



## O-Two SMART BAG<sup>®</sup> MO

Improving ventilation, one breath at a time

## SMART BAG<sup>®</sup> MO

Since its introduction, the bag-valve-mask resuscitator (BVM) has been the mainstay of emergency ventilation in both the pre-hospital and hospital environments. However, the use of these devices has been shown to have clinically detrimental effects on the patient. Decreased venous return to the heart, decreased coronary perfusion pressure, gastric insufflation and increased brain ischemia, in the traumatic brain injured patient, are all issues created by inadvertent hyperventilation (the accidental delivery of an excessive minute volume).

The O-Two SMART BAG® MO provides controlled ventilations while virtually eliminating the risks associated with conventional BVM ventilation and inadvertent hyperventilation. The patented actuating mechanism inside the neck bushing actively responds to the rescuer and the patient.

By responding to the rescuer's squeeze and release of the BVM, the O-Two SMART BAG MO limits the excessive flow of gas into the patient's airway, lowering the airway pressure generated and significantly reducing the risks of inadvertent hyperventilation and gastric insufflation. If the bag is squeezed too hard, the SMART valve moves to lower the flow rate and the bag becomes stiff to squeeze. The airway pressure is kept to the minimum required to achieve adequate ventilation. The SMART valve movement is visible through the patient valve body providing a visual, as well as the tactile and audible warning, of improper technique. At no time is the flow of gas into the patient compromised.

If the patient's airway is less compliant or more restrictive (as in patients with chronic obstructive pulmonary disease (COPD) or asthma), higher airway pressures will be required to provide adequate ventilation. In responding to this increased pressure requirement, the O-Two SMART BAG MO allows the user to increase the pressure to overcome the resistance/compliance problem and still provide adequate ventilations.

It is important to note that the O-Two SMART BAG MO will allow you to apply higher flow rates generating higher airway pressures only when the patient's airway condition requires them. You will feel this change in compliance and resistance as the O-Two SMART BAG MO allows the higher flow rates to be generated. By selfadjusting to both the patient and the rescuer, the O-Two SMART BAG MO optimizes the ventilations, controlling the inspiratory time and keeping the delivered flow rate and subsequent



airway pressure to the minimum required for adequate ventilation. This results in a significant reduction in the risks associated with inadvertent hyperventilation and its associated complications.

To further assist the rescuer, an optional O-Two CPR ventilation timing light is available. It is calibrated to provide a respiratory rate of 10 breaths per minute, in line with the resuscitation guidelines. The 1.5 second *on* time guides the rescuer to deliver the breath slowly with the correct inspiratory and expiratory timing.

Note: Because of the unique nature of the O-Two SMART BAG MO, new users will require minimal orientation in the use of the device.

The resuscitator is not intended for use during spontaneous breathing. Due to the nature of these devices, they may only provide a restricted flow of air to the patient and little or no supplemental oxygen.

As with any resuscitation device, the risk of gastric insufflation in the unprotected airway will increase if the delivered flow rate increases the airway pressure above the lower esophageal sphincter opening pressure.

Current research indicates that for all patient conditions the manual override control should *not be used* and the SMART valve should be left in the enabled position. This recommendation maintains operation of the O-Two SMART BAG MO in strict compliance with the current Guidelines for CPR and ECC as published by the American Heart Association (AHA) and European Resuscitation Council (ERC).

To ensure correct operation of the manual override, do not switch into the disabled mode while squeezing the bag.

## **Specifications**

Bag Volume:	Adult 1700 ml
	Child 470 ml
Reservoir Volume:	Adult 2700 ml
	Child 2700 ml
Inspiratory Resistance:	$3.3 \text{ cmH}_2\text{O}$
Expiratory Resistance:	2.2 cmH <sub>2</sub> O
Storage Temperature Range:	-40 to 60°C (-40 to 140°F)
Operating Temperature (approx.): -18 to 50°C (0 to 122°F)	
Patient Valve Dead Space:	7.0 ml

## **Ordering Information**

**01BM3100-MO Silicone SMART BAG MO (Adult)** Incl., Facemask and reservoir system (Each)

**01BM3110-MO Silicone SMART BAG MO (Child)** Incl., Facemask and reservoir system (Each)

**01BM3201-MO-Cs Disposable SMART BAG MO (Adult)** Incl., Facemask and reservoir system (Case of 6)

**01BM3211-MO-Cs Disposable SMART BAG MO (Child)** Incl., Facemask and reservoir system (Case of 6)

01BM3400-MO Cold Chemical Sterilizable SMART BAG MO (Adult)

Incl., Facemask and reservoir system (Each)

01BM3410-MO Cold Chemical Sterilizable SMART BAG MO (Child)

Incl., Facemask and reservoir system (Each)

**01BM1000-CS CPR Ventilation Timing Light** Individually packaged (Case of 50)



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