

## NB350

Ventilator

# Gentle care for easy breath





## Allow Neonates to Breathe Freely

There are 15 million premature babies born each year, Many of them require ventilator support immediately after birth.

NB350 neonatal noninvasive ventilator provides comprehensive solution of non-invasive ventilation (NIV) to meet various respiratory demands. From respiratory support to accessory design, it is tailor-made for neonates ensure neonates to breathe more freely.

## Allow Caregivers to Work with Confidence

Taking care of the fragile neonates has always been a challenging task in the NICU.

NB350 considered the needs of the caregivers. By providing intuitive user-interface to simplify and streamline workflow with state-of-art technologies. Allowing caregivers to work with confidence with minimal manual interventions.



## Comprehensive Care

In order to minimize complications of invasive ventilation and tracheal intubation, non-invasive ventilation have become widely used in the NICU. The NB350 is equipped with comprehensive modes to provide comprehensive non-invasive respiratory support to meet the various needs of neonatal respiratory management.



### HFNC High-flow Nasal Cannula Oxygen Therapy

Providing high flow oxygen therapy with real-time pressure monitoring and alarm: When pressure is excessive, a safety protection mechanism is automatically switch on to prevent barotrauma.



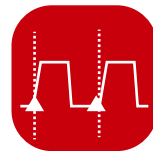
### NCPAP Nasal Continuous Positive Airway Pressure

NB350 comes with hassle free design, without the need of external sensor. During nCPAP it can provide continuous apnea monitoring with automatic wake-up function.



### NIPPV Nasal Intermittent Positive Pressure Ventilation

NIPPV can provide pressure up to 20cmH<sub>2</sub>O, allowing optimal pressure delivery for wide range of neonatal ventilation support.



### SNIPPV Synchronized Nasal Intermittent Positive Pressure Ventilation

SNIPPV integrates EasySync™ breath synchronization technology to effectively improve patient-ventilator synchronization to allow smooth and comfortable breaths.

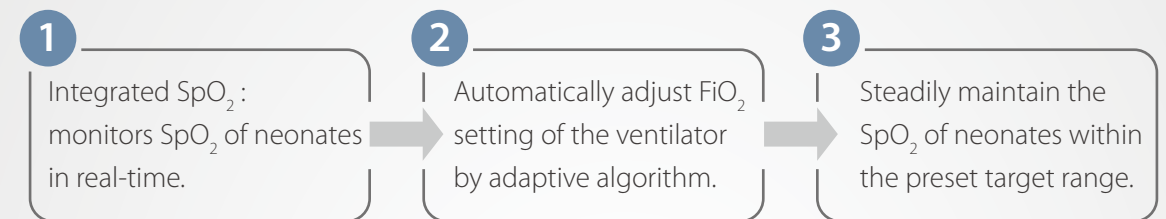




## IOC (Intelligent Oxygen Control)

### Effectively improve neonatal safety

The oxygen saturation of neonates tends to fluctuate, requiring caregivers to frequently adjust ventilator's  $\text{FiO}_2$  settings. IOC (Intelligent Oxygen Control) achieves a closed-loop  $\text{FiO}_2$ - $\text{SpO}_2$  control by maintaining the patient's  $\text{SpO}_2$  within the predetermined range, reduces the workload of caregivers, and improves patient safety.

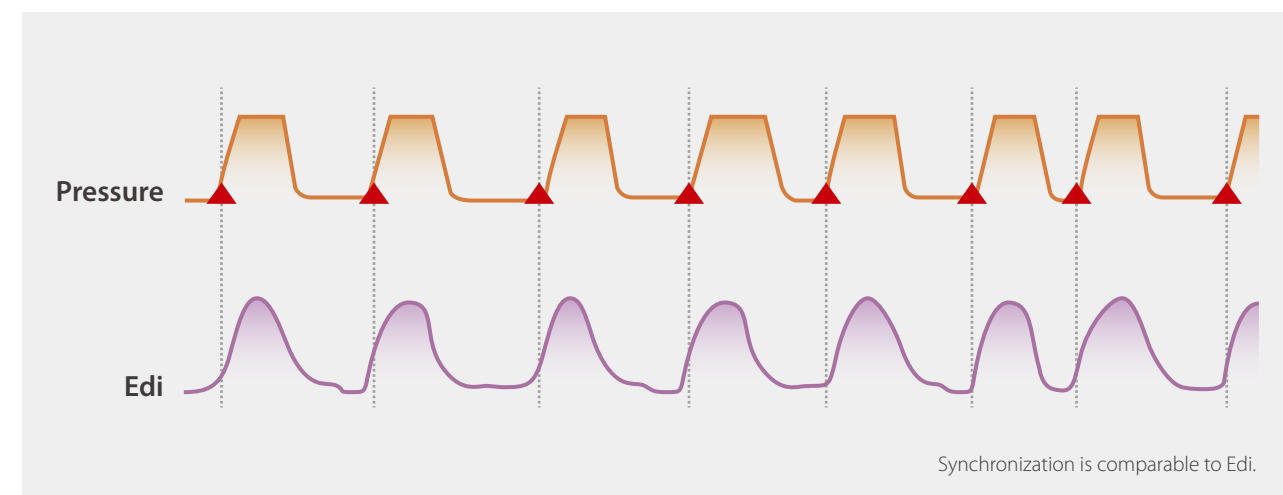


## EasySync™ Technology

### Caring for neonates every step of the way

Studies have shown that SNIPPV could decrease work of breathing<sup>[1]</sup> and increase weaning success from mechanical ventilation<sup>[2]</sup>. However, factors such as short inspiration time, rapid respiratory rate, and leakage of patient-interface pose severe challenges to the patient-ventilator synchrony and detection spontaneous breathing during NIV. The patented EasySync™ technology analyses multi-channel parameters as gas flow and pressure without additional sensors, providing accurate detection of spontaneous breath and improving synchrony in SNIPPV.

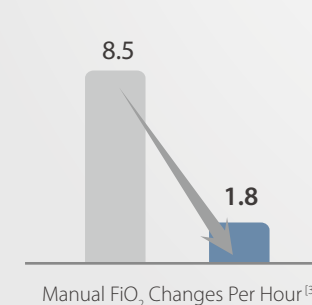
- Precise detection of spontaneous breathing effort: Synchronization performance is comparable to electrical activity of the diaphragm (Edi).
- Precise apnea monitoring: Automatically disrupts apnea with apnea wake up function.
- Does not rely on any external sensor: Improves clinical usability and minimizing constraints on neonates.



[1] Pediatric Pulmonology, 41:875-881(2006)  
[2] Pediatrics, 108(1):13-17(2001)

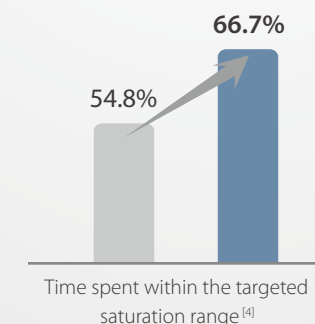
#### Confident:

Reduce frequent adjustments of  $\text{FiO}_2$ : Minimizing the workload of caregivers.



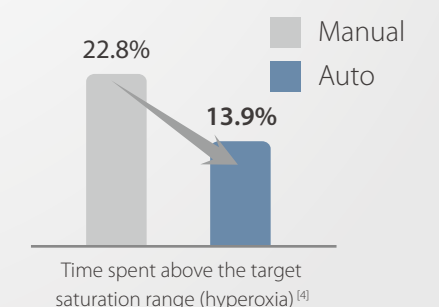
#### Stable:

Quickly respond to fluctuations of  $\text{SpO}_2$ , hence stabilizing oxygen saturation.



#### Safe:

Significantly shorten chances of exposure to high  $\text{FiO}_2$  levels, reducing the risk of oxidative stress and complications.



[3] Respiratory Care, 58(1):151-159(2013)  
[4] Journal of Perinatology, 38:351-360(2018)



# Simple, efficient, and ease of use

NB350 fits the clinical workflow, providing sensitive capacitive touch screen and intuitive user-interface, helping caregivers eliminate tedious routine operations and workload. Accompanied with extensive monitoring parameters, allowing efficient clinical decision-making in neonatal ventilation.



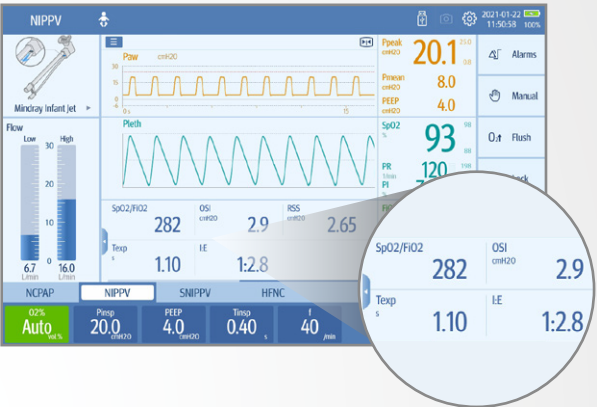
## 12.1 inch intuitive touch screen display

- Sensitive and precise capacitive touch screen technology.
- Intuitive menu design, complete most routine operations within one-menu step.



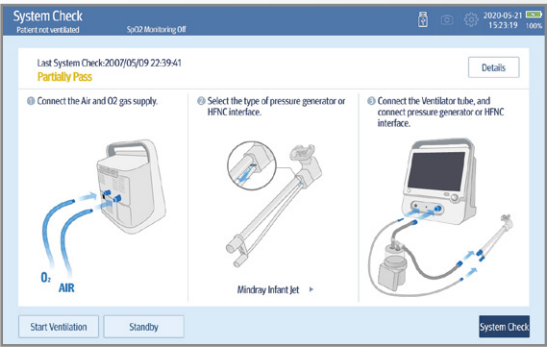
## Accurate FiO<sub>2</sub> monitoring without tedious manual calibrations

- The oxygen cell is automatically calibrated, without interruption to ventilation therapy.



## Extensive monitoring parameters for confident clinical decision-making

- Oxygenation parameters: OSI, SpO<sub>2</sub>/FiO<sub>2</sub>, for evaluation of newborn's oxygenation status.
- Leak Monitoring: Leak% allows caregivers to quickly address leakage and adjustments of patient-interface.



## Fully automatic system self-check

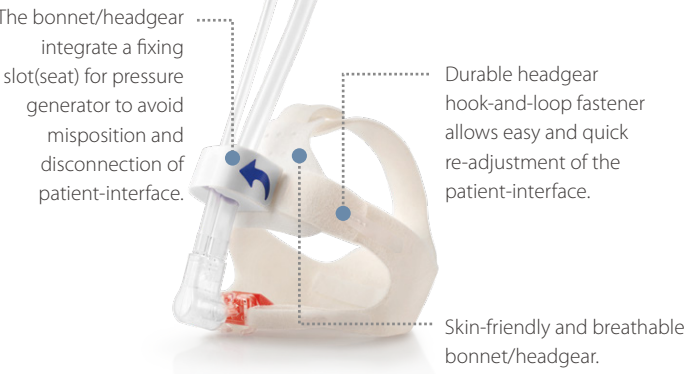
- Quick and easy graphical step-by-step guide.
- Eliminate manual intervention of circuit closure to avoid circuit contaminations.



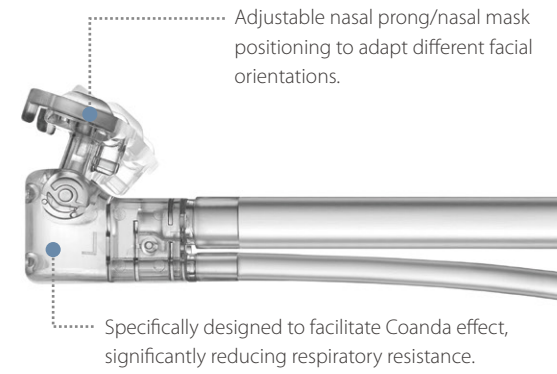
# Comfortable and reliable patient-interface

- The specialized patient-interface for the NB350 comes with a variety of sizes to fit for different clinical applications and patients.
- The ergonomic design with soft, skin-friendly material fully enhances the comfort of neonates throughout therapies.

## Bonnet/Headgear



## Infant Jet™ pressure generator

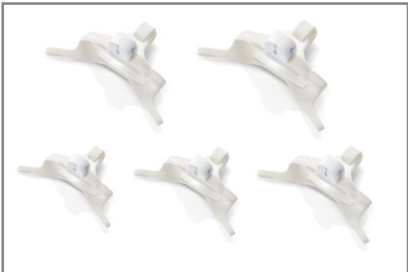


## Nasal mask/Nasal prong/Nasal cannula

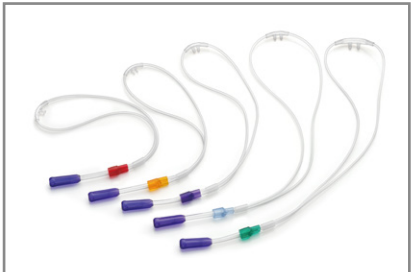
A variety of patient interfaces with different sizes to adapt to patient needs. Patient-interfaces are color-coded for easy size distinction.



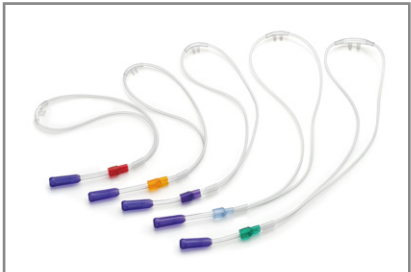
Nasal mask, 4 sizes



Nasal prong, 4 sizes



Headgear, 5 sizes Bonnet, 12 sizes



Nasal cannula, 5 sizes