



Newport™ e360E Ventilator Specifications

CONTROLS AND FEATURES

Patient Selection:	Pediatric/infant - adult
Breath Types/Modes:	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) Noninvasive Ventilation (All breath types/modes)
Spontaneous Breath Choices:	Pressure Support (PS) Volume Target Pressure Support (VTPS)
Backup Ventilation:	All modes
Slope/Rise:	Automatic or manual adjustment 1-19 for PC, VTPC, PS and VTPS breaths
Pressure Support:	Pediatric/infant: 0 to 50 cmH ₂ O/mbar Adult: 0 to 60 cmH ₂ O/mbar
FlexCycle Expiratory Threshold:	Automatic or manual adjustment 5% to 55% peak flow for PS and VTPS
Tidal Volume:	Pediatric/infant: 5 to 1,000 mL Adult: 100 to 3,000 mL
Resp Rate (Frequency):	Pediatric/infant: 1 to 150 b/min Adult: 1 to 80 b/min
Flow:	Pediatric/infant: 1 to 100 L/min Adult: 1 to 180 L/min
Flow Wave Pattern:	Square or descending ramp
Pause:	Off, 0.1 to 2.0 seconds
Sigh:	Delivers one sigh breath every 100 breaths, sigh VT = 1.5 X VT setting
Pressure Limit:	Pediatric/infant: 0 to 70 cmH ₂ O/mbar Adult: 0 to 80 cmH ₂ O/mbar
Inspiratory Time:	Pediatric/infant: 0.1 to 3.0 seconds Adult: 0.1 to 5.0 seconds
I:E Ratio:	Max inverse 4:1
Trigger (sensitivity)	
P-Pressure Trigger:	0 to -5 cmH ₂ O/mbar
Flow Trigger:	Pediatric/infant: 0.1 to 2.0 L/min Adult: 0.6 to 2.0 L/min
FiO₂ (oxygen concentration):	0.21 to 1.00
PEEP/CPAP (Pbase):	Pediatric/infant: 0 to 30 cmH ₂ O/mbar Adult: 0 to 45 cmH ₂ O/mbar
Leak Compensation (automatic):	Pediatric/infant: 8 L/min max Adult: 15 L/min max
Bias Flow:	3 L/min
Manual Inflation:	5 seconds max
O₂ (3 minutes):	Delivers 100% oxygen for 3 minutes
Ideal Weight:	1-375 kg

Weight Units:	kg or lb
Volume Units:	mL or mL/kg
Maneuvers: (Tools for assessing lung dynamics)	
NIF (MIP):	Maximum occlusion pressure
P0.1:	100 m seconds occlusion pressure
Insp. Hold:	15 seconds max
Exp. Hold:	20 seconds max
Ventilation Standby:	At power up, allows settings to be preset and circuit check tests to be performed prior to starting ventilation
Open Exhalation Valve:	On/off for Biphasic Pressure Release Ventilation (BPRV)
Volume Target:	On/off (Pressure Control only)
Event History Log:	Records 1,000 events, alarms and settings, color coded
Circuit Check:	Automatically tests for leaks, compliance and resistance
Quick Setup:	Establishes new ventilation settings based on an entered ideal body weight, patient type and mode
Save and Download:	Allows saved screen images and event history files to be downloaded to a USB flash memory drive
RS-232 Comm Protocol:	Communication protocol selection for remote monitoring
Display Brightness:	Adjustable display backlight
Calibrate Sensor:	Exhalation flow and oxygen sensors
Date/Time:	Adjust and format
Language Selection:	For display messages and screen text
Pressure Units:	cmH ₂ O/mbar
Circuit Type Compensation:	Heated expiratory limb, heated inspiratory limb, HME or test lung
Altitude Compensation:	0-4,000 m/13,124 ft (200 m/656 ft increments)
Compliance Compensation:	On/off (Volume Control)

Monitored flow/volume compensation: Newport™ e360 ventilator compensates breath delivery and monitoring based on circuit type selection, altitude and compliance compensation

MONITORED PARAMETERS

Ppeak	Cdyn effective	V _T E % variance	Exp flow	RR spont
Pplat	Cstat	MV _I	I:E ratio	RSBI
Pmean	R _I	MV _E	Inspiratory time	WOBim
PEEP	V _T I	MV _E spont	Time constant	FiO ₂
Total PEEP	V _T E	Insp flow	RRtot	R _E
P0.1	NIF			

GRAPHICS

Waves:	Pressure/time Volume/time Flow time
Loops:	Volume/pressure Flow/volume

TRENDS SCREENS

V _T E % var/time	P _{peak} /time
RR _{tot} /time	PEEP/time
MV _E /time	RSBI/time
V _T E/time	P _{mean} /time

AUDIBLE AND VISUAL ALARMS**Adjustable Alarms (via Graphical User Interface)**

- Low MV_E (exp. minute volume)
- High RR_{tot} (resp rate)
- High MV_E (exp. minute volume)
- Apnea delay time
- Low Paw (airway pressure)
- Disconnect (threshold %)
- High Paw (airway pressure)

Automatic Alarms

- [Settings] out of range
- Low and high FiO₂
- Pressure limit below P_{base}
- Low Paw below P_{base}
- Sustained high baseline pressure
- Insp. time too short
- I:E ratio inverse violation
- Insp. time too long
- Low and high baseline (PEEP) pressure
- Volume target not met

ALARM FEATURES

Alarm Silence:	Mutes audible alarms for 120 seconds
Backup Vent:	Backup ventilation supplied in response to low MV _E alarm
O ₂ Sensor:	O ₂ sensor error/O ₂ sensor disconnect
Flow Sensor:	Flow sensor error
Gas Supply Alarms:	Loss of one gas supply/loss of both gas supplies
Power Fail Alarms:	Loss of AC power/low internal battery
Power Down Alarm:	Audible only
Device Alert:	Indicator lights and messages are displayed
Check Vent Fan:	Cooling fan failure
Suction Disconnect Function:	Pre-silences alarms for 120 seconds, suspends ventilation after a planned disconnect and senses reconnection to resume ventilation
Alarm Reset:	Clears visual indicators and messages

DIMENSIONS

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

ENVIRONMENTAL**Operating:**

Relative humidity: 10% to 95% Rh non-condensing
 Altitude: 0 to 13,124 feet (0 to 4,000 meters)
 Pressure: 21 to 31 in.Hg (700 to 1,060 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 5,500 meters)
 Pressure: 15 to 31 in. Hg (500 to 1,060 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 O₂ supply inlet pressure: 30 to 90 psig, 50 psig nominal

EXTERNAL CONNECTIONS

Remote Alarm:	1/4 in. jack; normally open for nurse call or remote system
RS-232C:	Nine-pin D-shell, 38,400 baud; for use with central monitoring systems
External Alarm Silence:	Input for optional Newport™ ventilation external alarm silence cable
External Battery:	Three-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

NEWPORT e360 VENTILATOR SYSTEM

Newport e360 ventilator with built-in graphical user interface (GUI), built-in heated exhalation valve assembly and built-in oxygen sensor
 e360E-WW-NA (North American-style plugs/hoses with English control panel)
 e360E-WW-IN (European-style plugs/hoses with English control panel)
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

OPTIONAL EXTERNAL FLAT PANEL MONITOR

Newport™ e360E graphical user interface display can be linked to an external flat panel monitor for viewing screens from a distance.

FPD2120A	17" (43.2 cm) flat panel monitor with articulating support arm, North American power cord
FPD2120A-IN	17" (43.2 cm) flat panel monitor with articulating support arm, European power cord

Cart sold separately: CRT360A

Contact Customer Service for additional accessories and ordering information. Specifications subject to change without notice. For international distribution only. RX only.

COVIDIEN, COVIDIEN with logo, Covidien logo and "positive results for life" are U.S. and internationally registered trademarks of Covidien AG. Other brands are trademarks of a Covidien company. © 2013 Covidien.

12-VEE-0004 VE30013



6135 GUNBARREL AVENUE
 BOULDER, CO
 80301

800-635-5267

NOT FOR DISTRIBUTION IN THE U.S.

WWW.COVIDIEN.COM