**INSTRUCTIONS** - MedSource Manual Resuscitator (Ventilator)

**Indications:** The MedSource resuscitator is a manual emergency ventilator incorporating a bag and valve, intended to provide emergency respiratory support by means of a face mask.

This package contains: (1) Manual Resuscitator w/mask, (1) oxygen reservoir (with emergency valve), and (1) oxygen supply tube.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>MS-6110</td>
<td>MedSource Resuscitator (BVM) Adult</td>
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<tr>
<td>MS-6120</td>
<td>MedSource Resuscitator (BVM) Pediatric</td>
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<tr>
<td>MS-6130</td>
<td>MedSource Resuscitator (BVM) Infant</td>
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</tbody>
</table>

**Instructions For Use:**

1. Prior to use, read these instructions, cautions and warnings completely.
2. Connect the oxygen supply tubing to a regulated oxygen source.
3. Adjust the gas flow so that the reservoir expands completely during inspiration and nearly collapses as the squeeze bag fills during exhalation.
4. Before connection to a patient, check the function of the resuscitator (preferably attached to a test lung) by observing that the intake, reservoir and patient valves are allowing all phases of the ventilatory cycle to occur.
5. Check the position of the pressure relief valve (see photo above). The resuscitator is shipped with this valve in the open position, which means it will release inspiratory pressure above 40 cmH2O. If clinical conditions call for inspiratory pressures greater than 40 cmH2O the valve can be locked, which makes it inoperative. To lock the relief valve, grasp the two blue tabs on either side of the valve and rotate them clockwise, down, and then further clockwise. The tabs should then be under the word “locked”. Please note that in this locked position the resuscitator is capable of delivering pressures that could cause barotrauma and serious harm to the patient.
6. Follow accepted Advanced Cardiac Life Support (ACLS) or institution-approved procedures for ventilation.
7. Compress the squeeze bag to deliver a breath. Observe the chest rise to confirm inspiration.
8. Release pressure on the squeeze bag to allow exhalation.
9. During ventilation, check for cyanosis, adequacy of ventilation, proper airway pressure*, proper function of all valves, and proper function or reservoir and oxygen tubing.
10. Should the non-breathing valve become contaminated with vomitus, blood, or secretions during ventilation, disconnect the device from the patient and clear the nonrebreathing valve as follows: Rapidly compress the squeeze bag to deliver several sharp breaths through the nonrebreathing valve to expel the contaminate. If the contaminant does not clear, discard the resuscitator and get a new one.
11. Operating temperature range: -15°C (5°F) to 50°C (122°F)

**CONDITIONS:**

BVM Ventilation should be for oxygenation and ventilation of patients until a more definitive airway can be established and in cases where endotracheal intubation or other definitive control of the airway is not possible.

**CONTRAINDICATIONS:**

The BVM should not be used in the event of:

- Severe facial trauma
- Foreign material in the airway, all materials should be removed before BMV is initiated
- Complete, irreversible airway obstruction
- Cervical spine injury
- Severe facial injury

**WARNINGS:**

- Proficiency in the use of this product must be demonstrated prior to the use on a patient.
- Only qualified personnel trained in the use of positive end expiratory pressure (PEEP) should administer PEEP with this device.
- Permanent distortion will occur if the resuscitator bag is stored in a compressed state. This may result in reduced ventilation efficiency
- Always verify PEEP level and the function of the resuscitator before use on a patient.
- Monitor airway pressure with a manometer when ventilating a patient.
- Do not use this product in toxic atmospheres.
- Do not administer supplemental oxygen in the presence of fire, spark, or open flame.
- Do not use oil, grease, or any hydrocarbon-based substance on any part of this product. Supplemental oxygen, may combine explosively with hydrocarbons.
- Do not attempt to disassemble the nonrebreathing valve as damage to the valve will occur.
- Reuse of disposable Resuscitator in different patients may increase the risk of cross contamination.

**HAZARDS:**

- Incorrect operation of the resuscitator can be hazardous.
- This device may entrain ambient air and that entrainment of ambient toxic gas may be harmful to the patient.
- Non-conductive product. Do not swallow.
**Cleaning and Disinfecting:**
This product is intended for single-patient use. DO NOT attempt to wash or disinfect. DO NOT sterilize or use on more than one patient. After the recommended period of use, discard the product according to normal procedures.

**Caution:**
Do not use with heated humidification. The use of this device must be by or on order of a qualified physician. The patient must be monitored at all times.

U.S. Federal law restricts this device to sale by or on the order of a physician.

<table>
<thead>
<tr>
<th></th>
<th>External Dimensions</th>
<th>Mass</th>
<th>Delivered Tidal Volume Range</th>
<th>Dead Space</th>
<th>Expiratory Resistance</th>
<th>Inspiratory Resistance</th>
<th>Expected Oxygen Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult</td>
<td>40 x 13 x 13 cm</td>
<td>.38 kg</td>
<td>600 ml</td>
<td>Less than 7 ml</td>
<td>3 cmH2O @ 50 L/min</td>
<td>2 cmH2O @ 50 L/min</td>
<td>@ 600 ml tidal volume and 12 cycles per minute</td>
</tr>
<tr>
<td>Pediatric</td>
<td>36 x 11 x 11 cm</td>
<td>.24 kg</td>
<td>600 ml</td>
<td>Less than 7 ml</td>
<td>3 cmH2O @ 50 L/min</td>
<td>2 cmH2O @ 50 L/min</td>
<td>@ 600 ml tidal volume and 12 cycles per minute</td>
</tr>
<tr>
<td>Infant</td>
<td>33 x 10 x 9 cm</td>
<td>.22 kg</td>
<td>600 ml</td>
<td>Less than 7 ml</td>
<td>0.3 cmH2O @ 50 L/min</td>
<td>0.2 cmH2O @ 50 L/min</td>
<td>@ 600 ml tidal volume and 20 cycles per minute</td>
</tr>
</tbody>
</table>

**O2 Flow Rate vs O2 Percentage Table**

<table>
<thead>
<tr>
<th></th>
<th>Adult</th>
<th>Pediatric</th>
<th>Infant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O2 Flow Rate</td>
<td>O2 Percentage</td>
<td>O2 Flow Rate</td>
</tr>
<tr>
<td>2</td>
<td>51%</td>
<td></td>
<td>51%</td>
</tr>
<tr>
<td>4</td>
<td>71%</td>
<td></td>
<td>71%</td>
</tr>
<tr>
<td>6</td>
<td>84%</td>
<td></td>
<td>84%</td>
</tr>
<tr>
<td>8</td>
<td>89%</td>
<td></td>
<td>89%</td>
</tr>
<tr>
<td>10</td>
<td>92%</td>
<td></td>
<td>92%</td>
</tr>
<tr>
<td>15</td>
<td>94%</td>
<td></td>
<td>94%</td>
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</tbody>
</table>

This product is not made with natural rubber latex.