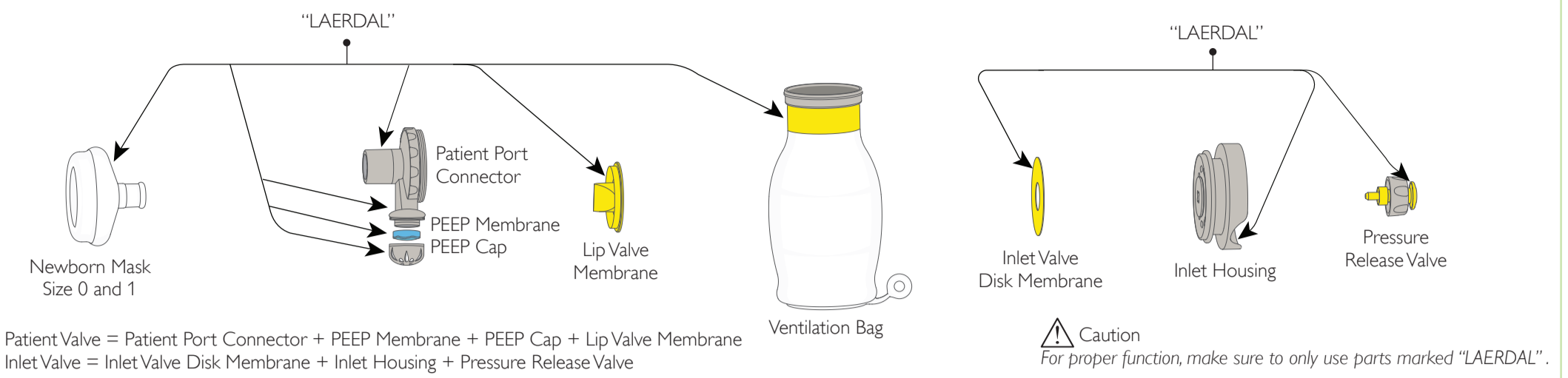


Overview

Items Included



Reprocessing Instructions

Disassembly

To disassemble follow steps 1-6.



Cleaning and Sterilization/ Disinfection

Pre-Sterilization/ Disinfection

1. Disassemble	2. Manual Cleaning	3. Rinsing	4. Post-Treatment
Always disassemble before cleaning. 	Wash all parts in a clean tray with clean water and dish soap for at least 2 minutes. Use a scrub or brush to remove any soil.	Rinse parts in clean water to remove all soil and dish soap. Repeat steps until parts are clean.	Before sterilization, dry with clean gauze.

Sterilization/ Disinfection

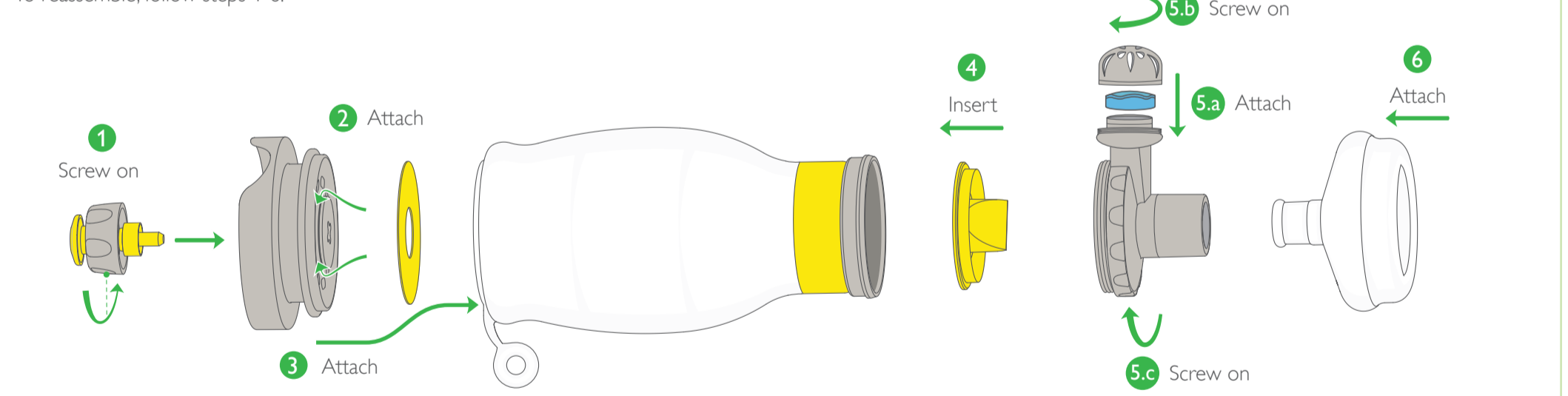
1. Choose one of the following methods:	2. Post-Treatment
Autoclaving Sterilize by steam autoclaving at 136 °C and 2.0 kg/cm ² for 10-20 min.	Remove parts using aseptic technique.
Boil Boil all parts in clean water for 10 min. Validated at approximately sea-level pressure.	

Post-Sterilization/ Disinfection

1. Inspect	2. Reassemble	3. Function Test
Visually inspect each part for damage and cleanliness. If not clean repeat cleaning and sterilization process. ⚠ Caution Removed damaged, crazed, cracked or worn parts from use.	Reassemble as shown in Assembly.	Test using steps as shown in Function Test Before Use section.

Assembly

To reassemble, follow steps 1-6.



Assembly Highlights

3 Ventilation Bag and Inlet Valve <p>Ensure that the ventilation bag's lip is not twisted or tucked under in the reassembly procedure.</p>	Patient Port Connector <p>Attach PEEP membrane (5.a) onto the patient port connector before attaching the PEEP cap (5.b) during assembly.</p>
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Function Test Before Use

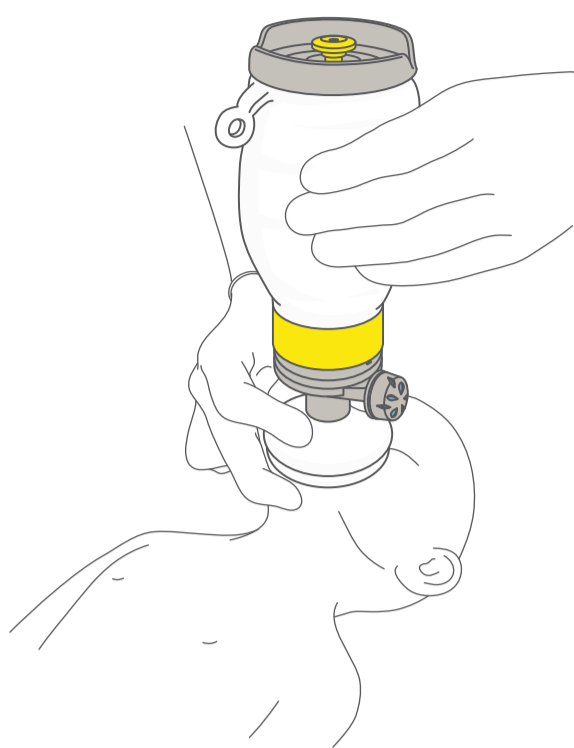
1. Lip Valve Membrane Function	2. Pressure Release Valve & Inlet Valve Function	3. Product Sealing	4. PEEP Membrane Function
<p>Squeeze the bag. Check that the yellow valve opens and closes with every squeeze.</p>	<p>Seal the mask with a hand. Squeeze the bag forcefully. Check that air is released from the pressure release valve. Keep the mask sealed against hand. Release the squeezed bag. Check that the bag re-expands without resistance.</p>	<p>Keep the mask sealed against the hand. Press the pressure release valve down. Squeeze the bag and check that there is no leakage.</p>	<p>Hold Upright firmly at the neck. Press other hand upwards against the mask's sealing cuff so that air inside the mask is pushed into Upright and out the expiration port with the PEEP Valve membrane. Repeat 3 times.</p> <p>Check that PEEP membrane slit opens and seals fully.</p>

⚠ Caution
 If any of the above tests fail, disassemble Upright with PEEP, inspect the components, reassemble and repeat the complete procedure in "Function Test Before Use" section. Remove damaged parts from use.

Upright with PEEP

Newborn Bag-Mask with PEEP

User Guide



REF Cat. no. 846060 QTY 1 each



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Registered US design registration USD760376

Manufactured in China for:
Laerdal Medical AS
P.O. Box 377
Tanke Svilandsgate 30
4002 Stavanger, Norway

Printed in China

20-08849 Rev C

Accessories and Spare Parts

Cat. no	Description
846156	Newborn Mask - Snap design – Size 0*
846157	Newborn Mask - Snap design – Size 1*
846165	Newborn PEEP membrane and cap – 1 set
846151	Upright Oxygen kit Complete
846131	Oxygen reservoir bag and tubing
846155	Upright valves and membranes kit* (lip valve, inlet valve disc membrane)

*Masks are bulk packed: 10 masks in 1 polybag.

Warranty

Refer to one-year Laerdal Global Warranty for terms and conditions. For more information, visit www.laerdal.com.



This product is in compliance with the essential requirements of Council Directive 93/42/EEC as amended by Council Directive 2007/47/EC.

Important Product Information

Read this User Guide and become familiar with the operation and maintenance of the device prior to use.

Warnings and Cautions

A Warning states a condition, hazard, or unsafe practice that can result in serious personal injury or death.

A Caution states a condition, hazard, or unsafe practice that can result in minor personal injury or damage to the product.

Notes

A note states important information about the device or its operation.

Intended Use

Upright with PEEP Newborn Bag-Mask ("Upright with PEEP") is a self-inflating, manual, reusable resuscitator, intended for newborns and infants up to 10 kg body mass who require respiratory support.

Warnings

- Upright with PEEP should only be used by health care providers who are trained in neonatal resuscitation and have received sufficient training in its use. Incorrect operation of the resuscitator can be hazardous.
- This resuscitator should not be used in a poisonous or hazardous atmosphere.
- Do not use Upright with PEEP if you have any reason to be concerned about its functionality.
- Do not pull open slit on PEEP membrane.
- Do not attempt to block the PEEP cap or port, which could prevent patient expiration.
- High ventilation rates (> 30 breaths per minute) with high-compliance lungs, may restrict patient expirations and increase PEEP above 8 cmH₂O.
- Use of Newborn PEEP on infants larger than 5 kg may result in higher PEEP.
- At freezing temperatures, PEEP function could be reduced or lost. Absence of a hissing sound after each ventilation may indicate this.

- Not to be used in a respiratory circuit or for providing CPAP. Not suitable for providing free-flow of oxygen to patient.
- Check PEEP levels regularly with a manometer.
- When using a Manometer Connector always ensure that a Manometer is connected. An open connector port may leak air and prevent positive-pressure ventilation of the patient. Inadvertent connection of oxygen tubing to the Manometer Connector may lead to death.

Cautions

- Upright with PEEP must be cleaned and sterilized or high-level disinfected before first patient use.
- The patient should be constantly monitored while this product is in use.
- Use only Upright with PEEP components from a Laerdal authorized source with this resuscitator. All Upright with PEEP components are marked LAERDAL.

Notes

- Upright with PEEP may be reused provided reprocessing procedures are followed between each patient use.
- Upright with PEEP can provide supplemental oxygen only when used with the Oxygen Reservoir Accessory (sold separately).
- Upright with PEEP is not intended for total use per patient of more than 24 hours.

Technical Information

Meets ISO 10651-4:2002/EN ISO 10651-4:2009, Lung ventilators – Particular requirements for operator-powered resuscitators.

Temperature and Environment	
Operating temperature	- 18 °C to 50 °C
Storage temperature	- 40 °C to 60 °C
Performance Specifications	
Dead space	Approx. 5 mL (water volume)
Tidal volume	>150 mL
Total bag volume	Approx. 320 mL
Expiratory resistance	with PEEP: <15 cmH ₂ O at 5 L/min without PEEP: <2.5 cmH ₂ O at 5 L/min
Inspiratory resistance	with PEEP: <1 cmH ₂ O at 5 L/min without PEEP: <1 cmH ₂ O at 5 L/min
PEEP value/ Pressure range	6 ± 2 cmH ₂ O
Measurements	
Patient Connector (conical)	15 mm inner diameter; 22 mm outer diameter
External dimensions (with newborn Mask size 1)	Approximately 74 × 87 × 217 mm
Mass (with newborn Mask size 1)	Approximately 200 grams
Materials	
Hard plastic components	Polysulfone (PSU)
Soft plastic components	Silicone rubber
Spring	Stainless steel

LATEX Not made with natural rubber latex

Use

Orientation

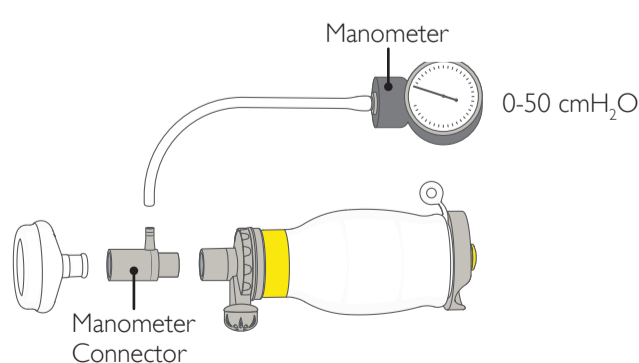
Upright with PEEP is operated as a normal resuscitator, with the bag having a vertical stance over the mask.

To Use

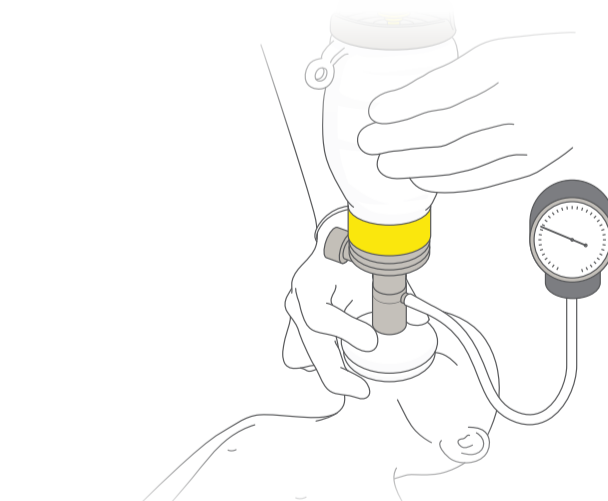
- Slightly extend the patient's head and neck.
- Cover the patient's mouth and nose completely with the mask. Press downwards to create a seal between the mask and the patient's face.
- Squeeze the bag until chest rise is observed. If necessary, adjust your position for a clear view of the chest. Repeat this procedure at the recommended rate.

Follow local clinical protocol for deciding when to stop resuscitation efforts.

Manometer Use



Peak Inspiratory Pressure (PIP) and PEEP can be monitored when a manometer is connected between Upright with PEEP's Patient Port Connector and the face mask. Check PEEP pressure regularly with a manometer connected with a manometer connector between Upright with PEEP and the mask or airway adjunct.



A Suitable manometer connector, cat.no. 850900, can be ordered from Laerdal Medical

Postive End-Expiratory Pressure Valve

The included Newborn PEEP valve membrane can be attached to Upright with PEEP's expiration port. See section *Disassembly and Reassembly* illustration to locate the expiration port. The PEEP membrane opens with a popping sound during each patient expiration. Other types of PEEP valves cannot be fitted to Upright with PEEP.

PEEP can be deactivated by removing the PEEP valve membrane. Check PEEP pressure regularly with a manometer.

Pressure Release Valve

Upright with PEEP has a pressure release valve ("pop-off") which releases air when pressure to the patient exceeds 30-45 cmH₂O. A hissing sound can be heard when the valve opens. This valve may be overridden if more pressure to the patient is needed. To override; Press downwards on the pressure release valve with your index finger.

Contamination

If the Patient Valve becomes contaminated with vomitus or mucus, remove Upright with PEEP from the patient and do the following:

- Disassemble the Patient Valve and shake free any contaminant and squeeze the ventilation bag several times to expel the contaminant.
- If the contaminant was expelled, continue ventilating. If it does not clear, disassemble the Patient Valve, rinse the parts in water and then reassemble.
- If any components are loose, tighten or reassemble the device and follow the procedure in *Function Test Before Use* section.

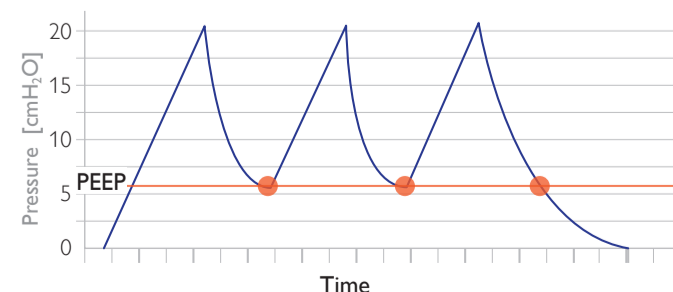
Newborn Mask - Snap Design

(Includes Newborn Mask (Snap design) Size 0 and Size 1.)

The mask fits with standard 15 mm female conical connectors, as defined by ISO 5356-1. Check fit before use with other devices. When used with Upright with PEEP, the mask attaches with a snap fit when pressed completely into place.

Expected PEEP Performance

PEEP shall be measured as the end expiratory pressure between inflations (usually the lowest pressure delivered between inflations).



PEEP value between continuous ventilations is typically 6 cmH₂O with a tolerance range of 4-8 cmH₂O, as illustrated in the graphs below. For high ventilation rates with a high compliance lung, expected PEEP value increases.