



CBRN Full Facepiece Respirator *FP-C*



User Instructions

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Table of Contents

1. DESCRIPTION	3
2. GENERAL LIMITATIONS ON USE.....	4
3. NIOSH CAUTIONS & LIMITATIONS ON USE.....	6
4. FACEPIECE FITTING	7
5. PREPARATION FOR USE.....	9
6. DONNING PROCEDURE	10
7. DOFFING PROCEDURE.....	12
8. MAINTENANCE AND STORAGE.....	13
9. SPARE PARTS	19

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WARNING

Improper use of this respirator may result in personal injury or death. Improper use includes, but is not limited to, use without adequate training, disregard of the warnings and instructions contained herein and failure to inspect and maintain this respirator.

This respirator is intended to be used only in conjunction with an organized Respiratory Protection Program which complies with the requirements of "Practices for Respiratory Protection", z88.2-1992 available from American National Standards Institute, 11 West 42nd Street, New York, N.Y. 10036 and/or the requirements of OSHA Safety and Health Standard 29 CFR 1910 paragraph 134 available from the U.S. Department of Labor, Occupational Safety and Health Administration, and/or other pertinent nationally recognized standards, such as those promulgated by the U.S. Coast Guard or the Department of Defense.

This respirator is not intended for use in atmospheres which are, or may become, Immediately Dangerous to Life or Health (IDLH), in atmospheres where the identity and/or concentration of the contaminant is unknown or in oxygen-deficient atmospheres.

1. DESCRIPTION

The FP-C full facepiece respirator consists of a full facepiece used in conjunction with filtration media for protection against airborne gases, vapors, or particulates that arise in a chemical, biological, radiological and nuclear environment (CBRN). The facepiece is made from halo-butyl rubber. The respirator is available in a single size.

Proper fitting and training is required prior to use of the respirator. When properly used, the respirator seals against the skin of the user's face and removes harmful contaminants from the inhaled air by chemical reaction or mechanical filtration. Exhaled air leaves the facepiece through the exhalation valve. The inhalation valve acts as a check valve to prevent the flow of exhaled air through the filtration media.

The user is responsible for selecting the appropriate filtration media. Use only filtration media approved for use with the respirator. Refer to the NIOSH approval label supplied with the respirator and filtration media.

WARNING

The failure to choose a respirator equipped with filtration media suitable for the contaminant(s) in the atmosphere or likely to be released in the atmosphere may result in little or no protection and may expose the wearer to substances which can cause serious personal injury or death.

The respirator is intended for entry into and work in atmospheres containing contaminants with adequate warning properties in concentrations less than those Immediately Dangerous to Life or Health (IDLH) and which are not oxygen deficient. It may be used for ESCAPE ONLY from atmospheres which contain concentrations of contaminants which exceed the Immediately Dangerous to Life and Health concentration provided the correct filtration media is used and the atmosphere is not oxygen deficient.

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2. GENERAL LIMITATIONS ON USE

2.1. The protection offered by the respirator depends upon the quality of the facepiece fit, the condition of the respirator and the selection of the proper filtration media. Proper filtration media should be labeled with "CBRN" and a capacity class which indicates the gas service life under standard laboratory conditions as set out by NIOSH CBRN APR Standard April 4th 2003. Class "Cap 1" indicates a tested service life of 15 minutes; "Cap 2" indicates a tested service life of 30 minutes. These ratings may bear no relationship to real duration times and **must not** be used as a guide for replacement. Assuming that the respirator is properly fitted, in good condition, free from leaks, etc. and has the proper CBRN filtration media present, the length of time the respirator will provide protection depends upon the conditions of use. The conditions of use include but are not limited to:

- The concentration of contaminant(s) in the atmosphere;
- The temperature and the humidity of the ambient atmosphere;
- Any previous use of the filtration media *;
- The elapsed time since the filtration media was placed in service;
- The psychological state of the wearer;
- The level of physical activity of the wearer.

* **NOTE:** CBRN filter media are for single use only. Never fit used filtration media.

In addition to the conditions of use mentioned above, the length of time filtration media may be used to protect against atmospheres containing certain substances may be controlled by government regulations. The user must be familiar with these government regulations and must strictly adhere to them.

- 2.2. This respirator is intended to be used **only** by persons who have been pre-fitted with the respirator (see "*Facepiece Fitting*" section of this manual).
- 2.3. Filtration media selected for protection against airborne particulates, gases and vapors in a CBRN environment must be used in accordance with instructions and warnings shown on filtration media labels. Refer to the "*Respirator Approval Label*" section for respirator description and use. **Do not use these respirators in atmospheres containing unknown substances.**
- 2.4. User **must** be instructed and trained in the proper use of this respirator and recognize its limitations.
- 2.5. **Do not use in oxygen-deficient atmospheres.** Filtration media do not supply oxygen.
- 2.6. This respirator **must not** be used for fire fighting.
- 2.7. Read, be familiar with, and **understand** all instructions and warnings packaged with, or attached to, each type of filtration media.
- 2.8. The facepiece must be well fitted and functioning properly. The respirator **must not** be worn when conditions such as growth of beard, sideburns, a skull cap that projects under the facepiece, or temple pieces on corrective glasses prevent a good facial seal.
- 2.9. This respirator is intended for entry into, or work in, only those atmospheres which are not oxygen deficient and are not immediately dangerous to life and health. This respirator may be used for **escape only** from atmospheres which become immediately dangerous to life and health.

- 2.10. **Do not** use this respirator to enter or work in atmospheres containing unknown amounts of contaminants. When the concentration of the hazardous material in the atmosphere is not known, the atmosphere must be treated as immediately dangerous to life and health.
- 2.11. **Do not** use this respirator in environments containing substances which may irritate or poison through the skin **unless** the appropriate actions such as the use of face shields, protective clothing, etc. have been taken to protect the body.
- 2.12. The use of contact lenses while wearing a respirator **may be forbidden** or severely restricted by your respiratory protection program. If you are a contact lens user, notify your respiratory program administrator or employer and obtain specific limitations and instructions before using contact lenses with this respirator.
- 2.13. If you sense any of the following danger signals:
- smell or taste of contaminants
 - eye, nose or throat irritation
 - breathing difficulty
 - uncomfortably warm breathing air
 - dizziness, nausea or vomiting
- immediately leave the contaminated area. Do not remove the respirator until you have reached clean air and after decontaminated as required.
- 2.14. Unless specifically defined by your respiratory protection program, **do not** use this respirator for protection against gases or vapors that have poor warning properties.
- 2.15. When using this respirator in accordance with its label against substances which cannot be detected by taste, smell, etc., the administrative controls on the time of use established by your organized respiratory protection program in accordance with the CBRN service life **must** be adhered to. An organized respiratory protection program includes, but is not limited to, an evaluation and understanding of the hazards being protected against, proper training and surveillance of the user, and regular evaluation to determine respirator effectiveness, and a change out schedule.
- 2.16. **Do not** use this respirator for protection against gases or vapors which generate high heats of reaction with the sorbent materials in the filtration media.
- 2.17. Operating temperature range –30 to +50°C.

3. NIOSH CAUTIONS & LIMITATIONS ON USE

WARNING

The information below contains the Cautions and Limitations on use set out by NIOSH CBRN APR Standard, April 4 2003. These Cautions and Limitations are in addition to and do not replace the instructions, training, supervision, maintenance, and other elements of your organized Respiratory Protection Program.

- A Not for use in atmospheres containing less than 19.5 percent oxygen.
- J Failure to properly use and maintain this product could result in injury or death.
- L Follow these User's Instructions for changing canisters.
- M All approved respirators shall be selected, fitted, used, and maintained in accordance with MSHA, OSHA, and other applicable regulations.
- O Refer to User's Instructions for information on use and maintenance of these respirators.
- R Some CBRN agents may not present immediate effects from exposure, but can result in delayed impairment, illness, or death.
- T Direct contact with CBRN agents requires proper handling of the respirator after each use and between multiple entries during the same use. Decontamination and disposal procedures must be followed. If contaminated with liquid chemical warfare agents, dispose of the respirator after decontamination.
- V Not for use in atmospheres immediately dangerous to life and health or where hazards have not been fully characterized.
- W Use replacement parts in the configuration as specified by the applicable regulations and guidance.
- X Consult manufacturer's User Instructions for information on the use, storage and maintenance of these respirators at various temperatures.
- Y This respirator provides respiratory protection against inhalation of radiological and nuclear dust particles. Procedures for monitoring radiation exposure and full radiation protection must be followed.
- Z If during use an unexpected hazard is encountered such as a secondary CBRN device, pockets of entrapped hazard or any unforeseen hazard, immediately leave the area for clean air without removing the respirator.
- CC For entry, do not exceed maximum use concentrations established by regulatory standards.
- HH When used at defined occupational exposure limits, the rated service time cannot be exceeded. Follow established canister change-out schedules or observe End of Service Life Indicators to ensure that canisters are replaced before breakthrough occurs.
- QQ Use in conjunction with personal protective ensembles that provide appropriate levels of protection against dermal hazard. Failure to do so may result in personal injury even when the respirator is properly fitted, used and maintained.
- UU The respirator should not be used beyond eight (8) hours after initial exposure to chemical warfare agents to avoid possibility of agent permeation. If liquid exposure is encountered, the respirator should not be used for more than two (2) hours.

4. FACEPIECE FITTING

WARNING

Failure to perform a facepiece fit test may result in little or no respiratory protection and may expose the wearer to substances which can cause serious personal injury or death.

A good facepiece fit is essential to ensure protection when using the respirator. It is essential to test facepiece fit before issuing a respirator to a user.

A user must pass a Quantitative Fit Test (QNFT) and achieve a fit factor of at least 2000 before being assigned a respirator.

Quantitative Fit Test

A Quantitative Fit Test (QNFT) gives a numerical measure of facepiece fit.

The user wears a respirator in a test atmosphere while an instrument compares the concentration of the challenge agent in the test atmosphere with that inside the facepiece. The test atmosphere may be air contaminated with an aerosol, vapour or gas. With some instruments ambient air can be used.

The QNFT protocol must be in accordance with appropriate government regulations.

Facepiece fit testing has a number of aims:

- To assess the suitability of the respirator for each person for use in real situations.
Due to natural variations in human facial features, no one size or style of full facepiece can be guaranteed to fit everyone. A QNFT, properly conducted, can be used to determine if the respirator is suitable for each user.
- If the respirator is found to be unsuitable, to determine if the same respirator fitted with the Full Face Mask Insert (SEA-FI) is suitable.
The Full Face Mask Insert is an adhesive-backed foam strip, inserted behind the face seal, intended to accommodate unusual facial features or small faces. Once again, a QNFT must be performed to determine if this configuration is suitable for each user.
- To train each user in the correct donning technique that will ensure a good facial fit during future use.
It is extremely important that the donning technique learned by each user during the QNFT is employed in all future use, where fit testing will not normally be available. In particular, the head harness tension used to pass the QNFT should be appropriate for extended use in real situations; if excessive harness tension is needed to pass, the respirator should be considered unsuitable, and should not be used by that person.

NOTE: In terms of facepiece fit, the FP-C facepiece is identical to that of the SE40 CBRN PAPR. Fit tests performed with the FP-C facepiece are valid for the SE40 facepiece, and vice versa.

QNFT Procedure

The recommended method for performing the QNFT is with the S.E.A. Fit Test Adapter (FTA1). Alternatively, a modified test facepiece may be used. Both methods are described below.

To prepare for a QNFT using the Fit Test Adapter FTA1:

1. Attach the FTA1 to the facepiece and attach a P100 particulate filter, following the user instructions provided with the FTA1
2. Don the respirator in accordance with section *Donning Procedure*

To prepare for a QNFT using a test facepiece:

1. Attach a P100 particulate filter to the test facepiece. The test facepiece should be leak tested by a suitable method prior to use
2. Don the respirator in accordance with section *Donning Procedure*

To perform a QNFT:

1. Prepare and don the respirator using one of the methods described above
2. An assistant should inspect the fit of the respirator. Check for significant gaps between the rim of the facepiece and the user's face. If significant gaps are visible, consider fitting the Full Face Mask Insert (SEA-FI). Doff the facepiece, fit the Insert in accordance with its user instructions, and don the facepiece as before.
3. Enter the test atmosphere (if required) and connect the test instrument's sampling tube to the sampling port on the FTA1 or test facepiece
4. Perform an appropriate QNFT exercise sequence and determine the fit factor
 - i. If the fit factor is 2000 or greater, the respirator should be considered suitable for the user. No further testing is required
 - ii. If the fit factor is less than 2000, an observer should check that the respirator is correctly assembled, and properly fitted in accordance with section *Donning Procedure* step 8. The user should check head harness tension and adjust if necessary. Go to step 5 below
 - iii. If during step ii above the observer detects fitting problems which cannot be overcome by adjustment – in particular, visible gaps between sealing rim and the user's face – the Full Face Mask Insert (SEA-FI) may provide a solution. Doff the facepiece, fit the Insert in accordance with its user instructions, and don the facepiece as before. Go to step 5 below
5. Repeat the QNFT and determine the fit factor
 - o If the fit factor is 2000 or greater, the respirator in the configuration tested – with or without Insert as appropriate – should be considered suitable for the user. No further testing is required
 - o If the fit factor is again less than 2000 the respirator should be considered unsuitable and should not be used by that person

NOTE: Some "trial and error" is acceptable when carrying out facepiece fit testing. Sound judgement by experienced personnel is essential when assessing the suitability or otherwise of a respirator. Remember that the donning and adjustment method used during testing must be appropriate for subsequent use in real situations.

5. PREPARATION FOR USE

1. Before use, check the following:
 - Condition and intactness of facepiece and other rubber parts
 - Head Harness condition and elasticity
 - Visor condition and cleanliness
 - Speech diaphragm is in place
 - Exhalation valve is in place and the exhalation valve cover is properly fastened. Note that when using the SEA SmallTalk with the respirator, the exhalation valve cover is replaced with the exhalation valve cover containing the microphone. Ensure that this is properly fastened. Refer to the user instructions for the SmallTalk for more details
 - Inhalation and exhalation valves are functioning properly
 - Nose cup is properly positioned behind the face seal chin pocket
2. Attach corrective lens holder accessory (spectacle frame), if required.
3. Check that the filtration media:
 - is the correct type for the contaminant(s)
 - is approved for use with the respirator (check the NIOSH approval label)
 - original packaging is sealed
 - expiry date has not been exceeded
 - has been stored and inspected according to the inspection regime set out by your respirator program

NOTE: Filtration media are single use only. Filtration media service life varies depending on the contaminant type and concentration, exposure temperature and humidity. CBRN life rating refers to a standard laboratory test and may have no relationship to duration times of the filtration media and **must not** be used as a guide for replacement.

NOTE: When used for training – in the absence of contaminants – filtration media may be reused in accordance with an established change out schedule. However, filtration media used for training **must not** be used subsequently in a contaminated environment.

4. Remove filtration media from bag and remove seals (if applicable) located at inlet and/or outlet.
5. Check that the inhalation valve disc (Figure 9.1, item 11) and inhalation valve seat (Figure 9.1, item 9) are properly installed at filtration media connector.
6. Fit the filtration media to the center of the facepiece, threading clockwise until tight. For correct tightness:
 - a) Hold the respirator in one hand and place the thread of the filtration media into the connector.
 - b) With one finger, **gently** spin the filtration media in a clockwise direction until you feel it slow down and nearly stop on the gasket. Turn the filtration media 1/6 (or 60^o) of a turn. The filtration media is now considered “tight”.



WARNING

Failure to verify that the filtration media is properly threaded into the facepiece may result in little or no respiratory protection and may expose the wearer to substances that can cause serious personal injury or death.

6. DONNING PROCEDURE

The user must be familiar with and practise the donning and doffing procedures prior to respirator use.

WARNING

Men should be clean-shaven and should not have facial hair such as beards or large sideburns. Facial hair can seriously compromise the face seal and result in reduced protection.

NOTE: Before donning a respirator for the first time, perform a facepiece fit test per section *Facepiece Fitting*. SEA recommends that each new (unused) respirator be tested for facepiece fit even if the user is experienced with the respirator.

NOTE: Users who have been approved to use the respirator only with Full Face Mask Insert (SEA-FI) should check that the insert is correctly fitted and is in good condition prior to donning.

NOTE: Users should be well hydrated before donning and using the respirator.

1. Visually inspect the respirator for completeness, correct assembly and lack of damage, per section *Preparation for Use*.
2. Put the facepiece neck strap over your neck.
3. Fully loosen the head harness straps.
4. Clear all hair away from your face. A thin elasticised head band may be used, provided it is kept clear of the face seal.
5. Holding the facepiece in one hand and the head harness in the other, place your chin in the cup of the facepiece.



6. Pull the head harness over and down the back of your head and stroke it down. Clear any hair away from the face seal.
7. Tighten the head harness straps in pairs by pulling the free ends backwards. Start with the neck straps (1), followed by the temple straps (2) and finally the forehead strap (3).



8. Check that the face seal touches the skin all around, especially under the chin cup and at the temples. Try moving the mask to verify that there is no slippage. The straps should be tightened firmly enough to prevent movement on the face during use, but should not be overly tight. Excessive tightness may lead to increasing discomfort during use. Check once again that there is no hair under the face seal.
9. Perform a **User Seal Check** * as follows:
 - Block the air inlet to the filtration media with the palm of the hand or by fitting **SEA fit test disc** (part no. FF-T-DISC) to the filtration media, held in place by **prefilter holder** (part number PFH-T)
 - Inhale slowly and hold breath momentarily
 - The facepiece should be drawn slightly to the face by the suction. No leakage should be evident at the face seal.

NOTE: Since the filtration media's louvred cover is **not** intended to be airtight, the suction will be felt only momentarily. This will not affect the ability to sense leakage at the face seal.



10. If any leakage is evident, correct immediately by re-stroking head harness to the back and retighten neck, temple, and forehead straps. The straps should be tightened

firmly enough to prevent movement on the face during use, but should not be overly tight. Excessive tightness may lead to increasing discomfort during use. Check once again that there is no hair under the face seal.

11. Don any outer protective clothing as required. You are now ready to enter a contaminated area.

* **NOTE:** The User Seal Check is a simple check for gross leakage prior to use. It is not a substitute for a quantitative fit test (QNFT).

Buddy check

When entering a contaminated area in groups of two or more, it is good practice to perform a "buddy check". Pairs of users should visually inspect – but should not adjust – each other's mask, checking for correct positioning, strap tightness, absence of hair in the face seal, correct fitment of accessories, etc.

WARNING

If the facepiece has been properly donned and adjusted, detection of contaminant odour or taste, or irritation of eye, nose or throat during use may indicate exhaustion of the filtration media. Return to fresh air immediately without removing the respirator, check facepiece fit and replace filtration media. Used filtration media should be disposed of properly in accordance with state and/or local guidelines for disposal of contaminated material.

7. DOFFING PROCEDURE

WARNING

Before removing the respirator, decontamination may be necessary, depending on the contaminant(s). Follow a decontamination procedure appropriate to the contaminant(s).

To doff – or remove – the facepiece, proceed as follows:

1. Before removing the respirator, leave the contaminated area and/or be certain that respiratory protection is no longer required.
2. Loosen all head harness straps fully. Do this by lifting the buckles (away from the head) while maintaining head strap tension by pulling the facepiece away from the face or by pulling the head straps backwards.
3. Remove the facepiece by pulling it up and back over the head. Take care not to contaminate the interior of the facepiece during and after doffing.
4. If work period has been completed, clean, inspect and repack the respirator per section *Inspection, Cleaning and Storage*.
5. To resume use of the respirator, replace expended filtration media with new filtration media and repeat the *Donning Procedure*, including the User Seal Check.

8. MAINTENANCE AND STORAGE

WARNING

Failure to properly clean and inspect the facepiece and harness may result in the respirator providing little or no protection and may expose the user to substances which can cause personal injury or death.

Cleaning and inspection

After each use, clean and inspect the respirator as follows:

NOTE: If the respirator has been exposed to chemical warfare agents, SEA recommends that the respirator be decontaminated and disposed of in accordance with state and local guidelines for hazardous waste materials.

NOTE: In the USA, OSHA requires that emergency use respirators be inspected at least once per month and before and after use to ensure they are in good operating condition.

1. Remove the filtration media from the facepiece by turning counterclockwise until unthreaded. Expended filtration media should be disposed of in accordance with state or local guidelines for disposal of contaminated material.
2. Carefully wash the facepiece and harness in a warm water solution (110° F maximum) containing a mild detergent.

NOTE: A soft brush may be used to wash the harnesses and elastomeric portion of the facepiece. Use a soft cloth to wash the visor, inside and out. **Do not use the brush on the plastic visor.**

3. Rinse thoroughly with clean water and shake off excess water.

NOTE: The nose cup (inner mask) is designed to be an integral part of the facepiece assembly and does not need to be disassembled for cleaning and disinfecting. In the event that the nose cup is removed for inspection or cleaning, make certain it is reassembled behind the chin pocket of the face seal.

4. Disinfect the facepiece with a diluted disinfectant and let dry.
5. Examine elastomeric portion of the facepiece for tears, holes, deformation, cracks, stiffening or signs of aging.
6. Examine head straps and harness for breaks, cuts, frays, tears, loss of elasticity and missing or damaged hardware.
7. Examine filtration media gasket and internal thread for damage or wear.
8. Examine the inhalation and exhalation valves and valve seats for cracks or foreign substances which may not allow the valves to close completely. Check that the valves are not distorted or missing.
9. Examine visor for cracks, excessive scratches or other damage.
10. Correct any deficiencies immediately or tag the respirator as in need of repair and remove from service.

NOTE: Use only replacement components as supplied by the SEA Group. See replacement parts section of this instruction.

11. After cleaning and inspection, pack the respirator suitably for short term or long term storage.

Storage

Standard packaging

Mask – Packaging as per figures 8.1 and 8.2, including moulded insert, plastic bag, foam sheet and carton.



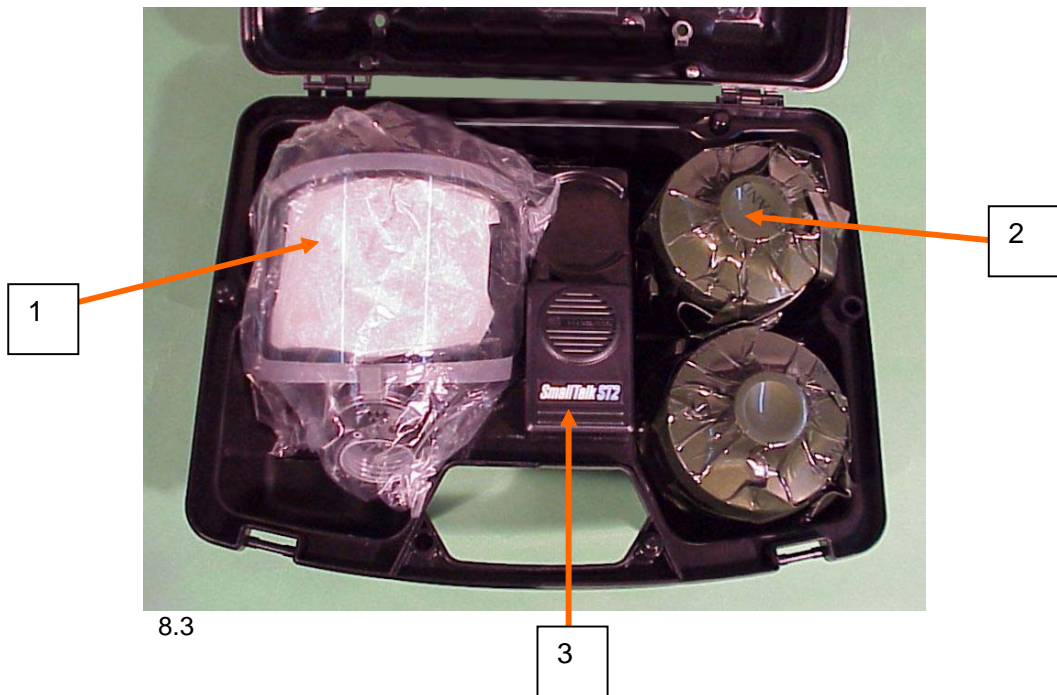
Filtration media – Laminated green foil sealed bag and cardboard carton

Alternative packaging

Alternatively, respirator components may be stored in one of the following configurations:

The *SEA Full Face Mask Carry Case* (part no. *F-S-B-SEA*, figure 8.3) is a hard plastic carry case for storage and transport of the following respirator components:

- Mask with moulded plastic insert fitted and placed in plastic bag (LDPE, approx 30 x 45 cm, 25-50 micron) as supplied with the mask
- Up to 2 filtration media approved for the mask
- SmallTalk ST2-F (accessory), connected to mask or separate



The *SEA Full Face Mask Storage Box* (part no. *F-S-B*, Figure 8.4) is a hard plastic container for storage and transport of the following respirator components:

- Mask in plastic bag (LDPE, approx 30 x 45 cm, 25-50 micron) as supplied with the mask
- Filtration media approved for the mask (qty 1 only)
- SmallTalk ST2-F (accessory), connected to mask or separate



8.4

NOTE: Mask must be stored in plastic bag for dust protection. Failure to do so may result in contamination of the exhalation valve and reduced or no respiratory protection.

NOTE: Store the mask away from direct sunlight, grease, moisture (< 75% Humidity) and extreme temperatures (store within the range -10 to 30 deg C). A properly stored, unused mask stays in good condition for a long storage period. The components of the facepiece should not be more than 10 years old.

NOTE: If stored in one of the above configurations, the filtration media shall have a shelf life of up to 10 years, provided that the Mil-Spec foil packaging is undamaged.

Maintenance

Table 1 – Maintenance schedule

Component	Work to be Done	Intervals			
		Before Use	After Use	Yearly	Every Five Years
Mask, complete	Cleaning		■	■	■
	Disinfection		■	■	■
	Test for function and leak-tightness		■*)		■
	User seal check	■			
	Replace visor, head harness and other parts		■*)		
Inhalation & Exhalation Valve Discs	Check discs		■	■	
	Replace discs		■*)		■
Connector of the Mask	Check inh. valve seat		■	■	
	Replace inh. valve seat				■
	Verify body inner thread (with gauge)				■
Speech Diaphragm	Check	■	■	■	
	Replace				■

*) When needed

Tests for function and leak-tightness

The respirator should be inspected annually for condition and function. Check that the facepiece body has retained its shape, the head harness is reasonably elastic, the visor and the face seal are undamaged, and that the valve discs and the speech diaphragm's O-ring are in good condition and located properly. Repair any damage.

SEA recommends that the respirator be tested for leak-tightness every five years, at a level equivalent to a protection factor of 2,000.

Replacing the integral visor

If the integral visor is damaged, the mask must be returned to SEA for repair.

WARNING

Do not attempt to change the integral visor yourself. Incorrectly fitted visor may result in the respirator providing little or no protection and may expose the user to substances which can cause personal injury or death.

Replacing the exhalation valve disc

1. Pull out the connector lid (fig. 8.5).
2. Separate the disc (grey) from the valve body (pinch on the edge of the disc) (fig. 8.6).
3. Replace the disc. Pull the disc tail through the central hole (fig. 8.7) to the inner side of the mask to secure a good fit.
4. Perform a Quantitative Facepiece Test (QNFT). See section 4.



8.5



8.6



8.7

Replacing the inhalation valve discs

1. Remove the connector lid.
2. Remove the rubber valve seat (by pulling from the tip) (fig. 8.8).
3. Replace the disc (fig. 8.9).
4. Put the valve seat back to the bottom of the valve body. Do not press too tight (the disc comes immobilized) because the disc must be free to move.
5. The valve discs of the inner mask (fig. 8.10) are replaced similarly. Make sure that the rubber edge of the inner mask comes in the valve seat groove.



8.8



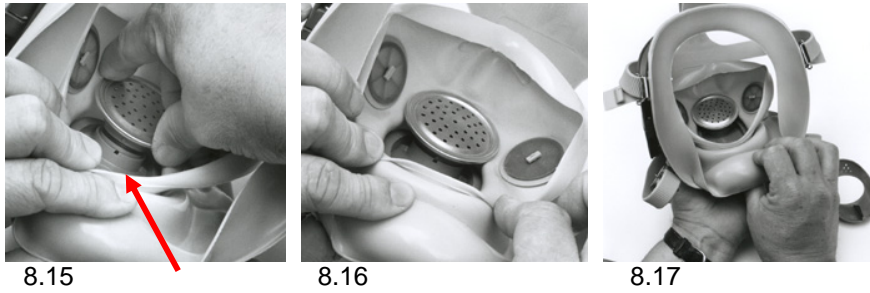
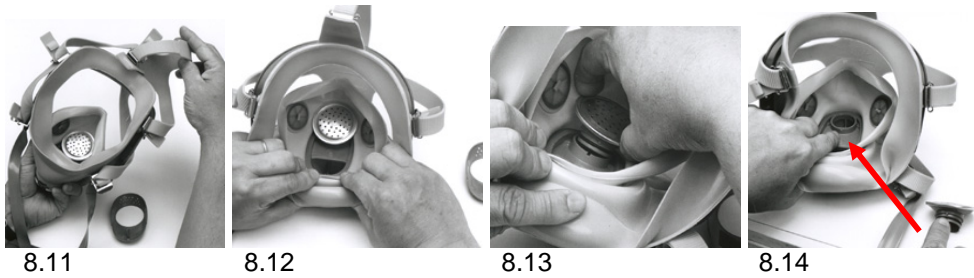
8.9



8.10

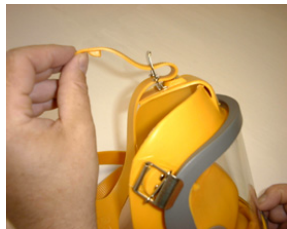
Replacing the speech diaphragm

1. Bend the head harness over the visor (fig. 8.11).
2. Fold the chin cup inside out, towards yourself (fig. 8.12).
3. Remove the speech diaphragm (fig. 8.13).
4. To make assembly easier, moisten the O-ring with water. Position the tip of the speech diaphragm into the notch of the connector (fig. 8.14 – 8.15) to prevent any leakage. Press the speech diaphragm into place (fig. 8.15). Check that the o-ring has seated properly (fig. 8.16)
5. Fold back the chin cup (fig. 8.17).
6. Perform a Quantitative Facepiece Test (QNFT). See section 4.



Replacing the head harness

Thread the rubber bands through the buckles (fig. 8.18).



9. SPARE PARTS

Item	Description	Part number	Comments
1	Faceblank	-	New mask
2 & 3	Buckle with retainer	FF-B	-
4	Visor (hard coated polycarbonate)		Return to SEA for replacement
7	Connector	-	To be assessed by SEA *)
8	Exhalation valve cover	FF-EVC	-
9	Inhalation valve seat	FF-IVS-C	-
10	Rivet for inhalation valve	FF-IVR	-
13 & 14	Speech diaphragm with o-ring	FF-SD	-
15 & 16	Steel band and buckle	-	To be assessed by SEA *)
17	Inner mask, silicone	-	To be assessed by SEA *)
11,12,18	Valve set, including: Qty 2 inner mask valves Qty 1 inhalation valve Qty 1 exhalation valve	FF-V	-
19 & 20	Inner mask valve seat with rivet	FF-IMVS	-
21	Neck strap assy	FF-NS	-
22	Head harness natural rubber or	FHN	-
23	Support for connector	-	To be assessed by SEA *)
24	Spectacle frame with fasteners	FSF-T	-
-	Visor cover (protective film) 10 per pack	VC	-
-	Foam Insert	SEA-FI	-
-	SmallTalk speaker unit	ST2-F	-
-	Fit Test Adapter	FTA1	-

*) Assessments require the entire mask to be sent to SEA to decide whether the mask is able to be repaired.

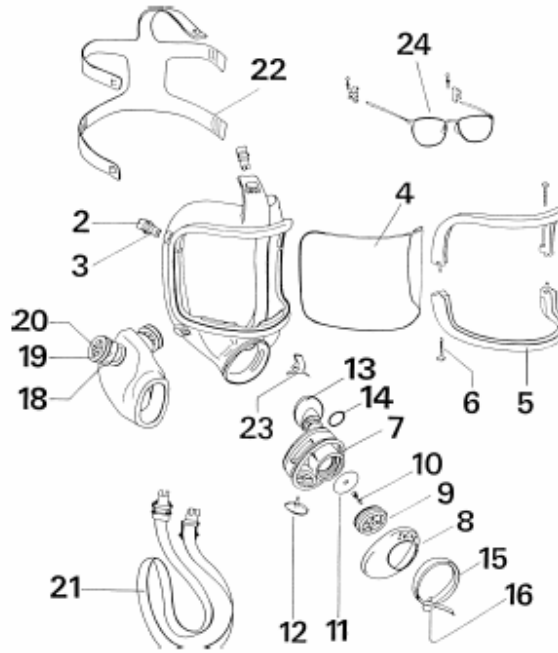


Figure 9.1



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