Maneuvers</b> (Tools for assessing lung dynamics)	
<b>NIF (MIP):</b>	maximum occlusion pressure
<b>P0.1:</b>	100 m sec occlusion pressure
<b>Insp. Hold:</b>	15 sec max
<b>Exp. Hold:</b>	20 sec max
<b>Ventilation Standby:</b>	At power up: allows settings to be preset and Circuit Check tests to be preformed prior to starting ventilation.
<b>Open Exhalation Valve:</b>	On/Off for Biphasic Pressure Release Ventilation (BPRV)
<b>Volume Target:</b>	On/Off (Pressure Control only)
<b>Event History Log:</b>	Records 1000 events, alarms and settings, color coded
<b>Circuit Check:</b>	Automatically tests for leaks, compliance and resistance
<b>Quick Setup:</b>	Establishes new ventilation settings based on an entered Ideal Body Weight, Patient Type and Mode.
<b>Save and Download:</b>	Allows saved screen images and Event History files to be downloaded to a USB flash memory drive
<b>RS232 Comm Protocol:</b>	Communication protocol selection for remote monitoring
<b>Display Brightness:</b>	Adjustable display backlight
<b>Calibrate Sensor:</b>	Exhalation Flow and Oxygen Sensors
<b>Date/Time:</b>	Adjust and format
<b>Language Selection:</b>	For display messages and screen text
<b>Pressure Units:</b>	cmH <sub>2</sub> O/mbar
<b>Circuit Type Compensation:</b>	Heated Exp. Limb, Heated Insp. Limb, HME or Test Lung
<b>Altitude Compensation:</b>	0 - 4000 m (200 m increments)
<b>Compliance Compensation:</b>	On/Off (Volume Control)
Monitored flow/volume compensation: e360 compensates breath delivery and monitoring based on Circuit Type Selection, Altitude and Compliance Compensation.	

## Monitored Parameters

Ppeak	Cdyn effective	VrE % variance	Exp flow	RR spont
Pplat	Cstat	MV <sub>I</sub>	I:E Ratio	RSBI
Pmean	R <sub>I</sub>	MV <sub>E</sub>	Inspiratory time	WOB <sub>IM</sub>
PEEP	Vr <sub>I</sub>	MV <sub>E</sub> spont	Time Constant	FrO <sub>2</sub>
Total PEEP	Vr <sub>E</sub>	Insp flow	RR <sub>tot</sub>	R <sub>E</sub>
P0.1	NIF			

## Graphics

<b>Waves:</b>	Pressure-time Volume-time Flow-time
<b>Loops:</b>	Volume pressure Flow volume

## Trends Screens

VrE % var / time	Ppeak / time
RR <sub>tot</sub> / time	PEEP / time
MV <sub>E</sub> / time	RSBI / time
VrE / time	Pmean / time



# The Newport e360E Ventilator Specifications, continued

## Audible and Visual Alarms

### Adjustable Alarms (via Graphical User Interface)

- Low MVE (Exp. Minute Volume)
- High MVE (Exp. Minute Volume)
- Low Paw (Airway Pressure)
- High Paw (Airway Pressure)
- High RR tot (Resp Rate)
- Apnea
- Disconnect (threshold %)

### Automatic Alarms

- [settings] Out of Range
- Pressure Limit Below Phase
- Sustained High Baseline Pressure
- I:E Ratio Inverse Violation
- Low and High Baseline (PEEP) Pressure
- Low and High FiO<sub>2</sub>
- Low Paw Below Phase
- Insp. Time Too Short
- Insp. Time Too Long
- Volume Target Not Met

## Alarm Features

<b>Alarm Silence:</b>	Mutes audible alarms for 120 sec
<b>Back Up Vent:</b>	Back up Ventilation supplied in response to Low MVE Alarm
<b>O<sub>2</sub> Sensor:</b>	O <sub>2</sub> Sensor Error / O <sub>2</sub> Sensor Disconnect
<b>Flow Sensor:</b>	Flow Sensor Error
<b>Gas Supply Alarms:</b>	Loss of One Gas Supply / Loss of Both Gas Supplies
<b>Power Fail Alarms:</b>	Loss of AC Power / Low Internal Battery
<b>Power Down Alarm:</b>	(audible only)
<b>Device Alert:</b>	Indicator lights and messages are displayed
<b>Check Vent Fan:</b>	Cooling fan failure
<b>Suction Disconnect Function:</b>	Pre-silences alarms for 120 sec, suspends ventilation after a planned disconnect and senses reconnection to resume ventilation.
<b>Alarm Reset:</b>	Clears visual indicators and messages

## Dimensions

<b>Width:</b>	13.9 in (35.3 cm)
<b>Depth:</b>	13.9 in (35.3 cm)
<b>Height:</b>	12.1 in (30.7 cm)
<b>Weight:</b>	38 lbs. (17.3 kg)

## Environmental

### Operating:

Relative humidity: 10 to 95% Rh non-condensing  
Altitude: 0 to 13,124 feet (0 to 4000 meters)  
Pressure: 21 to 31 in. Hg (700 to 1060 hPa)

### Storage:

Ambient temperature: -20 to 60 °C (-68 to 140 °F)  
Relative humidity: 10 to 95% Rh non-condensing  
Altitude: 0 to 18,000 feet (0 to 5500 meters)  
Pressure: 15 to 31 in. Hg (500 to 1060 hPa)

## Power Requirements

100 – 240 VAC, 250 VA max, 50/60 Hz (± 10%)  
2A for 125 VAC, 1A for 250 VAC  
Internal Battery: provides an average of 60 minutes of complete ventilator function when new and fully charged.

## Gas Supply Requirements

Air and O<sub>2</sub> Supply Inlet Pressure: 30 to 90 psig, 50 psig nominal

## External Connections

**Remote Alarm:** 1/4" jack. Normally open for nurse call or remote system

**RS 232C:** 9-pin D-shell, 38,400 baud. For use with central monitoring systems.

**External Alarm Silence:** Input for optional Newport external alarm silence cable

**External Battery:** 3-pin DIN input for external power, 10 VDC to +14 VDC

**VGA:** Output for external display monitor

**USB:** Output for connecting a data storage device

## Patient Circuit Connections

Inspiratory and expiratory port connectors: 22-mm OD

## The Newport e360 Ventilator System

### e360 Ventilator with built-in Graphical User Interface, built-in Heated Exhalation Valve Assembly and built-in Oxygen Sensor

E360E-WW-NA (North American style plugs/hoses)  
E360E-WW-IN (European style plugs/hoses)

(Additional language control panels available, call for information)

### Standard accessories include:

Two exhalation flow sensors  
Support arm and breathing circuit hanger  
Support arm rail block  
Air and oxygen hoses, 10 ft (3 m)  
Air and oxygen inlet water traps  
Two disposable bacteria filters (for patient ports)  
Operating Manual

Cart sold separately: CRT360A

Contact Newport Customer Service Department for additional accessories and ordering information.

Specifications subject to change without notice.  
For international distribution only. RX only.

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