

# The MCV100 Portable Ventilator

- Can be operated on DC power or AC power, offering a greater level of preparedness.
- Efficient internal battery can power this unit independent of wall electricity or compressed gas for 7 hours on ambient air, or 21 hours if supplied with a compressed oxygen source.
- Simple control interface allows for just-in-time training and use by a wide range of responders.
- Assist-Control, external PEEP, and independent ventilation controls accommodate enhanced treatment options.
- Low maintenance and weatherproof design ensure a low cost of ownership in stockpile or in everyday use.

The MCV100 portable ventilator enables a rapid and effective response to any mass casualty event. This electronic ventilator features an internal battery and compressors that provide the flexibility of operation from AC power or extended operation on DC power using either ambient air, high-pressure oxygen, or an oxygen/air mix. Intuitive ventilation controls and an array of adjustable alarms enhance patient safety, making the MCV100 ideal for use across a wide range of responder skill levels. These unique operation capabilities combined with a rugged, weatherproof, and low maintenance design make the MCV100 an ideal ventilator for mass casualty response in the hospital or for field deployment.



## Specifications - MCV100, MCV100-B

### Setting Parameters

**Ventilation Mode:** Assist-Control  
**Assist-Control:** Triggers at less than -2 cm H<sub>2</sub>O  
**Flow Rate:** 12-36 LPM  
**Breathing Rate:** Adjustable. 0, 8-20 breaths per minute  
**Tidal Volume:** Adjustable. 200-1200 ml  
**Inspiratory Time:** Auto-Adjust. 1 second to 2 seconds  
 (Auto-Adjust based on tidal volume setting)  
**PEEP:** External. 0-20 cm H<sub>2</sub>O (with PEEP adapter)  
**FiO<sub>2</sub>:** Selectable. 21%, 60%, 100%  
**Manometer Readout:** Digital. 0-60 cm H<sub>2</sub>O  
**Airway Pressure Limit:** Adjustable. 5-60 cm H<sub>2</sub>O

### Alarms

**High Airway Pressure:** Adjustable. 15-60 cm H<sub>2</sub>O  
**Low Airway Pressure/Disconnect:** Adjustable. 0-30 cm H<sub>2</sub>O  
**Low Source Gas:** Fixed. Activates at about 40 psi (275 kPa)  
**Low Battery:** Activates when approx. 1½ hours of run time remain  
**Alarm Volume:** Approx. 60 dB at 1 meter  
**Alarm Silence:** Yes. 110 Seconds

### Power Characteristics

**Power Source:** 110V-240V 50-60 Hz AC, internal battery, external 12V DC battery  
**O<sub>2</sub> Supply Pressure:** 40-87 psi  
**Operating Time on Battery:**  
 Based on average adult settings of 10 BPM, 600 ml tidal volume  
**Air Mode (using internal compressors):** Approx. 7 hours  
**100% O<sub>2</sub> or 60% O<sub>2</sub> Mode:** Approx. 21 hours  
**Internal Battery:** 12 Volt 5 Ah Rechargeable. Sealed lead acid type  
**Battery Recharge Time:** 5 hours (less than 24 hours when in use)  
**Battery Shelf Life:** 3 years

### Physical Characteristics

**Dimensions:** 3.5" x 10.3" x 11.5" (88.9 mm x 261.1 mm x 292.1 mm)  
**Weight:** 14 lbs. (6.3 kg)  
**Temperature Ranges:**  
**Operating:** -15 to 122°F (-9 to 50°C)  
**Storage:** -40 to 140°F (-40 to 60°C)  
**Enclosure:** ABS plastic with seals to prevent water ingress  
**Shock Resistance:** 30" drop  
**Vibration Resistance:** 100 G  
**Water Resistance:** Spill and rain resistant

