# Ventiv

### Automated Manual Resuscitator Compressor

Support Emergency Overflow

Ventiv has been developed through a consortium including MIT, 10XBeta and Vecna Technologies to help fill the gap in the availability of ventilators in the US during the COVID-19 emergency – at little cost to hospitals and health systems.

**V**ECNA



10xBeta

The Ventiv system used in conjunction with a manual resuscitator bag (not provided) is intended to provide controlled or assisted automated ventilation support to COVID-19 patients in an emergency when no other options are available for patient ventilation. Ventiv provides continuous positive pressure ventilation by automating the compression/relaxation of manual bag resuscitators.

Healthcare workers can quickly deploy the Ventiv System by inserting a manual resuscitator bag between the unit paddles, powering up the unit, selecting the ventilator parameters for desired respiratory rate, volume and I/E ratio, and then connecting the patient breathing circuit to the unit.

The Ventiv System can be used to automate the compression and for delivering the patient with oxygen, air, or a mixture of both to COVID 19 patients. The Ventiv system provides alerts to notify practitioners in the event of unusual resistance in the breathing tube or patient airway, disconnections or leaks within the breathing tube, or the delivery of air at a pressure higher than 40 cmH20 to mitigate the risk of barotrauma (lung damage). Medical staff can intervene to halt the operation of the Ventiv system at any time to provide manual resuscitation using the manual resuscitation bag to deliver ventilation to the patient.

The Ventiv system will be shipped with a backup power supply to provide extended delivery of power in the event of on-premise power failure.

Vecna has applied to distribute Ventiv under the FDA's Emergency Use Authorization.



#### **Product Specifications**

Power Source: 110/240 V, 12V battery, CliniPAK power management

**Control:** Set respirations/minute, pressure delivery, pediatric or adult, calibrate to multiple brands of manual ventilator bags, personalized per patient device

**Safety:** Safety alarms for loss of pressure, disconnection, and mechanism malfunction. Easy release of bag for manual ventilation control.

**Data & Analytics:** Track use and events to patient record and aggregate clinical and performance data across units

#### **Ventiv Features**

- Ventiv is intended for use with a high quality, FDA approved, manual resuscitator bag providing a thin, but durable surface to maximize the clinician's feel and ability to assess the patient's lung activity
- Intuitive ventilator instrumentation panel to select desired Respiratory Rate, Tidal Volume, I/E Ratio, Tidal Volume, and Assist Control Threshold
- Visual display of Pressure Measurement (cmH2O) on unit interface
- Alarm dashboard providing notifications for immediate practitioner attention, including unusual resistance in the breathing tube or patient airway, disconnections or leaks within the breathing tube, or the delivery of air at a pressure higher than 40 cmH20 to mitigate the risk of barotrauma (lung damage)
- Ease of use for replacement of manual resuscitator bag
- No compressed gas tank required

#### **Indications for Use**

The Ventiv system used in conjunction with a manual resuscitator bag is intended to provide controlled or assisted ventilation during the COVID-19 emergency to adult patients requiring ventilation support when Positive Pressure Ventilation (PPV) is required to manage Acute Respiratory Failure (ARF).

The Ventiv provides continuous positive pressure ventilation by automating the compression/relaxation of manual bag resuscitators. It is intended to be used in an emergency situation when there are no other options available to a patient in need of ventilation.

Operators MUST read and understand the provided Warning and Caution statement definitions BEFORE operating the Ventiv system.

## Contact:

508.353.0280 for more information or visit **vecnahealthcare.com/Ventiv** 

#### **ABOUT VECNA**

Vecna provides innovative healthcare technology to acute and ambulatory health systems delivering a comprehensive suite of solutions designed to streamline the critical time from scheduling an appointment to receiving care. Vecna's platform gives patients and providers the tools to streamline check-in while reducing costs and improving revenue cycle management. Vecna's ability to deliver automation through integration into existing patient portals allows healthcare systems to modernize and standardize check-in activities for staff and patients ensuring a consistent and efficient experience.



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