

# SMART BAG® MO

Improving ventilation, one breath at a time



## ELIMINATE THE RISKS

Since its introduction, the Bag-Valve-Mask resuscitator (or 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 what is called "Inadvertent Hyperventilation" (the accidental delivery of an excessive minute volume).

**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 **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". If the bag is squeezed too hard the **Smart Valve** moves to lower the flowrate 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.

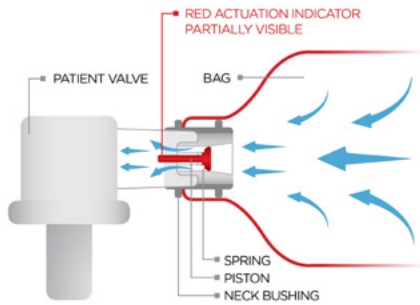
If the patient's airway is less compliant or more restrictive (as in patients with COPD or asthma), higher airway pressures may be required to provide adequate ventilation. In responding to this increased pressure requirement, the **SMART BAG® MO** will allow you to apply higher flowrates generating higher airway pressures to overcome the resistance/compliance problem but only when the patient's airway condition requires them. By pressure balancing the **Smart Valve** to provide adequate ventilation you will "feel" this change in compliance and resistance as the **SMART BAG® MO** allows the higher flowrates to be generated.

By "self-adjusting" to both the patient and the rescuer, the **SMART BAG® MO** optimizes the Ventilations, controlling the inspiratory time and keeping the delivered flowrate 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.

Available in both single use and re-usable silicone versions the **SMART BAG® MO** provides the controlled ventilation necessary for improved outcomes for patients in respiratory and/or cardiac arrest.

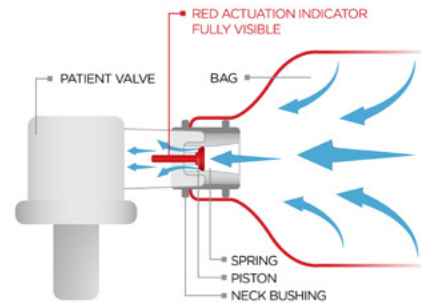


HARDER SQUEEZE REQUIRED TO OVERCOME POOR COMPLIANCE/HIGH AIRWAY RESISTANCE



VALVE IN HALF OPEN POSITION DUE TO THE PRESSURE BALANCE BETWEEN BAG AND PATIENT'S AIRWAY

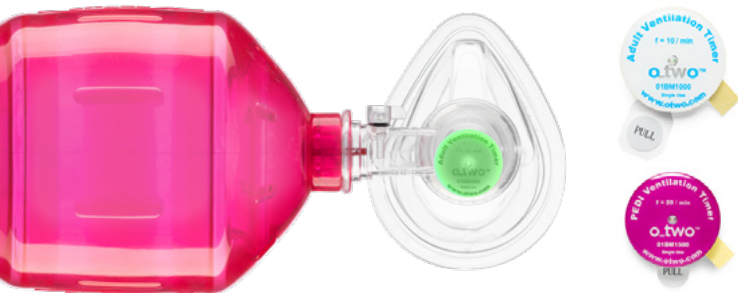
BAG SQUEEZED TOO HARD



VALVE CLOSED TO MAXIMUM POSITION

## TIMING LIGHT

To further assist the rescuer optional CPR Ventilation Timing Lights are available. They are calibrated to provide a respiratory rate of 10 breaths per minute for adults and 20 breaths per minute for infants 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.



## SMART BAG® MO SILICONE

The SMART BAG® MO Silicone Reusable Bag Valve Resuscitator is a reusable device for manual ventilation



[1] Because of the unique nature of the SMART BAG® MO, new users will require minimal orientation in the use of the device. [2] 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. [3] In the unprotected airway, as with any resuscitation device, the risk of gastric insufflation will increase if the delivered flowrate increases the airway pressure generated above the Lower Esophageal Sphincter opening pressure. [4] 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 SMART BAG® MO in strict compliance with the current Guidelines for CPR and ECC as published by the AHA and ERC. [5] Should the operator decide to use the manual override control to disable the "SMART VALVE", it is important not to switch into the "DISABLED" mode while squeezing the bag. Using the SMART BAG® MO in the "DISABLED" mode may result in "Inadvertent hyperventilation" with all its associated risks. [6] To ensure correct operation of the manual override, do not switch into the disabled mode while squeezing the bag.

## ORDERING INFORMATION

01BM3201-MO-CS	Smart Bag® MO w/ manual override control, adult w/ cuffed mask, oxygen reservoir & tubing	Case/10
01BM3211-MO-CS	Smart Bag® MO w/ manual override control, child w/ cuffed mask, oxygen reservoir & tubing	Case/10
01BM3201-MOTL-CS	Smart Bag® MO w/ manual override control, adult w/ cuffed mask, timing light, oxygen reservoir & tubing	Case/10
01BM3211-MOTL-CS	Smart Bag® MO w/ manual override control, child w/ cuffed mask, timing light, oxygen reservoir & tubing	Case/10
01BM3201-MOTP-CS	Smart Bag® MO w/ manual override control, adult w/ cuffed mask, timing light, diverter, peep valve, oxygen reservoir & tubing	Case/10
01BM3211-MOTP-CS	Smart Bag® MO w/ manual override control, child w/ cuffed mask, timing light, diverter, peep valve, oxygen reservoir & tubing	Case/10
01BM3200-MO-CS	Smart Bag® MO w/ manual override control, adult w/ Universal Resuscitation mask, oxygen reservoir & tubing	Case/10
01BM3210-MO-CS	Smart Bag® MO w/ manual override control, child w/ Universal Resuscitation mask, oxygen reservoir & tubing	Case/10
<b>ACCESSORIES</b>		
01BM1000-CS	Adult Ventilation Timing Light, individually packaged with Peel Back Adhesive Backing to attach to any Bag-Valve-Mask Resuscitator	Case/50
01BM1500-CS	Pedi Ventilation Timing Light is individually packaged with Peel Back Adhesive Backing to attach to any Bag-Valve-Mask Resuscitator	Case/50
17MP7020-CS	Disposable PEEP diverter	Case/10
10-55330-CS	Disposable PEEP Valve 5 - 20 cmH <sub>2</sub> O	Case/10
17MP7110	Cold chemical sterilizable PEEP diverter	Each
01CC8006	Clear Plastic Storage Carrying Case (35mm x 15mm x 14mm)	Each

## SPECIFICATIONS

STORAGE TEMPERATURE RANGE	-40°C to 60°C / -40°F to 140°F
OPERATING TEMPERATURE RANGE	-18°C to 50°C / 0°F to 122°F
PATIENT VALVE DEAD SPACE	7.0 ml
RESERVOIR VOLUME	1700 ml
INSPIRATORY RESISTANCE	3.3 cm H <sub>2</sub> O
EXPIRATORY RESISTANCE	2.2 cm H <sub>2</sub> O
BAG VOLUME	Adult: 1700 ml / Child: 470 ml
STROKE VOLUME	Adult: 900 ml / Child: 250 ml
MAXIMUM CYCLE RATE	Adult: 45 bpm / Child: 100 bpm
PRESSURE RELIEF	Adult - optional: 40 or 60 cmH <sub>2</sub> O / Child: 40 cmH <sub>2</sub> O