

Neo-Primer

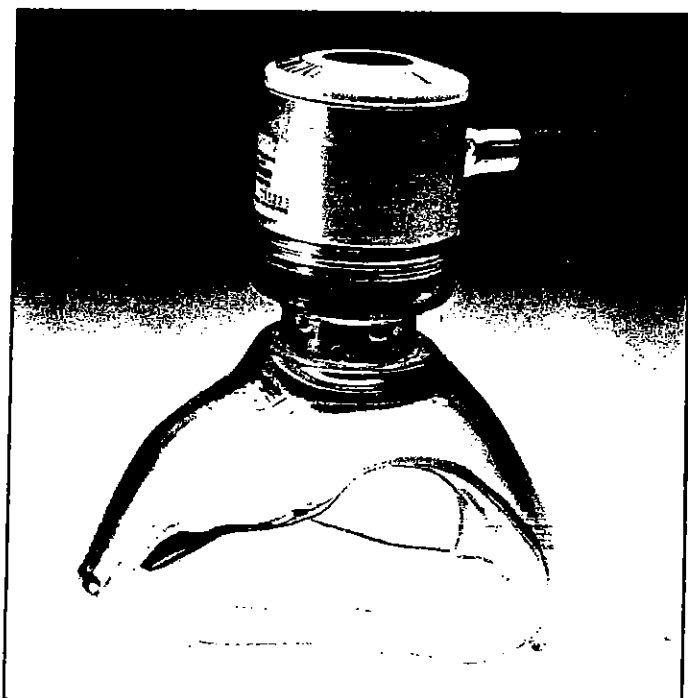


Figure 1
Neo-Primer P/N 569

Description

The LSP Neo-Primer, Model 569, is designed to provide 100% oxygen a nonbreathing infant in an emergency situation. The valve can supply oxygen to an infant's pulmonary system by means of a mask, endotracheal catheter, or tracheotomy tube. The valve operates on a regulated oxygen supply of 45-55 psig (310-378 kPa), and reduces this pressure to a physiologically acceptable level. The valve can be used in conjunction with a portable oxygen cylinder equipped with a pressure regulator, or with a central oxygen source.

When used as a positive pressure resuscitator, oxygen will flow through the valve and inflate the lungs to pressure of 30 cm of H₂O when the manual control button is depressed. The pressure is maintained until the button is released; the contents of the lungs are then expelled through the exhalation valve.

An accessory extension lever that permits operation of the manual control button from a lower position on the valve is available from Life Support Products. The lever makes operation of the manual button easier for people with small hands and provides a more precise control of the oxygen flow.

Specifications:

FLOW:

In resuscitation mode 12.5 ± 2 LPM at 50 psig (344 kPa).

DELIVERY PRESSURE:

30 ± 3 CM H₂O (22 ± 2 mm Hg) unless otherwise indicated on neo-primer.

FREQUENCY PRESSURE:

20 to 60 cycles per minute.

EXHALATION RESISTANCE:

Flow (LPM)	Maximum Resistance (cm H ₂ O)
0-10	1.5

DEAD SPACE:

8 ml (excluding mask).

SUPPLY PRESSURE:

45 to 55 psig (310-378 kPa).

DURATION OF OXYGEN SUPPLY AT 5 LPM

"D" size cylinder = 72 minutes. "E" size cylinder = 124 minutes.

OPERATING TEMPERATURE:

-34°C to 52°C (-30°F to +125°F)

STORAGE TEMPERATURE:

1 year @ -40°C to +60°C (-40°F to 140°F) and humidity of 10 to 50%.

INLET FITTING:

Standard Diameter Index Safety System .562 x 18 external thread.

FILTER:

25 micron stainless steel mesh.

OUTLET:

.875 (22 mm) outside diameter x 15 mm inside diameter. (Fits standard medical masks, endotracheal catheters and tracheotomy tubes.)

FINISH:

Anodized aluminum and green polycarbonate.

Operation

Read and follow these instructions carefully. Pay particular attention to all WARNING statements. CLEAN AND DISINFECT THE NEO-PRIMER AFTER EVERY USE.

Warning

The LSP Neo-Primer is designed to be used on infants and should not be used on adults and children. This equipment should be used only by properly trained personnel. The unit should not be used in oxygen deficient atmosphere or near open flame. Do not smoke while using this unit.

Resuscitation

1. Install an infant mask on the neo-primer and connect the hose to an oxygen supply capable of delivering 100 LPM @ 40-90 psig (275-620 pKa). These steps should be accomplished prior to the actual need for resuscitation.
2. Before placing the mask over the infants face, turn the oxygen supply valve on slowly.

Warning

When turning on the oxygen supply, be sure the neo-primer outlet is not blocked.

3. Verify that there are no obstructions in the patient's throat or mouth (vomitus, foreign bodies, etc.).

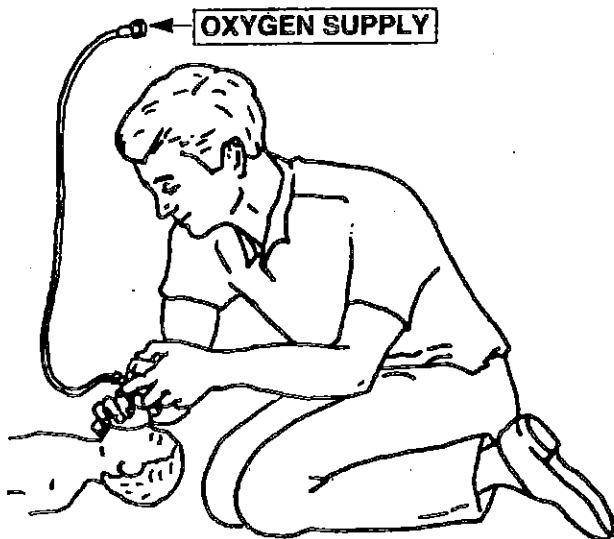


Figure 2

4. With one hand placed under the infant's chin, tilt the head back (to open the infant's air passages) and place the mask over the nose and mouth. Hold the mask in place with the thumb, index finger, and middle finger, while using the rest of the fingers under the chin to hold the infant's head back (See Figure 2).
5. Using the other hand to assist in holding the neo-primer and mask in place, depress the manual control button and hold it down until the infant's chest rises. Then release the button and allow the infant to exhale. Repeat this cycle 20 to 60 times per minute.

Warning

Depressing the manual control button when the patient is breathing spontaneously may make it impossible for the patient to exhale.

Heart Lung Resuscitation

The LSPI Demand Resuscitator Valve may be used for the Heart Lung Resuscitation when a combination of lung resuscitation and external cardiac compression is required to restore the heart beat and breathing of patient. Refer to JAMA, October, 1992.

Maintenance

Cleaning

Warning

All cleaning procedures must be performed in a hydrocarbon residue free area because of the danger of spontaneous combustion when the residues are exposed to gaseous oxygen.

CLEAN AND DISINFECT THE NEO-PRIMER AFTER EVERY USE.

1. Remove the outlet adapter and the exhalation valve assembly from the demand valve subassembly. Do not remove the hose assembly.
2. Clean all foreign matter from the components with a mild soap solution, being careful not to get any liquid inside the demand valve subassembly. Rinse the parts thoroughly in clean water.
3. Immediately after cleaning, connect the demand valve subassembly to an oxygen supply. Turn on the oxygen supply and depress the manual control button several times to blow out any liquid that may have entered.
4. Carefully examine the parts of the neo-primer. Discard any cracked or damaged parts.
5. Disinfect the neo-primer.

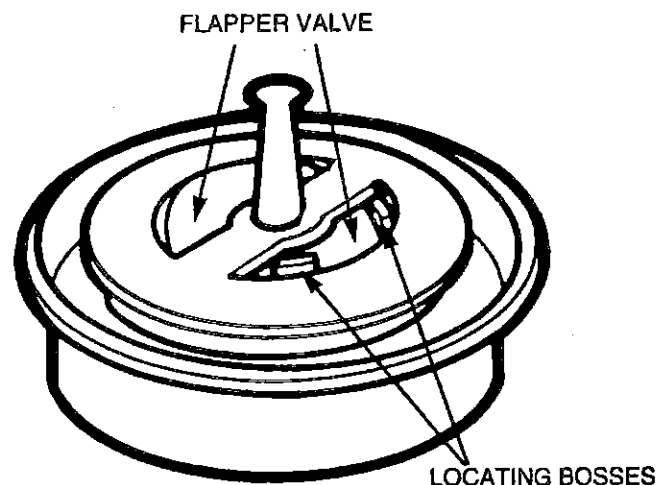


Figure 3
Exhalation Valve Assembly

Cold Disinfecting

1. Remove the outlet adapter and the exhalation valve assembly from the demand valve assembly and immerse in a CIDEX solution for a minimum of 10 minutes.
2. Place the demand valve subassembly outlet side down into a pan containing not more than 1/2 inch of CIDEX for a minimum of 10 minutes. Do not remove the hose assembly.
3. Remove the outlet adapter and exhalation valve assembly from the CIDEX solution and rinse thoroughly with sterile water. Rinse repeatedly to be sure that all of the CIDEX solution is removed from the parts.
4. Remove the demand valve subassembly from the CIDEX solution. Place the subassembly outlet side down into a pan containing not more than 5/8 inch of sterile water for a period of 10 minutes.
5. Remove the demand valve subassembly from the sterile water and dry thoroughly using sterile techniques. Connect the demand valve subassembly to an oxygen supply. Turn on the oxygen supply and depress the manual control button several times to blow out any liquid that may have entered.
6. Remove the fitting and inspect the filter. Replace the filter if it is dirty. Check the exhalation valve assembly to be sure the flapper valve is not twisted and the locating bosses are properly positioned (See Figure 3).

Warning

If the flapper valve is twisted or the locating bosses are not properly positioned, the neo-primer will not function properly. Make sure that the flapper valve lies flat against its seat.

7. Reassemble the parts and test the unit with an LSP Test Kit, P/N 109.

Replacement of Filter

1. Disconnect the hose assembly from the fitting and remove the fitting with a wrench.
2. Remove the filter from the demand valve body.
3. Install a new filter as shown in Figure 5. Make sure the dome of the filter is facing outside.
4. Reinstall the fitting with a wrench and reconnect the hose assembly to the fitting.

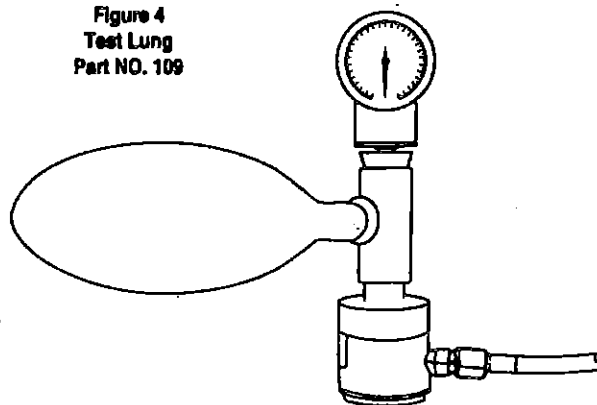
Testing

The Life Support Products Neo-Primer should be tested periodically to ensure proper performance. Testing must be performed every time the unit is disassembled or cleaned and at least every three months if the unit is not used.

Initial Test

1. Connect the neo-primer to an oxygen supply capable of delivering 100 LPM @ 45-55 psig (310-378 kPa). The outlet of the neo-primer must not be blocked.

Figure 4
Test Lung
Part NO. 109



2. Open the oxygen supply valve. Oxygen should flow from the neo-primer momentarily, but stop completely (no audible leaks) in approximately 1 second.
3. Depress the manual control button. A flow of oxygen should result, and the valve should not whistle. Release the button. The flow should cease immediately.
4. If the neo-primer continues to flow oxygen or has an audible leak, it is in need of repair and should NOT be used on any infant. Return the neo-primer to an authorized LSP dealer for repair.

Positive Pressure Test

A Test Kit, P/N 109, is available from Life Support Products, Inc. for performing the following test:

1. After performing the Initial Test above, insert the outlet of the neo-primer into the open tee fitting on the Test Lung Assembly, P/N 109 (Figure 4).
2. Slowly depress the manual control button. The gauge reading should be 22 ± 2 mm Hg (30 ± 3 cm H₂O). If the pressure reading reaches 60 mm Hg, release the manual control button immediately to avoid rupturing the test lung.
3. Release the manual control button. The test lung should deflate immediately. If it does not deflate, check to see if the bleed hole on the neo-primer body (Figure 4) is open by depressing the manual control button and verifying that there is a flow of oxygen out of the hole. Also check the exhalation valve for misalignment of foreign matter.
4. If the neo-primer tests out of limits, do NOT use on any infant. Return it to an authorized LSP dealer for repair.

The accuracy of the test gage may be checked with a mercury or water manometer (22 mm Hg = 30 cm H₂O). In order to obtain accurate test results, the test lung must be free of cracks, holes, or tears.

Recommended Overhaul Period

The Life Support Products Neo-Primer should be overhauled every 2 years if periodic testing as outlined above is performed and logged. If periodic testing is not performed, the Neo-Primer should be overhauled every year.

Overhaul Repair Facilities:

A list of authorized repair facilities is available from LSP.

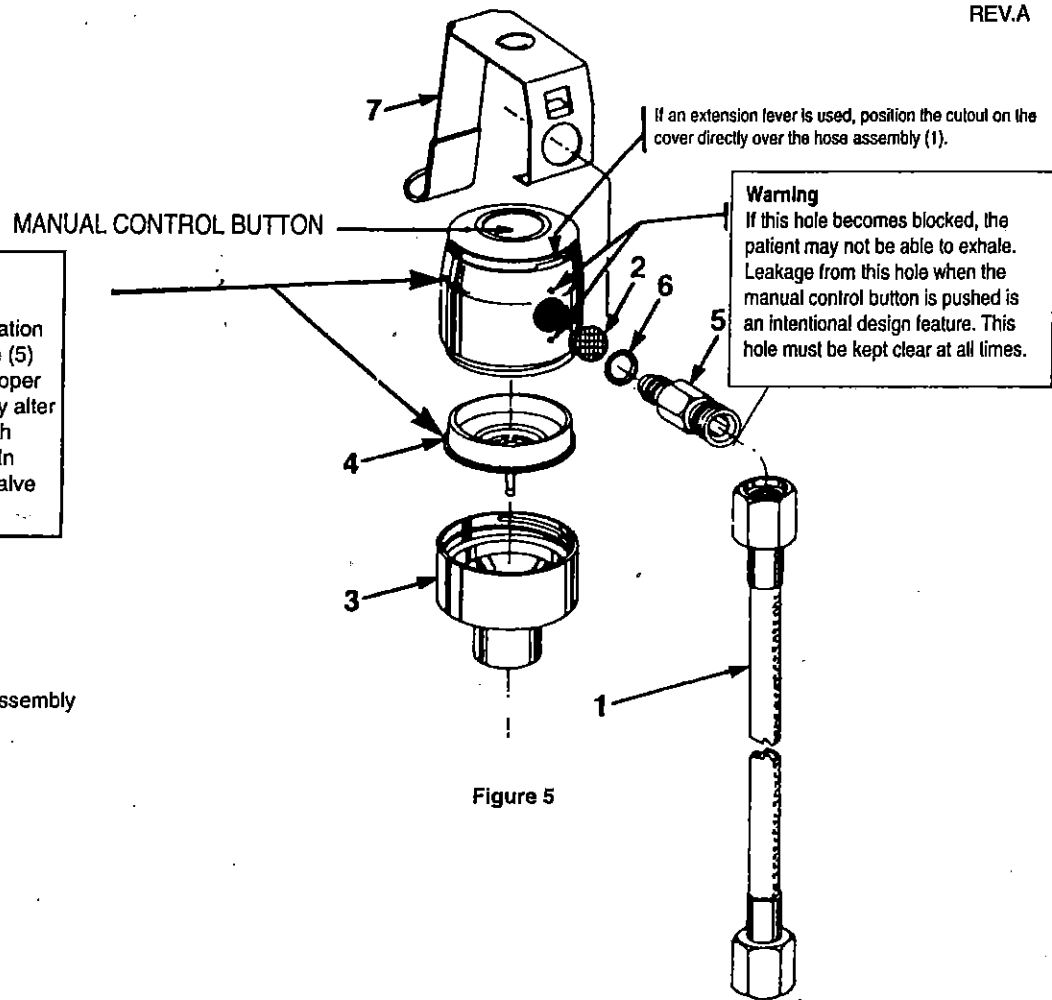


Figure 5

Warning

Do not disassemble or tamper with these parts. The warranty is voided if the Exhalation Valve Assembly (4) or the Demand Valve (5) are tampered with or disassembled. Improper disassembly or assembly procedures may alter the performance of the Neo-Primer, which could cause a serious injury to an infant. In case of malfunction, return the demand valve to an authorized LSP repair facility.

Parts List

- | | |
|---------------|-------------------------------|
| 1. 535026 | Hose Assembly |
| 2. 520006 | Filter |
| 3. 002768-030 | Outlet Adapter |
| 4. 585045-030 | Exhalation Valve Sub-Assembly |
| 5. 525100 | Fitting |
| 6. 560645-011 | O-Ring |
| 7. 020-077 | Extension Lever |

Limited One (1) Year Warranty

LSP warrants this product to be free from defects in material and workmanship for a period of one (1) year from the date of manufacture. This Warranty is expressly conditioned on compliance with all inspection and preventative maintenance requirements as set by applicable government agencies and as specified by LSP.

This Warranty is extended by LSP only to the first purchaser of the product from either LSP or from an authorized distributor.

LSP'S OBLIGATIONS AND PURCHASER'S REMEDIES UNDER THIS WARRANTY ARE LIMITED AS FOLLOWS: In the event of a defect, malfunction or failure to conform to this Warranty, purchaser shall return this product to LSP, with shipping charges prepaid, within a reasonable time after discovery of such defect, malfunction or failure to conform. LSP shall repair or replace (at LSP's option) this product if it is defective, malfunctions or fails to conform to this Warranty, and shall return it to the purchaser with shipping charges prepaid and without any additional charges due to costs of repair or replacement.

In the event the product returned by purchaser is not defective, has not malfunctioned and does conform to this Warranty, LSP shall not be obligated to repair or replace the product and shall not be obligated for shipping charges for return of the product to the purchaser.

LSP shall in no event be liable for any consequential damages, nor for loss, damages or expenses directly or indirectly arising from the use of this product.

Disclaimer of Other Warranties

THIS WARRANTY IS IN PLACE AND IN LIEU OF ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A SPECIFIC PURPOSE, BY OPERATION OF LAW OR OTHERWISE.

This Warranty does not apply to malfunction or damage resulting from accident, alteration, misuse, abuse of the product, improper preventative maintenance, storage at extreme temperatures or extreme environments beyond design limits, or, where appropriate, improper use of the product by untrained persons. This Warranty does not apply to any plastic or rubber components since they can be affected adversely by undue exposures to heat, sun, water, ozone, or to other deteriorative elements.

LSP has not authorized any other firm or person to make any representations concerning this product nor to assume on LSP's behalf any liability in any way connected with the sale or use of this product.

This Warranty becomes void immediately should any repairs of, or alterations to this warranted product be made without authorization by LSP.



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