INSTRUCTION MANUAL

SPERIAN

AIR PURIFYING RESPIRATOR

SURVIVAIR SERIES 2000

SURVIVAIR BLUE 1®

SURVIVAIR LOW MAINTENANCE

SURVIVAIR HALF MASK FACEPIECES

WARNING

Do not use your respirator until you read and understand this instruction manual. You are required to inspect the respirator prior to putting it into 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

AN ISO 9001 REGISTERED COMPANY

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P/N 230094 REV E 03/09

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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 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.***
- ***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.***
- ***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.***
- ***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 use this respirator without the appropriate SPERIAN cartridges and/or filters securely threaded 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.***
- ***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.***
- ***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 those which the wearer could not breathe for short periods, could not escape without the aid of a respirator, or which have an immediate or delayed adverse effect on health.***
- ***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). 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. • 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. 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, folliculitus or vitiligo) until you obtain clearance from a medical doctor.***
- ***Users must clean and maintain this respirator only in accordance with SPERIAN's instructions.***
- ***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 wear this respirator if a satisfactory fit, as determined by a qualitative or quantitative fit test, cannot be obtained. See ANSI Z88.2, latest issue, and OSHA CFR 1910.134, latest edition.***
- ***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 use this respirator at temperatures above 130°F (55°C).***
- ***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.***
- ***This respirator does not supply oxygen. Do not use the respirator in atmospheres containing less than 19.5% oxygen by volume.***
- ***Beards, stubble, or sideburns will prevent a good facepiece seal, and facial hair may interfere with valve function. Do not use this respirator unless you are clean shaven. Absence of one or both dentures can seriously affect the fit of the respirator.***
- ***Immediately return to a non-contaminated area if you taste or smell contaminants; your eyes, nose, or throat become irritated; breathing becomes difficult; you feel nauseous or dizzy; the breathing air becomes uncomfortably warm; the facepiece moves, slips, or leaks; or any of the end-of-service-life indicators (ESLIs) on the mercury vapor cartridge turns gray.***
- ***Do not use respirators in environments where flying sparks or chips may damage the speaking diaphragm. Do not use respirators with damaged speaking diaphragms.***
- ***Do not alter or modify any respirator product.***
- ***This respirator facepiece assembly contains natural rubber latex, which may cause allergic reactions in some individuals. Discontinue use if you experience an allergic reaction.***

⚠ *WARNINGS AND LIMITATIONS—Continued*

- ***Discontinue use if you experience skin irritation or discoloration.***
- ***For use by trained, qualified personnel only.***
- ***This product may provide less than adequate protection if improperly used, resulting in personal injury, illness, or death.***
- ***Following is a list of contaminants for which these respirators must not be used. This list is far from complete. Please contact SPERIAN for information on other contaminants.***
- ***FAILURE TO COMPLY WITH THESE WARNINGS MAY RESULT IN PERSONAL INJURY, ILLNESS, OR DEATH.***

Acrolein	Carbonyls	Hydrogen Selenide	Phosgene
Aniline	Cyanogen	Methanol	Phosphine
Arsine	Dimethylaniline	Methylene Chloride	Phosphorous Trichloride
Boron Hydrides	Dimethyl Sulfate	Nitrogen Oxides	Stibine
Bromine	Ethyl Cyanide	Nitroglycerin	Sulfur Chloride
Carbon Dioxide	Fluorine	Nitromethane	Vinyl Chloride
Carbon Monoxide	Hydrogen Cyanide	Ozone	

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, glycerin, 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 4 (four) 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.

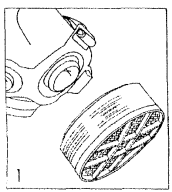
b) Install cartridges or P100 filters by threading them onto the facepiece connectors. Hand-tighten to ensure a good seal against the facepiece. Do not overtighten.

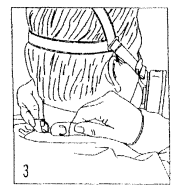
c) If using filter pads, insert the appropriate pad into the filter retainers so that the side stamped with the part number will face toward the facepiece when installed. Completely snap the filter retainers onto the cartridges or filter holders.

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 diameter of the pad must be compressed between the top lip of the cartridge or filter holder and the inner sealing ledge 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.



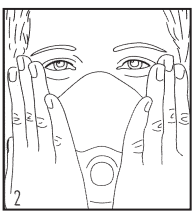


1. Inspect the respirator as described in section G.
2. Install cartridges/filters onto the inlet ports. Hand tighten, but do not overtighten. See inset 1.
3. Position the bottom of the facepiece as low as possible under the chin while positioning the narrow portion of the facepiece on the bridge of the nose. Position the cradle headband above the ears so that it straddles the crown of the head. See inset 2.
4. Hook the lower headband straps below the ears and around the back of the neck. Adjust the upper headband by pulling both straps at the same time. Adjust the lower headband straps in the same manner. Adjust the headbands for a leak-tight fit, but do not overtighten the straps. See inset 3. For the Blue 1 respirator, you must remove the respirator to adjust the headband strap slides as necessary for a leak-tight fit, but do not overtighten the straps.
5. Perform a fit check before using the respirator.

C. HOW TO FIT CHECK THE RESPIRATOR

You must perform the following fit check each time the respirator is worn.

⚠ *WARNING*
If you cannot obtain a leak-tight fit, do not use the respirator. Consult your supervisor or safety professional. Failure to comply with this warning may lead to personal injury, illness, or death.



1. **Positive Pressure Fit Check:** Hold the palm of your hand gently over the exhalation valve outlet. 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. See inset 1. If air leakage occurs, readjust the facepiece and headbands, then retest.

2. **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. 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 user 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. See inset 2. If air leakage occurs, readjust the facepiece and headbands, 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.

D. HOW TO USE THE RESPIRATOR

To receive the maximum protection available from the 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 this respirator. Read and understand the following warning 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 or scratch covered areas of your face.***
  - ***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.***
- ***Failure to comply with this warning may lead to personal injury, illness, or death.***

E. CHEMICAL 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 compliant cartridge change-out schedule 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 cartridges be changed at least daily.***

WARNING—Continued

- ***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 individual compounds have breakthrough times that vary by two 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 no 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. Unscrew and remove the used cartridges from the facepiece and dispose of the 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 C.

F. 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 cause 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. 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. Failure to comply with this warning may lead to personal injury, illness, or death.

Replace filters as follows:

1. Return to fresh air.
2. If using P100 filters, unscrew and remove the used filters from the facepiece and dispose of the 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 C.

G. INSPECTION

Inspect this respirator for defects as described below 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. See section H for repair instructions. 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.

NOTE

If the respirator is equipped with a speaking diaphragm, do not remove it from the facepiece for inspection.

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.
5. If the respirator is equipped with a speaking diaphragm, inspect it for holes or tears by holding it up to a light and verifying that no light shines through.

H. 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. ANSI Z88.2, latest edition, also provides 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.***

CAUTION

- *Do not use solvent type cleaners to clean any part of the respirator.*
- *Do not use sonic cleaners on respirators equipped with a speaking diaphragm.*

a) Remove the cartridges and/or filters.
b) Immerse the facepiece in warm, soapy water and gently scrub with a soft brush.
c) Rinse thoroughly in fresh water to remove all traces of soap, especially from the exhalation valve.
d) Disinfect the facepiece in a warm, 120°F (48°C) maximum, suitable sanitizing solution, such as "hypochlorite" for 2 to 3 minutes. A hypochlorite solution can be prepared by mixing 2 tablespoons of chlorine bleach per each gallon of water. Rinse thoroughly with fresh warm, 120°F (48°C) maximum water.
e) Dry with a clean, lint-free cloth or allow to air dry. Warm air may be used.
f) Carefully inspect the respirator as described in section G. Reinstall the cartridges and/or filters before use.

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

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 inward to disengage the seat from the facepiece.
4) Insert a new valve seat from inside 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 C.

I. STORAGE

WARNING

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

CAUTION

The maximum storage temperature for the respirator is 140°F (60°C). Long-term storage at elevated temperatures may cause premature deterioration.

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

J. SHIPMENT

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

K. 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 (888) APR-SCBA
FAX (714) 850-0299

L. REPLACEMENT PARTS

REPLACEMENT PARTS TABLE (See Figure on page 17)

ITEM	PART NO.	DESCRIPTION
1	260023	Headband and Yoke, Series 2000
1	860030	Headband and Yoke, Low Maintenance
1a	140080	Upper Cradle, Blue 1
1b	140022	Lower Headband, Blue 1
1c	140024	Lower Headband, Blue 1
	140040	Lower Headband and Upper Cradle Set, Blue 1
2	See Note	Facepiece Skirt, Series 2000
2a	See Note	Facepiece Skirt, Blue 1, w/Speaking Diaphragm
2b	See Note	Facepiece Skirt, Blue 1, w/o Speaking Diaphragm
3	260019	Exhalation Valve Seat
4	140005	Exhalation Valve
5	260018	Exhalation Valve Cover
6	140001	Inhalation Valve
7	140002	Threaded Connector, Series 2000 and Blue 1
7	360008	Threaded Connector, Low Maintenance
8	140074	Filter Holder
9	140079	Filter Retainer
10	220054	Speaking Diaphragm
11 - 13	Filters-See Cartridge and Filter Table	
14 and 15	Cartridges-See Cartridge and Filter Table	

NOTE: Contact your local distributor for the appropriate skirt part number.

CARTRIDGE AND FILTER TABLE (See Figure on page 17)

ITEM	MODEL	FILTERS
11	1060	Filter Pad, N95
11	1070	Filter Pad, N99/R95
12	1050	P100, Micro
13	1190	P100 Slimline
	1195	P100 Disk
ITEM	**MODEL**	**CARTRIDGES**
14	100100	Organic Vapors
14	100200	Acid Gases
14	100300	Organic Vapors and Acid Gases
14	100400	Ammonia and Methlyamine
14	100600	Mercury Vapor and Chlorine
14	100800	Multi-Contaminant
15	1051	Combination Organic Vapors and P100
15	1052	Combination Acid Gases and P100
15	1053	Combination Organic Vapors, Acid Gases, and P100
15	1054	Combination Ammonia, Methylamine, and P100
15	1056	Combination Mercury Vapor, Chlorine, and P100

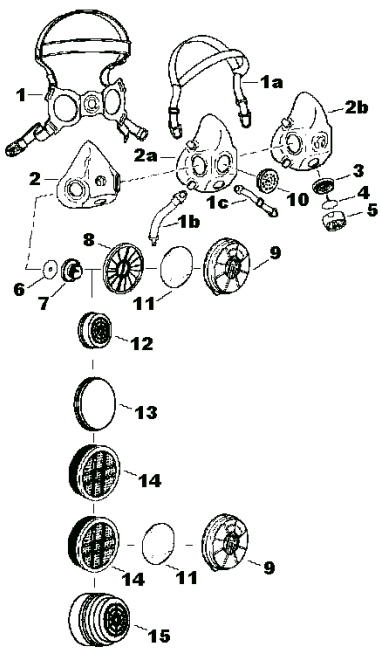


Figure 1. Half Mask Facepiece

M. WARRANTY AND LIMITATION OF LIABILITY

LIMITED WARRANTY: SPERIAN warrants this product to be free from defects in materials and workmanship for 5 years (1 year for plastic parts) 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 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.