

**SPERIAN**

**INSTRUCTION MANUAL**

**AIR PURIFYING RESPIRATOR**

**SURVIVAIR VALUAIR® PLUS,**

**SURVIVAIR PREMIER®, AND**

**SURVIVAIR PREMIER® PLUS**

**HALF MASK FACEPIECES**

**(With S-Series Connectors)**



**WARNING**

***DO NOT USE this respirator until you completely read and understand this instruction manual. You are required to inspect the respirator prior to putting it into field service. Please refer to the inspection procedures in this manual. Failure to comply with this warning may result in personal injury, illness, or death.***

**NIOSH APPROVED—SEE SEPARATE APPROVAL LABEL**

## SAFETY PRECAUTIONS

The Warnings, Cautions, and Notes contained in this manual have the following significance.



### WARNING

***Maintenance or operating procedures and techniques that may result in personal injury, illness, or death if not carefully followed.***

### CAUTION

***Maintenance or operating procedures and techniques that may result in damage to equipment and/or minor to moderate personal injury if not carefully followed.***

### NOTE

Maintenance or operating procedures and techniques or information considered important enough to emphasize.



### WARNINGS AND LIMITATIONS

- ***The employer is responsible for establishing that this respirator is suitable for the user's application.***
- ***SPERIAN cannot predict what will happen to this respirator in every potential environment. Materials can be chemically attacked if exposed to the wrong environment and may exhibit excessive corrosion or other forms of damage. Permeation or penetration of gases, liquids, or particles through the materials could be excessive. Extremes of temperature might cause thermal degradation. Each of these things, or a combination of them, could create conditions in which this SPERIAN respirator would be dangerous to use.***
- ***Do not alter or modify any respiratory product.***
- ***Before entering a hazardous environment while wearing this respirator, you must conduct safe, scientific tests to determine if the environment could render the equipment unsafe. Results of this testing should be well documented. Seek the help of a certified safety professional or industrial hygienist. DO NOT USE this equipment if the user would be endangered in any way through environmentally induced degradation of the materials in the apparatus.***
- ***Do not use this respirator in environments where the concentrations of contaminants are unknown or are immediately dangerous to life or health (IDLH). IDLH atmospheres are defined as:***
  - a. ***Those which the wearer could not breathe for short periods.***
  - b. ***Those from which the wearer could not escape without the aid of the respirator.***
  - c. ***Those which have an immediate or delayed adverse effect on health.***

**▲ WARNING—Continued**

- *This respirator must be worn and used as specified in SPERIAN's instructions.*
- *Do not use the respirator if you have health or respiratory problems as identified by 29 CFR 1910.134 (appendix C) medical evaluation questionnaire or by a medical professional.*
- *Do not use this respirator without the appropriate SPERIAN cartridges and/or filters securely attached onto the facepiece. Always read cartridge labels prior to use and be certain that you have cartridges and/or filters that will provide the required protection. This respirator must be used for protection against only those air contaminants listed on the air purifying cartridge, filter, and/or the NIOSH approval label. Respirators labeled for protection against particulates only shall not be used for gases/vapors. Respirators labeled for protection against gases/vapors only shall not be used for particulates.*
- *Do not use this respirator at ambient temperatures above 130°F (55°C).*
- *Immediately return to a non-contaminated area if:*
  - a. You taste or smell contaminants, or if your eyes, nose, or throat become irritated.*
  - b. Breathing becomes difficult.*
  - c. The air you are breathing becomes uncomfortably warm.*
  - d. You feel nauseous or dizzy.*
  - e. The facepiece moves, slips, or leaks.*
- *This respirator does not protect exposed areas of the body. Some contaminants can be absorbed directly through the skin while others may irritate exposed areas.*
- *Your SPERIAN respirator is made of materials chosen for their performance, safety, and durability, however, all respirator materials have limitations when exposed to extremes of heat or cold, or chemicals. Materials may corrode or fail, and permeation of gases and liquids may occur. This could create conditions in which this respirator would be dangerous to use.*
- *This respirator does not supply oxygen and must not be used in atmospheres containing less than 19.5% oxygen by volume.*
- *This respirator must be used in conjunction with a written respirator program meeting the requirements of the OSHA Standard for Respiratory Protection, 29 CFR 1910.134, available from the U.S. Department of Labor, Occupational Safety and Health Administration. The program must include procedures for evaluating air contaminants and selecting appropriate respirators; procedures for proper use of respirators; procedures for testing the facepiece-to-face fit of respirators; procedures for cleaning, disinfecting, inspecting, maintaining, and storing respirators; procedures for determining if workers are physically and medically capable of wearing respirators; and procedures for training employees in the use and care of respirators and in recognizing the hazards associated with contaminants in the work place.*
- *Do not wear this respirator if a satisfactory facepiece-to-face fit, as determined by a qualitative or quantitative fit test, cannot be obtained. See ANSI Z88.2, latest issue, and OSHA 29 CFR 1910.134, latest edition. Beards, stubble, or sideburns will prevent a good facepiece seal, and facial hair may interfere with valve function. Do not use this respirator*

**▲ WARNING—Continued**

*unless you are clean shaven. Absence of one or both dentures can seriously affect the fit of the respirator.*

- This respirator will reduce, but will not eliminate the inhalation of contaminants. Some sensitive individuals may experience health problems when exposed to even minute amounts of contaminants. This respirator will not prevent health problems for those individuals. Where suspected cancer-causing contaminants are present, positive-pressure supplied-air respirators will provide higher protection levels.*

- Persons sensitized can have a severe reaction to chemicals at levels well below accepted health levels such as the OSHA Permissible Exposure Limit (PEL), ACGIH® Threshold Limit Value (TLV), or NIOSH Recommended Exposure Limits (REL). Isocyanates are potent sensitizers. Use positive pressure supplied air respirators to provide better protection against these chemicals. Do not use this respirator if you have been sensitized from previous exposure or believe that you may be sensitive or allergic to any chemical (e.g., isocyanates, latex, etc.) until you obtain clearance from a medical doctor.*

- Use of components other than those listed on the NIOSH approval label and in this manual, or as authorized by SPERIAN, or modification of this respirator in any manner will void the NIOSH certification and invalidates all SPERIAN's warranties for the respirator.*

- Always read and follow the instructions listed in the Material Safety Data Sheet for the chemicals that are present in the work area.*

- Do not use if you have a preexisting skin condition (for example, folliculitis or vitiligo) until you obtain clearance from a medical doctor.*

- This respirator must be worn and used as specified in SPERIAN's instructions. No respirator can provide complete protection from all conditions. Use extreme care for emergency conditions.*

- Some individuals are sensitive to chemicals (e.g., isocyanates, latex, oil mists, etc.) or may have some type of respiratory disorder (e.g. asthma, chronic obstructive airway disease, etc.). If you are sensitive to any chemical or have a respiratory disorder, you may have a severe reaction at contaminant levels well below accepted health levels, such as the OSHA Permissible Exposure Limit (PEL), ACGIH® Threshold Limit Value (TLV), or the NIOSH Recommended Exposure Limits (REL). Many chemicals (e.g., isocyanates, mercury, etc.) have no physical warning properties and you cannot taste or smell the contaminants even though they may be present in the respirator facepiece. This respirator will reduce, but will not eliminate the possibility of contaminants entering the facepiece and causing a severe reaction. Do not use this respirator until you obtain clearance from a medical doctor.*

- If this respirator will be used during welding, it is the user's responsibility to obtain the proper equipment for protection against sparks, optical radiation, and impact. This respirator will not protect you against these hazards.*

- Do not alter or modify any respiratory product.*

- Users must clean and maintain this respirator only in accordance with SPERIAN's instructions.*

**▲ WARNING—Continued**

- *The respirator facepiece assembly contains natural rubber latex which may cause allergic reactions in some individuals. Discontinue use if you experience an allergic reaction.*
- *Discontinue use if you experience skin irritation or discoloration.*
- *This product may provide less than adequate protection if improperly used, which may result in personal injury, illness, or death.*
- *For use by trained, qualified personnel only.*
- *Routinely used respirators must be inspected before and after each use. Stored emergency respirators must be inspected after each use and at least once every 30 days. A written record must be kept of inspections of emergency respirators.*
- **FAILURE TO OBSERVE ALL WARNINGS MAY RESULT IN PERSONAL INJURY, ILLNESS, OR DEATH.**

**▲ WARNING**

*Following is a partial list of materials for which these respirators **MUST NOT** be used. This list is far from complete. Contact SPERIAN for information on other material. The failure to comply with this warning may lead to personal injury, illness, or death.*

Acrolein	Carbonyls	Hydrogen Selenide	Ozone
Aniline	Cyanogen	Methanol	Phosgene
Arsine	Dimethylaniline	Methylene Chloride, Methyl Bromide, Methyl Chloride	Phosphine
Boron Hydrides	Dimethyl Sulfate	Nitro Compounds: Nitrogen Oxides Nitroglycerin Nitrobenzene Nitromethane	Phosphorous Trichloride
Bromine	Ethyl Cyanide	Nitroglycerin	Stibine
Carbon Dioxide	Fluorine	Nitromethane	Sulfur Chloride
Carbon Monoxide	Hydrogen Cya- nide		Vinyl Chloride

## **A. HOW TO INSTALL CHEMICAL CARTRIDGES AND PARTICULATE FILTERS**

### **1. Particulate Filters**

Before using a particulate filter, you must confirm the atmosphere is non-IDLH and not oxygen deficient, the contaminant is a particulate hazard, and you must determine the hazard ratio (hazard concentration/exposure limit). If the hazard ratio is less than 10, you may use a half mask respirator with a filter efficiency of 95% or higher. If the hazard ratio is less than 20, you may use a full facepiece respirator

with a filter efficiency of 95% or higher. If the hazard ratio is less than 100, you may use a full facepiece respirator with a filter efficiency of 99% or higher. If the hazard ratio is greater than 100, you must use another type of respirator.

N-series filters must only be used for non-oil containing aerosols or particulates. R or P-series filters can be used if the atmosphere contains oil (e.g., lubricants, cutting fluids, glycerine, etc.). An R-series filter used in an oil containing atmosphere must be replaced after each 8-hour work shift. A P-series filter can be used for more than one 8-hour work shift.

Refer to NIOSH Guide to the Selection and Use of Particulate Respirators Certified Under 42CFR84 for additional guidelines on use limitations for filters.



#### **WARNING**

***Filters improperly used or improperly assembled to the facepiece could cause leakage, which could lead to personal injury, illness, or death.***

## **2. Mercury Vapor Cartridges**

**Special or Critical User's Instructions:** The mercury vapor cartridges incorporate passive end-of-service-life indicators (ESLIs). Each ESLI, yellow in color when new, turns to gray when exposed to mercury vapor. Do not use these cartridges unless you can distinguish between the safe and discard colors of the ESLI. The indicators must be visible when wearing the respirator without having to manipulate either the facepiece or the indicator. If the indicator cannot be seen, do not wear the respirator. The cartridges must be replaced when the ESLIs change color from yellow to gray, when the ESLIs become dirty or damaged, after 30 days of use, or if removed from their original packaging and not used within 30 days. Never enter or remain in a hazardous atmosphere if one or more of the ESLIs is gray.

## **3. Cartridge/Filter Installation**

a) Ensure that you have the correct cartridge and/or filter type for the contaminants in your work area. If you are not sure, consult your supervisor or safety professional. See paragraph A.2. for special user's instructions if you are using Mercury Vapor Cartridges.

b) Install cartridges, or P100 or HEPA filters, by threading them onto the facepiece connectors. Hand-tighten to ensure a good seal against the facepiece. Do not overtighten.

c) If using filter pads, insert the appropriate pad into the filter retainers so that the side stamped with the model number will face toward the facepiece when installed. Completely snap the filter retainers onto the cartridges or filter holders.

d) Inspect the filter through the retainer to ensure that the entire edge of the filter is making contact with the retainer and the filter is not bunched or folded. The outer edge of the pad must be compressed between the top edge of the cartridge or filter holder and the inner sealing rings of the retainer. Install the filter holders in the same manner as the cartridges.

## B. HOW TO DON THE RESPIRATOR



### WARNING

*Always read cartridge labels prior to use to be certain that you have cartridges and/or filters that will provide the required protection. Filters labeled for protection against particulates only shall not be used for gases/vapors, and cartridges labeled for protection against gases/vapors only shall not be used for particulates. Both cartridges/filters must be of the same type. The failure to comply with this warning may lead to personal injury, illness, or death.*

### NOTE

Inspect the respirator before donning as described in section J.

## C. DONNING INSTRUCTIONS FOR THE VALUAIR PLUS HALF-MASK



1



2a



2b

1. Loosen the elastic band without completely pulling the band out of the slots in the crown suspension. See inset 1.

2. Pull gently on the lower neck strap, creating a large loop, and pull it over the head. See insets 2a and 2b.

3. Place the respirator to the face, covering the mouth and nose. (The narrow part of the facepiece should be over the nose.) Pull the crown suspension over the head and adjust its placement until it is comfortable. See inset 3.

4. Using both hands, grasp the free ends of the elastic band and gently pull the elastic straps away from your face until the respirator is snug and seated comfortably. Be sure the neckstrap is flat and smooth against the back of the neck. To tighten the neckstrap, make intermediate adjustments at the straps as they exit the top slots on the yoke. Gently pull the free ends to make final adjustments. Do not overtighten the respirator to your face.



3



4

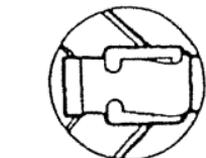
## D. DONNING INSTRUCTIONS FOR THE PREMIER HALF-MASK



1. Make sure the lower headbands are adjusted at the yoke. See inset 1. Remove protective eyewear, and place the respirator under the chin and over the nose. The narrow part of the facepiece should be located over the nose.



2. Pull the crown strap over the head and adjust its placement until it is comfortable. See inset 2. The crown strap is adjustable in length for ease of fit.



3. Using both hands, hook the lower headband straps together behind the neck. Adjust the headbands by pulling sideways away from the hook and loop. See inset 3. **DO NOT adjust at the facepiece yoke.**

4. Adjust the upper headbands by pulling then downwards from the crownstraps. **DO NOT** adjust the headbands or tension at the yoke. Continue adjusting the headbands until a comfortable fit has been obtained. **DO NOT overtighten the respirator to the face.** See inset 4.

5. Excess lengths of upper straps may be secured out of the way by using the clips molded into the crownstraps. Use of these tabs also helps to reduce the possibility of headband slippage. See inset 5.



### WARNING

*If the respirator does not fit you correctly, you may not receive adequate protection. Each time you use a respirator, you must check for proper fit before entering a contaminated area. Failure to comply with this warning may lead to personal injury, illness, or death.*

## E. DONNING INSTRUCTIONS FOR THE SPERIAN PREMIER PLUS HALF-MASK

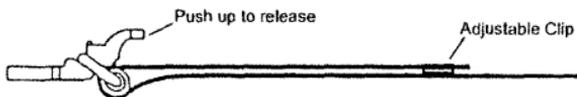
1. With cartridges or filters attached, fit facepiece on the bridge of the nose and swing the bottom of the facepiece into contact with the chin.

2. Bring the lower straps of the headband around the nape of the neck and attach the hook and ring together behind the head.

3. Bring the upper straps with the cradle over the crown of the head (above the ears) and pull the free ends of the straps equally on each side until a comfortable and secure fit is obtained.

4. Pull the free ends of the lower straps until the lower strap is secure.

5. Adjust the straps just tight enough to prevent any air leaks around the facepiece. It is not necessary to overtighten the straps. The straps have adjustable clips to secure the free ends down onto the middle of the straps after tightening. See inset. To release the straps, first pull off the free ends held by the clips, then push up on the tabs on the buckles with your thumbs and pull the facepiece away from your face. Unhook the lower straps, and remove the respirator.



## F. HOW TO FIT CHECK THE RESPIRATOR

You must perform the following fit check each time the respirator is worn or before entering the contaminated area.



### WARNING

*If a leak-tight seal is not obtained during the following fit check, do not wear the respirator. Ask your supervisor or safety professional for assistance. The failure to comply with this warning may lead to personal injury, illness, or death.*



**A. Positive Pressure Fit Check:** Hold the palm of your hand gently over the exhalation valve outlet. See inset a. Do not distort the natural shape of the facepiece. Exhale gently and hold your breath to create and maintain a slight positive pressure inside the facepiece. If air leakage occurs, readjust the facepiece and headstraps, then retest.

**A** **B. Negative Pressure Fit Check:** Cover the inlet of the cartridges and/or filters with the palms of your hands or another suitable item, such as a thin sheet of plastic or rubber. See inset b. When the respirator is equipped with cartridges, filter retainers may be used as an aid. Alternatively, the cartridges may be removed to perform the fit check. If removed, SPERIAN recommends someone other than yourself reinstall them after a leak-tight fit is achieved. It is difficult for the wearer to reinstall the cartridges without disturbing the facepiece-to-face seal and to determine whether the cartridges are correctly seated against the facepiece. It is your responsibility to ensure that the facepiece-to-face seal is not disturbed when reinstalling the cartridges and that each cartridge is sealed against the facepiece. Inhale gently and hold your breath



to slightly collapse the facepiece. If air leakage occurs, re-adjust the facepiece and headstraps, then retest. If filter retainers are used, do not remove them after the fit check is completed. Removing the filter retainers may shift the facepiece and break the facepiece-to-face seal.

**B**

## **G. HOW TO USE THE RESPIRATOR**

To receive the maximum protection available from your respirator, you must read, understand, and follow all the Warnings, limitations, and instructions contained in this manual and follow your employer's instructions on the use and maintenance of the respirator. Read and understand the following warnings prior to using the respirator.



### **WARNING**

- ***Never remove the respirator for any reason while you are in the work area.***
- ***You must leave the work area immediately if the facepiece-to-face seal is disturbed for any reason, such as:***
  - a. Slipping due to excessive sweating or excessive head movement.***
  - b. The facepiece becomes dislodged as a result of being knocked.***
  - c. You sneeze or cough while wearing the facepiece.***
  - d. You need to blow your nose, scratch covered areas of your face, or need to adjust your spectacles kit.***
  - e. For any other reason that would cause the facepiece seal to be disturbed.***
- ***You must restore the facepiece-to-face seal and perform a fit check in a non-hazardous environment before reentering the work area.***
- ***The failure to comply with this warning may lead to personal injury, illness, or death.***

## **H. CARTRIDGE SERVICE LIFE AND REPLACEMENT**



### **WARNING**

- ***OSHA allows the use of respirators for protection against contaminants with poor warning properties such as isocyanates. To maximize protection against isocyanates and other chemicals with poor warning properties, it is important to replace the cartridges when the end-of-service-life indicator (if so equipped) has changed color, or in accordance with an OSHA***



## WARNING

***compliant cartridge change-out schedule that is based on objective information or data that ensures the cartridges are changed before the end of their service life.***

***• You must immediately leave the contaminated area if you taste or smell contaminants, or if your eyes or throat become irritated. Replace the cartridges before reentering the contaminated area.***

***• You must replace the combination cartridges when breathing becomes uncomfortable or difficult. As particulates collect on the filter surface, the breathing resistance of the respirator increases. If you wait too long to replace the cartridges, particulates may leak past the face seal instead of being collected on the filter; therefore, SPERIAN recommends that the cartridge be changed at least daily.***

***• Establishing the cartridge service life for mixtures of contaminants is a complex task, and one that requires considerable professional judgment to create a reasonable change-out schedule. OSHA provides a “rule-of-thumb” method for determining the cartridge service life for mixtures. The method addresses two situations. The first is where the individual compounds of the mixture have similar breakthrough times (i.e., within one order of magnitude). In this case, OSHA recommends adding the concentrations of all the components of the mixture to determine a “total concentration,” then determine the mixture service life by applying the total concentration to the component with the shortest service life. The second is where the individual compounds have breakthrough times that vary by 2 orders of magnitude or greater. In this case, OSHA recommends the mixture service life be based on the contaminant with the shortest breakthrough time. The OSHA rule-of-thumb methods may not be applicable for all mixtures. In some cases, the actual mixture service life may be much lower than the one calculated. For this reason, SPERIAN recommends that the cartridge service life for mixtures be determined using experimental methods. If you are unsure how to determine the cartridge service life for mixtures, please contact SPERIAN.***

***• Failure to comply with this warning may lead to personal injury, illness, or death.***

The gas/vapor service life depends on the user's breathing rate, the characteristics of the contaminant, and environmental conditions such as temperature and humidity. Saturated cartridges will leak trace amounts of contaminants to the wearer, which may be detected by odor, taste, and/or irritation. Replace the cartridges when the end-of-service-life indicator (if so equipped) has changed color, or in accordance with an OSHA compliant cartridge change-out schedule that is based on objective information or data that ensures that cartridges are changed before the end of their service life. Replace the cartridges earlier if you detect the contaminant by smell, taste, or irritation, or if either cartridge shows any signs of damage. SPERIAN recommends cartridges be replaced daily even if the end-of-service-life indicator has not changed color, or the change-out schedule is determined to be greater than 1 day. Always replace cartridges in pairs. Replace cartridges as follows:

1. Return to fresh air.

2. Remove cartridges by turning counterclockwise. Dispose of used cartridges in accordance with Federal, state, and local guidelines.
3. Install new cartridges, taken only from sealed packages, as described in section A.
4. Perform a facepiece fit check as described in section F.

## I. PARTICULATE FILTER SERVICE LIFE AND REPLACEMENT

The filter service life depends on the filter series type used, the user's breathing rate, the characteristics of the contaminant, and environmental conditions such as humidity. All N and R-series filters should be replaced whenever they are damaged, soiled, contaminated with water, or causing increased breathing resistance such that the respirator becomes uncomfortable to wear. In addition, when an R-series filter is used in an oil containing atmosphere, the filter must be replaced after each 8-hour work shift. **All P-series filters must be replaced whenever they are damaged, soiled, contaminated with water, or as soon as they are too difficult to breathe through.** SPERIAN recommends, due to considerations of hygiene, that all filters be replaced at least daily, and more often if necessary. Whether used in oil-containing or non-oil-containing atmospheres, SPERIAN recommends the filters be replaced daily because the user may be unable to detect small defects in the filter resulting in a loss of filter efficiency, and the determination of when breathing resistance becomes too uncomfortable is subjective. Filters should also be replaced in accordance with schedules established by regulatory agencies



### **WARNING**

***Failure to properly assemble filter pads to cartridges or filter holders can cause leakage, which could lead to personal injury, illness, or death.***

Replace filters as follows:

1. Return to fresh air.
2. If using P100 filters, remove by turning them counterclockwise. Dispose of used filters in accordance with Federal, state, and local guidelines.
3. If using filter pads, remove the filter retainers from the cartridges or filter holders. Remove the used filter pads and dispose of them in accordance with Federal, state, and local guidelines. Clean the filter retainer and cartridge or holder if necessary.
4. Install new P100 filters or filter pads (taken only from sealed packages) as described in section A.
5. Perform a facepiece fit check as described in section F.

## J. INSPECTION

Inspect this respirator as described below for defects before and after each use, and at least monthly if not used. Repair as necessary, clean and disinfect after each use, and store properly to assure that the respirator is maintained in satisfactory working condition. Keep a record of inspection and repair dates and results.



### WARNING

- ***Do not use the respirator with damaged or improperly operating valves.***
- ***Failure to comply with this warning may lead to personal injury, illness, or death.***

1. Inspect the facepiece skirt for cuts, gouges, punctures, tears, nicks, and deterioration from age, heat, or contamination, and the face seal area for distortion.
2. Inspect the headbands for abrasions, cuts, nicks, loss of elasticity, or deterioration from age, heat, or contamination.
3. Inspect the inhalation and exhalation valves for nicks, cracks, tears, or creases, and the exhalation valve seat for nicks, cracks, or dents.
4. Check the exhalation valve for proper operation by exhaling through the respirator and pausing before inhaling. The exhalation valve must close by itself before inhaling. Replace valves which fail to close.

## K. MAINTENANCE

Respirators should be cleaned after each day's use by washing with mild soap and warm water. Then disinfect the respirators with a suitable sanitizing solution. OSHA 1910.134, latest edition, and ANSI Z88.2, latest edition, also provide information and guidelines on the cleaning and sanitizing of respirators.

### 1. Cleaning



### WARNING

- ***Specialized processes are required to disinfect and decontaminate a respirator. You must follow the instructions of the manufacturer of the equipment and chemicals.***
- ***It is the user's responsibility to ensure that the processes chosen provide adequate cleaning, disinfection, and decontamination, and do not damage the respirator in any way.***
- ***In the absence of a commercial sanitizing product, the hypochlorite solution described below will eliminate many, but not all biohazards.***
- ***Failure to comply with this warning may lead to personal injury, illness, or death.***

<b>CAUTION</b>
<b><i>Do not use solvent type cleaners to clean any part of the respirator.</i></b>

**NOTE**

Silicone and rubber parts of the facepiece may be cleaned between washings with SPERIAN Mask Wipes, P/N 140096 or 140082.

- a. Make a cleaning solution of warm water and a mild detergent.
- b. Remove the cartridges/filters from the facepiece.
- c. Immerse the facepiece in the solution.
- d. Agitate the facepiece and gently clean with a soft brush.
- e. Thoroughly rinse the facepiece in fresh water, paying particular attention to removal of all soap residue from the exhalation valve. If possible, direct running water onto the exhalation valve.
- f. Disinfect the facepiece in a warm (120°F or 48°C maximum) suitable sanitizing solution such as a 'hypochlorite solution" for 2 to 3 minutes. A 50 ppm hypochlorite solution can be made by mixing 0.13 ounce of laundry bleach per each gallon of water. Rinse thoroughly with fresh warm (120°F or 48°C maximum) water.
- g. Allow the facepiece to drip dry, or dry with a lint-free cloth. Warm air may be used to speed up drying.
- h. Hold the facepiece firmly against your face and exhale several times to ensure that the exhalation valve functions smoothly.
- i. Carefully inspect the respirator as described in section J. Reinstall the cartridges and/or filters before use.

## **2. Repair (See the Table at the End of this Manual for Replacement Parts)**

Repair by the user is limited to replacement of components listed in this manual and as listed on the NIOSH approval label. Disassembly should be performed only to the extent necessary to replace the components. To protect your warranty and the NIOSH certification of the equipment, all other repairs must be done only by authorized SPERIAN technicians and repair centers. Consult your SPERIAN distributor for the one nearest you. You must perform a fit check as described in section F after any repair and before respirator use.

### **a. Threaded Connector Replacement**

- 1) Remove cartridges, P100 filters, or filter holders from the facepiece.
- 2) Remove the damaged threaded connector from the facepiece by pressing it inward.
- 3) Insert a new connector, threaded end first, from inside the facepiece. Push the connector until the threads are clear and the connector flange is securely seated.

## **b. Exhalation Valve Seat and Cover Replacement**

- 1) Remove the exhalation valve cover using the small tab on the cover.
- 2) Remove the exhalation valve.
- 3) Remove the valve seat by pushing outward to disengage the seat from the facepiece.
- 4) Insert a new valve seat from outside the facepiece. Securely seat the smaller diameter flange by flexing the facepiece material while pressing the seat, working the facepiece into the seat groove.
- 5) Install a new valve by pulling the stem through the seat until it snaps into place.
- 6) Reinstall the exhalation valve cover.
- 7) Test the new valve by performing a negative pressure fit check as described in section F.

## **L. STORAGE**

After inspection and cleaning, store your respirator to protect it against dust, sunlight, extreme heat and cold, excessive moisture, or damaging chemicals.



### **WARNING**

- ***This SPERIAN respirator does not have a defined storage life. Carefully inspect it before each use.***
- ***Failure to comply with this warning may lead to personal injury, illness, or death.***

### **CAUTION**

***The maximum storage temperature for this device is 140°F (60°C). Long term exposure to elevated storage temperatures could cause premature deterioration.***

## **M. SHIPMENT**

All products returned to SPERIAN's factory, distributors, or repair centers must be decontaminated prior to shipment.

## **N. OVERHAUL FREQUENCY**

This SPERIAN respirator does not have an overhaul requirement other than that required in section K, Maintenance.

## O. ADDITIONAL INFORMATION

If you need assistance or additional information on any SPERIAN product, consult your local distributor or contact:

### SPERIAN

3001 S. Susan Street

Santa Ana, CA 92704 U.S.A.

(714) 545-0410 or (FAX) (714) 850-0299

**ALL RETURNED PRODUCTS MUST BE DECONTAMINATED PRIOR TO SHIPMENT. PRODUCTS CONTAMINATED WITH DANGEROUS SUBSTANCES WILL BE REFUSED AND RETURNED FREIGHT COLLECT.**

## P. REPLACEMENT PARTS

### SURVIVAIR ValuairPlus Mask (S-Series) Parts/Assembly Listing (See Figure 1 on page 21)

#### Facepiece Part Listing

PART NO.	ITEM NO.	DESCRIPTION
	1	Facepiece, Small
	1	Facepiece, Medium
	1	Facepiece, Large
RP187	2	Inhalation Valve
F38	3	F38 Cartridge/Filter Connector

#### Facepiece Assembly Listing

PART NO.	ITEM NO.	DESCRIPTION
RP10	4	Exhalation Valve Assembly Consists of:
RP12	5	Exhalation Valve Seat
RP11	6	Exhalation Valve
RP13	7	Valve Cover

### Suspension Assembly Listing

PART NO.	ITEM NO.	DESCRIPTION
RP155S	8	Suspension Assembly Consists of:
	9	Yoke
	10	Crown Strap
	11	Elastic

### Associated Replacement Parts

PART NO.	ITEM NO.	DESCRIPTION
140074		Filter Base
140079		Filter Retainer/Fit Check Cover

### SURVIVAIR Premier Mask (S-Series) Parts/Assembly Listing (See Figure 2 on page 22)

### Facepiece Part Listing

PART NO.	ITEM NO.	DESCRIPTION
RP256S	1	Facepiece, Small
RP257S	1	Facepiece, Medium
RP258S	1	Facepiece, Large
RP187	2	Inhalation Valve
F-38	3	F38 Cartridge/Filter Connector

### Facepiece Assembly Listing

PART NO.	ITEM NO.	DESCRIPTION
RP10	4	Exhalation Valve Assembly Consists of:
RP12	5	Exhalation Valve Seat
RP11	6	Exhalation Valve
RP13	7	Valve Cover

### Suspension Assembly Listing

PART NO.	ITEM NO.	DESCRIPTION
RP4S/ RP4RS	8	Suspension Assembly Consists of:
RP5S	9	Yoke
RP6/ RP6R	10	Elastic Headbands/Rubber Headbands
RP7	11	Crown Strap
RP8	12	Hook for Neck Strap
RP9	13	Loop for Neck Strap

### Associated Replacement Parts

PART NO.	ITEM NO.	DESCRIPTION
140074	8	Filter Base
140079	9	Filter Retainer/Fit Check Cover

### SURVIVAIR PremierPlus Mask (S-Series) Parts/Assembly Listing (See Figure 3 on page 23)

#### Facepiece Part Listing

PART NO.	ITEM NO.	DESCRIPTION
	1	Facepiece, Small
B0901S	1	Facepiece, Medium/Large
RP187	2	Inhalation Valve
F38	3	F38 Cartridge/Filter Connector

#### Facepiece Assembly Listing

PART NO.	ITEM NO.	DESCRIPTION
F15	4	Exhalation Valve Assembly Consists of:
F16	5	Exhalation Valve Seat
F17	6	Exhalation Valve
F18A	7	Valve Cover

### Suspension Part Listing

PART NO.	ITEM NO.	DESCRIPTION
F46S	8	Yoke, Small
F32	8	Yoke, Medium/Large

### Suspension Assembly Listing

PART NO.	ITEM NO.	DESCRIPTION
F31	9	Suspension Assembly
F31L	10	Lower Strap Hook and Ring
F31U	11	Upper Cradle Strap

### Associated Replacement Parts

PART NO.	ITEM NO.	DESCRIPTION
140074		Filter Base
140079		Filter Retainer/Fit Check Cover

### CARTRIDGE AND FILTER TABLE (S-SERIES)

MODEL	FILTERS
1050	P100, Micro
1060	Filter Pad, N95
1070	Filter Pad, N99/R95
1190	P100 Slimline
1195	P100 Disk
MODEL	CARTRIDGES
100100	Organic Vapors
100200	Acid Gases
100300	Organic Vapors and Acid Gases
100400	Ammonia and Methlyamine
100600	Mercury Vapor and Chlorine
100800	Multi-Contaminant
1051	Combination Organic Vapors and P100
1052	Combination Acid Gases and P100

1053	Combination Organic Vapors, Acid Gases, and P100
1054	Combination Ammonia, Methylamine, and P100
1056	Combination Mercury Vapor, Chlorine, and P100
1058	Combination Multi-Contaminant and P100

## Q. WARRANTY AND LIMITATION OF LIABILITY

**LIMITED WARRANTY:** SPERIAN warrants this product to be free from defects in materials and workmanship for 5 years (for the skirt) and 1 year (for all other components) from the date of purchase. During this period, SPERIAN will repair or replace defective parts, at SPERIAN's option. Freight charges to and from the SPERIAN factory shall be paid by the purchaser.

**EXCLUSIONS:** NOTWITHSTANDING ANY CONTRARY TERM IN THE PURCHASER'S PURCHASE ORDER OR OTHERWISE, THE ONLY WARRANTY EXTENDED BY SPERIAN IS THE EXPRESSED LIMITED WARRANTY DEFINED ABOVE. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY IMPLIED WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE.

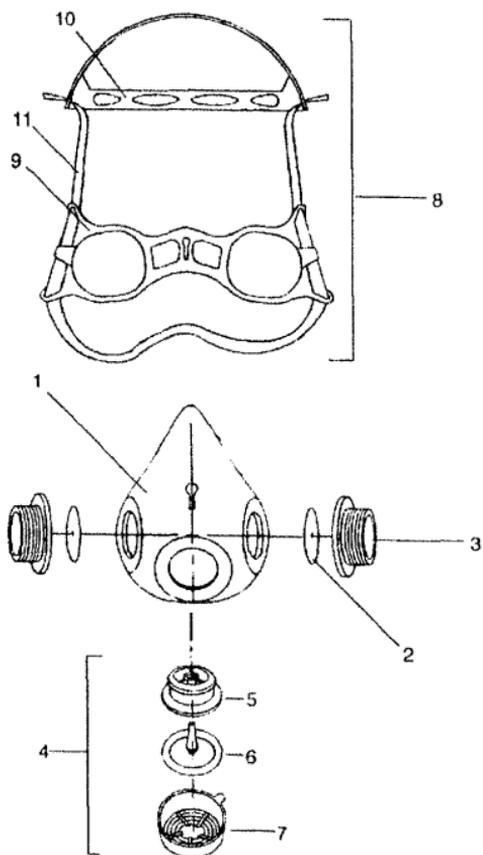
**CONDITIONS:** To maintain this warranty this product must be used, maintained, and inspected as prescribed in the owner's instruction manual, including prompt replacement or repair of defective parts and such other necessary maintenance and repair as may be required. Normal wear and tear; parts damaged by abuse, misuse, negligence, or accidents; and inhalation and exhalation valves and twin seals are specifically excluded from this warranty.

**LIMITATION OF LIABILITY:** No other oral warranties, representations, or guarantees of any kind have been made by SPERIAN, its distributors, or the agents of either of them, that in any way alter the terms of this warranty. **EXCEPT AS HEREIN PROVIDED, SPERIAN SHALL HAVE NO LIABILITY FOR ANY LOSS OR DAMAGE, WHETHER DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL, TO ANY PURCHASER OR USER OF THIS PRODUCT ARISING FROM THE SALE, USE, OR OPERATION OF THIS PRODUCT.**



### WARNING

*The failure to use and maintain this equipment in strict conformance with the applicable instruction manual may result in personal injury, illness, or death. The equipment's use in any manner that is not expressly authorized pursuant to the applicable instruction manual may result in severe adverse impacts to human health.*



**Figure 1. SPERIAN Valuair Plus Facepiece (S-Series)**

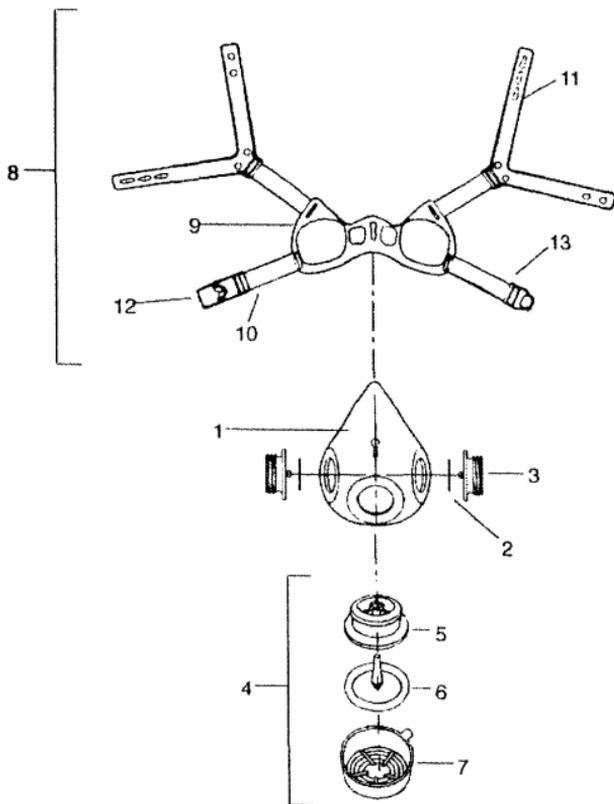


Figure 2. SURVIVAIR Premier Facepiece (S-Series)

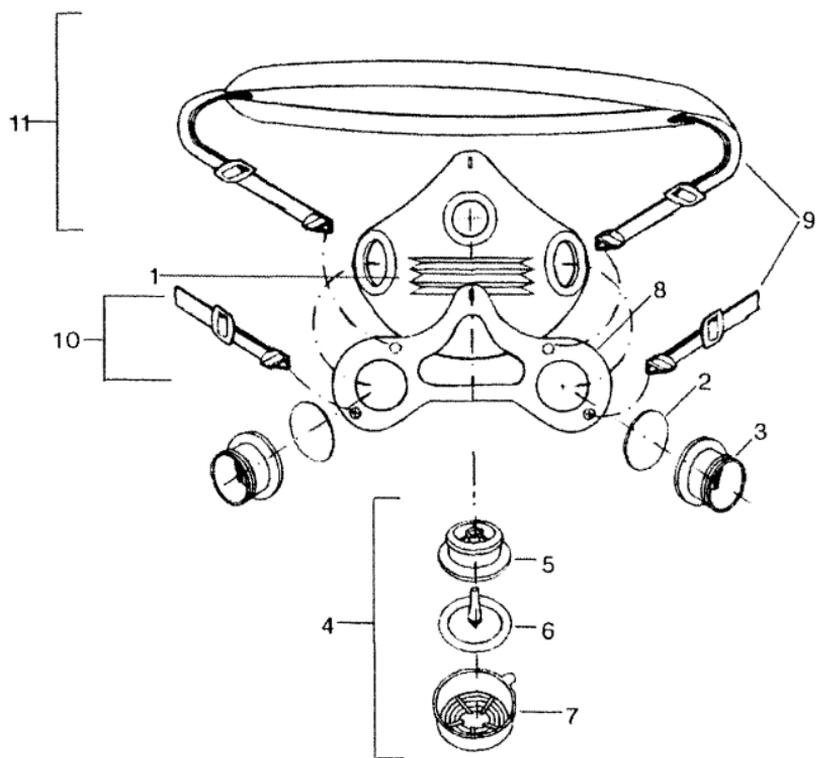


Figure 3. SURVIVAIR Premier Plus Facepiece (S-Series)

