




Hillrom™

# Life2000® Ventilation System



**NON-INVASIVE  
VENTILATION  
MOVING RECOVERY  
FORWARD**



“Deconditioning and weakness are prevalent problems in survivors of critical illness requiring mechanical ventilation. Intensive care unit (ICU) acquired weakness is characterized by fatigue and profound neuromuscular weakness that can cause serious functional disability in survivors.”<sup>1</sup>

# NON-INVASIVE VENTILATION (NIV) IS VITAL, BUT TRADITIONAL OPTIONS HAVE DRAWBACKS

NIV plays a key role in providing breathing support for hospitalized patients who are experiencing a COPD exacerbation, recovering from surgery, or simply need support as they stabilize, mobilize, and prepare to go home. However, traditional NIV options have limitations.

## DELAYED MOBILITY

Traditional NIV options make mobility impractical. The ventilator can't move with the patient even within their room or to the restroom due to equipment size and power requirements. As a result, time to mobility milestones may be prolonged, exposing patients to increased morbidity and mortality.

## PATIENT DISCOMFORT

Traditional NIV requires a tight-fitting mask to create a closed system that maintains the pressure delivered. This can be uncomfortable, and many patients may feel claustrophobic or isolated because they can't talk or engage naturally. Or worse, patients feel so much discomfort that they do not accept the therapy or develop facial ulcers.

**25-55%**

of patients who require prolonged mechanical ventilation develop global and persistent muscle weakness<sup>2</sup>

**44%**

higher 1-year mortality in patients with ICU-acquired weakness<sup>2</sup>

**30.5%**

higher in-hospital costs per patient<sup>2</sup>

**10-31%**

Percentage of hospitalized NIV patients that develop facial ulcers<sup>3</sup>

**28.4 Hours**

Mean time into therapy for patients on an oral-nasal mask to develop ulcers. Some do so as quickly as 1.25 hours<sup>3</sup>

**\$10,288**

Overall incremental cost of treating an average pressure ulcer<sup>4</sup>

“When performed in the right patient population, early physical mobility is both safe and feasible. Early mobility has been shown to reduce hospital costs by reducing the stay in both the ICU and hospital and reducing chronic debilitation and health complications.”<sup>1</sup>



# Life2000® System:

## NON-INVASIVE VENTILATION WITH TRUE MOBILITY

The Life2000 Ventilation System is a wearable ventilator designed to facilitate ambulation. It allows your patients to achieve early mobility milestones such as sitting, standing, and walking supporting their progress from higher to lower acuity settings and eventually home.

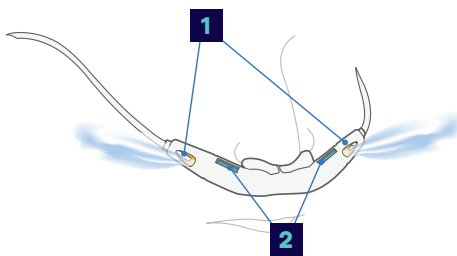
### ONE POUND UNIT DESIGNED FOR MOBILITY



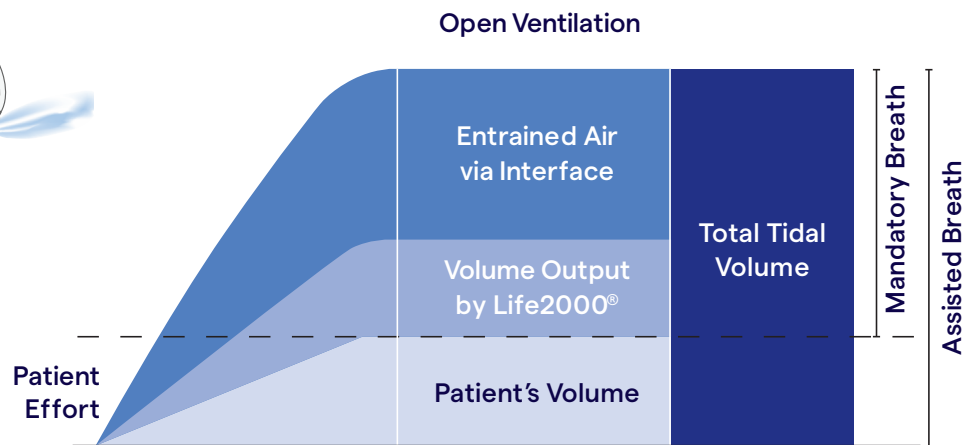
- Comes standard with pole mount for IV stand
- Connect 6 ft tubing to 50 psi wall source or oxygen tank for use outside the room
- Rechargeable battery lasts up to 6 hours of normal use

### NO MASK REQUIRED

The Life2000 Ventilation System uses proprietary Proportional Open Ventilation® (POV®) technology, which entrains ambient air, adding to the ventilator volume and the patient’s own breathing. The result is a solution that feels natural and provides the volume your patient needs, without the drawbacks of a mask.



- 1 Entrainment Ports**  
Ambient air is entrained, using POV technology
- 2 Sense Ports**  
Breath detection synchronizes with patient effort



Assisted Breath ( $V_T$ ) = Patient's Volume + Volume Output + Entrained Air  
 Mandatory Breath ( $V_T$ ) = Volume Output + Entrained Air

# WHICH PATIENTS BENEFIT?

The Life2000® Ventilation System is a non-invasive ventilation option that, when applied to the right patient at the right time, can provide the important therapeutic benefits of ventilation plus ambulation and may also be billed. These patients may include:

- Patients who present with mild to moderate hypercapnic or hypoxic respiratory distress
- COPD patients hospitalized with exacerbations, who would benefit from ambulation
- Patients who need help weaning from a high flow nasal cannula in order to go home
- Post-operative patients who would benefit from ventilation support as they recover and mobilize

## HOSPITAL CARE AREAS

- Emergency Department
- ICU step-down units
- Post-surgical units
- General floors



# TAKING MOBILITY HOME



## CONTINUITY OF CARE

With the Life2000® Ventilation System you can send your patients home with the same mobility-supporting therapy they had in your care. That helps reduce the risk that you will see them again with an exacerbation or unplanned hospitalization.<sup>5,6</sup>

### 51%

reduction in hospital readmission rate<sup>7\*</sup>

### ~90

day extension of readmission time<sup>8\*</sup>

## Improved

quality of life<sup>8\*</sup>

\* (p = 0.002)

## INDUSTRY-LEADING SUPPORT

The Life2000 Ventilation System comes equipped with care—the signature service Hillrom is known for. We are there for your patients and their caregivers every step of the way, from working with payers to comprehensive training, to therapy optimization and ongoing support.

### PAYERS

We work with payers so patients can access the therapy they need.

### TRAINING

In-home training and regular visits support caregivers and patients in getting the most from their therapy.

### CUSTOMER SERVICE

We're available around the clock, supporting peace of mind and better therapy outcomes.



## DEVICE CLASSIFICATION

Non-invasive Ventilator (94002/94003)

## CLINICAL PROGRAMMABLE SETTINGS

<b>Ventilation Modes:</b>	Control, Assist/Control, Assist with Apnea Backup
<b>Breath Type:</b>	Mandatory, Assisted
<b>PEEP:</b>	0 to 20 cmH <sub>2</sub> O
<b>Breath Rate:</b>	1 to 40 BPM
<b>Breath Timeout Period:</b>	20 or 60 seconds
<b>Breath Timeout Action:</b>	12 BPM or 3 LPM
<b>Delivered Volume:</b>	50 mL to 750 mL
<b>Tidal Volume:</b>	Up to 2,000 mL (via Venturi effect)
<b>Gas Source:</b>	Oxygen or Air
<b>I-Time:</b>	0.15 to 3.00 seconds
<b>Trigger Sensitivity:</b>	Off, 0 to 9

## CLINICAL PROGRAMMABLE ALARMS

<b>Low Respiratory Limit:</b>	0 to 119 BPM
<b>High Respiratory Limit:</b>	5 to 120 BPM
<b>Low PIP Limit:</b>	0 to 15 cmH <sub>2</sub> O
<b>High PIP Limit:</b>	5 to 40 cmH <sub>2</sub> O
<b>Breath Timeout Period:</b>	20 or 60 seconds
<b>High Breath Rate:</b>	5 to 120 BPM
<b>Low Breath Rate:</b>	0 to 119 BPM

## FIXED ALARMS

<b>Low/High Source Pressure</b>
<b>Low Battery</b>
<b>Low/High Delivery Pressure</b>
<b>High PEEP Pressure</b>
<b>System Fault</b>

## ABOUT HILLROM

Hillrom is a global medical technology leader whose 10,000 employees have a single purpose: enhancing outcomes for patients and their caregivers by advancing connected care. Around the world, our innovations touch over 7 million patients each day. They help enable earlier diagnosis and treatment, optimize surgical efficiency and accelerate patient recovery while simplifying clinical communication and shifting care closer to home. We make these outcomes possible through connected smart beds, patient lifts, patient assessment and monitoring technologies, caregiver collaboration tools, respiratory care devices, advanced operating room equipment and more, delivering actionable, real-time insights at the point of care. [Learn more at hillrom.com](https://www.hillrom.com).

[For more information or to place an order, please contact your local Hillrom sales representative or call Hillrom customer service at 1-800-426-4224.](#)

[respiratorycare.hill-rom.com/Life2000](https://respiratorycare.hill-rom.com/Life2000)

### References:

- <sup>1</sup> Schmidt, U, Knecht, L, MacIntyre, N. Should Early Mobilization Be Routine in Mechanically Ventilated Patients? *Respir Care*. 2016; 61(6):867-875.
- <sup>2</sup> Hermans G, et al. Acute outcomes and 1-year mortality of intensive care unit-acquired weakness: a cohort study and propensity-matched analysis. *Am J Respir Crit Care Med* 2014;190(4):410-420.
- <sup>3</sup> Schallom M, et al. Pressure Ulcer Incidence in Patients Wearing Nasal-Oral Versus Full-Face Noninvasive Ventilation Masks. *Am J Crit Care* 1 July 2015; 24 (4): 349-356.
- <sup>4</sup> Society of Actuaries' Health Selection, Economic Measurement of Median Errors. Schaumburg, IL: Society of Actuaries, 2010
- <sup>5</sup> Carlin BW, Wiles KS, McCoy RW, Brennan T, Easley D, Thomashow RJ. Effects of a Highly Portable Noninvasive Open Ventilation System on Activities of Daily Living in Patients with COPD. *Chronic Obstr Pul Dis*. 2015;2(1):35-47
- <sup>6</sup> Pitta F, Troosters T, Probst VS, et al. Physical activity and hospitalization for exacerbation of COPD. *Chest*. 2006;129:536-544.
- <sup>7</sup> Köhnlein T, Windisch W, Köhler D, Drabik A, Geiseler J, Hartl S, et al. Non-invasive positive pressure ventilation for the treatment of severe stable chronic obstructive pulmonary disease: a prospective, multicenter, randomized, controlled clinical trial. *The Lancet*. 2014;2(9):698-705.
- <sup>8</sup> Murphy P, Rehal S, Arbane G, Bourke S, Calverley P, Crook A, et al. Effect of home noninvasive ventilation with oxygen therapy vs oxygen therapy alone on hospital readmission or death after an acute COPD exacerbation: a randomized clinical trial. *JAMA*. 2017;317(21):2177-2186.

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