



SOTR

Special Operations Tactical Respirator

OPERATOR'S MANUAL



FOR INDIVIDUAL RESPIRATORY PROTECTION

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INTRODUCTION

ABOUT YOUR SOTR

The Ops-Core Special Operations Tactical Respirator (SOTR) is a half-mask respirator designed to provide protection against a wide range of oil and non-oil based particulate contaminants encountered by Special Operations forces during training and in operational environments. The Ops-Core SOTR offers 99.97% filtration efficiency against airborne particulates including lead, asbestos, lubricant mist, and explosive gunfire residue.

SOTR VERSIONS:

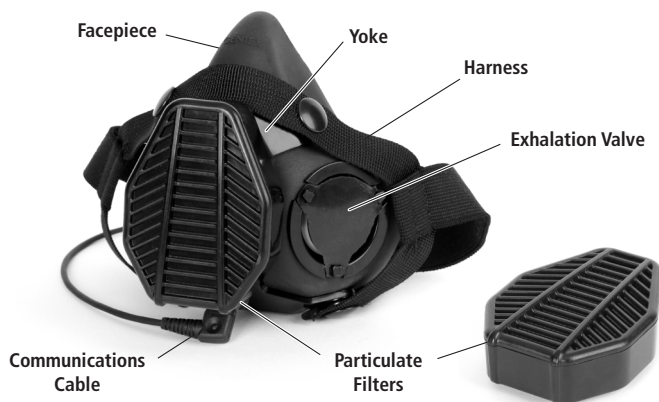
SOTR with microphone and communications cable G055-1000-01

SOTR without microphone and communications cable G055-1000-03

SOTR KIT INCLUDES:

(1) SOTR, (2) Particulate Filters, (1) Head Harness, (1) Helmet Harness, (1) Communications Cable*, (1) Microphone*

**Communications Cable and Microphone are only included with the Microphone Version.*



Head Harness



Helmet Harness

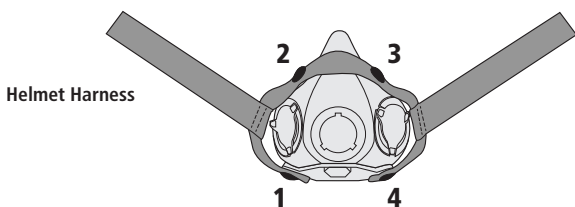
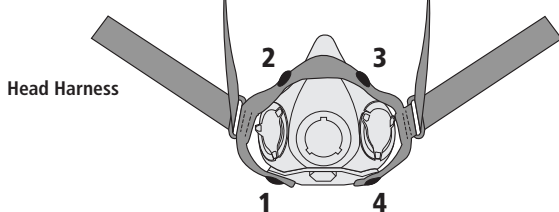
HARNESS SETUP

HARNESS CONFIGURATIONS

The SOTR comes with both a Head Harness and Helmet Harness. Install one or the other, depending on how you choose to wear the SOTR.

1 TO ATTACH HARNESS

Snap the harness onto the mask. Start with one end and work your way around.



2 TO REMOVE HARNESS

Unsnap the harness from the mask. The snaps are tight at first but break in quickly.



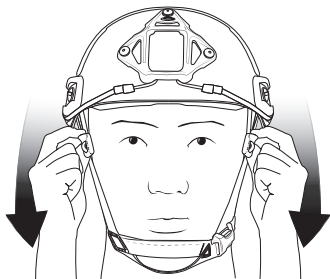
FITTING

HELMET HARNESS CONFIGURATION

The helmet harness attaches to the helmet with Velcro.

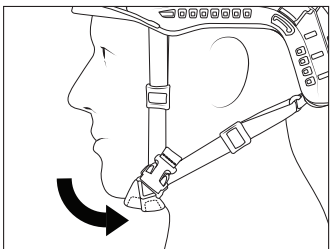
1 DON HELMET

Don the helmet and fasten the chinstrap as shown.



2 REPOSITION CHIN STRAP

Slide the fastened helmet chin strap to below the chin as shown.



3 POSITION SOTR ON FACE

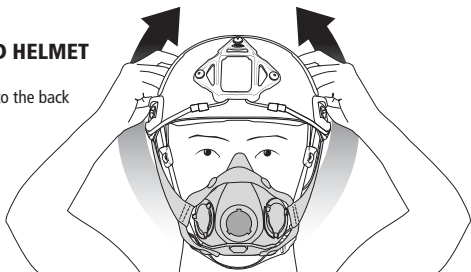
While extending the Helmet Harness straps, position the SOTR on your face as shown.



FITTING

4 PULL STRAPS AROUND HELMET

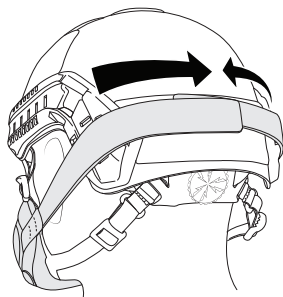
Uniformly pull the elastic Velcro straps to the back of the helmet.



5 SECURE VELCRO STRAPS

Secure Velcro straps to helmet Velcro and/or each other.

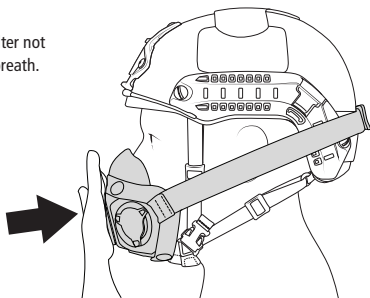
CAUTION: Over-tightening mask can cause discomfort and/or leakage.



6 CHECK FACE SEAL

Check seal by plugging inhalation opening (filter not installed yet) and attempting to take a deep breath. Mask should collapse uniformly on face.

If necessary, adjust placement of SOTR and/or Velcro straps accordingly to ensure seal (repeat steps 3-6).



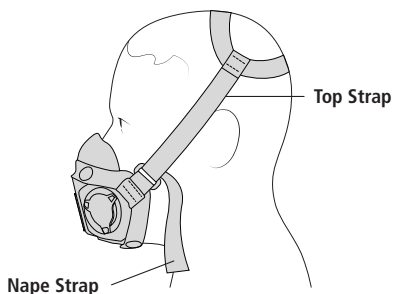
FITTING

HEAD HARNESS CONFIGURATION

The head harness attaches to the head with support straps and Velcro.

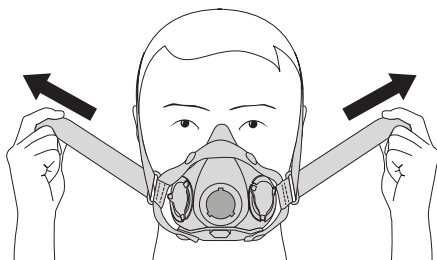
1 POSITION STRAP ON HEAD

Separate Velcro nape strap and place top strap on crown of head.



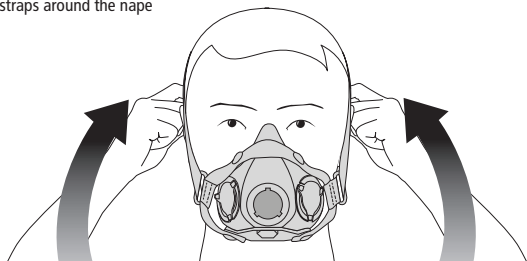
2 POSITION SOTR ON FACE

While letting the SOTR hang, position the mask on your face and grab the nape straps as shown.



3 PULL STRAPS AROUND HELMET

Uniformly pull the Velcro nape straps around the nape of your neck.

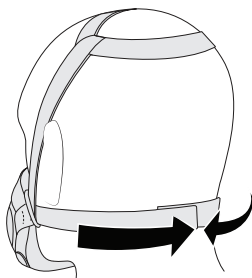


FITTING

4 SECURE VELCRO NAPE STRAPS

Secure Velcro nape straps to each other as shown.

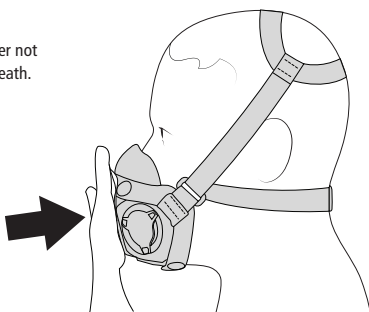
CAUTION: Over-tightening mask can cause discomfort and/or leakage.



5 CHECK FACE SEAL

Check seal by plugging inhalation opening (filter not installed yet) and attempting to take a deep breath. Mask should collapse uniformly on face.

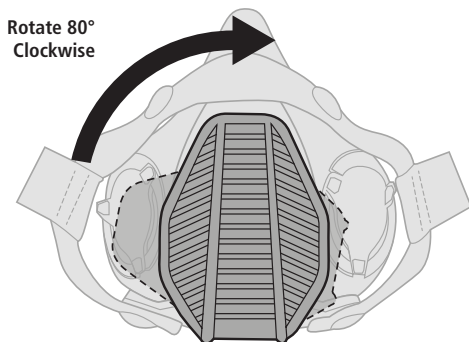
If necessary, adjust placement of SOTR and/or Velcro nape straps accordingly to ensure seal (repeat steps 1-5).



FILTER INSTALLATION

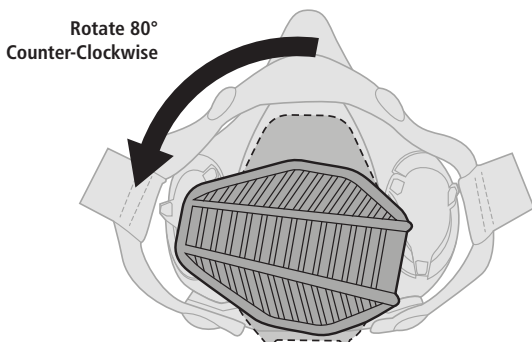
FILTER INSTALLATION

To install the filter, align the tabs to the corresponding slot openings on the back of the filter and rotate the filter 80° clockwise until the filter is in the vertical position.



FILTER REMOVAL

To remove, rotate the filter 80° counter-clockwise and then pull the filter away from the mask.



MAINTENANCE SCHEDULE

SOTR MASK MAINTENANCE SCHEDULE

- 1 Clean the mask with 70% isopropyl alcohol and let dry.
- 2 Check that the snaps are in working condition.
- 3 Clean the Velcro of dust and dirt by using pressurized air.
- 4 Visually check the snaps, exhalation valves, inhalation valve, and filter gasket for signs of damage.
- 5 Visually check the SOTR facepiece for any signs of damage.
- 6 Check that both harnesses work properly and do not have any damage.
- 7 Visually check the microphone and conduct operational checks of the microphone.

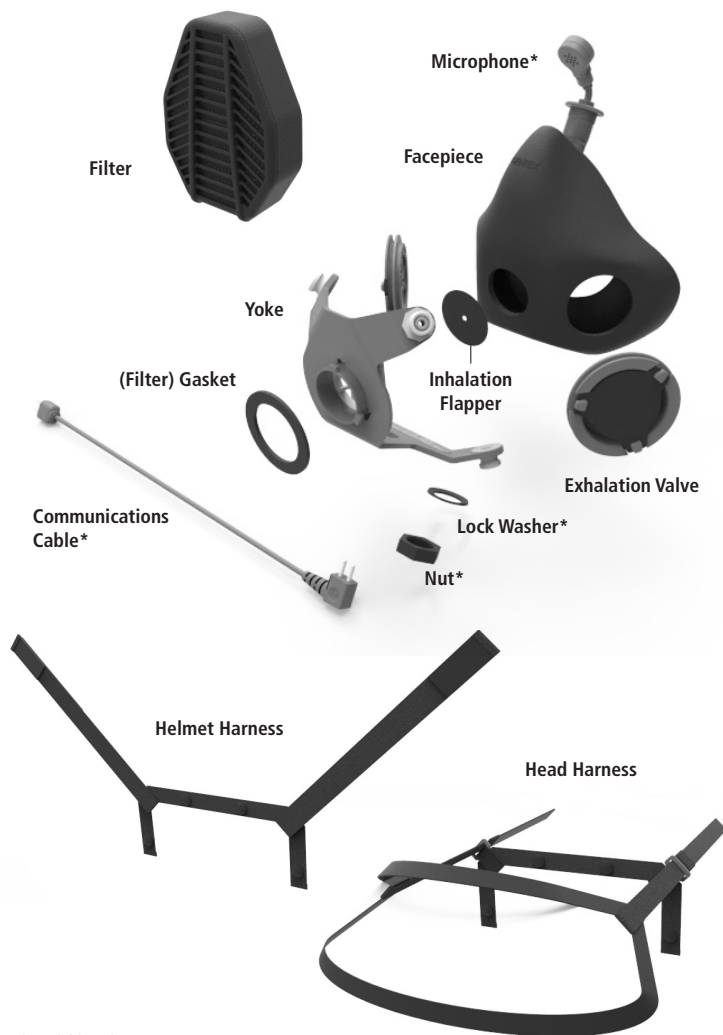
NOTE: If any defects are found, the damaged components should be replaced before use.

SOTR FILTER MAINTENANCE SCHEDULE

- 1 Always start your training or operation with a new filter.
- 2 Once the filter becomes difficult to breathe through, discard the filter* and replace with a new one.
- 3 Visually check the filter gasket on the front of the yoke for any signs of damage.
- 4 Replace the filter gasket after 50 filter changes (or earlier if damage is observed).

NOTE: *Dispose of the filter according to your unit's recommendation. The filter will contain hazardous elements and must be disposed of accordingly. Local, state, and/or federal disposal regulations may apply.

REPLACEMENT PARTS



**Available only on communications version.*

REPLACEMENT PARTS

Part Name	Part Number	Qty Needed per Mask
Communications Cable*	GW2003-01	1
Microphone*	GW2002-01	1
Lock Washer*	G055-1035-01	1
Nut*	GW1996-01	1
Head Harness	G055-1024-02	1
Helmet Harness	G055-1024-01	1
Exhalation Valve	G055-1023-01	2
Inhalation Flapper	G055-1033-01	1
Filter Gasket	G055-1004-01	1
Particulate Filter	G055-1005-02	1
Communications Yoke Assembly*	G055-1003-01	1
Non-Comm. Yoke Assembly	G055-1003-02	1
Communications Facepiece*	G055-1041-01	1
Non-Communications Facepiece	G055-1041-02	1

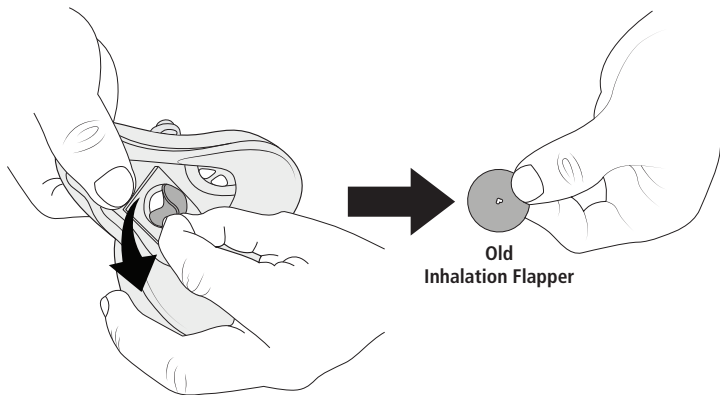
** Available for the communications version only, which includes a hole at the bottom of the mask for the microphone.*

REPLACEMENT PARTS

INHALATION FLAPPER REPLACEMENT

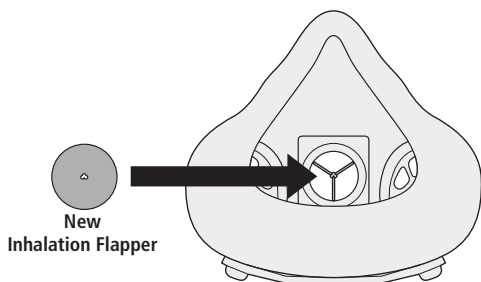
1 REMOVE OLD INHALATION FLAPPER

While the filter is uninstalled from the front of the mask, use one finger to gently push the inhalation flapper into the mask. Gently pull the lifted portion of the flapper until it becomes free. Discard the flapper accordingly.



2 INSTALL NEW INHALATION FLAPPER

Align the new flapper with the three anchor points on the mask and gently stretch the flapper over the anchor points until it is beneath all three points.



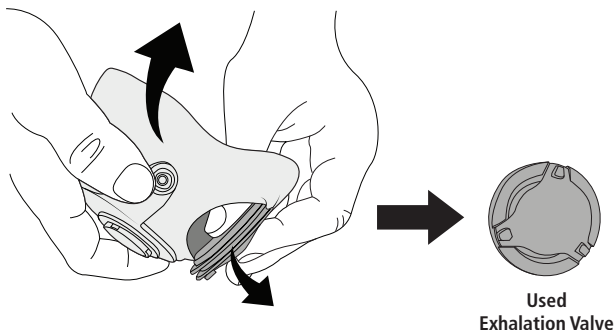
REPLACEMENT PARTS

EXHALATION VALVE REPLACEMENT

1 REMOVE OLD EXHALATION VALVES

While firmly holding onto the exhalation valve, pull the facepiece away from the exhalation valve until a portion of the valve becomes unseated. Continue to pull the facepiece and push the valve until the valve is free. Dispose of the exhalation valve according to the same rules and regulations as the SOTR filter.

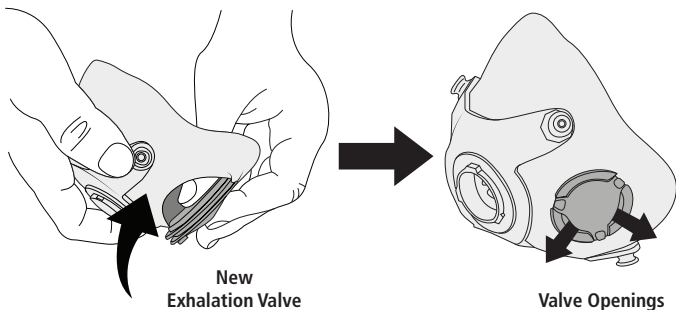
NOTE: Always replace both exhalation valves at the same time to ensure your mask will function properly.



2 INSTALL NEW EXHALATION VALVES

Push a portion of the valve seat retention groove partially over the facepiece opening. Stretch the remainder of the facepiece into the retention groove. Ensure that the valve seat is flush and the facepiece is fully inserted within the valve seat retention groove so that it is sealed.

NOTE: Always install the valves so that the valve openings are facing downwards, away from the user's eyes.

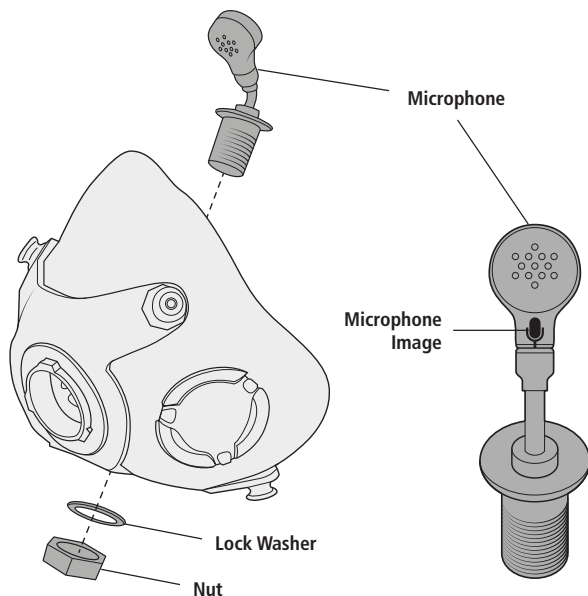


REPLACEMENT PARTS

MICROPHONE & LOCK WASHER REPLACEMENT

1 DISASSEMBLE MICROPHONE & LOCK WASHER

Unscrew the plastic nut at the base of the microphone on the outside of the yoke while maintaining positive control of the nut and lock washer. Then pull the microphone away from the facepiece to remove.



2 REASSEMBLE MICROPHONE & LOCK WASHER

To install the microphone back into the mask, first identify the small microphone image on the microphone and make sure that the microphone image is facing towards the user's face. While holding the microphone in the correct position, push the microphone threads through the inside of the facepiece and yoke microphone hole. Place the lock washer over the microphone threads and tighten the plastic nut onto the microphone threads.

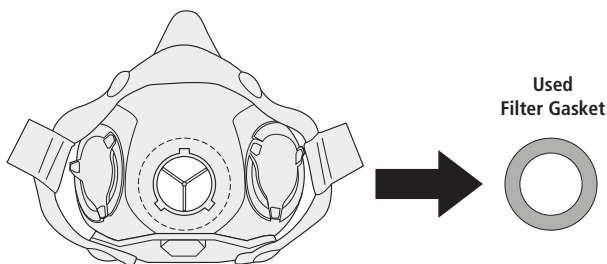
NOTE: When tightening the plastic nut, be careful not to cross thread the base of the microphone. The nut must be tight enough that the microphone will not rotate once installation is complete. The recommended torque value is 60 in-oz.

REPLACEMENT PARTS

FILTER GASKET REPLACEMENT

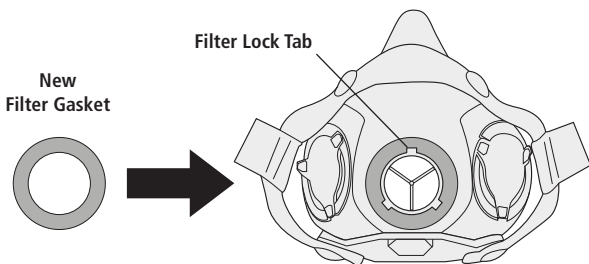
1 REMOVE OLD FILTER GASKET

Gently peel off the used orange gasket and discard according to all state, federal, and unit regulations.



2 INSTALL NEW FILTER GASKET

Place the new gasket onto the Yoke Assembly. Be sure that all three filter lock tabs are visible.



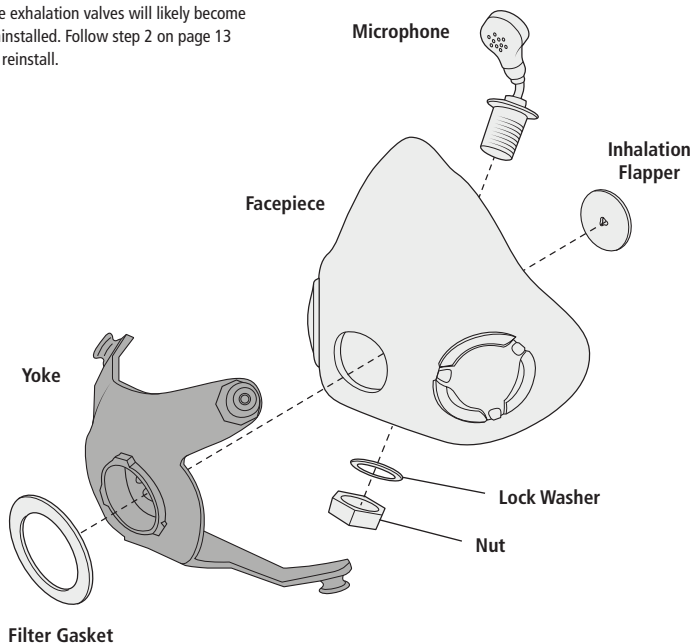
REPLACEMENT PARTS

YOKE ASSEMBLY REPLACEMENT

1 REMOVE EXISTING YOKE ASSEMBLY

First, disassemble the microphone by following step 1 on page 14. Next, remove the inhalation flapper by following step 1 on page 12 to avoid damaging it. Lastly, starting on one inside corner, peel the facepiece off of the inside of the yoke until it is free.

NOTE: When peeling off the facemask, the exhalation valves will likely become uninstalled. Follow step 2 on page 13 to reinstall.



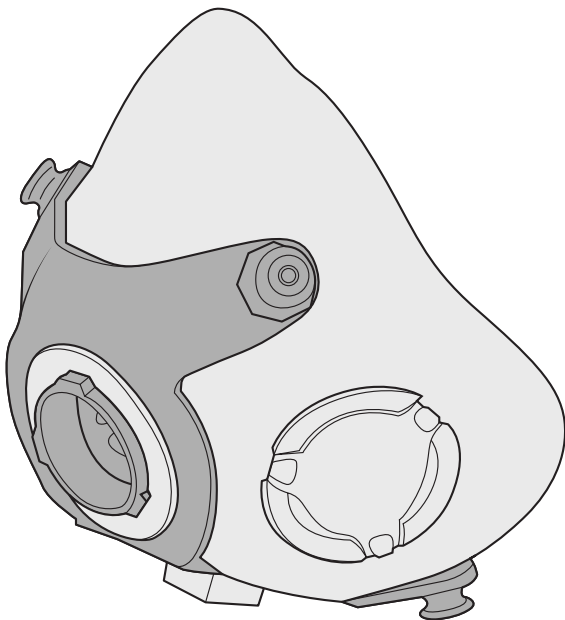
2 INSTALL REPLACEMENT YOKE ASSEMBLY

Starting at the top of the rectangular inhalation flapper seat, gently pull the facepiece into the space between the inhalation flapper seat and the back of the yoke, until all four corners of the inhalation flapper seat are visible inside of the facepiece.

REPLACEMENT PARTS

3 INSPECT THE MASK AND REINSTALL MICROPHONE & INHALATION FLAPPER

Inspect and verify that the facepiece is flush with the yoke assembly, reinstall the inhalation valve flapper (see step 2 on page 12), and ensure the exhalation valves are properly seated into the mask with proper orientation as shown in step 2 on page 13. Next, install the microphone with locking washer and nut by following step 2 on page 14.



OPERATOR NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

WARRANTY

Unless an individual product is covered by a separately issued warranty, Gentex warrants that all ballistic helmet shells will be free from defects in material or workmanship under normal use and service for a period of five (5) years from the date of delivery. Unless an individual product is covered by a separately issued warranty, Gentex warrants that all helmet components, accessories, peripherals, and parts will be free from defects in material or workmanship under normal use and service for a period one (1) year from the date of delivery. All repair covered by this warranty shall be performed at Gentex's factory, or other such warranty repair facilities of Gentex as designated by Gentex unless Gentex specifically directs that repair services be performed at another location. Any defect corrected and found to be within this scope of the warranty will be repaired by Gentex and all charges for labor and material will be borne by Gentex. If it is determined that either no fault exists in Gentex, or the damage to be repaired was caused by negligence of the user, its agents, employees or customers, you agree to pay all charges associated with each such repair. No statement, recommendation or assistance made or offered by Gentex through its representatives to the user, its agents, employees, or customers in connection with the purpose or intended use of any Gentex's product shall be or constitute a waiver by Gentex of any of the provisions of this warranty or change Gentex's liability under this warranty.

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Any tampering, misuse or negligence in handling or use of the product renders the warranty void. Further, the warranty is void if, at any time, the user, its agents, employees or customers attempts to make any internal changes to any of the components of a product; if at any time the power supplied to any part of the product exceeds the rated tolerance; if any external device attached by the user, its agents, employees or customers creates conditions exceeding the tolerance of the product; or if any time the serial number plate is removed or defaced. OPERATION OF THE PRODUCTS THAT RENDERS THIS WARRANTY VOID WILL BE DEFINED TO INCLUDE ALL OF THE POSSIBILITIES DESCRIBED IN THIS SECTION, TOGETHER WITH ANY PRACTICE THAT RESULTS IN CONDITIONS EXCEEDING THE DESIGN TOLERANCE OF THE PRODUCTS.

