

# O-Two CAREvent<sup>®</sup> ATV+ and MRI



**o\_two** controlled  
ventilation™

# AUTOMATIC VENTILATION ON THE MOVE

The O-Two CAREvent® ATV+ and MRI are pneumatically powered, time/volume cycled, intermittent positive pressure patient ventilators specifically designed for use by trained personnel in the pre-hospital, hospital, interhospital and air ambulance environments. They do not require batteries or any electrical supply to operate. The various modes of operation of the ventilators support the resuscitation and transportation of a wide range of patients (from infants to adults).

The O-Two CAREvent® ATV+ and MRI feature independent controls for minute volume and frequency that provide a comprehensive range of 12 ventilation frequencies and 12 minute-volume settings. This provides a possible 144 combinations of delivered tidal volume and respiratory rate. The ergonomically designed and colored 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. The design of the micropneumatic circuitry maintains a consistent I:E ratio (set at 1:2) and uses virtually no drive gas.

The synchronized intermittent mandatory ventilation (SIMV) mode demand breathing-feature allows spontaneously breathing patients to breathe on oxygen at their own rate and volume. If the demanded rate is sufficient, the automatic circuit shut-off feature will cause the automatic cycling of the ventilator to cease when the patient takes an adequate spontaneous breath. The automatic cycling will restart automatically should the patient stop breathing or his/her demanded volume or respiratory rate drop below the predetermined minimum.

Compliance with the latest guidelines for resuscitation is provided on the O-Two CAREvent® ATV+ and MRI by the incorporation of a manual override button. This allows for the provision of ventilations and chest compressions during CPR in the patient with an unprotected airway in accordance with these guidelines. The manual flow rate is equivalent to the flow rate of the minute volume setting selected. For the intubated patient simply set the frequency control to 10 breaths per minute.

Unique audible and visual pneumatic alarms for circuit disconnection (Breathing System Integrity), low-gas supply pressure, low airway pressure and the audible high airway-pressure alarm are provided to improve the level of patient safety. These alarms alert 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.

The adjustable continuous positive airway pressure (CPAP)/ positive-end expiratory pressure (PEEP) mode allows for these two functions to be supplied by the ventilator, eliminating the need for an external PEEP valve or CPAP device. To improve ventilator operating-time during transport, or when 100% oxygen is not required, an air-mix mode with replaceable environmental filter is provided allowing for an oxygen concentration of either 100 or 60%.

The O-Two CAREvent® ATV+ and MRI are compatible with air ambulance use, having passed the tests for both fixed and rotary-wing aircraft to the US Military Standard 810E. The O-Two CAREvent® MRI contains no ferrous metals and is suitable for use in a three-Tesla MRI environment.



# SPECIFICATIONS

MINUTE VOLUME RANGE:	2-14 L
FREQUENCY RANGE:	8-40 BPM
I:E RATIO:	Fixed at 1:2
AUTOMATIC FLOW RATE RANGE:	6-42 L/min
MANUAL FLOW RATE RANGE:	6-42 L/min
INPUT PRESSURE RANGE:	45-87 PSI (3.1-6.0 BAR)
DEMAND VALVE TRIGGERING PRESSURE:	0 to -2 cmH <sub>2</sub> O
OXYGEN CONCENTRATION:	60 or 100%
RELIEF VALVE PRESSURE RANGE:	20-60 cmH <sub>2</sub> O
OPERATING TEMPERATURE RANGE:	-18 to 50°C (0 to 122°F)
STORAGE TEMPERATURE RANGE:	-40 to 60°C (-40 to 140°F)
CPAP/PEEP:	0-20 cmH <sub>2</sub> O
BSI ALARM OVERRIDE RESTART DELAY:	15 seconds
RELATIVE HUMIDITY FOR STORAGE AND OPERATING USE:	15 to 95%
BREATHING SYSTEM INTEGRITY ALARM:	Visual and Audible
LOW GAS INPUT PRESSURE ALARM:	Visual and Audible
HIGH AIRWAY PRESSURE ALARM:	Audible
GAS SUPPLY STATUS INDICATOR:	Visual
INSPIRATORY RESISTANCE:	0 to -6 cmH <sub>2</sub> O at 60 L/min
EXPIRATORY RESISTANCE:	0 to +6 cmH <sub>2</sub> O at 60 L/min
PRESSURE GAUGE RANGE:	-20 to 100 cmH <sub>2</sub> O
DIMENSIONS ATV+/MRI:	9.25x6.5x4.3 in / 235x165x110 cm (approx.)
WEIGHT ATV+ & MRI:	6.25 lbs / 2.84 kg (approx.)
PATIENT VALVE DEAD SPACE:	8 ml

## ENHANCED SPECIFICATION FOR THE O-TWO CAREVENT® MRI:

Tested in an MRI environment to maximum static magnetic field strength of 3.0 Tesla

## ORDERING INFORMATION

**01CV6000** - CAREvent® ATV+

Incl. Six-foot gas supply hose, automatic transport ventilation circuit with PEEP port, test lung and universal facemask

**01CV7000** - CAREvent® MRI

Incl. six-foot gas supply hose, MRI transport ventilation circuit with PEEP port, test lung and universal facemask

THIS PRODUCTS HAS A TWO YEAR WARRANTY AGAINST MANUFACTURERS DEFECTS.



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