CAREvent[®] MRI

The CAREvent MRI is a pneumatically powered, time/volume cycled, intermittent positive pressure patient ventilator specifically designed for use within the MRI environment. The CAREvent MRI provides a comprehensive range of 12 ventilation frequencies and 12 minute volume settings providing 144 possible combinations of delivered tidal volume and respiratory rate. The design of the micro-pneumatic circuitry maintains a consistent I:E ratio (set at 1:2) and uses virtually no drive gas.

The "Demand Breathing" feature allows spontaneously breathing patients to breathe on oxygen through the ventilator at their own rate and volume. If the demanded rate is sufficient, the "Automatic Circuit Shut Off" control will cause the automatic cycling of the ventilator to cease when the patient takes a spontaneous breath. Cycling will re-start automatically should the patient stop breathing or the demanded volume or respiratory rate drop below the pre-determined minimum. Should the patient recommence adequate spontaneous breathing the "Automatic Circuit Shut Off" will again stop the automatic cycling.

The addition of the adjustable "CPAP/PEEP" mode allows for these two functions to be supplied by the ventilator without the requirement of an external PEEP valve or CPAP device. Compliance with the latest Guidelines for Resuscitation is provided on the CAREvent* MRI by the incorporation of a "Manual Override Button". This allows for the provision of ventilations during chest compressions in the patient with an unprotected airway. The manual flowrate is equivalent to the minute volume setting selected.

The ergonomically designed and recessed, control groupings facilitate the selection and setting of the breathing parameters while protecting the controls. The color groupings on the controls add to this "ease of use" concept.

Unique "audible and visual pneumatic alarms" for circuit disconnection (BSI), low gas supply pressure, low airway pressure and the audible high airway pressure alarm are provided to improve the level of patient safety by alerting the operator to any problems with the patient's breathing parameters. An override control is provided for the BSI alarm to silence the alarm for 15 seconds.

To improve ventilator operating time during transport, or when 100% O₂ is not required, an "Air Mix Mode" with removable environmental filter is provided.

The CAREvent MRI is also compatible with air ambulance use, having been tested to US Military Standard 810E for both fixed and rotary wing aircraft.

SPECIFICATIONS

Minute volume Range: 2 - 14 litres Frequency Range: 8 - 40 BPM I:E Ratio: Fixed at 1:2 Input Pressure Range: 40.6 - 87.0 psi 6 - 42 litres Automatic Flowrate Range: 6 - 42 litres Manual Flowrate Range: Demand Breathing Flowrate Range: 0 - 100lpm -5 cmH2O @100LPM Demand Valve Triggering Pressure: 60 or 100% Oxygen Concentration: 20 - 60 cm H₂O Relief Valve pressure Range: -18°C to +50°C Operating Temperature Range: (0°F to +122°F) Storage Temperature Range: -40°C to +60°C (-40°F to +140°F)

Relative Humidity for Storage and operating Use:

15 to 95%

Patient Valve Dead Space: 8 ml.

CPAP/PEEP Range: 0 - 20 cm H₂O
Breathing System Integrity Alarm: Visual and Audible
BSI Override Re-start Delay: 15 seconds
Gas Supply Status Indicator: Visual

Low Gas Input pressure alarm: Visual and Audible

High Airway pressure Alarm: Audible

Inspiratory Resistances: -2 cm H₂O @ 30 lpm -4 cm H₂O @ 60 lpm

Expiratory Resistances: +2 cm H₂O @ 30 lpm

+4 cm H₂O @ 60 lpm

Pressure Gauge: -20 to +100 cm H₂O

Dimensions (inches): 9.25 x 6.5 x 4.3 (approx)

(centimeters): 235 x 165 x 110 (approx)

97.6 oz / 2.77 kg (approx)

Weight:

Ordering Information:

01CV7000 CAREvent® MRI Ventilator c/w 6 foot gas supply hose, Deluxe Disposable Transport Ventilation Circuit with PEEP port, Calibrated Test Lung and Universal Facemask