CHAPTER 6
CORRECTIVE MAINTENANCE

6.1 INTRODUCTION.

6.1.1 Scope. The corrective maintenance information presented in this chapter includes the actions and procedures required to restore the Self-Contained Breathing Apparatus (SCBA) to a fully operable condition. This chapter provides general maintenance information and specific maintenance procedures to assist maintenance personnel in the removal and replacement of inoperative parts or assemblies. The corrective maintenance procedures identify maintenance actions; provide safety precautions; list tools, parts, and materials; and present step-by-step instructions with supporting illustrations. The corrective maintenance procedures in this chapter are provided for qualified maintenance personnel working at the organizational level.

The procedures included in this chapter are prescribed in the interest of safety and optimum service life of the equipment. Components requiring corrective maintenance beyond the limits described in this document must be returned to the depot In Accordance With (IAW) paragraph1.9 for repair or overhaul.

The information in the remainder of this chapter is arranged in the following sequence:

- General Maintenance Information
- Test Equipment and Tools
- Materials
- General Maintenance Procedures
- SCBA Corrective Maintenance.

6.1.2 Safety Requirements. Before performing corrective maintenance on the SCBA, maintenance personnel shall review and become thoroughly familiar with the general safety notices and precautions listed in the Safety Summary. Replacement procedures, along with the associated warnings and cautions, shall be read in full before beginning corrective maintenance.

6.2 ADJUSTMENTS AND ALIGNMENTS.

There are no adjustments and alignments required.

6.3 GENERAL MAINTENANCE INFORMATION.

If in doubt about the serviceability of a part, replace it immediately. Worn or damaged parts shall be replaced with authorized replacement parts only. Component failure during operation may result in serious injury or death.

6.3.1 Maintenance Parts. Only approved replacement parts listed in Chapter 7 shall be used on the SCBA. Ensure all replacement components have been cleaned IAW paragraph 4.7.2.

6.3.2 Related Maintenance. Related corrective maintenance actions may include inspection, removal, and replacement of O-rings, as well as inspection of component parts. O-ring inspection, removal, and replacement procedures are provided in paragraph 4.7.5. Ensure cleanliness of the system is maintained at all times IAW the requirements in paragraphs 4.7.1 and 4.7.2.

6.4 TEST EQUIPMENT AND TOOLS.

No special test equipment is required for corrective maintenance on the SCBA. Table 6-1 lists the tools used in this chapter, along with their corresponding National Stock Number (NSN).
Table 6-1. Tools Required

<table>
<thead>
<tr>
<th>Tool</th>
<th>NSN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hammer, hand, machinists’s ballpeen, 8 oz.</td>
<td>5120-00-061-8541</td>
</tr>
<tr>
<td>Key Set, Hex Head Screw (Allen Wrench) 3/32 in.</td>
<td>5120-01-428-7869 (set)</td>
</tr>
<tr>
<td>Key Set, Hex Head Screw (Allen Wrench) 7/64 in.</td>
<td>5120-01-428-7869 (set)</td>
</tr>
<tr>
<td>Key Set, Hex Head Screw (Allen Wrench) 1/8 in.</td>
<td>5120-01-428-7869 (set)</td>
</tr>
<tr>
<td>Key Set, Hex Head Screw (Allen Wrench) 5/32 in.</td>
<td>5120-01-428-7869 (set)</td>
</tr>
<tr>
<td>Pliers, needle-nose</td>
<td>5120-01-367-4641</td>
</tr>
<tr>
<td>Pliers, slip joint, soft-jawed</td>
<td>5120-00-624-8065</td>
</tr>
<tr>
<td>Punch Set, Drive Pin, 1/8 in.</td>
<td>5120-01-429-7444 (set)</td>
</tr>
<tr>
<td>Punch Set, Drive Pin, 5/64 in.</td>
<td>5120-01-429-7444 (set)</td>
</tr>
<tr>
<td>Scraper, Plastic</td>
<td>5110-01-515-2845</td>
</tr>
<tr>
<td>Screwdriver, flat-tip, 1/4 in.</td>
<td>5120-00-278-1267</td>
</tr>
<tr>
<td>Screwdriver, flat-tip; 3/8 in.</td>
<td></td>
</tr>
<tr>
<td>Screwdriver, cross-tip, No. 1</td>
<td>5120-00-240-8716</td>
</tr>
<tr>
<td>Screwdriver, cross-tip, No. 2</td>
<td>5120-00-234-8913</td>
</tr>
<tr>
<td>Wrench, open-end 7/16 in</td>
<td>5120-01-335-1185</td>
</tr>
<tr>
<td>Wrench, open-end 1/2 inch</td>
<td></td>
</tr>
<tr>
<td>Wrench, open-end, 5/8 in</td>
<td>5120-00-277–8301</td>
</tr>
</tbody>
</table>

6.5 MATERIALS.

The materials necessary for performing corrective maintenance on the SCBA are listed in Table 6-2 below, along with their NSN and the purpose for each material used.

Table 6-2. Materials Used

<table>
<thead>
<tr>
<th>Material</th>
<th>NSN</th>
<th>Purpose/Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloth, lint free, cleaning</td>
<td>7920-00-044-9281</td>
<td>Leak check</td>
</tr>
<tr>
<td>Compound, leak detection, MIL-L-25567D, Type I - Hazardous Material</td>
<td>6850-00-621-1820</td>
<td>Leak check</td>
</tr>
<tr>
<td>MIL-D-16791, Type 1 Non-Ionic Detergent (NID)</td>
<td>7930-00-282-9699</td>
<td>Cleaning connections to be opened for maintenance; leak check alternative</td>
</tr>
<tr>
<td>Pressure-sensitive adhesive tape (masking)</td>
<td>7510-00-266-6707</td>
<td>Cover mask-mounted regulator outlet port</td>
</tr>
<tr>
<td>Tags, shipping</td>
<td>8135-00-178-9151</td>
<td>Components shipped to depot</td>
</tr>
</tbody>
</table>
**Table 6-2. Materials Used - Continued.**

<table>
<thead>
<tr>
<th>Material</th>
<th>NSN</th>
<th>Purpose/Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sealing compound, Threadlocker, Loctite® Grade 222, - Hazardous Material</td>
<td>8030-01-055-6126</td>
<td>Secures installed screw</td>
</tr>
<tr>
<td>Water, fresh</td>
<td>- - -</td>
<td>Leak check, inhalation check valve installation, faceseal installation</td>
</tr>
</tbody>
</table>

### 6.6 GENERAL MAINTENANCE PROCEDURES.

**WARNING**

Disassembly of SCBA components beyond the procedures described in this manual shall not be performed. Additional disassembly may cause component failure and result in serious personal injury or death.

### 6.6.1 Bleed System.

**CAUTION**

Before performing any maintenance, bleed system of air to ensure internal system air pressure, not including cylinder assembly, is equal to room (ambient) pressure to avoid equipment damage.

a. Close cylinder valve (1, Figure 6-1) by rotating handwheel (2) fully Clockwise (CW).

![Figure 6-1. Cylinder Valve and Handwheel.](image)

b. Open purge valve (2, Figure 6-2) on mask-mounted regulator (3) by turning fully Counterclockwise (CCW).
c. When airflow stops, close purge valve by turning fully CW.

6.6.2 Leak Check.

Tools, Parts, and Materials.
- Cloth, lint free, cleaning
- Compound, leak detection, MIL-L-25576D, Type I - Hazardous Material
- Water, fresh
- Tags, shipping

a. Ensure minimum 4,000 psig reading on dual-reading pressure indicator (3, Figure 6-1). If below 4,000 psig, replace with fully-charged cylinder IAW paragraph 2.3.2.2.
b. Ensure air saver switch (1, Figure 6-2) is fully depressed and purge valve (2) is rotated fully CW until closed.
c. Rotate handwheel (2, Figure 6-1) fully CCW, then back 1/4 turn, to open cylinder valve (1).
d. Apply leak detection compound to repaired areas.
e. Inspect repaired areas treated with leak detection compound. If bubbles (1, Figure 6-3) are present, ensure proper assembly all repaired components and repeat leak check. If leak persists, tag affected components for repair and remove from service.

f. Remove all traces of leak detection compound with a damp, clean, lint-free cloth.
g. Bleed system IAW paragraph 6.6.1.

6.6.3 Negative-Pressure Check.

Tools, Parts, and Materials.
• Tags, Shipping

[WARNING]

Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

NOTE

Ensure facepiece is completely assembled and all components have been inspected, cleaned, and replaced as necessary before conducting a negative-pressure check.

a. Bleed system IAW paragraph 6.6.1.

NOTE

Ensure facepiece is correct size.

b. Don facepiece IAW paragraph 2.3.1.2 steps f through l.

c. Secure mask-mounted regulator to facepiece.

NOTE

Do not pressurize SCBA.

d. When facepiece is sealed to face, inhale gently.

e. If leak is detected, ensure corrective maintenance procedure has been properly performed, and repair as required.

f. Repeat steps b through e.

g. If leak persists, remove facepiece from service and tag for repair or replacement.

h. Clean facepiece IAW appropriate Maintenance Requirement Card (MRC).

6.7 CORRECTIVE MAINTENANCE.

6.7.1 AV-2000® Corrective Maintenance.

6.7.1.1 Voice Amplifier Removal and Installation.

Tools, Parts, and Materials.
• Screwdriver, cross-tip, No. 1

a. Removal.

   (1) Depress locking lever (1, Figure 6-4) and rotate voice amplifier (2) CW to remove.
(2) Using No. 1 cross-tip screwdriver, remove screw (2, Figure 6-5) and alignment bracket (3). Set aside for installation.

(3) Gently separate mounting bracket (1) and remove from over exterior flap (5).

b. **Installation.**

(1) Visually inspect mounting bracket and voice amplifier for damage. If damage is noted, replace as required.

(2) Inspect mounting bracket and voice amplifier for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.

(3) Spread apart mounting bracket (1, Figure 6-5) and place over exterior flap (5).

(4) Position alignment bracket (3) in groove (4) and align hole in alignment bracket with hole in mounting bracket.

(5) Install screw (2) using No. 1 cross-tip screwdriver. Do not overtighten.

(6) Align voice amplifier with mounting bracket and turn CW until locking lever engages.
WARNING

Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(7) Perform negative-pressure check IAW paragraph 6.6.3.

6.7.1.2 Head Harness Removal and Installation.

a. Removal.

(1) To replace temple clip assembly (2, Figure 6-6), unsnap clip assembly from lens by positioning finger under detent (1) and lifting snap from receptacle. Proceed to steps b.(2) and b.(3) to remove temple strap from temple clip assembly.

Figure 6-6. Temple Clip Assembly.

(2) Push down roller bar (3) of temple strap buckle and feed end of temple strap back through portion of temple strap buckle above roller bar.

(3) Push up on roller bar and feed end of temple strap back through portion of temple strap buckle below roller bar.

(4) Repeat steps b.(2) and b.(3) for remaining temple strap and two neck straps.

b. Installation.

(1) Visually inspect head harness and clip assemblies for damage. If damage is noted, replace as required.

(2) Inspect head harness and clip for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.

NOTE

The words TEMPLE and NECK are molded into the smooth side of the head harness straps, near the end of each strap.

(3) Arrange head harness on work surface so molded labels face up, and are aligned with respective buckles.

(4) With one hand, lift up on roller bar (3, Figure 6-7). With molded label (2) facing up, feed head harness strap (1) under roller bar. Ensure head harness strap has enough slack for threading back through buckle.
(5) Slide roller bar down to meet head harness strap, feed head harness strap back over roller bar through buckle. Serrated surface will now face up.

(6) Pull through to tighten.

(7) Repeat steps c.(4) through (6) for remaining head harness straps.

(8) If temple clip assembly has been removed, install temple clip assembly onto lens by positioning snap over receptacle. Starting on side of snap opposite the detent (1, Figure 6-6) roll thumb toward detent until snap engages.

**WARNING**

Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(9) Perform negative-pressure check IAW paragraph 6.6.3.

6.7.1.3 **Inhalation Check Valve Removal and Installation.**

**Tools, Parts, and Materials.**

- Water, fresh

**a. Removal.**

(1) From inside nosecup assembly (2, Figure 6-8) grasp inhalation check valve (1) with one hand and nosecup assembly with the other, and pull inhalation check valve free.
(2) Repeat with remaining inhalation check valve.

b. **Installation.**
   
   (1) Inspect inhalation check valves for cuts, nicks, tears, and other damage. If damage is noted, replace as required.
   
   (2) Inspect inhalation check valves for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.
   
   (3) Moisten inhalation check valve tip (1, Figure 6-9) and stem (2) with fresh water.
   
   (4) From inside nosecup assembly, insert inhalation check valve tip into center hole of inhalation check valve seat as shown in Figure 6-10.
NOTE
When inhalation check valve is properly installed, disc portion of inhalation check valve will lay flat against inhalation check valve seat and stem will be captured in center hole.

(5) From outside nosecup assembly, gently pull inhalation check valve tip until stem is seated.
(6) Trim excess tip as required.
(7) Repeat steps c.(3) through c.(6) for remaining inhalation check valve.

WARNING
Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(8) Perform negative-pressure check IAW paragraph 6.6.3.

6.7.1.4 Nosecup Assembly Removal and Installation.

a. Removal.

CAUTION
Press on edge of auxiliary exhalation valve assembly when removing to avoid equipment damage.

(1) From outside adapter port (2, Figure 6-11), push auxiliary exhalation valve assembly (1) into facepiece and set aside.
(2) From inside facepiece, separate nosecup assembly (1, Figure 6-12) from voicemitter duct groove (2).

(3) Carefully pull nosecup assembly to remove from it from other voicemitter duct groove.

b. Installation.
   (1) Visually inspect nosecup assembly for heat damage, cracks, discoloration, cuts, or abrasions. If damage is noted, replace as required.
   (2) Inspect nosecup assembly for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.
   (3) From inside facepiece, position raised rib (2, Figure 6-13) of nosecup assembly in notch (1) of adapter port (4). Ensure adapter port is seated within nosecup assembly groove (3).
(4) From inside facepiece, insert tapered end of auxiliary exhalation check valve into nosecup assembly as shown in Figure 6-14.

(5) Install nosecup assembly (1, Figure 6-12) into voicemitter duct groove (2). Repeat to install in other voicemitter duct groove.

(6) Verify installation check valves (1, Figure 6-15) lay flat against inside of nosecup assembly, do not interfere with crescent cutouts (2) on voicemitter ducts, and nosecup assembly is not distorted.
(7) Ensure bottom of nosecup assembly is behind chin pocket as shown in Figure 6-16.

Figure 6-15. AV-2000® Inhalation Check Valve Placement.

Figure 6-16. Chin Pocket Placement.

WARNING

Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(8) Perform negative-pressure check IAW paragraph 6.6.3.

6.7.1.5 Voicemitter and Voicemitter Duct Removal and Installation.

a. Removal.

CAUTION

Do not use tools to pry or pull rubber components. Using tools to pry or pull components during removal will damage rubber parts.

(1) Remove voice amplifier and mounting bracket IAW paragraph 6.7.1.1.
(2) Remove nosecup assembly IAW paragraph 6.7.1.4.
(3) To remove voicemitter, carefully roll back exterior flap (2, Figure 6-17) with thumb and forefinger of one hand. With index finger of other hand, pull voicemitter free (3).

Figure 6-17. Voicemitter Removal.

(4) Repeat for other voicemitter.
(5) To remove voicemitter duct, collapse voicemitter duct and remove from lens.
(6) Repeat for other voicemitter duct.

b. Installation.

(1) Visually inspect voicemitters and voicemitter ducts for heat damage, cracks, discoloration, cuts, or abrasions. If damage is noted, replace as required.

(2) Inspect voicemitter and voicemitter ducts for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.

(3) Collapse voicemitter duct and insert through hole in lens. Ensure exterior flap is on outside of lens and lens is fully seated in exterior flap groove.

(4) Use finger to ensure lens is fully seated as shown in Figure 6-18.

Figure 6-18. Voicemitter Duct Installation.

(5) Repeat steps c.(3) and c.(4) on remaining voicemitter duct.
(6) With four raised dots facing up (1, Figure 6-17), insert voicemitter (3) into exterior flap (2) until fully seated.

(7) Repeat for other voicemitter.

NOTE
Perform negative pressure check only after complete assembly of facepiece.

(8) Install nosecup assembly IAW paragraph 6.7.1.4. Ensure voicemitter duct does not interfere with inhalation check valve.

(9) Install voice amplifier and mounting bracket IAW paragraph 6.7.1.1.

WARNING
Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(10) Perform negative-pressure check IAW paragraph 6.6.3.

6.7.1.6 Frame and Faceseal Removal and Installation.
Tools, Parts, and Materials.
- Screwdriver, flat-tip, 1/4 inch
- Water, fresh

a. Removal.
   (1) Remove voice amplifier and bracket IAW paragraph 6.7.1.1.
   (2) Unsnap temple clip assembly (2, Figure 6-19) from lens by positioning finger under detent (1) and lifting snap from receptacle. Repeat for other temple clip assembly.

   ![Figure 6-19. Unsnap AV-2000® Clip Assembly.]

   NOTE
   Neck clip assemblies are integrated into the frame.

   (3) Unsnap neck clip assembly (2, Figure 6-20) from lens by positioning finger under detent (3) and lifting snap from receptacle. Repeat for other neck clip assembly.
Improper use of screwdriver to pry snap apart may cause equipment damage.

(4) Using 1/4 inch flat-tip screwdriver, carefully disengage forehead snap from lens receptacle as shown in Figure 6-21.

(5) Loosen faceseal (4, Figure 6-20) from lens, working symmetrically from forehead area to chin area.

(6) Remove frame (1) and faceseal from lens.

(7) If applicable, separate frame from faceseal.

(8) If replacing frame or neck clip assemblies, remove head harness from neck clip assemblies IAW paragraph 6.7.1.2. Set aside for installation.

b. Installation.

**NOTE**

There are three sizes of faceseals. Ensure correct size faceseal is used.
(1) Visually inspect frame and faceseal for heat damage, cracks, discoloration, cuts, or abrasions. If damage is noted, replace as required.

(2) Inspect frame and faceseal for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.

(3) Align forehead centerline mark (1, Figure 6-22) on faceseal with center of forehead snap receptacle (2) on lens.

![Figure 6-22. Faceseal Alignment with Lens.](image)

(4) Insert lens fully into groove of faceseal.

**CAUTION**

Applying fresh water to frame and faceseal will aid in assembly of these components. To avoid equipment damage, commercial lubricants must not be used in assembly of facepiece components.

(5) Align chin centerline mark on frame (2, Figure 6-23) with chin centerline mark on faceseal (1).

![Figure 6-23. Chin Centerline Mark Alignment.](image)

(6) Install frame onto faceseal and lens, working from the chin area to the forehead.

(7) Ensure frame is fully seated on faceseal and lens, and that all centerline marks align.
Snaps should engage receptacles easily and smoothly. If not, snaps are not aligned.

(8) If snaps are not aligned, remove frame and faceseal and repeat steps c.(3) - (7).

(9) Engage forehead snap by positioning snap over snap receptacle on lens. Starting on side of snap opposite the detent, roll thumb toward detent until snap engages. Repeat for neck clip assemblies.

(10) If applicable, install head harness neck straps IAW paragraph 6.7.1.2.

(11) Install temple clip assembly by positioning snap over snap receptacle on lens. Starting on side of snap opposite the detent, roll thumb toward detent until snap engages. Repeat for other temple clip assembly.

NOTE
Perform negative-pressure check only after complete assembly of facepiece.

(12) Install voice amplifier and mounting bracket IAW paragraph 6.7.1.1.

WARNING
Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(13) Perform negative-pressure check IAW paragraph 6.6.3.

6.7.1.7 Lens Removal and Installation.

a. Removal.
   (1) Remove voicemitters and voicemitter ducts IAW paragraph 6.7.1.5.
   (2) Remove frame and faceseal IAW paragraph 6.7.1.6.

b. Installation.
   (1) Visually inspect all components for heat damage, cracks, discoloration, cuts, or abrasions. If damage is noted, replace as required.
   (2) Inspect all components for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.

NOTE
Perform negative-pressure check only after complete assembly of facepiece.

(3) Install frame and faceseal IAW paragraph 6.7.1.6.
(4) Install voicemitters and voicemitter ducts IAW paragraph 6.7.1.5.

WARNING
Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(5) Perform negative-pressure check IAW paragraph 6.6.3.
6.7.2 AV-3000® Facepiece Corrective Maintenance.

6.7.2.1 Voice Amplifier Removal and Installation.

Tools, Parts, and Materials.
- Screwdriver, cross-tip, No. 1
- Water, fresh

a. Removal.
   (1) Depress locking lever (2, Figure 6-24) and rotate voice amplifier (1) CW to remove.

   Figure 6-24. Voice Amplifier Removal.

   (2) Using No. 1 cross-tip screwdriver, remove long screw (3, Figure 6-25). Set aside for installation.

   Figure 6-25. AV-3000® Mounting Bracket.

   (3) Using No. 1 cross-tip screwdriver, remove short screw (5) from screw tab (4). Set screw aside for installation.

   (4) Separate mounting bracket (2) and remove from exterior flap (1).
b. **Installation.**

(1) Visually inspect mounting bracket and voice amplifier for heat damage, cracks, discoloration, cuts, or abrasions. If damage is noted, replace as required.

(2) Inspect mounting bracket and voice amplifier for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.

![CAUTION]

Applying fresh water to exterior flap and mounting bracket will aid in assembly of these components. To avoid equipment damage, commercial lubricants must not be used in assembly of facepiece components.

(3) Spread apart mounting bracket (2, Figure 6-25) and place over right side (as worn) exterior flap (1). Ensure hole in screw tab (4) is positioned over threaded insert in lower bezel.

(4) Ensure mounting bracket is completely seated over exterior flap.

(5) Thread short screw (5) through hole in screw tab and into threaded insert in lower bezel.

(6) Tighten short screw (5) using No. 1 cross-tip screwdriver. Do not overtighten.

(7) Using No. 1 cross-tip screwdriver, install long screw (3) into mounting bracket. Do not overtighten.

(8) Align voice amplifier (2, Figure 6-24) with mounting bracket and turn CW until locking lever (1) engages.

![WARNING]

Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(9) Perform negative-pressure check IAW paragraph 6.6.3

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**6.7.2.2 EPIC Voice Amplifier Removal and Installation.**

**Tools, Parts, and Materials.**

- Screwdriver, cross-tip, No. 1
- Water, fresh
- EPIC Voice Amplifier
- Batteries, non-rechargeable, size AAA, 3 - Hazardous Material

a. **Removal.**

(1) Lift locking lever (2, Figure 6-26) and rotate voice amplifier (1) CW to remove.
(2) Using No. 1 cross-tip screwdriver, remove long screw (4, Figure 6-27). Set aside for installation.

(3) Using No. 1 cross-tip screwdriver, remove short screw (2) from screw tab (1). Set screw aside for installation.

(4) Separate mounting ring (5) and mounting bracket (3) and remove from exterior flap.

b. **Installation.**
(1) Visually inspect mounting ring, mounting bracket, and voice amplifier for heat damage, cracks, discoloration, cuts, or abrasions. If damage is noted, replace as required.

(2) Inspect mounting ring, mounting bracket and voice amplifier for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.

CAUTION

Applying fresh water to exterior flap and mounting bracket will aid in assembly of these components. To avoid equipment damage, commercial lubricants must not be used in assembly of facepiece components.

(3) Spread apart mounting ring (5, Figure 6-27) and place over right side (as worn) exterior flap. Ensure hole in screw tab is positioned over threaded insert in lower bezel.

(4) Attach mounting bracket (3) onto exterior flap, pressing down while turning CW. Ensure mounting bracket is completely seated over exterior flap. Mounting bracket is correctly seated on mounting ring when the three alignment bars on both mounting bracket and mounting ring are aligned. See Figure 6-28.

![Figure 6-28. Three Alignment Bars on Mounting Bracket and Mounting Ring.](image)

(5) Thread short screw (2, Figure 6-27) through hole in screw tab (1) and into threaded insert in lower bezel.

(6) Tighten short screw (2) using No. 1 cross-tip screwdriver. Do not overtighten.

(7) Using No. 1 cross-tip screwdriver, install long screw (4) into mounting bracket. Do not overtighten.

(8) Install three non-rechargeable size AAA batteries in the voice amplifier as follows:
(a) Using No. 1 cross-tip screwdriver on screw (1, Figure 6-29) on battery door at top of voice amplifier, turn CCW to loosen. Lift open the hinged door.
NOTE

Do not mix old and new batteries or batteries from different manufacturers. Use of rechargeable batteries is prohibited by Scott®. Using batteries other than those specified in Table 7-5 will void the intrinsic safety listing of the voice amplifier.

(b) Insert the batteries into the battery compartment, ensuring the orientation of the polarity of the top ends of the batteries inserted matches the polarity marked on the outside of the battery compartment. See Figure 6-30.

(c) Close the battery door. Using a No. 1 cross-tip screwdriver, turn the battery door screw CW to tighten until snug, but do not overtighten.

(9) Align voice amplifier (1, Figure 6-26) with mounting bracket and turn CCW until locking lever (2) engages.
WARNING

Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(10) Perform negative-pressure check IAW paragraph 6.6.3

6.7.2.3 Head Harness Removal and Installation.

a. Removal.

(1) Position finger under detent (2, Figure 6-31) and lift temple snap (1) from receptacle. Repeat for other side.

NOTE

Temple and neck strap buckles are integrated on the faceseal.

(2) Push down on roller bar (3, Figure 6-32) of temple strap buckle (1) and feed folded tab (2) of temple strap back through portion of temple strap buckle above roller bar.

b. Installation.

(1) Visually inspect head harness for heat damage, cracks, discoloration, cuts, or abrasions. If damage is noted, replace as required.
(2) Inspect head harness for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.

(3) To install temple or neck strap within head net, lay head net on flat surface with temple snaps (1, Figure 6-33) facing down.

![Figure 6-33. Position Head Net and Strap.](image)

**NOTE**

Neck strap is slightly longer than temple strap.

(4) With folded tab (4) of neck strap facing down, thread neck strap through bottom-most pocket (3).

**NOTE**

When installing temple strap to head net, two adjustment positions are available. Use the lower of the two positions as shown in Figure 6-33.

(5) With folded tab of temple strap facing down, thread temple strap through lower empty pocket (2).

(6) Lay head harness on facepiece so that temple snaps are in position over snap receptacles.

(7) Lift up on roller bar (2, Figure 6-34). With folded tab (3) facing downward, feed temple strap under roller bar. Ensure temple strap has enough slack for threading back through buckle (1).
(8) Slide roller bar down to meet temple strap, feed temple strap back over roller bar through buckle. Folded tab will now face up.
(9) Pull folded tab through to tighten.
(10) Repeat steps c.(7)-c.(9) for remaining temple strap and two neck straps.
(11) Secure temple snap (1, Figure 6-31) onto temple receptacle by positioning temple snap over receptacle. Starting on side of temple snap opposite the detent (2), roll thumb toward detent until temple snap engages. Repeat for other temple snap.

**WARNING**

Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(12) Perform negative-pressure check IAW paragraph 6.6.3.

### 6.7.2.4 Nosecup Assembly Removal and Installation (2002 Edition Facepiece)

**NOTE**

This procedure deals with 2002 Edition AV-3000® facepieces that use a retaining ring in the nosecup assembly. For 2007 edition AV-3000® facepieces with a one-piece nosecup, follow procedures in paragraph 6.7.2.5.

a. **Removal**

**NOTE**

Head harness does not have to be removed to remove nosecup assembly.

(1) Position head harness out of way.

**CAUTION**

The following removal and installation procedures must be performed by hand, without using any tools. Using tools to pry or pull components may damage rubber parts.

(2) From outside facepiece, use thumb to dislodge retaining ring (3, Figure 6-35) from adapter port (2) and nosecup assembly (1).
Figure 6-35. Retaining Ring Removal.

(3) From inside facepiece, separate nosecup assembly (1, Figure 6-36) from voicemitter duct groove (2).

Figure 6-36. Remove AV-3000® Nosecup Assembly.

(4) Carefully pull nosecup assembly to remove from other voicemitter duct groove.

b. Installation.

(1) Visually inspect nosecup assembly for heat damage, cracks, discoloration, cuts, or abrasions. If damage is noted, replace as required.

(2) Inspect nosecup assembly for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.

(3) Insert nosecup assembly (3, Figure 6-37) into facepiece. Fit tabs (2) of nosecup assembly into cutouts of adapter port (1).
(4) Ensure nosecup assembly is fully seated in adapter port and is not distorted.

(5) From inside facepiece, firmly seat small diameter of retaining ring (3, Figure 6-35) into nosecup assembly as shown in Figure 6-38. Ensure retaining ring fully seats in groove of nosecup assembly.

(6) Install nosecup assembly (1, Figure 6-36) into voicemitter duct groove (2). Repeat to install in other voicemitter duct groove.

(7) Verify nosecup assembly (1, Figure 6-39) is not distorted. Ensure bottom of nosecup assembly is behind chin pocket (2).
Figure 6-39. 2002 Edition AV-3000® Nosecup Assembly Behind Chin Pocket.

**WARNING**

Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(8) Perform negative-pressure check IAW paragraph 6.6.3.

6.7.2.5 **Nosecup Removal and Installation (2007 Edition Facepiece).**

**NOTE**

This procedure deals with 2007 Edition AV-3000® facepieces that use a one-piece nosecup. For 2002 Edition AV-3000® facepieces with a nosecup assembly, follow procedures in paragraph 6.7.2.4.

a. **Removal.**

**NOTE**

Head harness does not have to be removed to remove nosecup.

(1) Position head harness out of way.

**CAUTION**

The following removal and installation procedures must be performed by hand, without using any tools. Using tools to pry or pull components may damage rubber parts.

(2) From outside facepiece, use thumb to push in and disconnect nosecup (1, Figure 6-40) from facepiece tab (2) on both sides of facepiece.
Figure 6-40. Remove Nosecup from AV-3000® Facepiece.

(3) From inside facepiece, separate nosecup (1, Figure 6-41) from voicemitter duct (2).

Figure 6-41. Remove AV-3000® Nosecup.

(4) Carefully pull on nosecup to remove from other voicemitter duct groove.
(5) Remove nosecup from facepiece.

b. **Installation.**
(1) Visually inspect nosecup for heat damage, cracks, discoloration, cuts, or abrasions. If damage is noted, replace as required.
(2) Inspect nosecup for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.
(3) Insert nosecup into facepiece. Fit tabs (2, Figure 6-42) of nosecup into cutouts (1) of adapter port.
(4) Ensure nosecup is fully seated in adapter port and is not distorted.
(5) Install nosecup (1, Figure 6-36) onto voicemitter duct (2). Repeat to install in other voicemitter duct.
(6) Verify nosecup is not distorted. Ensure bottom of nosecup is in front of chin pocket as shown in Figure 6-43.

Figure 6-42. Align Tabs with Cutouts.

Figure 6-43. 2007 Edition AV-3000® Nosecup In Front of Chin Pocket.
Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(7) Perform negative-pressure check IAW paragraph 6.6.3.

6.7.2.6 **Voicemitter Duct Removal and Installation.**

**CAUTION**

The following removal and installation procedures must be performed by hand, without using any tools. Using tools to pry or pull components may damage rubber parts.

a. **Removal.**
   1. Remove voice amplifier and mounting bracket IAW paragraph 6.7.2.1.
   2. Remove nosecup assembly IAW paragraph 6.7.2.4.
   3. To remove voicemitter, carefully roll back exterior flap (3, Figure 6-44) with thumb and forefinger of one hand and with index finger of other hand, pull voicemitter (1) free.
   4. Repeat for other voicemitter.
   5. To remove voicemitter duct, collapse voicemitter duct outside facepiece and remove from lens.
   6. Repeat for other voicemitter duct.

b. **Installation.**
   1. Visually inspect voicemitters and voicemitter ducts for heat damage, cracks, discoloration, cuts, or abrasions. If damage is noted, replace as required.
   2. Inspect voicemitter and voicemitter ducts for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.

*Figure 6-44. AV-3000® Voicemitter Removal and Installation.*
NOTE
An L or R is molded into the AV-3000® voicemitter ducts, indicating the left-side or right-side of facepiece as worn.

(3) Collapse round end of voicemitter duct and insert through hole in lens, from inside facepiece. Ensure correct voicemitter duct is installed.

(4) Ensure exterior flap is on outside of lens and lens is fully seated in exterior flap groove.

(5) Repeat steps c.(3) and c.(5) for remaining voicemitter duct.

(6) Ensure the L and R molded into the voicemitter ducts are visible when looking into the facepiece as worn. See Figure 6-45 for proper alignment (L and R highlighted for clarity).

Figure 6-45. Proper Position of AV-3000® Voicemitter Duct.

(7) With four raised dots (2, Figure 6-44) facing up, insert voicemitter (1) into exterior flap (3) until fully seated.

(8) Repeat for other voicemitter.

NOTE
Perform negative-pressure check only after complete assembly of facepiece.

(9) Install nosecup assembly IAW paragraph 6.7.2.4.

(10) Install voice amplifier and mounting bracket IAW paragraph 6.7.2.1.

WARNING
Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(11) Perform negative-pressure check IAW paragraph 6.6.3.

6.7.2.7 Inhalation Check Valve Removal and Installation.
Tools, Parts, and Materials.
• Water, fresh
  a. Removal.
    (1) Remove voicemitters and voicemitter ducts IAW paragraph 6.7.2.6.
    (2) From inside voicemitter duct (1, Figure 6-46), grasp rectangular portion of inhalation check valve (2) and pull inhalation check valve free. Repeat for remaining inhalation check valve.
b. **Installation.**

1. Inspect inhalation check valves for cuts, nicks, tears, or other damage. If damage is noted, replace as required.
2. Inspect inhalation check valves for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.
3. Moisten inhalation check valve tips (1, Figure 6-47) and stems (2) with fresh water.
4. From inside voicemitter duct (3, Figure 6-48), insert both inhalation check valve tips (1) into small holes of voicemitter duct.
Figure 6-48. Installing AV-3000® Inhalation Check Valves.

NOTE
When inhalation check valve is properly installed, rectangular portion of inhalation check valves will lie flat against inside of voicemitter duct and stems will be captured in small holes of voicemitter duct.

(5) From outside voicemitter duct, gently pull inhalation check valve tip until stem (2) is seated.
(6) Trim excess tip as required.
(7) Repeat steps b.(3) through b.(6) for other inhalation check valve.

NOTE
Perform negative-pressure check only after complete assembly of facepiece.

(8) Reinstall voicemitter and voicemitter ducts IAW paragraph 6.7.2.6.

WARNING
Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(9) Perform negative-pressure check IAW paragraph 6.6.3.

6.7.2.8 Bezel and Faceseal Removal and Installation.
Tools, Parts, and Materials.
- Key set, socket head screw (Allen wrench), 7/64 inch
- Water, fresh

a. Removal.
(1) Remove voice amplifier and mounting bracket IAW paragraph 6.7.2.1.
(2) With 7/64 inch socket head key wrench, remove bezel screws (2, Figure 6-49). Set aside for installation.
(3) Pull upper bezel (1) away from faceseal (4).
(4) Pull lower bezel (3) away from faceseal.
(5) Remove faceseal from lens, working symmetrically from chin area to forehead area. Use fingers to work faceseal from lens.
(6) If replacing faceseal, remove head harness IAW paragraph 6.7.2.3. Set aside for installation.

b. Installation.

**NOTE**
There are three sizes of faceseals. Size is molded onto chin area of faceseal. Ensure correct size face seal is used.

(1) Visually inspect bezels and faceseal for heat damage, cracks, discoloration, cuts, or abrasions. If damage is noted, replace as required.
(2) Inspect bezels and facepiece for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.
(3) Align forehead centerline mark on faceseal (1, Figure 6-50) with forehead alignment mark on lens (2).

(4) Insert lens fully into groove of faceseal.

*Figure 6-49. Bezel Screws Removal.*

*Figure 6-50. AV-3000® Faceseal Alignment with Lens.*
Applying fresh water to bezels and face seal with aid in assembly of these components. Do not use commercial lubricants in assembling facepiece components. Commercial lubricants may cause equipment damage.

(5) Align chin centerline mark on face seal (2, Figure 6-51) with chin alignment mark on lens (1). Ensure lens is fully seated in face seal, and that chin alignment mark on lens and chin centerline mark on face seal align.

(6) Align centerline mark on lower bezel (2, Figure 6-52) with chin centerline marks on lens (1). Install lower bezel.

(7) Install upper bezel onto face seal.
(8) Ensure both bezels are fully seated and that all centerline marks align.

(9) Install bezel screws (2, Figure 6-49). Using 7/64 inch socket head key wrench, tighten screws evenly, alternating from one side to the other until tightened.

**NOTE**

Perform negative pressure check only after complete assembly of facepiece.

(10) If applicable, install head harness IAW paragraph 6.7.2.3.

(11) Install voice amplifier and mounting bracket IAW paragraph 6.7.2.1.

**WARNING**

Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(12) Perform negative-pressure check IAW paragraph 6.6.3.

6.7.2.9 **Lens Removal and Installation.**

a. **Removal.**

   (1) Remove voicemitters and voicemitter ducts IAW paragraph 6.7.2.6.

   (2) Remove bezel and faceseal IAW paragraph 6.7.2.8.

b. **Installation.**

   (1) Visually inspect all components for heat damage, cracks, discoloration, cuts, or abrasions. If damage is noted, replace as required.

   (2) Inspect all components for cleanliness. If dirt or other foreign matter is found, clean IAW paragraph 4.7.2.

**NOTE**

Perform negative-pressure check only after complete assembly of facepiece.

(3) Install bezel and faceseal IAW paragraph 6.7.2.8.

(4) Install voicemitters and voicemitter ducts IAW paragraph 6.7.2.6.

**WARNING**

Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.

(5) Perform negative-pressure check IAW paragraph 6.6.3.

6.7.3 **Mask-Mounted Regulator Corrective Maintenance.**

6.7.3.1 **Sealing Gasket Removal and Installation.**

Tools, Parts, and Materials.

- Gasket, Sealing, PN 10005368
- Scraper, Plastic
- Tape, Masking

a. **Removal.**

   (1) Bleed system IAW paragraph 6.6.1.

   (2) Remove mask-mounted regulator from regulator holder.

   (3) Cover mask-mounted regulator outlet (2, Figure 6-53) with masking tape.
Figure 6-53. Mask-Mounted Regulator (Reverse Side).

(4) Without using tools, remove sealing gasket (1) from around mask-mounted regulator outlet.

**CAUTION**

Only use plastic scraper to remove remaining portions of sealing gasket to avoid equipment damage.

(5) Carefully remove any remaining portions of sealing gasket with plastic scraper.

b. Installation.

(1) Ensure replacement sealing gasket is free of cuts, nicks, or other damage. Replace as required.

(2) Position mask-mounted regulator (2, Figure 6-53) facing up.

**NOTE**

Do not remove peel-away paper from back of sealing gasket.

(3) With peel-away paper facing mask-mounted regulator outlet, gently stretch sealing gasket (1) over mask-mounted regulator outlet.

**NOTE**

Ensure mask-mounted regulator sealing gasket lays flat before removing any peel-away paper.

(4) Fold back sealing gasket and remove 1/2 of peel-away paper.

(5) Press portion of sealing gasket with exposed adhesive into place around mask-mounted regulator.

(6) Repeat steps c.(4) and c.(5) for remaining half of sealing gasket.

(7) Remove masking tape covering mask-mounted regulator outlet.

**WARNING**

Failure to successfully perform a negative-pressure check may allow exposure to hazardous substances, resulting in serious personal injury or death.
(8) Perform negative-pressure check IAW paragraph 6.6.3.
(9) Install mask-mounted regulator in regulator holder.

6.7.3.2 **Mask-Mounted Regulator Removal and Installation**

**Tools, Parts, and Materials.**
- O-ring, PN 18002-00
- Pliers, slip joint, soft-jawed
- Screwdriver, cross-tip, No. 2
- Sealing compound, Threadlocker, Loctite® Grade 222 - Hazardous Material
- Wrench, open-end, 3.8 inch
- Wrench, open-end, 5/8 inch
- Wrench, hex key, 7/64 inch

a. **Removal.**

(1) Bleed system IAW paragraph 6.6.1.
(2) If Heads-Up Display (HUD)(Configuration 4) is installed on mask-mounted regulator, remove HUD electrical cable (3, **Figure 6-54**) from Visualert® (5) by rotating knurled connector fully CCW by hand. If necessary, use soft-jawed slip joint pliers.

![Figure 6-54. Visualert® and Low-Pressure Hose (Configuration 4 Shown).](image)

(3) If Heads-Up Display (HUD)(Configuration 5) is installed on mask-mounted regulator, remove HUD electrical cable (2, **Figure 6-55**) from Visualert® with 3/8 inch open-end wrench, turning fully CCW.

![Figure 6-55. Anti-Rotational Device (Configuration 5).](image)
(4) If anti-rotational device (1) is installed on low-pressure hose (2, Figure 6-54), remove device using 7/64 inch socket head key wrench on two socket head screws (3), turning fully CCW. Set parts aside for installation.

(5) Using 5/8 inch open-end wrench, remove low-pressure hose (2) by rotating its coupling (1) fully CCW. Ensure cleanliness is maintained IAW paragraph 4.7.1.

(6) If bell alarm (Configurations 2 and 3) is attached, use No. 2 cross-tip screwdriver to remove screw (5, Figure 6-56) to remove screw attaching retaining strap (2) to mounting plate (1).

![Figure 6-56. Bell Alarm Retaining Strap.](image)

(7) Slowly and carefully remove low-pressure hose (3) from left shoulder strap (4).

b. **Installation.**

**NOTE**

The low-pressure hose must be threaded from the bottom and out top of left shoulder strap (as worn).

(1) Guide low-pressure hose (3, Figure 6-56) through left shoulder strap.

(2) Visually inspect O-ring (1, Figure 6-57) on low-pressure hose for nicks, cuts, wear and tear, or foreign debris. If necessary, remove and replace IAW paragraph 4.7.5.

![Figure 6-57. Low-Pressure Hose O-Ring.](image)

(3) Insert low-pressure hose (2, Figure 6-54) into low-pressure hose outlet and rotate its coupling (1) CW first by hand then with 5/8 inch open-end wrench to tighten. Do not overtighten.
(4) If anti-rotational device (1, Figure 6-55) was removed in removal procedure, re-attach device to low pressure hose (2) with two socket head key screws and 7/64 inch socket head key wrench, turning CW until snug.

(5) If bell alarm is attached, apply one drop of sealing compound to screw threads (5, Figure 6-56) and using No. 2 cross-tip screwdriver, attach retaining strap (2) to mounting plate (1).

**CAUTION**

If HUD is installed, ensure HUD electrical cable connector holes and Visualert® pins are aligned to prevent damage to equipment.

(6) If HUD is installed, align HUD electrical cable connector holes (1, Figure 6-58) with Visualert® pins (2).

![Figure 6-58. HUD Electrical Cable Connection.](image)

(7) Rotate knurled (or hex flat) connector (4, Figure 6-54) CW by hand to tighten. If hex flat connector, use 3/8 inch open-end wrench to turn connector another 1/2 turn past finger-tight.

(8) Perform leak check IAW paragraph 6.6.2. Ensure HUD initiates. If HUD does not initiate, repeat steps c.(5) and c.(6) and retest.

6.7.4 **Pressure Reducer and Supported Component Corrective Maintenance (Configurations 1 - 3).**

6.7.4.1 **Quick-Charge Assembly Mounting Block Removal and Installation.**

**Tools, Parts, and Materials.**

- O-ring, PN 55810-00
- Ring, back-up, PN 18071-00
- Hex head key wrench (Allen wrench), 3/32 inch
- Hex head key wrench (Allen wrench), 7/64 inch

**a. Removal.**

(1) Bleed system IAW paragraph 6.6.1.
(2) Using 3/32 inch socket head key wrench, remove two socket head screws (1, Figure 6-59) securing quick-charge assembly mounting block (2) to pressure reducer. Set screws aside for installation.

![Figure 6-59. Quick-Charge Assembly Mounting Block.](image)

(3) If applicable, use 7/64 inch socket head key wrench to remove screws (1, Figure 6-60) from bracket (2) holding quick-charge assembly mounting block to pressure reducer.

![Figure 6-60. Bracket.](image)

**CAUTION**

To prevent equipment damage, take care not to drop mounting probe (Figure 6-61), which may stay attached to quick-charge assembly mounting block.

![Figure 6-61. Mounting Probe.](image)

(4) Lift quick-charge assembly mounting block from pressure reducer.
(5) Remove mounting probe (Figure 6-61) from pressure reducer or quick-charge assembly mounting block, as applicable. Ensure cleanliness is maintained IAW paragraph 4.7.1.

b. Installation.

NOTE

Back-up rings on mounting probe are split rings.

(1) Inspect O-rings (2, Figure 6-61) and back-up rings (1) on mounting probe for nicks, cuts, wear and tear, or foreign debris. As necessary, remove and replace IAW 4.7.5.

(2) Fully seat mounting probe into pressure reducer.

(3) Carefully place quick-charge assembly mounting block over mounting probe and align screw holes.

(4) Using 3/32 inch socket head screw wrench, reinstall two socket head screws (1, Figure 6-59) to secure quick-charge assembly mounting block (2) to pressure reducer.

(5) If applicable, use 7/64 inch socket head screw wrench to install screws (1, Figure 6-60) to bracket (2) holding quick-charge assembly mounting block to pressure reducer.

(6) Perform leak check IAW paragraph 6.6.2.

6.7.4.2 Remote Pressure Indicator Removal and Installation.

Tools, Parts, and Materials.

• Hammer, hand, machinist’s ball peen, 8 oz.
• O-ring, PN 55810-00
• Pin, roll, PN 33481-107
• Punch, pin, 5/64 inch
• Ring, back-up, PN 18071-00

a. Removal.

(1) Bleed system IAW paragraph 6.6.1.

(2) Remove quick-charge assembly mounting block IAW paragraph 6.7.4.1.

(3) Place quick-charge assembly mounting block (3, Figure 6-62) on clean, hard surface, allowing space for roll pins (2) to be driven out.

Figure 6-62. Remote Pressure Indicator High-Pressure Hose Roll Pin Removal.

(4) Using 5/64 inch pin punch and hammer, carefully drive roll pins out of quick-charge assembly mounting block. Set roll pins aside for installation.

(5) Pull remote pressure indicator high-pressure hose (1) from quick-charge assembly mounting block. Ensure cleanliness of remote pressure indicator high-pressure hose is maintained IAW paragraph 4.7.1.

(6) Carefully remove remote pressure indicator high-pressure hose (3, Figure 6-63) from right shoulder strap (1) and rubber retaining strap (2).
b. Installation.

**NOTE**

Ensure remote pressure indicator high-pressure hose is threaded between the Kevlar® straps within the right shoulder strap, as worn.

1. Guide end of remote pressure indicator high-pressure hose (3, Figure 6-63) through rubber retaining strap (2) and right shoulder strap (1) from bottom and out the top, as worn.

**NOTE**

Backup ring is a split ring.

2. Inspect O-ring (1, Figure 6-64) and back-up ring (2) on remote pressure indicator high-pressure hose for nicks, cuts, wear and tear, or foreign debris. As necessary, remove and replace IAW paragraph 4.7.5.

**CAUTION**

To prevent equipment damage, ensure quick-charge assembly outlet port is free of foreign matter before inserting remote pressure indicator high-pressure hose.

3. Insert remote pressure indicator high-pressure hose (2, Figure 6-65) fully into quick-charge assembly outlet port. Ensure hose groove (3, Figure 6-64) is aligned with roll pin holes (1, Figure 6-65) and that roll pin holes are unobstructed.
(4) Inspect roll pins for cracks, bends, or mushroomed ends. Replace as required.
(5) Tap roll pins into roll pin holes using 5/64 inch pin punch and hammer.
(6) Install quick-charge assembly mounting block onto pressure reducer IAW paragraph 6.7.4.1.
(7) Perform leak check IAW paragraph 6.6.2.

6.7.4.3 Bell Alarm Removal and Installation (Configurations 2 and 3).
Tools, Parts, and Materials.
- Hammer, hand, machinist’s ballpeen, 8 oz.
- O-ring, PN 55810-00
- Pin, roll, PN 33481-107
- Punch, pin, 5/64 inch
- Ring, backup, PN 18071-00
- Screwdriver, cross-tip, No. 2
- Sealing compound, Threadlocker, Loctite®, Grade 222 - Hazardous Material

a. Removal.
   (1) Bleed system IAW paragraph 6.6.1.
   (2) Remove side strap from left shoulder strap spring-action buckle.
   (3) Slide left shoulder strap spring-action buckle from shoulder pad.
   (4) Using No. 2 cross-tip screwdriver, remove four screws (1, Figure 6-66) retaining strap (3), and mounting plate (2). Set aside for installation.
(5) Remove quick-charge assembly mounting block IAW paragraph 6.7.4.1.

(6) Place quick-charge assembly mounting block (3, Figure 6-67) on clean, hard surface, allowing space for roll pins (1) to be driven out.

(7) Using 5/64 inch pin punch and hammer, carefully drive roll pins out of quick-charge assembly mounting block. Set roll pins aside for installation.

(8) Pull bell alarm high-pressure hose (2) from quick-charge assembly mounting block. Ensure cleanliness of bell alarm high pressure hose is maintained IAW paragraph 4.7.1.

(9) Carefully remove bell alarm high-pressure hose from left shoulder strap.

b. Installation.

(1) Guide end of bell alarm high-pressure hose through left shoulder strap from the bottom and out the top, as worn.

**NOTE**

Backup ring is a split ring.

(2) Inspect O-ring (2, Figure 6-68) and backup ring (1) on bell alarm high-pressure hose for nicks, cuts, wear and tear, or foreign debris. As necessary, remove and replace IAW paragraph 4.7.5.
To prevent equipment damage, ensure quick-charge assembly outlet port is free of foreign matter before inserting bell alarm high-pressure hose.

3) Insert bell alarm high-pressure hose (2, Figure 6-69) fully into quick-charge assembly outlet port. Ensure hose groove (3, Figure 6-68) is aligned with roll pin holes (1, Figure 6-69) and that roll pin holes are unobstructed.

4) Inspect roll pins for cracks, bends, or mushroomed ends. Replace as required.

5) Tap roll pins into roll pin holes using 5/64 inch pin punch and hammer.

6) Install quick-charge assembly mounting block onto pressure reducer IAW paragraph 6.7.4.1.

7) Turn bell alarm (3, Figure 6-70) face down and place Kevlar® portion of shoulder strap (2) over bell alarm.

8) Place mounting plate (1) over shoulder strap.

9) Wrap retaining strap (4) around low-pressure hose (5) and align holes in retaining strap with hole in mounting plate.

10) Apply a drop of sealing compound to screw threads (6) and use No.2 cross-tip screwdriver to install screws securing retaining strap. Do not overtighten.

11) Repeat step (10) on three remaining screws.
(12) Position shoulder strap spring-action buckle within shoulder pad.
(13) Insert side strap through spring-action buckle.
(14) Perform leak check IAW paragraph 6.6.2.

6.7.4.4 High-Pressure Hose Assembly Nipple Seal Gasket Removal and Installation.

Tools, Parts, and Materials.
- Gasket, Nipple Seal, PN 57264-00
- Hex head key wrench (Allen wrench), 1/8 inch

a. Removal.
   (1) Bleed system IAW paragraph 6.6.1.
   (2) Rotate hand-coupling (1, Figure 6-71) CCW and remove high-pressure hose assembly from cylinder valve.

![Figure 6-71. High-Pressure Hose Assembly.]

   **NOTE**
   Do not remove hand coupling from the high-pressure hose assembly when replacing nipple seal gasket. Only remove retaining screw and nipple seal gasket.

   (3) Using 1/8 inch socket head key wrench, remove retaining screw (4) from center of nipple seal shaft (2) and set aside for installation.
   (4) Remove nipple seal gasket and discard.

b. Installation.
   (1) Inspect new nipple seal gasket for any damage. Replace as necessary.
   (2) Install nipple seal gasket (3) onto nipple seal shaft (2).
   (3) Using 1/8 inch socket head key wrench, install retaining screw (4) into center of nipple seal shaft.
   (4) Rotate hand coupling (1) CW to reconnect high-pressure hose assembly to cylinder valve.
   (5) Perform leak check IAW paragraph 6.6.2.
6.7.4.5 **High-Pressure Hose Assembly Removal and Installation.**

**Tools, Parts, and Materials.**
- Hammer, hand, machinist’s ballpeen, 8 oz.
- O-ring, PN 55622-00
- Punch, pin, 1/8 inch
- Ring, backup, PN 18071-02

a. **Removal.**
   1. Remove cylinder assembly IAW paragraph 2.3.2.2.
   2. Lay backframe and harness assembly on clean work surface with cylinder band clamp facing down.
   3. Using 1/8 inch pin punch and hammer, tap out two roll pins (2, Figure 6-72) securing high-pressure hose assembly (1) to pressure reducer (3).

   ![Figure 6-72. High-Pressure Hose Assembly Removal.](image)

   (4) Pull high-pressure hose assembly from pressure reducer.

b. **Installation.**
   1. Inspect O-ring (1, Figure 6-73) and backup ring (2) on high-pressure hose assembly for nicks, cuts, wear and tear, or foreign debris. If necessary, remove and replace IAW paragraph 4.7.5.

   ![Figure 6-73. High-Pressure Hose Assembly O-ring and Backup Ring.](image)

   (2) Inspect roll pins for cracks, bends, or mushroomed ends. Replace as required.
To prevent equipment damage, ensure high-pressure hose inlet port is free of foreign matter before installing high-pressure hose. Ensure high-pressure hose assembly groove aligns with roll pin holes to prevent damage to equipment.

(3) Insert high-pressure hose assembly into pressure reducer. Ensure high-pressure hose assembly groove (3) aligns with roll pin holes and that roll pin holes are unobstructed.

(4) While holding high-pressure hose assembly firmly in place, insert roll pins and lightly tap in place with hammer until roll pins are are flush with pressure reducer.

(5) Replace cylinder assembly IAW paragraph 2.3.2.2.

(6) Perform leak check IAW paragraph 6.6.2.

6.7.4.6 **Quick-Charge Assembly Removal and Installation.**

a. **Removal.**
   (1) Bleed system IAW paragraph 6.6.1.
   (2) Remove quick-charge assembly mounting block IAW paragraph 6.7.4.1.
   (3) Remove remote pressure indicator high-pressure hose IAW paragraph 6.7.4.2.
   (4) Remove bell alarm high-pressure hose IAW paragraph 6.7.4.3.

b. **Installation.**
   (1) Inspect quick-charge assembly for any visible damage. Replace as required.

   **NOTE**
   Perform leak check after all components have been reinstalled.
   (2) Install bell alarm high-pressure hose IAW paragraph 6.7.4.3.
   (3) Install remote pressure indicator high-pressure hose IAW paragraph 6.7.4.2.
   (4) Install quick-charge assembly mounting block IAW paragraph 6.7.4.1.
   (5) Perform leak check IAW paragraph 6.6.2.

6.7.4.7 **Pressure Reducer Removal and Installation.**

**Tools, Parts, and Materials.**
- Wrench, socket head key (Allen wrench), 5/32 inch
- Wrench, open-end, 5/8 inch

a. **Removal.**
   (1) Remove high-pressure hose assembly IAW paragraph 6.7.4.5.
   (2) Using 5/8 inch open-end wrench, remove low-pressure hose (2, Figure 6-74) by rotating low-pressure hose coupling (1) fully CCW.
(3) Remove quick-charge assembly mounting block IAW paragraph 6.7.4.1.
(4) Using 5/32 inch socket head key wrench, remove two mounting screws and sliding washers (1, Figure 6-75) from mounting plate (4) on backframe and harness assembly. Set aside for installation.

(5) Remove pressure reducer from mounting plate.

b. Installation.
(1) Inspect pressure reducer for any visible sign of damage. Replace as required.
(2) Align screw holes in side of pressure reducer (3) with slots (2) and mounting plate (4).
(3) Using 5/32 inch socket head key wrench, install mounting screws and sliding washers (1).

**NOTE**
Perform leak check after all components have been installed.

(4) Install quick-charge assembly mounting block IAW paragraph 6.7.4.1.
(5) Using 5/8 inch open-end wrench, install low pressure hose (2, Figure 6-74) by rotating low-pressure hose coupling (1) fully CW.
(6) Install high-pressure hose assembly IAW paragraph 6.7.4.5.
(7) Perform leak check IAW paragraph 6.6.2.
6.7.5 **Pressure Reducer and Supported Components Corrective Maintenance (Configuration 4).**

6.7.5.1 **Visualert® Removal and Installation.**

**Tools, Parts, and Materials.**
- O-ring, PN 55810-00
- Pliers, needle-nose
- Pliers, soft-jawed
- Ring, backup, PN 18071-00
- Wrench, socket head key (Allen wrench), 3/32 inch
- Wrench, socket head key (Allen wrench), 5/32 inch

a. **Removal.**

(1) Bleed system IAW paragraph 6.6.1.

(2) Remove cylinder assembly IAW paragraph 2.3.2.2.

(3) Using 5/32 inch socket head key wrench, remove mounting screws, sliding washers, and spacers (1, **Figure 6-76**) securing Visualert® bracket (4) to pressure reducer (3) and mounting plate (2). Set aside for installation.

(4) Disconnect HUD electrical cable (1, **Figure 6-77**) from Visualert® (3) by rotating knurled connector (2) fully CCW by hand. If necessary, use soft-jawed pliers.

---

**Figure 6-76. Visualert® Removal.**

**Figure 6-77. Visualert® and HUD Electrical Cable.**
(5) Using 3/32 inch socket head key wrench, loosen two screws (1, Figure 6-78) from Visualert® mounting block (2).

![Figure 6-78. Visualert® Mounting Block Removal.](image)

(6) Lift Visualert® mounting block from pressure reducer. Set screws aside for installation.

**CAUTION**

To prevent damage to equipment, take care not to drop mounting probe (Figure 6-79) which may stay attached to Visualert® mounting block.

![Figure 6-79. Mounting Probe.](image)

(7) Remove mounting probe (Figure 6-79) from pressure reducer or Visualert® mounting block, as applicable. Ensure cleanliness is maintained IAW paragraph 4.7.1.

(8) If replacing Visualert® or remote pressure indicator, continue with following steps. If not, proceed to installation procedures in step b.

(9) Remove retaining clip (2, Figure 6-80) securing remote pressure indicator high-pressure hose (1) to Visualert® mounting block (3) with needle-nose pliers.
(10) Pull remote pressure indicator high-pressure hose from Visualert® mounting block. Ensure cleanliness is maintained IAW paragraph 4.7.1.

b. Installation.
   (1) Inspect Visualert® for any visible sign of damage. Replace as required.
   (2) If remote pressure indicator has been removed, perform steps (3) through (6). If not proceed to step (7).
   (3) Inspect retaining clip for cracks, bends, or mushroomed ends. Replace as required.

   **NOTE**

   Backup ring is a split ring.

   (4) Inspect O-ring (1, Figure 6-81) and backup ring (2) on remote pressure indicator high-pressure hose for nicks, cuts, wear and tear, or foreign debris. As necessary, remove and replace IAW paragraph 4.7.5.

   **CAUTION**

   To prevent equipment damage, ensure Visualert® outlet port is free of foreign matter before inserting remote pressure indicator high-pressure hose.

   (5) Insert remote pressure indicator high-pressure hose (1, Figure 6-82) fully into Visualert® mounting block (3). Ensure hose groove (3, Figure 6-81) is aligned with retaining clip holes (2, Figure 6-82) and that retaining clip holes are unobstructed.
CAUTION

Failure to properly install retaining clip as shown in Figure 6-82 could damage equipment.

(6) Fully insert retaining clip (2, Figure 6-80) into retaining clip holes to secure remote pressure indicator high-pressure hose.

NOTE

Backup rings on mounting probe are split rings.

(7) Inspect O-rings (2, Figure 6-83) and backup rings (1) on mounting probe for nicks, cuts, wear and tear, or foreign debris. As necessary, remove and replace IAW paragraph 4.7.5.

(8) Fully seat mounting probe into pressure reducer.

(9) Carefully place Visualert® mounting block (2, Figure 6-84) over mounting probe (4) and onto pressure reducer (3).
(10) Using 3/32 inch socket head key wrench, install two socket head screws (1, Figure 6-78) to secure Visualert® mounting block (2) to pressure reducer.

**CAUTION**

Ensure HUD electrical cable connector holes and Visualert® pins are aligned to prevent damage to the equipment.

(11) Align HUD electrical cable connector holes (1, Figure 6-85) with Visualert® pins (2).

(12) Rotate knurled connector (5, Figure 6-86) CW by hand to tighten.
(13) Position Visualert® mounting bracket (4) between pressure reducer (3) and mounting plate (2).
(14) Using 5/32 inch socket head key wrench, install mounting screws, sliding washers, and spacers (1) securing Visualert® bracket to pressure reducer and mounting plate.
(15) Replace cylinder assembly IAW paragraph 2.3.2.2.
(16) Perform leak check IAW paragraph 6.6.2. Ensure HUD initiates. If HUD does not initiate, repeat steps (11) and (12) and retest.

6.7.5.2 Remote Pressure Indicator Removal and Installation.

a. Removal.
   (1) Bleed system IAW paragraph 6.6.1.
   (2) Remove cylinder assembly IAW paragraph 2.3.2.2.
   (3) Remove Visualert® and remote pressure indicator IAW paragraph 6.7.5.1.
   (4) Carefully remove remote pressure indicator high-pressure hose (3, Figure 6-87) from right shoulder strap (1) and rubber retaining strap (2).

Figure 6-86. Visualert® Placement.

Figure 6-87. Remove Remote Pressure Indicator High-Pressure Hose.

b. Installation.
NOTE

Ensure remote pressure indicator high-pressure hose is threaded between the Kevlar® straps within the right shoulder strap, as worn.

(1) Guide end of remote pressure indicator high-pressure hose (3) through rubber retaining strap (2) and right shoulder strap (1) from the bottom and out the top, as worn.

(2) Install remote pressure indicator and Visualert® IAW paragraph 6.7.5.1.

(3) Install cylinder assembly IAW paragraph 2.3.2.2.

(4) Perform leak check IAW paragraph 6.6.2.

6.7.5.3 RIC UAC Assembly Nipple Seal Gasket Removal and Installation

Tools, Parts, and Materials.
- Gasket, Nipple Seal, PN 57264-00
- Wrench, socket head key (Allen wrench), 1/8 inch
- Wrench, open-end, 7/16 inch

a. Removal.

(1) Bleed system IAW paragraph 6.6.1.

(2) Rotate hand coupling (1, Figure 6-88) CCW and remove RIC UAC assembly from cylinder valve.

![Figure 6-88. RIC UAC Assembly.](image)

b. Installation.

(1) Inspect new nipple seal gasket for any damage. Replace as required.

(2) Install nipple seal gasket (3) onto center of nipple seal shaft (2).

(3) Hold nipple seal shaft under hand coupling with 7/16 inch open-end wrench and use 1/8 inch socket head key wrench to install retaining screw (4) into center of nipple seal shaft.

(4) Rotate hand coupling (1) CW to reconnect RIC UAC assembly to cylinder valve.
(5) Perform leak check IAW paragraph 6.6.2.

6.7.5.4 **RIC UAC Assembly Removal and Installation.**

Tools, Parts, and Materials.
- Hammer, hand, machinist’s ballpeen, 8 oz.
- O-ring, PN 55622-00
- Punch, pin 1/8 inch
- Ring, backup, PN 18071-02

a. **Removal.**

(1) Remove cylinder assembly IAW paragraph 2.3.2.2.
(2) Lay backframe and harness assembly on clean work surface with cylinder band clamp facing down.
(3) Using punch pin and hammer, tap out two roll pins (2, Figure 6-89) securing RIC UAC assembly (1) to pressure reducer (3).

![Figure 6-89. RIC UAC Assembly Removal.](image)

(4) Pull RIC UAC assembly from pressure reducer.

b. **Installation.**

(1) Inspect O-ring (1, Figure 6-90) and backup ring (2) on RIC UAC assembly for nicks, cuts, wear and tear, or foreign debris. If necessary, remove and replace IAW paragraph 4.7.5.

![Figure 6-90. RIC UAC Assembly O-ring, and Backup Ring.](image)

(2) Inspect roll pins for cracks, bends, or mushroomed ends. Replace as required.
CAUTION

To prevent equipment damage, ensure RIC UAC assembly inlet port is free of foreign matter before installing RIC UAC assembly.

3) Insert RIC UAC assembly into pressure reducer. Ensure RIC UAC assembly groove (3) aligns with pinholes and that pinholes are unobstructed.

CAUTION

Ensure RIC UAC assembly groove aligns with pin holes to prevent damage to equipment.

4) While holding RIC UAC assembly firmly in place, insert roll pins and lightly tap in place with hammer until roll pins are flush with pressure reducer.

5) Replace cylinder assembly IAW paragraph 2.3.2.2.

6) Perform leak check IAW paragraph 6.6.2.

6.7.5.5 Pressure Reducer Removal and Installation.

Tools, Parts, and Materials.

• Wrench, open-end, 5/8 inch

a. Removal.

1) Bleed system IAW paragraph 6.6.1.

2) Remove cylinder assembly IAW paragraph 2.3.2.2.

3) Remove RIC UAC assembly IAW paragraph 6.7.5.4.

4) Using 5/8 inch open-end wrench, remove low-pressure hose (2, Figure 6-91) by rotating low-pressure hose coupling (1) fully CCW.

Figure 6-91. Low-Pressure Hose.

5) Remove pressure reducer and Visualer® mounting block IAW paragraph 6.7.5.1.

b. Installation.

1) Inspect pressure reducer for any visible sign of damage. Replace as required.

2) Install Visualert® mounting block and pressure reducer IAW paragraph 6.7.5.1.

NOTE

Perform leak check after all components have been installed.

3) Using 5/8 inch open-end wrench, install low-pressure hose (2) by rotating low pressure hose coupling (1) fully CCW.

4) Install RIC UAC assembly IAW paragraph 6.7.5.4.

5) Replace cylinder assembly IAW paragraph 2.3.2.2.
(6) Perform leak check IAW paragraph 6.6.2.

6.7.6 Pressure Reducer and Supported Components Corrective Maintenance (Configuration 5).

6.7.6.1 HUD Electrical Cable Connector Removal and Installation.

Tools, Parts, and Materials.
- Wrench, open-end, 5/16 inch
- Wrench, open-end, 3/8 inch
- Screwdriver, cross-tip, No. 1

a. Removal.

(1) Bleed system IAW paragraph 6.6.1.
(2) Remove cylinder assembly IAW paragraph 2.3.2.2.
(3) Unscrew the plastic cap (1, Figure 6-92) over HUD electrical cable connection (2) to remote pressure indicator console (3) by turning it CCW and pull back a few inches.

![Figure 6-92. HUD Electrical Cable Connection to Remote Pressure Indicator Console.](image)

(4) Unscrew CCW the knurled part of the HUD electrical cable connection (2), using soft-jawed pliers if necessary. Pull the connection out of the remote pressure indicator console (3).
(5) Using a 3/8 inch open-end wrench, loosen HUD electrical cable (1, Figure 6-93) from connector by turning fully CCW. Once loose, pull cable free.
(6) Use 5/16 inch open-end wrench to hold nylon hex nut (1, Figure 6-94) in place while using No. 1 cross-tip screwdriver to loosen and remove screw (2), turning CCW. Keep turning screw CCW until it is completely out of connector. Set screw and nut aside for installation.

(7) Unclip HUD electrical cable from dual hose clip and carefully pull HUD electrical cable out of shoulder sleeve.

b. **Installation.**

(1) Inspect connector and cable for any visible damage, replace as required.

(2) Align hole in connector with hole in clamp on vertical frame bar. With No. 1 cross-tip screwdriver, start turning the screw through the clamp and into the connector, turning enough times so that the screw protrudes through the other side.

(3) Position the connector and screw so that the screw end will pass through the hole in the clamp on the horizontal frame bar.

(4) Place nylon hex nut (1, Figure 6-94) on screw end and turn CCW once or twice so that it is secured to the screw.

(5) Use 5/16 open-end wrench to hold nut in place while using No. 1 cross-tip screwdriver on the screw (2), turning it CW until snug.

(6) Pass HUD electrical cable through shoulder sleeve to remote pressure indicator console.
CAUTION

Ensure HUD electrical cable connector holes and Visualert® pins are aligned to prevent equipment damage.

(7) Align HUD electrical cable holes (1, Figure 6-95) with connector pins (2) and connect.

Figure 6-95. HUD Electrical Cable Connection.

(8) Using 3/8 inch open-end wrench, tighten HUD cable connector to Visualert®, turning CW until tight. Do not overtighten.

CAUTION

Ensure HUD electrical cable tab and pins align with remote pressure indicator console notch and holes to prevent equipment damage.

(9) Align HUD electrical cable tab and pins with remote pressure indicator console notch and holes and connect. See Figure 6-96.

Figure 6-96. HUD Electrical Cable and Remote Pressure Indicator Console Connections.
(10) Screw the knurled part of the HUD electrical connection into the remote pressure indicator console, turning CW until tight. Do not overtighten.

(11) Slide the plastic cap over the HUD electrical cable and fasten by turning it CW until tight. Do not overtighten.

(12) Clip the HUD electrical cable onto the dual hose clip.

6.7.6.2 Remote Pressure Indicator Console Removal and Installation.

Tools, Parts, and Materials.

- Wrench, socket head key (Allen wrench), 3/32 inch
- Pliers, needle-nose
- Screwdriver, flat-tip, 3/8 inch
- Batteries, non-rechargeable, size AA, 2 - Hazardous Material

a. Removal.

(1) Bleed system IAW paragraph 6.6.1.

(2) Remove cylinder assembly IAW paragraph 2.3.2.2.

(3) Detach remote pressure indicator console from harness by stretching rubber strap (1, Figure 6-97) on side of remote pressure indicator console; this opens the hole in the strap and allows the remote pressure indicator console to be unhooked. Repeat for other side.

Figure 6-97. Rubber Strap Securing Remote Pressure Indicator Console to Harness.

(4) Unscrew the plastic cap (1, Figure 6-98) over HUD electrical cable connection (2) to remote pressure indicator console (3) by turning it CCW and pull back a few inches.
Figure 6-98. Visualert® Cable Connection to Remote Pressure Indicator Console.

(5) Unscrew CCW the knurled part of the HUD electrical cable connection (2), using soft-jawed pliers if necessary. Pull the connection out of the remote pressure indicator console (3).

(6) Using 3/32 inch socket head key wrench, loosen (by turning CCW) and remove socket head screw (1, Figure 6-99) next to remote pressure indicator console high-pressure hose.

Figure 6-99. Remote Pressure Indicator Console High-Pressure Hose Connection to Remote Pressure Indicator Console.

(7) Using needle-nose pliers, remove retaining clip (2) securing remote pressure indicator console high-pressure hose (3) to remote pressure indicator console. Retain clip for installation.

(8) Pull remote pressure console high-pressure hose from remote pressure indicator console. Ensure cleanliness is maintained IAW paragraph 4.7.1.

(9) Remove two AA batteries in remote pressure indicator console as follows:
   (a) Using 3/8 inch flat-tip screwdriver, loosen and remove two battery covers (1, Figure 6-100).
(b) Remove batteries and discard IAW ship’s policy.

b. **Installation.**
   
   (1) Inspect remote pressure indicator console for any visible sign of damage. Replace as required.
   
   (2) Install two AA batteries in remote pressure indicator as follows:
      
      (a) Using 3/8 inch flat-tip screwdriver, loosen and remove two battery covers (1, Figure 6-100).

      **NOTE**
      
      Do not mix old and new batteries or batteries from different manufacturers. Use of rechargeable batteries is prohibited by Scott®. Using batteries other than those specified in Table 7-16 will void the intrinsic safety listing of the remote pressure indicator console.
      
      (b) Install two AA batteries into battery chamber, ensuring the polarity of the battery end at the top of the chamber matches the polarity indicated on the side of the remote pressure indicator console. See Figure 6-101
Figure 6-101. Battery Polarity Markings on Remote Pressure Console Matches Installed Batteries.

(c) Reattach battery covers and fasten using 3/8 inch flat-tip screwdriver, turning CW until tight. Do not overtighten.

(3) Inspect retaining clip for cracks, bends, or mushroomed ends. Replace as required.

NOTE

Backup ring is a split ring.

(4) Inspect O-ring (1, Figure 6-102) and backup ring (2) on remote pressure indicator console high-pressure hose for nicks, cuts, wear and tear, or foreign debris. As necessary, remove and replace IAW paragraph 4.7.5.

Figure 6-102. Remote Pressure Indicator Console High-Pressure Hose O-Ring and Backup Ring.
**CAUTION**

To prevent equipment damage, ensure remote pressure indicator console high-pressure hose port is free of foreign matter before inserting remote pressure indicator console high-pressure hose.

(5) Insert remote pressure indicator console high-pressure hose (3, Figure 6-99) fully into remote pressure indicator console. Ensure hose groove (3, Figure 6-102) is aligned with retaining clip holes (1, Figure 6-103) and that retaining clip holes are unobstructed.

![Figure 6-103. Retaining Clip Holes.](image)

**WARNING**

Install retaining clip into bottom of remote pressure indicator console on inside only. Failure to install retaining clip on correct side could cause serious injury to personnel.

(6) Fully insert retaining clip (2, Figure 6-99) into retaining clip holes to secure remote pressure indicator console high-pressure hose.

**NOTE**

Perform leak check after all components have been installed.

(7) Using 3/32 inch socket head key wrench, insert and fasten (by turning CW) socket head screw (1, Figure 6-99) into hole next to remote pressure indicator console high-pressure hose. This secures retaining clip in remote pressure indicator console high-pressure hose connection.

(8) Align HUD electrical cable tab and pins with remote pressure indicator console notch and holes and connect. See Figure 6-104.
(9) Screw the knurled part of the HUD electrical connection into the remote pressure indicator console, turning CW until tight. Do not overtighten.

(10) Slide the plastic cap over the HUD electrical cable and fasten by turning it CW until tight. Do not overtighten.

(11) Attach remote pressure indicator console to harness by stretching rubber strap hole (1, Figure 6-97) around knob on side of remote pressure indicator console. Repeat for other side.

(12) Install cylinder assembly IAW paragraph 2.3.2.2.

(13) Perform leak check IAW paragraph 6.6.2.

6.7.6.3 **RIC UAC Assembly Nipple Seal Gasket Removal and Installation.**

**Tools, Parts, and Materials.**
- Gasket, Nipple Seal, PN 57264-00
- Wrench, socket head key (Allen wrench), 1/8 inch
- Wrench, open-end, 1/2 inch

**a. Removal.**

(1) Bleed system IAW paragraph 6.6.1.

(2) Rotate hand coupling (4, Figure 6-105) CCW and remove RIC UAC assembly from cylinder valve.
Figure 6-105. RIC UAC Assembly Nipple Seal Gasket.

NOTE

Do not remove hand coupling from RIC UAC assembly when replacing nipple seal gasket. Only remove retaining screw and nipple seal gasket.

(3) Hold nipple seal shaft under hand coupling with 1/2 inch open-end wrench while using 1/8 inch socket head key wrench to remove retaining screw (1) from center of nipple seal shaft (3) and set aside for installation.

(4) Remove nipple seal gasket (2) and discard.

b. Installation.

(1) Inspect new nipple seal gasket for any damage. Replace as required.

(2) Install nipple seal gasket (2) onto center of nipple seal shaft (3).

(3) Hold nipple seal shaft under hand coupling with 1/2 inch open-end wrench and use 1/8 inch socket head key wrench to install retaining screw (1) into center of nipple seal shaft.

(4) Rotate hand coupling (4) CW to reconnect RIC UAC assembly to cylinder valve.

(5) Perform leak check IAW paragraph 6.6.2.

6.7.6.4 RIC UAC Assembly Removal and Installation.

Tools, Parts, and Materials.

- Hammer, hand, machinist’s ballpeen, 8 oz.
- O-ring, PN 55622-00
- Punch, pin 1/8 inch
- Ring, backup, PN 18071-02

a. Removal.

(1) Bleed system IAW paragraph 6.6.1.
(2) Remove cylinder assembly IAW paragraph 2.3.2.2.
(3) Lay backframe and harness assembly on clean work surface with cylinder band clamp facing down.
(4) Using punch pin and hammer, tap out two roll pins (2, Figure 6-106) securing RIC UAC assembly (1) to pressure reducer (3).

![Figure 6-106. RIC UAC Assembly Removal.]

(5) Pull RIC UAC assembly from pressure reducer.

b. Installation.

(1) Inspect O-ring (1, Figure 6-107) and backup ring (2) on RIC UAC assembly for nicks, cuts, wear and tear, or foreign debris. If necessary, remove and replace IAW paragraph 4.7.5.

![Figure 6-107. RIC UAC Assembly O-ring, and Backup Ring.]

(2) Inspect roll pins for cracks, bends, or mushroomed ends. Replace as required.

CAUTION

To prevent equipment damage, ensure RIC UAC assembly inlet port is free of foreign matter before installing RIC UAC assembly.

(3) Insert RIC UAC assembly (1, Figure 6-106) into pressure reducer. Ensure RIC UAC assembly groove (3, Figure 6-107) aligns with pinholes and that pinholes are unobstructed.
CAUTION

Ensure RIC UAC assembly groove aligns with pin holes to prevent damage to equipment.

(4) While holding RIC UAC assembly firmly in place, insert roll pins (2, Figure 6-106) and lightly tap in place with hammer until roll pins are flush with pressure reducer (3).

(5) Replace cylinder assembly IAW paragraph 2.3.2.2.

(6) Perform leak check IAW paragraph 6.6.2.

6.7.6.5 Pressure Reducer Removal and Installation.

Tools, Parts, and Materials.
- Wrench, open-end, 5/8 inch
- Wrench, socket head key (Allen Wrench), 7/64 inch
- Wrench, socket head key (Allen Wrench), 3/32 inch
- Wrench, socket head key (Allen Wrench), 5/32 inch

a. Removal.

(1) Bleed system IAW paragraph 6.6.1.

(2) Remove cylinder assembly IAW paragraph 2.3.2.2.

(3) Remove RIC UAC assembly IAW paragraph 6.7.6.4.

(4) Remove anti-rotational device (1, Figure 6-108) on low-pressure hose (2) using 7/64 inch socket head key wrench on two socket head screws (3), turning fully CCW. Set parts aside for installation.

Figure 6-108. Anti-Rotational Device on Low-Pressure Hose.

(5) Using 5/8 inch open-end wrench, remove low-pressure hose (2) by rotating low-pressure hose coupling fully CCW. Ensure cleanliness is maintained IAW paragraph 4.7.1.

(6) Using 3/32 inch socket head key wrench, loosen two screws (1, Figure 6-109) from remote pressure indicator console high-pressure hose mounting block (2).
(7) Lift remote pressure indicator console high-pressure hose mounting block from pressure reducer. Set screws aside for installation.

**CAUTION**

To prevent damage to equipment, take care not to drop mounting probe (Figure 6-110) which may stay attached to remote pressure indicator console high-pressure hose mounting block.

(8) Remove mounting probe (Figure 6-110) from pressure reducer or remote pressure indicator console high-pressure hose mounting block, as applicable. Ensure cleanliness is maintained IAW paragraph 4.7.1.

(9) Using 5/32 inch socket head key wrench, remove mounting screws (4, Figure 6-111), sliding washers (2), and spacers securing pressure reducer (1) to mounting plate (3) on frame. Set hardware aside for installation.
b. **Installation.**

(1) Inspect pressure reducer for any visible sign of damage. Replace as required.
(2) Install pressure reducer (1) onto mounting plate (3) on frame with 5/32 inch socket head key wrench, using mounting screws (4), sliding washers (2), and spacers.
(3) Fully seat mounting probe into pressure reducer.
(4) Carefully place remote pressure indicator console high-pressure hose mounting block over mounting probe and onto pressure reducer.
(5) Using 3/32 inch socket head key wrench, install two screws (1, Figure 6-109) into remote pressure indicator console high-pressure hose mounting block (2), turning CW until tight. Do not overtighten.
(6) Using 5/8 inch open-end wrench, install low-pressure hose by rotating low-pressure hose coupling fully CW until tight. Do not overtighten.
(7) Install anti-rotational device on low-pressure hose using 7/64 inch socket head key wrench on two socket head screws, turning fully CW until tight. Do not overtighten.

**NOTE**

Perform leak check after all components have been installed.

(8) Install RIC UAC assembly IAW paragraph 6.7.5.4.
(9) Replace cylinder assembly IAW paragraph 2.3.2.2.
(10) Perform leak check IAW paragraph 6.6.2.

6.7.6.6 **Remote Pressure Indicator Console High-Pressure Hose Removal and Installation.**

**Tools, Parts, and Materials.**
- Hammer, hand, machinists’ ball peen, 8 oz.
- Punch, pin, 5/64 inch
- Wrench, socket head key (Allen wrench), 3/32 inch

a. **Removal.**

(1) Bleed system IAW paragraph 6.6.1.
(2) Remove cylinder assembly IAW paragraph 2.3.2.2.
(3) Remove remote pressure indicator console IAW paragraph 6.7.6.2.
(4) Using 3/32 inch socket head key wrench, fully loosen two screws (1, Figure 6-112) from remote pressure indicator console high-pressure hose mounting block (2).
(5) Lift remote pressure indicator console high-pressure hose mounting block from pressure reducer. Set screws aside for installation.

**CAUTION**

To prevent equipment damage, take care not to drop mounting probe (Figure 6-113) which may stay attached to remote pressure indicator console high-pressure hose mounting block.

(6) Remove mounting probe (Figure 6-113) from pressure reducer or remote pressure indicator console high-pressure hose mounting block, as applicable. Ensure cleanliness is maintained IAW paragraph 4.7.1. Set mounting probe aside for installation.

(7) Place remote pressure indicator console high-pressure hose mounting block (3, Figure 6-114) on clean, hard surface, allowing space for roll pins (2) to be driven out.
(8) Using 8 oz. ball peen hammer and 5/64 inch pin punch, tap out two roll pins securing remote pressure indicator console high-pressure hose to mounting block.

(9) Pull remote pressure indicator console high-pressure hose (1) from mounting block. Ensure cleanliness of remote pressure indicator console high-pressure hose is maintained IAW paragraph 4.7.1.

(10) Unclip remote pressure indicator console high-pressure hose (1, Figure 6-115) from dual hose clip (2).

Figure 6-115. Dual Hose Clip.

(11) Carefully remove remote pressure indicator console high-pressure hose from right shoulder strap.

b. Installation.

NOTE

Ensure remote pressure indicator console high-pressure hose is threaded between the Kevlar® straps within the right shoulder strap, as worn.

(1) Guide end of remote pressure indicator console high-pressure hose (1) through right shoulder strap from bottom and out the top, as worn.

(2) Attach remote pressure indicator console high-pressure hose (1) to dual hose clip (2).

(3) Install remote pressure indicator console IAW paragraph 6.7.6.2.
NOTE

Backup ring is a split ring.

(4) Inspect o-ring (1, Figure 6-116) and backup ring (2) on remote pressure indicator console high-pressure hose for nicks, cuts, wear and tear, or foreign debris. As necessary, remove and replace IAW paragraph 4.7.5.

Figure 6-116. Remote Pressure Indicator Console High-Pressure Hose O-Ring and Backup Ring.

CAUTION

To prevent equipment damage, ensure remote pressure indicator console high-pressure hose mounting block outlet port is free of foreign matter before inserting remote pressure indicator console high-pressure hose.

(5) Insert remote pressure indicator console high-pressure hose fully into remote pressure indicator console high-pressure hose mounting block outlet port. Ensure hose groove (3) is aligned with roll pin holes and that roll pin holes are unobstructed.

(6) Inspect roll pin holes for cracks, bends, or mushroomed ends. Replace as required.

(7) Tap roll pins into roll pin holes using 5/64 inch pin punch and 8 oz. ball peen hammer.

(8) Fully seat mounting probe into pressure reducer.

(9) Carefully place remote pressure indicator console high-pressure hose mounting block over mounting probe and onto pressure reducer.

(10) Using 3/32 inch socket head key wrench, install two screws (1, Figure 6-109) into remote pressure indicator console high-pressure hose mounting block (2), turning CW until tight. Do not overtighten.

(11) Replace cylinder assembly IAW paragraph 2.3.2.2.

(12) Perform leak check IAW paragraph 6.6.2.
6.7.7 **Backframe and Harness Assembly Corrective Maintenance.**

6.7.7.1 **Hip Pad Assembly Removal and Installation.**

a. **Removal.**
   (1) Bleed system IAW paragraph 6.6.1.
   (2) Remove cylinder assembly IAW paragraph 2.3.2.2.
   (3) Remove side strap (4, Figure 6-117) from shoulder strap spring-action buckle (3). Repeat for the other side strap.

![Figure 6-117. Remove Hip Pad Assembly.](image)

   (4) Remove waist adjustment strap (1) from waist strap spring-action buckle (2). Repeat for other waist adjustment strap.
   (5) Unsnap hip pad assembly from backframe.

   **CAUTION**
   Do not use tools to remove hip pad assembly; tools may damage equipment.

   (6) Pull hip pad assemblies from waist-strap spring-action buckles and side straps.

b. **Installation.**
   (1) Inspect hip pad assembly for any visible signs of damage. Replace as required.
   (2) Position hip pad assembly with snap receptacles facing up as shown in Figure 6-118.
(3) Feed waist strap spring-action buckles (2, Figure 6-117) and side straps (4) through hip assembly (5); position side straps.
(4) Snap hip pad assembly to backframe.
(5) Feed side strap through shoulder strap spring action buckle (3). Folded seam will face teeth of buckle. Repeat for other side strap.
(6) Repeat step (5) for waist adjustment straps (1) and waist strap spring-action buckles.
(7) Replace cylinder assembly IAW paragraph 2.3.2.2.
(8) Perform leak check IAW paragraph 6.6.2.

6.7.7.2 Shoulder Pad Assembly Removal and Installation.

a. Removal.
(1) Bleed system IAW paragraph 6.6.1.

**NOTE**
Remove only those components necessary to replace affected shoulder pad.
(2) Remove bell alarm IAW paragraph 6.7.4.3 (Configurations 2 and 3).
(3) Remove mask-mounted regulator IAW paragraph 6.7.3.2.
(4) Remove remote pressure indicator IAW either paragraph 6.7.4.2 for Configurations 1-3, paragraph 6.7.5.1 for Configuration 4, or paragraph 6.7.6.2 for Configuration 5.
(5) Unsnap shoulder strap from shoulder pad.
(6) Remove side strap (4, Figure 6-119) from shoulder strap spring-action buckle (3).
Figure 6-119. Remove Shoulder Pad Assembly.

(7) Remove shoulder pad assembly (5).

b. Installation.
   (1) Inspect shoulder pad assembly for any visible sign of damage. Replace as required.
   (2) Position shoulder pad assembly (5) with label facing up.
   (3) Feed shoulder strap spring-action buckle (3) through shoulder pad assembly.
   (4) Snap shoulder strap to shoulder pad assembly.
   (5) Feed side strap through shoulder strap spring-action buckle. Folded seam will face teeth of buckle.

   **NOTE**
   Perform leak check after all components have been reinstalled.

   (6) Install remote pressure indicator IAW either paragraph 6.7.4.2 for Configurations 1-3, paragraph 6.7.5.1 for Configuration 4, or paragraph 6.7.6.2 for Configuration 5.
   (7) Install mask-mounted regulator IAW paragraph 6.7.3.2.
   (8) Install bell alarm IAW paragraph 6.7.4.3 (Configurations 2 and 3).
   (9) Perform leak check IAW paragraph 6.6.2.

6.7.7.3 Backframe and Harness Assembly Removal and Installation,
Tools, Parts, and Materials.
   • Wrench, socket head key (Allen wrench), 5/32 inch

a. Removal.
   (1) Bleed system IAW paragraph 6.6.1.
   (2) Remove cylinder assembly IAW 2.3.2.2.
   (3) Remove mask-mounted regulator IAW 6.7.3.2.
   (4) Remove bell alarm IAW paragraph 6.7.4.3 (Configurations 2 and 3).
   (5) Remove remote pressure indicator IAW either paragraph 6.7.4.2 for Configurations 1-3 or paragraph 6.7.5.1 for Configuration 4.
   (6) Using 5/32 inch socket head key wrench, remove mounting screws and sliding washers (1, Figure 6-120) from mounting plate (4). Set aside for installation.
(7) Remove pressure reducer (3) from mounting plate.

b. **Installation.**

1. Inspect backframe and harness assembly for any visible sign of damage. Replace as required.
2. Inspect pressure reducer for any visible sign of damage. Replace as required.
3. Align screw holes in side of pressure reducer (3) with slots (2) in mounting plate.
4. Using 5/32 inch socket head key wrench, install mounting screws and sliding washers (1).

**NOTE**

Perform leak check after all components have been reinstalled.

5. Install remote pressure indicator IAW either paragraph 6.7.4.2 for Configurations 1-3, paragraph 6.7.5.1 for Configuration 4, or paragraph 6.7.6.2 for Configuration 5.
6. Install bell alarm IAW paragraph 6.7.4.3 (Configurations 2 and 3).
7. Install mask-mounted regulator IAW paragraph 6.7.3.2.
8. Replace cylinder assembly IAW paragraph 2.3.2.2.