CHAPTER 6

LIFE PRESERVER, LOW-PROFILE FLOATATION COLLAR, LPU-36/P

Section 6-1. Description

6-1. GENERAL.

WARNING

The LPU-36/P Life Preserver contains an automatic inflation device and is configured for use only in aircraft with ejection seat systems.

6-2. The LPU-36/P, Life Preserver, Low Profile Floatation Collar (LPFC) (figure 6-1) is equipped with the FLU-8B/P automatic/manual inflator. The LPU-36/P is authorized for use only by aircrew personnel operating aircraft equipped with ejection seat systems. It is designed as a constant wear item for use with survival vests and other aircrew equipment. The LPU-36/P weighs 3 1/4 pounds and provides a minimum of 65 pounds of buoyancy. There are no survival items attached to the life preserver and it does not interfere with removal of a non-integrated parachute harness.

6-3. The LPU-36/P (LPFC) has a warning label on the side facing the wearer to indicate that the LPU-36/P is not for use in aircraft which do not have an ejection seat system. The zipper in the LPU-36/P is black in color to distinguish it from the LPU-34/P which does not contain the FLU-8B/P. (The LPU-34/P, which is designed for use in non-ejection seat aircraft, has a zipper the same color as the exterior cover, and contains a manual inflator only.)

NOTE

CFA for the LPFC (LPU-36/P) is Naval Air Warfare Center Aircraft Division, Patuxent River, MD 20670.

6-4. CONFIGURATION.

6-5. The LPU-36/P consists of multiple components compactly packed into an exterior cover assembly (casing assembly). The flotation assembly consists of two independent inflatable assemblies (bladders), each with an FLU-8B/P automatic/manual inflator and an oral inflation valve. The bladders are packed inside a black cloth inflation shell assembly. Four straps on the inflation shell assembly pass through grommets on the exterior cover assembly to attach the LPU-36/P to the modified torso harness or survival vest. Two additional straps adjust a plastic buckle which snaps across the wearer's chest to keep the LPU-36/P in position when worn. A beaded handle which connects to an inflation device is mounted on each side of the exterior cover assembly to initiate manual (primary) inflation of the life preserver.

6-6. INFLATION SHELL ASSEMBLY. The inflation shell assembly is a black cloth container which contains two independent inflatable bladders. Each heat sealed bladder is connected to a FLU-8B/P Inflator. The FLU-8B/P is a sealed, cartridge actuated automatic inflation device with primary manual inflation capability (figure 6-2). The device consists of a sensor housing and a body assembly into which a charged CO_2 cylinder, with an O-ring (seat seal gasket), is threaded. The sensor housing contains an electronic circuit which, when immersed in fresh or salt water, initiates automatic inflation of the life preserver. Each inflatable unit has a beaded handle connected to a lanyard. The lanyard is attached to the actuating lever of the inflation device to provide the manual inflation capability. An automatic inflation device is installed on the valve stem of each bladder of the inflation shell assembly. A cap nut secures the device and upper and lower pressure seal gaskets on the valve stem and also serves as a cap for the valve stem. Each inflator and CO_2 cylinder is wrapped in a protective cover. Oral inflation valve tubes are provided as backup to CO_2 cylinder inflation. (For more details on the FLU-8B/P, refer to NAVAIR 11-100-1.1.)

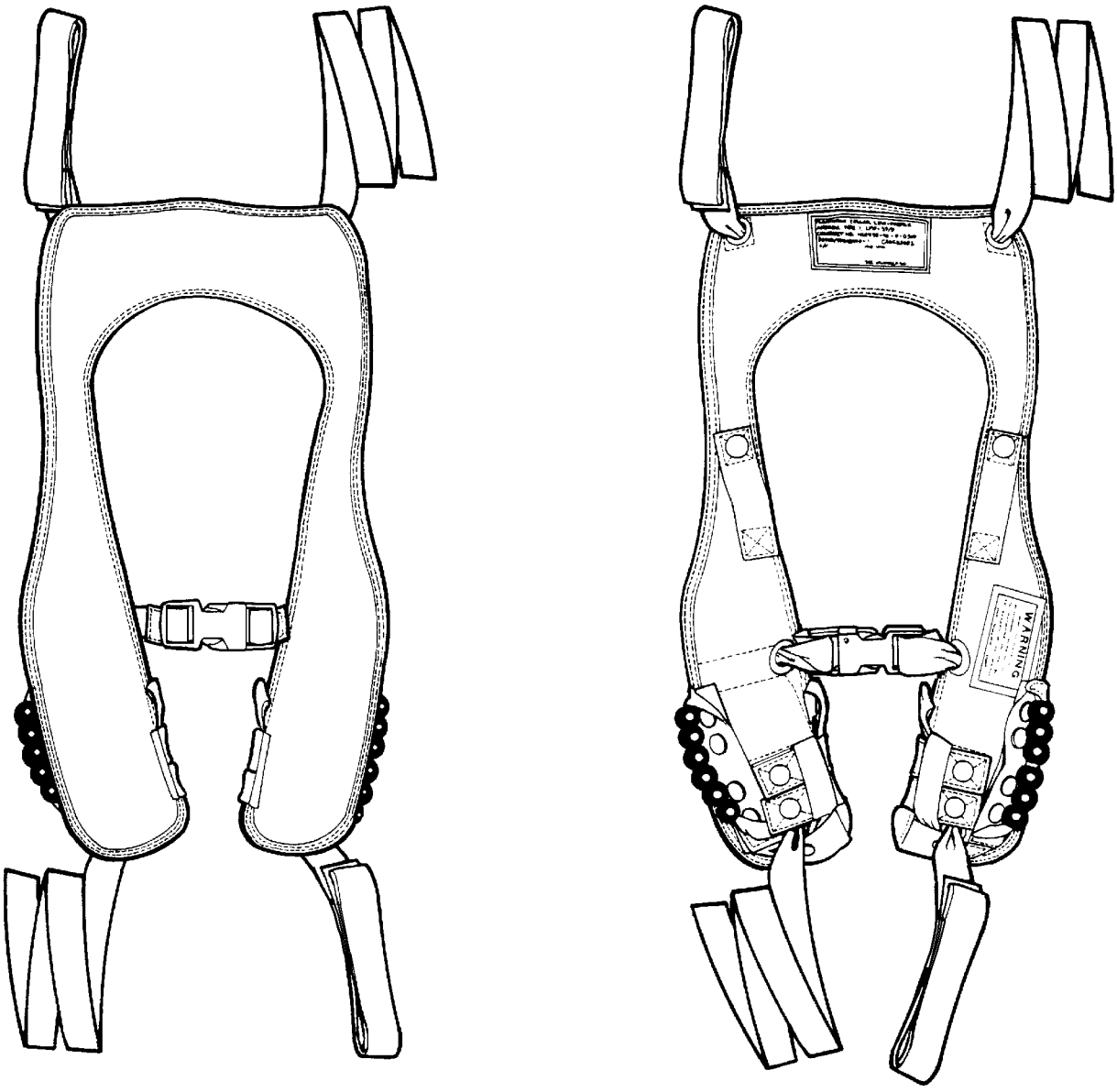

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Figure 6-1. LPU-36/P, Life Preserver, Low Profile Floatation Collar (LPFC)

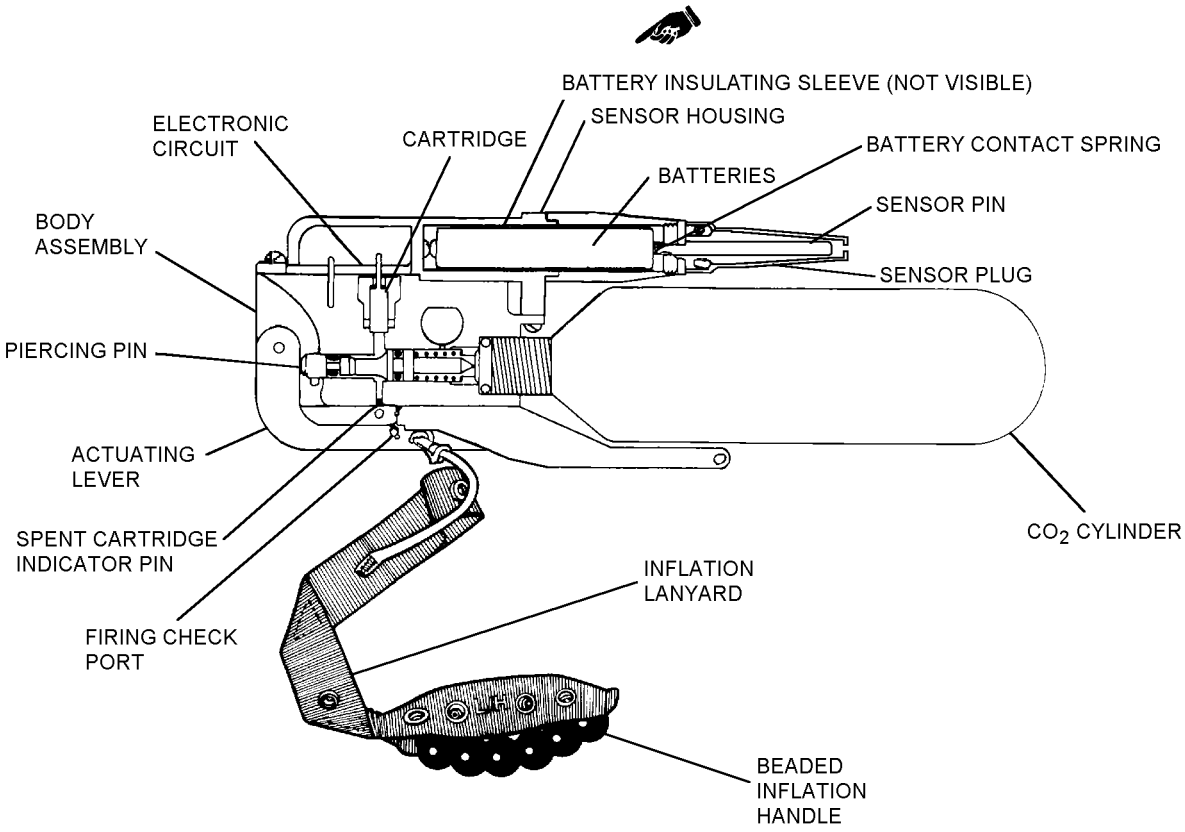

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Figure 6-2. Automatic Inflation Device, FLU-8B/P

6-7. APPLICATION.

6-8. The LPU-36/P is designated for constant wear only for aircrew personnel operating aircraft equipped with ejection seat systems.

6-9. FUNCTION.

6-10. The LPU-36/P is inflated either automatically, by immersion in fresh or salt water, or manually by pulling both beaded handles. The bladders inflate to provide head-out-of-water buoyancy.

6-11. The primary method of initiating inflation is the manual mode; pulling both beaded handles in a natural downward motion. Each beaded handle is connected by a lanyard to the actuating lever of the inflator. Pulling the handles initiates zipper separation on the exterior cover and causes the CO_2 cylinders to be punctured, inflating the bladders. The zipper securing the exterior cover continues to separate as the bladders inflate.

NOTE

The FLU-8B/P automatic inflation device may be operated in the manual mode an unlimited number of times without affecting its one-time automatic capability. After each manual inflation the spent CO_2 cylinders must be replaced and the CO_2 cylinder piercing pin inspected to ensure serviceability.

6-12. The automatic feature of the FLU-8B/P inflator serves as a backup to manual inflation. Automatic inflation is initiated when immersion in fresh or salt water activates an electronic circuit within the device to detonate an explosive primer (cartridge). Energy from the burning explosive forces the spent-cartridge indicator into the firing check port and simultaneously propels the piercing pin to puncture the CO_2 cylinder, inflating the bladder. The zipper securing the exterior cover separates as the bladder inflates.

6-13. Automatic inflation is a one-time function for the automatic inflation device (FLU-8B/P). After each activation in the automatic mode, the inflator must be replaced with a new one.

6-14. In an emergency situation, the oral inflation tubes may be used to top off the inflated bladders, maintain inflation of a leaky bladder, or inflate a bladder if an inflator malfunctions. The oral inflation tubes may also be used to inflate the bladders with air during an inspection test or to evacuate air during packing.

NOTE

The exterior cover must be manually opened prior to attempting to inflate the bladders using the oral inflation tubes.

Section 6-2. Modifications

6-15. GENERAL.

6-16. There are no modifications authorized on the LPU-36/P.

Table 6-1. LPU-36/P Directives

Description of Modification	Application	Modification Code
None		

Section 6-3. Maintenance

6-17. GENERAL.

6-18. This section contains information on LPU-36/P inspection, testing, cleaning, servicing, packing, and repair/replacement. Refer to table 6-2 for listing of repair/replacement actions.

6-19. INSPECTION.

6-20. The inspection requirements for the LPU-36/P Life Preserver shall include Place-In-Service, Preflight/Postflight, and 360-Day Special Inspections.

6-21. The Place-In-Service Inspection shall be performed on all life preservers in accordance with paragraph 6-25 prior to placing in service. The Place-In-Service Inspection shall be performed by qualified personnel at the intermediate level of maintenance. If inspection indicates required repair is beyond the capability of maintenance, complete appropriate forms in accordance with OPNAVINST 4790.2 Series and forward entire assembly to supply.

6-22. The Preflight/Postflight Inspection shall be performed prior to and after each flight by the aircrewmember to whom the life preserver is assigned.

NOTE

Due to a shortage of FLU-8B/P automatic inflators, the inspection cycle for the LPU-36/P should be adjusted to allow the longest possible use of the FLU-8B/P without exceeding the service life of the FLU-8B/P. The following applies, the remaining service life of the FLU-8B/P will determine the check cycle of the LPU-36/P: FLU-8B/P remaining service life: 6 to 11 months 180 day check cycle. FLU-8B/P remaining service life: 12+ months 360 day check cycle.

6-23. The 360-Day Special Inspection shall be performed once every 360 days after the LPU-36/P has been placed in service. The 360-Day Special Inspection shall be performed by qualified personnel at the Intermediate level of maintenance.

6-24. QUALITY ASSURANCE. The more critical procedures in this chapter are underlined to designate steps which require a Quality Assurance Inspection to assure performance of specific requirements. After the underlined step is performed by the Aircrew Survival Equipmentman, the procedure shall be verified before the next step is performed. This verification shall be performed by a Collateral Duty Inspector or Quality Assurance Representative (CDI, CDQAR, or QAR). Under no circumstances shall an Aircrew Survival Equipmentman perform his own Quality Assurance Inspection.

6-25. PLACE-IN-SERVICE INSPECTION. The Place-In-Service Inspection shall consist of the 360-Day Special Inspection (paragraph 6-27).

6-26. PREFLIGHT/POSTFLIGHT INSPECTION. The Preflight/Postflight Inspection shall be performed at the organizational level prior to and after each flight by the aircrewmember to whom the life preserver is assigned as follows:

WARNING

Ensure that the beaded inflation handles are readily accessible. Beaded inflation handles shall be secured with six snap fasteners.

CAUTION

Do not open any sealed or safety-tied portion of the life preserver for Preflight Inspection.

1. Inspect exterior cover for cuts, tears, deterioration, abrasions, stains, cleanliness, security of stitching, and other signs of damage.

2. Inspect snaps for secure attachment, corrosion, and ease of operation.

3. Inspect safety-ties on beaded handles. The safety-ties may be replaced without removing the life preserver from service. (Refer to paragraph 6-50, step 49.)

4. Inspect zipper closing for security throughout its length.

5. Inspect plastic buckles and buckle straps for proper operation and security. Buckles may be replaced without removing the life preserver from service.

6. Inspect identification and warning labels for secure attachment.

7. If any discrepancy is noted, the life preserver shall be returned to the Aviator's Equipment Branch for determination of maintenance action and disposition.

Table 6-2. LPU-36/P Common Repairs and Fabrications

Description	Paragraph Number
Replacement of FLU-8B/P FW14 Batteries	6-36
Replacement of FLU-8B/P Inflator	6-38
Replacement of pull the dot snap fasteners, attachment strap and exterior cover	6-39
Replacement of snap fasteners, beaded handle assembly and exterior cover	6-40

NOTE

Due to a shortage of FLU-8B/P automatic inflators, the inspection cycle for the LPU-36/P should be adjusted to allow the longest possible use of the FLU-8B/P without exceeding the service life of the FLU-8B/P. The following applies, the remaining service life of the FLU-8B/P will determine the check cycle of the LPU-36/P: FLU-8B/P remaining service life: 6 to 11 months 180 day check cycle. FLU-8B/P remaining service life: 12+ months 360 day check cycle.

6-27. 360-DAY SPECIAL INSPECTION. The 360-Day Special Inspection consists of the following:

1. Preflight Inspection (paragraph 6-26).

2. Inflation Shell Assembly Visual Inspection (paragraph 6-28).

3. Exterior Cover Assembly Visual Inspection (paragraph 6-29).

4. Functional Test (paragraph 6-43).

5. Deflation (paragraph 6-47).

6. Leakage Test (paragraph 6-45).

7. Battery Inspection (paragraph 6-33).

8. Battery Voltage Test (paragraph 6-44).

9. Markings Inspection (paragraph 6-30).

10. Bladder Visual Inspection (paragraph 6-31).

11. Automatic Inflation Device, FLU-8B/P Inspection (paragraph 6-32).

12. Automatic Inflation Device, FLU-8B/P Replacement (paragraph 6-38).

13. Installation of CO_2 Cylinders (paragraph 6-41).

14. Packing Procedures for LPU-36/P Life Preserver (LPFC) (paragraph 6-49).

15. Beaded Inflation Handle Pull Test (paragraph 6-46).

6-28. INFLATION SHELL ASSEMBLY VISUAL INSPECTION. To inspect the inflation shell assembly, proceed as follows:

1. Inspect fabric for cuts, tears, deterioration, abrasion, stains, and general cleanliness. If required, clean in accordance with paragraph 6-51.

2. Inspect seams, stitching, and reinforcement patches for condition and security.

3. Inspect zipper for security, stitching, and proper operation.

4. Inspect straps and loops for security and wear.

5. Inspect inflator covers for condition and security of hook and pile tape. Replace as required.

6. Inspect buckle for condition and proper operation. Replace if required.

7. If any component except the buckle or inflation covers is unserviceable, replace entire inflation shell assembly.

6-29. EXTERIOR COVER ASSEMBLY VISUAL INSPECTION. To inspect the exterior cover, proceed as follows:

1. Inspect fabric for cuts, tears, deterioration, abrasion, stains, and general cleanliness. If required, clean in accordance with paragraph 6-51.

2. Inspect seams and stitching for condition and security.

3. Inspect zipper for security, stitching, and proper operation.

4. Inspect elastic straps for security, stitching, and proper operation.

5. Inspect snaps for security of attachment, corrosion, damage, wear, and ease of operation.

6. Inspect uni-directional snap fastener assemblies for presence, security of attachment, proper orientation, ease of operation, corrosion, and wear.

NOTE

All uni-directional snap fasteners shall be installed with the dot on the button of the snap fastener socket positioned on the side of the snap fastener to which lift must be applied to disengage the socket from the snap fastener stud.

The two snap fasteners on the exterior cover shall be installed with the dot on each socket button positioned away from the sewn strap attachment.

7. Inspect grommets for security, corrosion, damage, and wear.

8. Inspect warning and identification labels for security.

9. If any component is unserviceable, replace entire exterior cover.

6-30. MARKINGS INSPECTION. To inspect and restore marking, proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Ink, Marking, Laundry, Black	SPE-92 NIIN 00-161-4229
	-or-	
As Required	Ink, Drawing, Waterproof, Yellow	A-A-59291 NIIN 00-634-6583

1. Compare markings on preserver to those listed in figure 6-3.

2. Restore faded markings as close to original position as possible.

3. Correct any markings which do not agree with the applicable table. Paint out old marking and enter new as close to proper position as possible.

6-31. BLADDER VISUAL INSPECTION. To inspect bladders, proceed as follows:

1. Inspect bladders for cleanliness, cuts, tears, punctures, deterioration and abrasions.

2. Check all seams for security.

3. Inspect valve stems for security, cross threading, and cleanliness.

4. Inspect oral inflation valves for cracks, security, ease of operation, and corrosion.

5. If any component of the bladder is unserviceable, replace entire bladder.

6-32. INSPECTION, AUTOMATIC INFLATION DEVICE, FLU-8B/P. Inspection of the FLU-8B/P Automatic Inflation Device is performed as follows:

1. Remove CO_2 cylinder from inflation device.

2. Examine inflation device and actuating lever for corrosion, security, stripped threads, CO_2 cylinder piercing pin for serviceability, and general condition.

a. If CO_2 cylinder piercing pin point is flat, rounded, or otherwise dull or damaged, the inflation device shall be replaced.

3. Check O-ring (seat seal gasket) for condition. Replace if necessary.

4. Operate actuating lever several times. Ensure lever moves freely and piercing pin moves properly inside valve body.

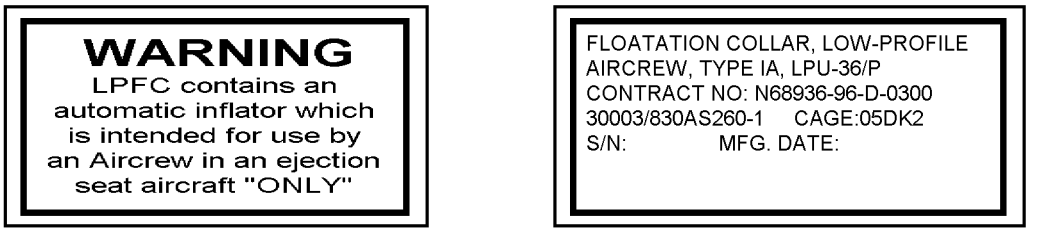

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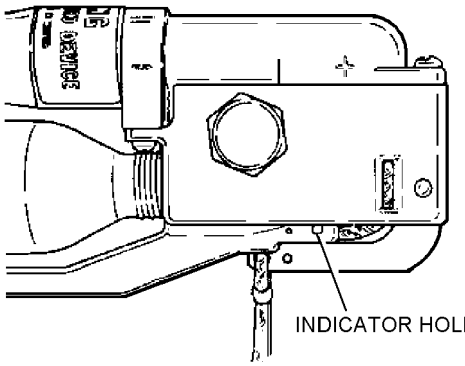
Figure 6-3. LPU-36/P Markings

5. Check that silver indicator is not visible in firing indicator hole. If the silver indicator is visible, the inflator is spent and will not operate in the automatic mode. A new inflator shall be installed on the life preserver to replace the spent inflator. Refer to paragraph 6-38.



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Step 5 - Para 6-32

NOTE

For data on total life of the FLU-8B/P automatic inflation assembly, refer to NAVAIR 11-100-1.1. If total life expiration date occurs before date of next scheduled 360-Day Special Inspection, replace inflator assembly.

Due to a shortage of FLU-8B/P automatic inflators, the inspection cycle for the LPU-36/P should be adjusted to allow the longest possible use of the FLU-8B/P without exceeding the service life of the FLU-8B/P. The following applies, the remaining service life of the FLU-8B/P will determine the check cycle of the LPU-36/P: FLU-8B/P remaining service life: 6 to 11 months 180 day check cycle. FLU-8B/P remaining service life: 12+ months 360 day check cycle.

6. Check records (OPNAVINST 4790.2 Series) for date of installation of each FLU-8B/P automatic inflator. For date of manufacture, refer to the manufacturer's identification plate of each FLU-8B/P inflator. See figure 6-4 for lot numbering system.

6-33. BATTERY INSPECTION. The FW14, 6-volt, Manganese Dioxide batteries are the only batteries currently authorized for use in the FLU-8B/P. Visually inspect FLU-8B/P Inflator batteries as follows:

NOTE

Only FW14 batteries, part number 849AS103, NIIN 01-334-0724, requisitioned through the CAD/PAD ordering process are authorized for use in the FW98 Automatic Inflation Device. NAVSURFWARCENDIV, Indian Head, MD must approve substitute batteries in writing before installation.

Materials Required

Quantity	Description	Reference Number
As Required	Battery, 6-volt, Manganese Dioxide (FW14)	849AS103 (CAGE 30003) NIIN 01-334-0724
1	Sleeve, Battery Insulating	1122-095 (Note 1)

Notes: 1. The battery insulating sleeve is not stocked by supply. All new FLU-8B/P units come with the sleeve installed. If a sleeve is required, contact Indian Head Division, NSWC.

Support Equipment Required

Quantity	Description	Reference Number
1	Multimeter (Digital)	8600A or equivalent (CAGE 89536) NIIN 01-010-0088
1	Wrench, 3/4-Inch	—

6-34. Removal. Remove FLU-8B/P batteries as follows:

WARNING

Do not insert any object into sensor plug side ports for any reason at any time.

1. Remove CO_2 cylinder.

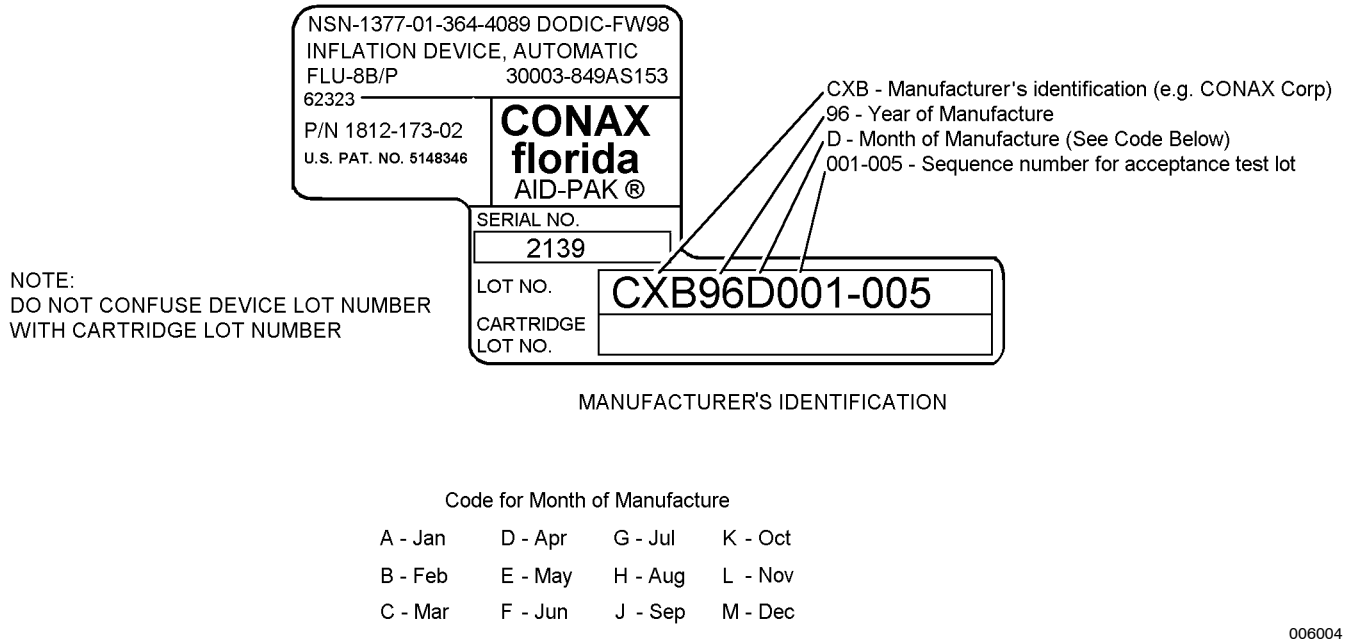

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Figure 6-4. Lot Numbering System for FLU-8B/P Automatic Inflators

2. Remove sensor plug cap using a 3/4-inch socket and wrench.

3. Check sensor plug cap for cracks.

4. Remove batteries and check for the following: leakage, corrosion, dents, depressions and cracks. If found, the batteries shall be rejected.

4A. Inspect end of battery insulating sleeve that protrudes from battery compartment for cracks/tears. Replace battery insulating sleeves that have cracks and tears that continue into the battery compartment. Small defects that do not travel into the wall of the battery compartment are acceptable.

5. Using multimeter set-up to measure dc voltage, check each battery for shorted casing. Place one lead on the positive terminal and the other on the battery case. If a voltage reading of 0.1 volts dc or higher is obtained, reject the battery for use and discard in an appropriate manner.

6. Check date of manufacture stamped on the battery (see NAVAIR 11-100-1.1 for details). Also check records for date of installation recorded in accordance with OPNAVINST 4790.2 Series.

NOTE

The total service life of the FW14 battery is three years from date of manufacture. If the total service life date of a battery expires prior to the next scheduled inspection, both batteries shall be replaced.

6-35. Reinstall. If FLU-8B/P batteries meet requirements for continued use, reinstall as follows:

1. Inspect condition of sensor plug cap O-ring and install on battery housing.

2. Ensure date of installation and date of manufacture are recorded on appropriate form in accordance with OPNAVINST 4790.2 Series.

3. Reinstall batteries in accordance with figure 6-5.

CAUTION

Do not over torque sensor plug cap. Proper torque is 15 in-lb. Over torque could cause damage to sensor plug cap.

4. Reinstall sensor plug cap. Torque cap to 15 in-lb using 3/4-inch socket and torque wrench.

5. Test batteries in accordance with paragraph 6-44.

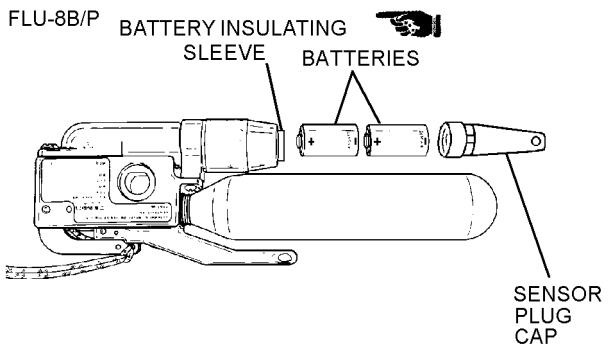

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Figure 6-5. Battery Installation Arrangement

6-36. Replacement. If installed batteries are to be replaced, proceed as follows:

NOTE

Only FW14 batteries, part number 849AS103, NIIN 01-334-0724, requisitioned through the CAD/PAD ordering process are authorized for use in the FW98 Automatic Inflation Device. NAVSURFWARCENDIV Indian Head MD must approve substitute batteries in writing before installation.

WARNING

Do not attempt to recharge old batteries or dispose of in fire, batteries may explode.

CAUTION

Never replace one battery. Always replace the pair.

NOTE

Refer to NAVAIR 11-100-1.1 for details of date coding. Replace both batteries if expiration date of either battery will occur prior to the next 360-Day Special Inspection.

Ensure date of installation and date of manufacture of replacement batteries are recorded on appropriate form in accordance with OPNAVINST 4790.2 Series. See figure 6-5 for proper battery arrangement.

1. Remove old batteries in accordance with paragraph 6-34 and dispose of in accordance with local regulations.

2. Inspect sensor plug cap O-ring for condition and install on battery housing.

3. Refer to NAVAIR 11-100-1.1 for battery manufacture code dates. Record date of manufacture and date of installation of new batteries in accordance with OPNAVINST 4790.2 Series.

4. Check new batteries for leakage, corrosion, dents, depressions, and cracks. If found, the batteries shall be rejected.

5. Using multimeter set-up to measure dc voltage, check each battery for shorted casing. Place one lead on the positive terminal and the other on the battery case. If a voltage reading of 0.1 volts dc or higher is obtained, reject the battery for use and discard battery in an appropriate manner.

6. Install batteries in accordance with figure 6-5.

CAUTION

Overtorque could cause damage to sensor plug cap. Proper torque is 15 in-lb.

7. Reinstall sensor plug cap. Torque cap to 15 in-lb using 3/4-inch socket and torque wrench.

8. Test batteries in accordance with paragraph 6-44.

6-37. REPAIR/REPLACEMENT.

6-38. REPLACEMENT OF FLU-8B/P AUTOMATIC INFLATOR. To replace damaged, overage, or spent FLU-8B/P automatic inflator, proceed as follows:

Materials Required

Quantity	Description	Reference Number
1	Cylinder, CO_2 Type III, 35-Gram	MIL-C-25369C
1	FLU-8B/P Automatic Inflation Device	849AS153 (CAGE 30003) NIIN 01-364-4089
1	Valve Stem Kit (Note 1)	105AS100-6 (CAGE 30003) NIIN 00-113-8290
1	Seat Seal, O-Ring, Multi	NIIN 01-046-3300
1	Sleeve, Battery Insulating (Note 2)	1122-095

Notes: 1. Valve Stem Kit, P/N 105AS100-6, NIIN 00-113-8290, contains one top and one bottom gasket.

2. The battery insulating sleeve is not a stocked item. After installation directed by Aircrew Systems Bulletin 976, it becomes part of the FLU-8B/P Unit. Replacement sleeves are issued by Indian Head Division, NSWC.

WARNING

The FLU-8B/P automatic inflator is a cartridge-activated device and will fire if immersed in fresh or salt water. This device is to be installed only on life preservers used by aircrewmembers in aircraft with ejection seat systems.

NOTE

The following FLU-8B/P component parts may be reused and retained as spares: sensor plug cap, batteries, battery insulating sleeve, CO_2 cylinder, and cap nut.

1. Remove cap nut using a 3/4-inch socket and wrench.

2. Remove inflator from valve stem.

3. Remove CO_2 cylinder from inflator.

4. Remove inflation lanyard from activating lever.

5. Remove and inspect batteries in accordance with paragraph 6-33.

6. Dispose of damaged or spent FLU-8B/P inflator in accordance with Federal Regulation 49, CFR 173.55.

7. Dispose of used top and bottom gaskets.

8. Inspect replacement FLU-8B/P in accordance with paragraph 6-32.

NOTE

Ensure packing cord loop is removed. The LPU-36/P does not require use of packing cord.

9. Attach the inflation lanyard to the inflator actuating lever using a lark's head knot.

10. Reinstall batteries in accordance with paragraph 6-35. If new batteries are required, replace in accordance with paragraph 6-36.

WARNING

Ensure gaskets are properly positioned. The top gasket has a larger internal diameter than the bottom gasket.

11. Install new gaskets from gasket kit by placing gasket with smaller inside diameter on valve stem first.

12. Carefully install inflator, with lanyard and beaded handle attached, onto the valve stem.

NOTE

Inflator lever shall face outboard.

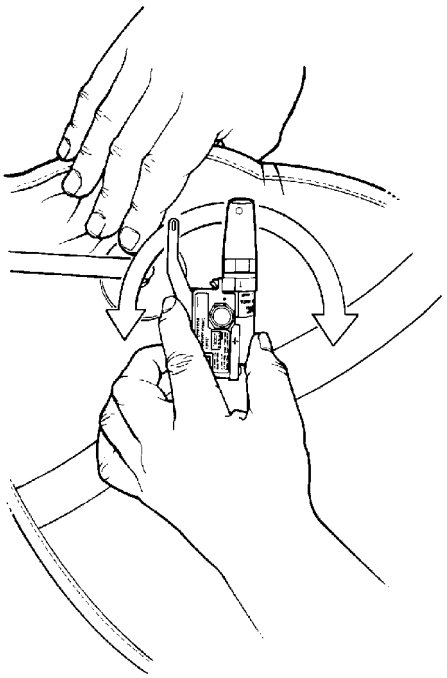
13. Install gasket with larger inside diameter onto valve stem.

14. Tighten cap nut on valve stem and torque to a value of 15 to 16 in-lb.

CAUTION

Check to ensure there is no trapped cloth material to cause binding and restrict movement of inflator.

15. Grasp the 2-inch diameter reinforcement patch located under the inflator in one hand and the inflator in the other. Holding the patch firmly, rotate the inflator clockwise and counterclockwise. The inflator should rotate at least 1/4 turn in either direction without restriction. If inflator does not bind, proceed to step 16. If inflator is binding, remove cap nut, inflator and both top and bottom gaskets. Discard gaskets and repeat steps 11 thru 15.



Step 15 - Para 6-38

NOTE

FLU-8B/P comes with seat seal O-ring installed for CO_2 cylinder installation.

16. Ensure seat seal O-ring is in place.

17. Ensure CO_2 cylinder has been inspected in accordance with paragraph 6-41.

18. Install CO_2 cylinder, MIL-C-25369C Type III, hand tight. See paragraph 6-41 for details of CO_2 cylinder installation.

19. Insert oral inflation tube through hole in upper portion of protective cover and into retaining loop attached to inflation shell assembly. Install inflator protective cover behind and around inflator and CO_2 cylinder. Close protective cover and secure with hook and pile fastener.

20. Check larks head knot for security and proper routing. Check CO_2 cylinder for tightness.

21. Make necessary entries on appropriate forms in accordance with OPNAVINST 4790.2 Series including.

a. Date of installation of each FLU-8B/P.

b. Date of manufacture of each FLU-8B/P (figure 6-4).

c. Lot number of each FLU-8B/P (figure 6-4).

d. Serial number of each FLU-8B/P.

e. Date of installation of batteries.

f. Date of manufacture of batteries (paragraph 6-34).

6-39. REPLACEMENT OF THE PULL THE DOT SNAP FASTENERS, EXTERIOR COVER ASSEMBLY AND ATTACHMENT STRAP. To replace pull the dot snap fasteners used to secure the attachment straps to the exterior cover proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Cap, Snap Fastener	MS27983-1 NIIN 00-891-9073
As Required	Socket, Snap Fastener	MS27983-2 NIIN 00-945-2577
As Required	Stud, Snap Fastener	MS27983-3 NIIN 00-276-4908
As Required	Eyelet, Snap Fastener	MS27983-4 NIIN 00-276-4978

1. Remove damaged fastener from cover or attachment strap, using care not to damage cover or webbing.

NOTE

Exterior cover assembly shall be replaced if structural damage occurs during fastener removal or is found after fastener removal.

2. Install new fasteners at existing location as required, ensure pull the dot is installed facing up, nearest top of collar.

6-40. REPLACEMENT OF SNAP FASTENERS, BEADED HANDLE ASSEMBLY AND EXTERIOR COVER. To replace snap fasteners used to secure the beaded handle assembly to the exterior cover assembly proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Cap, Snap Fastener	MS27981-1B NIIN 00-276-4954
As Required	Socket, Snap Fastener	MS27981-3B NIIN 00-276-4966
As Required	Stud, Snap Fastener	MS27981-4B NIIN 00-901-9660
As Required	Post, Snap Fastener	MS27981-5B NIIN 00-250-6858

1. Remove damaged fastener from cover or beaded handle assembly, using care not to damage cover or handle webbing.

NOTE

Exterior cover or beaded handle assembly shall be replaced if structural damage occurs during fastener removal or if found after fastener removal.

2. Install new fasteners at existing location as required.

6-41. INSTALLATION OF CO_2 CYLINDERS. To install CO_2 cylinders proceed as follows:

Support Equipment Required

Quantity	Description	Reference Number
1	Scale (Gram)	A-A-52021-1 NIIN 00-514-4117 or equivalent
1	Die, Cylinder Thread Chaser	1842-008-01 (CAGE 03688) NIIN 01-069-4040

Materials Required

Quantity	Description	Reference Number
As Required	Cylinder, CO_2 Type III, 35-Gram	MIL-C-25369C
As Required	Seat Seal, O-Ring, Multi	NIIN 01-046-3300

1. Weigh a charged CO_2 cylinder and compare the minimum stamped weight with the scale weight. Discard and replace cylinder if scale weight is 2 grams less than minimum stamped weight.

2. To assure a firm cylinder seat, conduct a cylinder thread count. The threaded portion of the cylinder neck shall contain a minimum of seven full threads to assure a firm cylinder seat within inflator body. Any cylinder with less than seven full threads shall be discarded (figure 6-6).

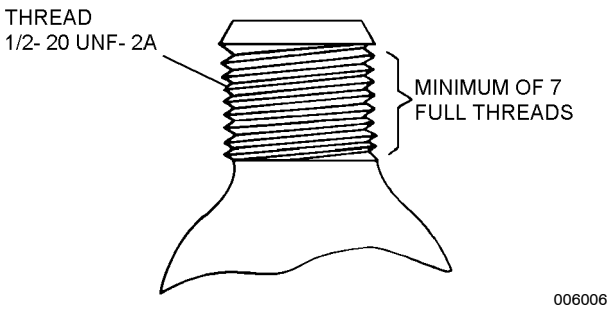
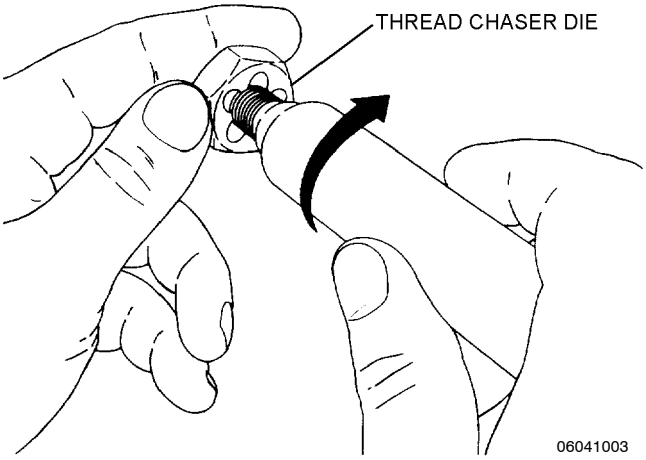


Figure 6-6. Cylinder Thread Count

CAUTION

Steel threads on CO_2 cylinder can cause damage to aluminum threads on inflator if cylinder is not carefully threaded. If binding occurs during installation of cylinder, use thread chaser die on cylinder thread to cut free excessive plating. Reinstall cylinder. If binding still occurs, replace cylinder.

3. Using the cylinder thread chaser die, turn the die to the full extent of the threads on the CO_2 cylinder to cut free any excessive plating covering the threads.



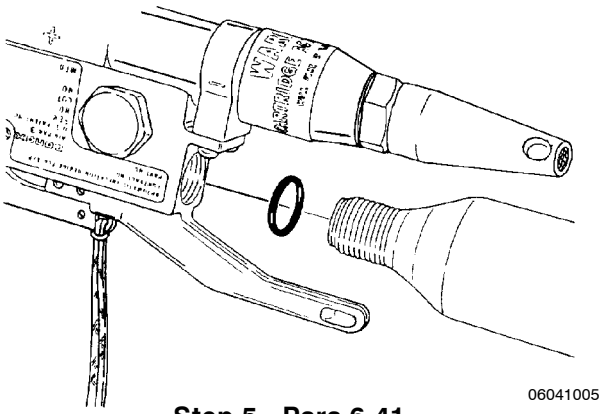
Step 3 - Para 6-41

NOTE

Inspect condition of seat seal gasket and replace as necessary. After each functional check, the seat seal gasket shall be replaced.

4. Remove old seat seal gasket if damaged or if a functional test has been performed.

5. Install new seat seal gasket and carefully thread CO_2 cylinder into inflator body hand tight.



Step 5 - Para 6-41

6. Check for secure cylinder fit.

6-42. TESTING.

6-43. FUNCTIONAL TEST. The Functional Test shall be performed prior to placing LPU-36/P in service, every 360-Day Special Inspection, and when a bladder is replaced. The Functional Test is performed as follows:

CAUTION

Ensure work area surrounding preserver is free of foreign objects.

1. Open exterior cover. Carefully separate zipper by hand, starting at the zipper opening on either side of external cover.

2. Unfold inflation shell assembly.

CAUTION

The functional test for LPU-36/P life preserver shall be performed manually. Automatic actuation of the FLU-8B/P automatic inflator is a one-time function and requires replacement of the spent unit. The FLU-8B/P inflator can be operated manually an unlimited number of times. However, after each manual operation the O-ring and CO_2 cylinder must be replaced (paragraph 6-41), and the CO_2 cylinder piercing pin shall be inspected for serviceability (paragraph 6-32).

3. Perform beaded handle pull test in accordance with paragraph 6-46.

4. Actuate manual inflation assemblies.

5. The life preserver shall fully inflate to design shape, without evidence of restriction, in less than 30 seconds.

6. If the life preserver does not properly inflate, determine cause. Ensure stem and valve are clean and free of foreign matter.

7. If correction is made, the life preserver shall be functionally tested again.

8. Deflate life preserver in accordance with paragraph 6-47 to remove all CO_2.

6-44. BATTERY VOLTAGE TEST. To test batteries, proceed as follows:

CAUTION

Do not use analog (needle) voltage multimeter. Use digital reading voltage multimeter. Ensure that the multimeter has a minimum of 10 megohms input impedance.

Support Equipment Required

Quantity	Description	Reference Number
1	Multimeter (Digital)	8600A or equivalent (CAGE 89536) NIIN 01-010-0088

WARNING

Ensure multimeter is set in voltage measuring mode and not the resistance measuring mode. In the resistance measuring mode, a resistance measurement will trigger the squib and fire the inflator. The inflator will also fire if any conductive material makes contact between the sensor pin and any conductive surface of the inflator device.

Do not touch the inflator with your bare hands or any conductive material while performing this test. Faulty readings may be obtained, or the squib may be fired if the body becomes an electrical pathway between the sensor pin and any conductive part of the inflator assembly.

1. Prepare multimeter for voltage test.

a. Provide the positive (+) test lead with a standard test probe (1/16-inch size) on a standard handle (3 to 4 inch nominal length).

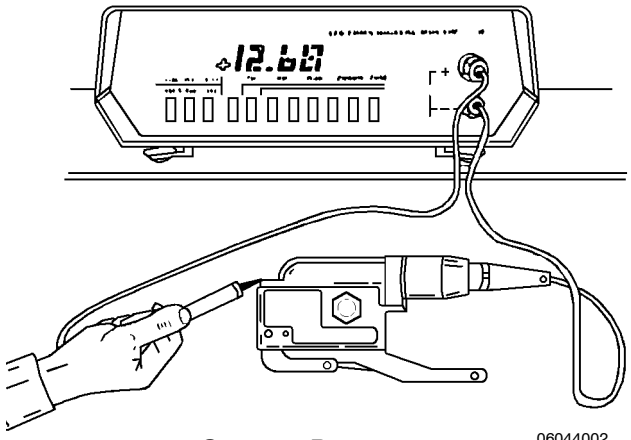
b. Provide negative (-) test lead with a banana type test plug (1/8-inch size) on a short handle (1-inch nominal length).

c. Adjust tension on ribs of banana plug so when inserted into a sensor plug end port (7/16-inch nominal depth) the weight of the test lead will not withdraw the plug.

NOTE

Use an undamaged, uninstalled sensor plug for verification. Do not use an inflator with batteries installed.

2. Insert negative (-) test probe into the end port of the sensor plug. Remove hand. Using the pointed positive (+) probe, touch and maintain contact with one of the screw heads near the lever end of the inflator.



06044002

Step 2 - Para 6-44

3. Wait 15 seconds for FLU-8B/P circuits to stabilize after connecting the test leads before taking voltage reading.

WARNING

The voltage reading should begin at a high value and then gradually shift downward (0.15 volts typical) before final stabilization. If no downward shift in meter reading occurs, or if the shift continues steadily downward more than 1.0 volt during battery test, the FLU-8B/P inflator shall be rejected.

4. Interpret battery test readings and respond as indicated below:

a. A reading of +12.0 volts or more indicates the batteries are at full power and correctly installed.

b. If a reading is below +12.0 volts, with the batteries properly installed, replace batteries and repeat test.

c. A reading of zero volts indicates one battery is inserted backwards, battery contact is faulty, one or both batteries are discharged, or batteries are not installed. Inspect and correct. Repeat test.

d. A reading of less than zero volts indicates that both batteries are installed backwards or that the multimeter leads are reversed. Inspect and correct. Repeat test.

e. If a correct battery voltage reading cannot be obtained with batteries of verified full charge and properly installed, the inflator shall be considered defective and shall be rejected. Report rejected inflator for engineering investigation in accordance with OPNAVINST 4790.2 Series.

NOTE

The same multimeter and test leads may be used to test uninstalled batteries, singly or in pairs. Voltage readings will be slightly higher and will not drift downward when testing outside the inflator.

5. If batteries need to be rearranged or replaced, refer to Battery Inspection procedures, paragraph 6-33.

6. After rearranging or replacing batteries, repeat Battery Voltage Test.

6-45. LEAKAGE TEST. The LPU-36/P shall be subjected to a Leakage Test each 360-Day Special Inspection. To perform a Leakage Test, proceed as follows:

Support Equipment Required

Quantity	Description	Reference Number
1	Test Fixture (or equivalent)	Fabricate in accordance with Chapter 13.

CAUTION

Ensure test area is free of foreign objects.

1. Ensure all carbon dioxide has been removed from any preserver which has been functionally tested.

2. Remove LH and RH inflator assemblies and discard gaskets.

3. Unzip inflation shell assembly and remove top and bottom bladders from shell.

CAUTION

If 3-way valve is not used, measuring device valve must be closed when air feed valve is open. Damage may occur to oral inflation valve if air supply pressure entering the life preserver exceeds 10 psi during this test.

NOTE

Refer to figure 6-7, Leakage Test Fixture Schematic. If test fixture meeting requirements indicated is not available, one may be fabricated in order to perform required leakage test.

If a suitable air source is not available, water-pumped nitrogen (BB-N-411) may be substituted.

4. Unlock oral inflation valve and connect to test fixture. Rotate valve to air supply position and inflate bladder. Alternately position valve between measuring device, vent, and air supply until proper pressure of 3.25 psig is attained.

5. Securely shut off the air supply. Then after allowing a minimum of 15 minutes for pressure to stabilize, the pressures shall be readjusted, as necessary, to the leakage test pressures. After ensuring proper test pressures, record time.

6. Disconnect air supply and check for leaks. Ensure all valves are closed.

7. Record temperature and barometric pressure (figure 6-8).

8. After a minimum of 1 hour after completing step 5, record test pressure of both bladders. Test pressure of each bladder shall not decrease to less than 2.50 psig for a life preserver bladder, from a maximum test pressure of 3.25 psig.

9. Record temperature and barometric pressure. Correct the test pressure for any changes in temperature and barometric pressure (tables 6-3 and 6-4).

CAUTION

Do not submerge life preservers in water to check for leaks.

10. If pressure of bladder is below 2.50 psig, inflate to correct leakage test pressure and coat bladder with a soap solution to determine if a leak exists. If a leak exists, replace bladder. If no leak is found, check test fixture.

11. Deflate bladders in accordance with paragraph 6-47.

12. Reassemble preserver and pack in accordance paragraph 6-49.

13. Records Updating. Make necessary entries on appropriate form in accordance with OPNAVINST 4790.2 Series.

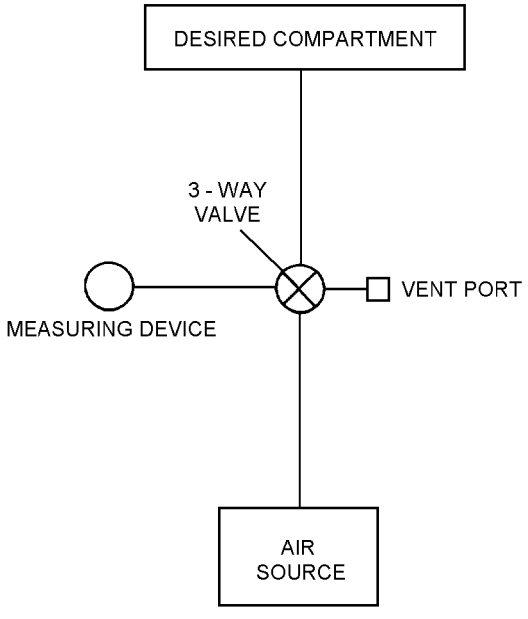


Figure 6-7. Leakage Test Fixture Schematic

Table 6-3. Temperature Conversion Chart

Temperature Difference (°F)	Correction (psi)
1	0.031
2	0.062
3	0.093
4	0.124
5	0.155
6	0.186
7	0.217
8	0.248
9	0.279
10	0.310
Rise in temperature: subtract from gage reading. Fall in temperature: add to gage reading.	

EXAMPLE

UNCORRECTED TEST READING 1.70 PSI

	TEMP.	BARO.
START	75° F	29.90 inHg
END	70° F	29.70 inHg
DIFFERENCE	-5° F	-0.200
CORRECTION	+0.155	-0.098

TEMP. CORRECTION	+0.155
+BARO. CORRECTION	-0.098
CORRECTION	+0.057
UNCORRECTED READING	1.700 PSI
+CORRECTION	+0.057
CORRECTED READING	1.757 PSI

Figure 6-8. Temperature and Barometric Pressure Test Record

Table 6-4. Barometric Pressure Conversion Chart

Press. Diff. (inHg)	Corr. (psi)	Press. Diff. (inHg)	Corr. (psi)	Press. Diff. (inHg)	Corr. (psi)	Press. Diff. (inHg)	Corr. (psi)	Press. Diff. (inHg)	Corr. (psi)
0.01	0.005	0.16	0.078	0.31	0.152	0.46	0.225	0.61	0.299
0.02	0.010	0.17	0.083	0.32	0.157	0.47	0.230	0.62	0.304
0.03	0.015	0.18	0.088	0.33	0.162	0.48	0.235	0.63	0.309
0.04	0.020	0.19	0.093	0.34	0.167	0.49	0.240	0.64	0.314
0.05	0.025	0.20	0.098	0.35	0.172	0.50	0.245	0.65	0.319
0.06	0.030	0.21	0.103	0.36	0.176	0.51	0.250	0.66	0.323
0.07	0.035	0.22	0.108	0.37	0.181	0.52	0.254	0.67	0.328
0.08	0.040	0.23	0.113	0.38	0.186	0.53	0.260	0.68	0.333
0.09	0.045	0.24	0.118	0.39	0.191	0.54	0.265	0.69	0.338
0.10	0.049	0.25	0.123	0.40	0.196	0.55	0.270	0.70	0.343
0.11	0.054	0.26	0.127	0.41	0.201	0.56	0.275	0.71	0.348
0.12	0.060	0.27	0.132	0.42	0.206	0.57	0.279	0.72	0.353
0.13	0.064	0.28	0.137	0.43	0.211	0.58	0.284	0.73	0.358
0.14	0.069	0.29	0.142	0.44	0.216	0.59	0.289	0.74	0.363
0.15	0.073	0.30	0.147	0.45	0.221	0.60	0.294	0.75	0.368

Rise in pressure: add to gage reading.
Fall in pressure: subtract from gage reading.

6-46. BEADED INFLATION HANDLE PULL TEST. To perform the beaded inflation handle pull test, proceed as follows:

1. Manually release beaded handles.

2. If snap fasteners do not release, inspect male and female snap fasteners for damage. Replace entire beaded inflation handle if required and repeat step 1. Replace exterior cover if required.

3. Attach gauge to webbing between third and fourth bead on inflation handle.

4. Hold inflation lanyard securely against exterior cover to ensure life preserver actuating lever will not be pulled.

5. Add a 25-pound force to check the security of the beaded handle attachment to the inflation lanyard.

6. Examine lanyard for frays, ruptures, thin spots, and security. If unsatisfactory, replace entire beaded inflation handle.

6-47. DEFLATION.

6-48. To deflate the life preserver, proceed as follows:

Support Equipment Required

Quantity	Description	Reference Number
1	Pump, Rotary Vacuum (or equivalent)	1397B-01 NIIN 00-052-5015
As Required	Hose, 3/8- or 1/2-inch Inside Diameter, Rubber	—

1. Lay bladders/inflation shell assembly on a flat surface. Smooth bladder/inflation shell assembly toward oral inflation tube.

CAUTION

Ensure all air is removed from bladder to prevent possible expansion of trapped air with increasing altitude and for ease of packing.

2. Apply a vacuum to remove all air through oral inflation tube. (Bladder should be wrinkled/puckered around oral inflation tube when all air has been removed.)

3. Turn oral inflation valve locking nut to lock position to ensure no air returns to the bladder.

6-49. PACKING PROCEDURES FOR LPU-36/P LIFE PRESERVER (LPFC).

6-50. Pack the LPU-36/P life preserver as follows:

Support Equipment Required

Quantity	Description	Reference Number
6	Spring Clamps (packing aids) (Note 1)	P/N 3201-HT
4	Bladder Assembly Keeper (packing aids)	P/N 101202 NIIN 01-469-9567
1	Zipper Slide Assembly (packing aid)	P/N 101201 NIIN 01-467-6537
1	Pump, Rotary Vacuum	1397B-01 NIIN 00-052-5015 (or equivalent)
As Required	Hose, 3/8 or 1/2-inch, Inside Diameter, Rubber	—
1	Needle	—

Notes: 1. The plastic tips of Spring Clamps (packing aids) may become loose and become FOD hazard. To correct and prevent this condition, remove plastic tips from clamp, coat metal tip of clamp with adhesive (MIL-A-5540A), and reinstall plastic tips while adhesive is still tacky. Spring Clamp is available through GSA (www.gsaadvantage.gov).

Materials Required

Quantity	Description	Reference Number
As Required	Thread, Nylon, Size E	P/N V-T-295 NIIN 00-204-3884
2	Valve Stem Kit (Note 1)	P/N 105AS100-6 (CAGE 30003) NIIN 00-113-8290

Notes: 1. Valve Stem Kit, P/N 105AS100-6, NIIN 00-113-8290, contains one top and one bottom gasket.

NOTE

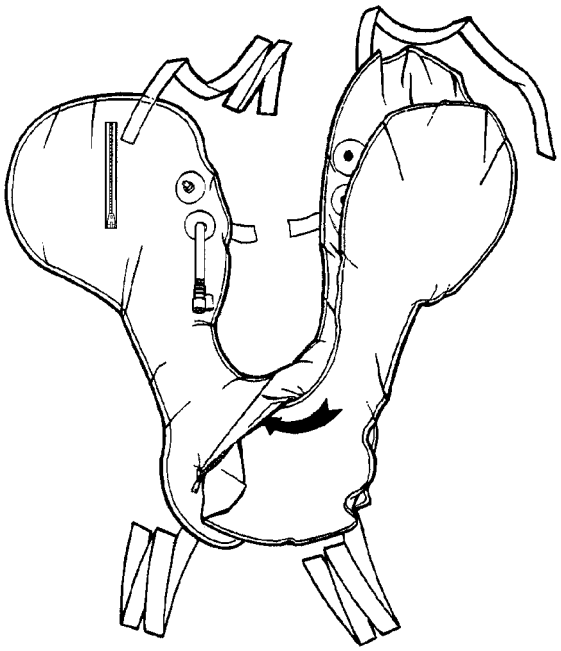
Reference to LH and RH refers to wearer's left hand and right hand orientation.

The LPU-36/P does not use a packing cord with the FLU-8B/P.

1. Ensure life preserver has received Place-In-Service Inspection in accordance with paragraph 6-25.

2. Remove air from inner inflatable assembly (110230-1) and outer inflatable assembly (110240-1). Lay each assembly on a flat surface. Smooth bladder toward oral inflation tube. Apply a vacuum to remove all air through oral inflation tube. Turn locking nut to lock position to ensure that no air returns to inflation assembly.

3. Place inner inflatable assembly (110230-1) (with oral inflator on LH side) into inflation shell assembly (110221-1) through the zipper openings. Insert valve stem and oral inflation tube through respective holes in inflation shell assembly. Work wrinkles out until bladder is smooth and flat.



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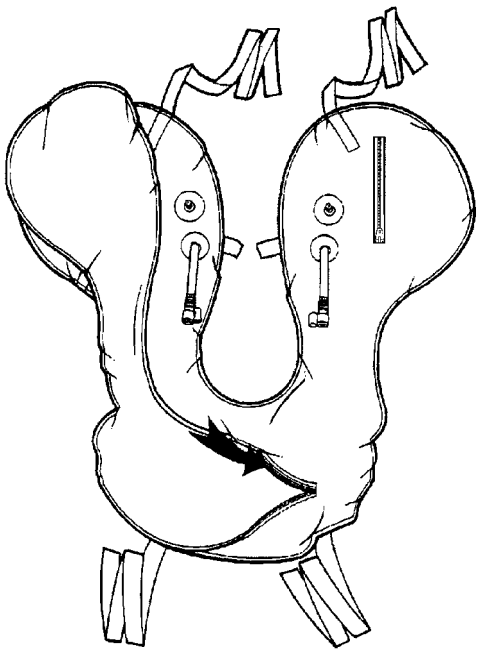
Step 3 - Para 6-50

4. Place outer inflation shell assembly (110240-1) (with oral inflator on RH Side into inflation shell assembly in the same manner as step 3.



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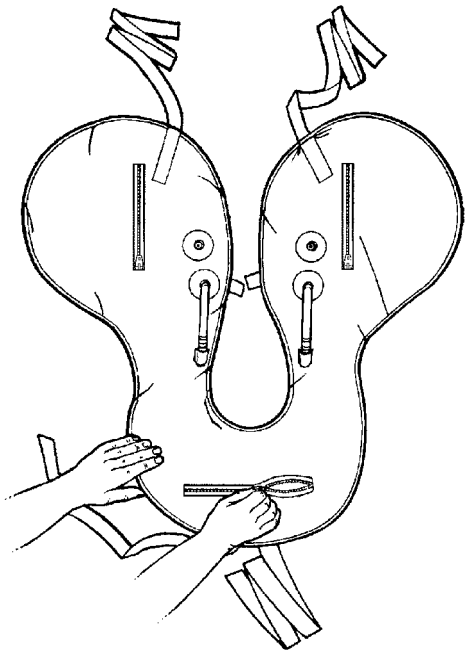
Step 4 - Para 6-50

5. Zip the inflation shell assembly closed. (3 places).



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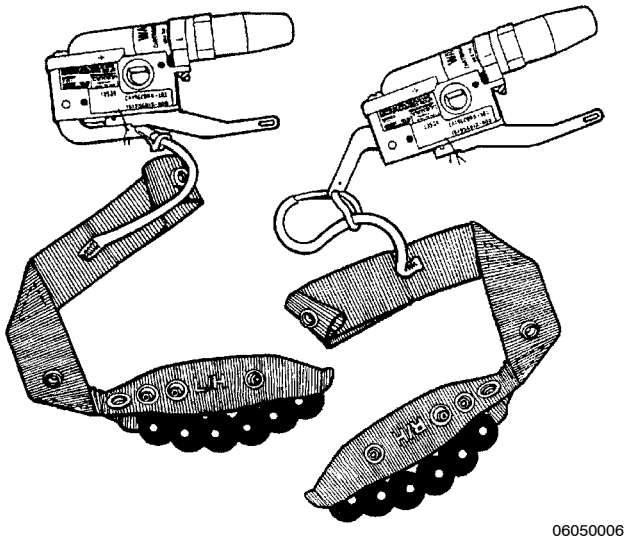
Step 5 - Para 6-50

NOTE

Ensure packing cord loop is removed. The LPU-36/P does not require use of packing cord with the FLU-8B/P.

6. Attach the black portion of the inflation lanyard on the LH beaded handle (110251-1) to the FLU-8B/P using a lark's head knot. Repeat for the RH beaded handle (110251-2).



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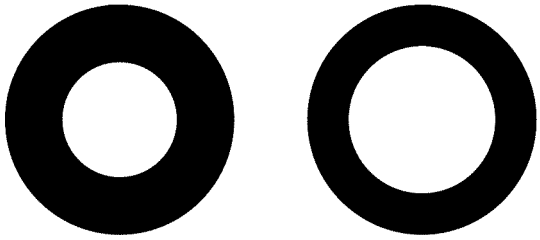
Step 6 - Para 6-50

WARNING

Ensure gaskets are properly positioned. The upper gasket has a larger internal diameter than the lower gasket.

7. Intall new gaskets from gasket kit by placing lower gasket (105AS100-4 from gasket kit) on the valve stem first.



LOWER GASKET UPPER GASKET

06050007

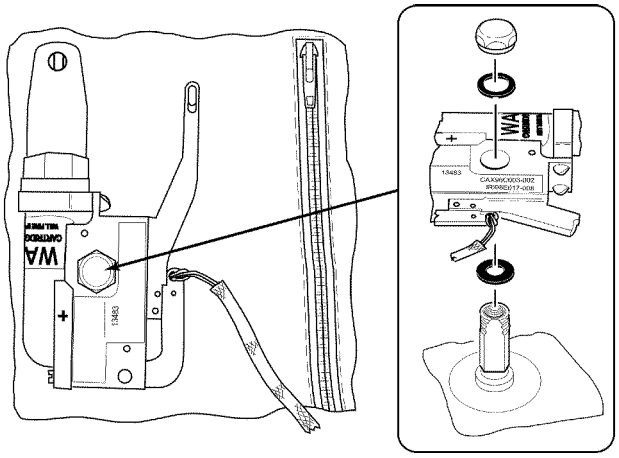
Step 7 - Para 6-50

WARNING

Inflator lever shall face outboard. Activation arm will pull downward.

8. Carefully install FLU-8B/P with LH beaded handle onto the LH valve stem. Carefully install FLU–8B/P with RH beaded handle onto the RH valve stem.

9. Install upper gasket (105AS100-3) onto valve stem.



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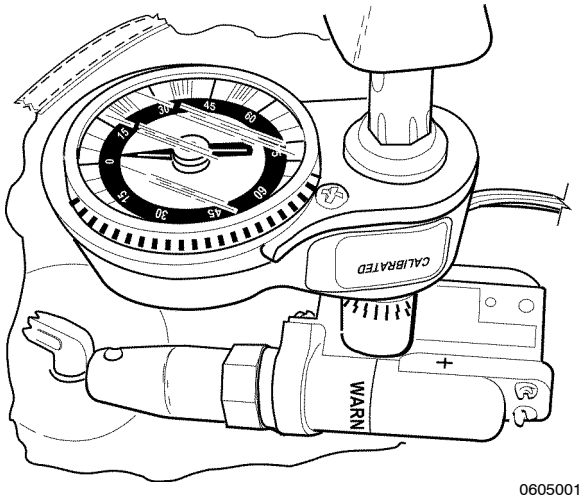
Steps 8 and 9 - Para 6-50

10. Tighten cap nut on valve stem and torque to a value of 15 to 16 in-lb.



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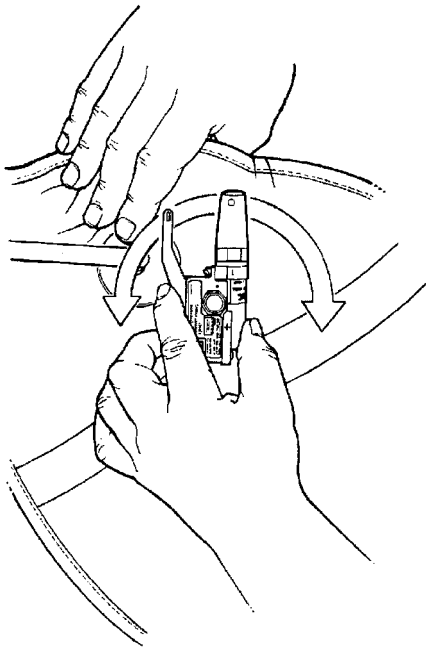
Step 10 - Para 6-50

11. Grasp the 2-inch diameter reinforcement patch on the inflation shell assembly around the inflator in one hand and the FLU-8B/P in the other hand. Holding the inflation shell assembly firmly, rotate the FLU-8B/P clockwise and counterclockwise checking for trapped material. If inflation shell assembly is binding, remove cap nut, FLU-8B/P, and both upper and lower gaskets, discard gaskets and repeat steps 7 through 11.



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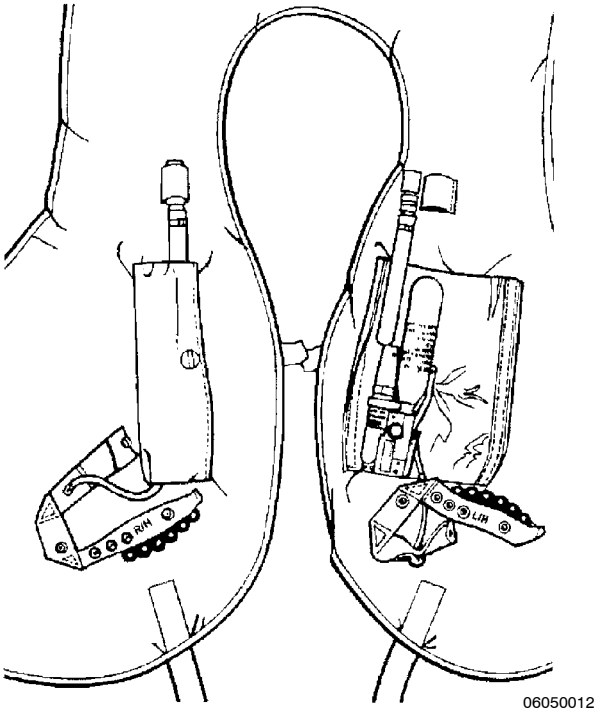
Step 11 - Para 6-50

NOTE

FLU-8B/P comes with seat seal gasket installed for CO_2 cylinder installation.

12. Ensure seat seal gasket is in place. Install both LH (102228-2) and RH (102228-1) inflation covers assemblies behind and around inflators. Insert oral inflation tubes through holes in upper portion of inflation cover assemblies and into retaining loops attached to inflation shell assembly. Ensure CO_2 cylinders have been inspected in accordance with paragraph 6-41. Install both CO_2 cylinders, MIL-C-25369C Type III, hand tight. Check LH and RH lark's head knots for security and ensure proper routing of lanyards, under (behind) FLU-8B/Ps. Close inflation covers assemblies and secure with hook and pile fastener.



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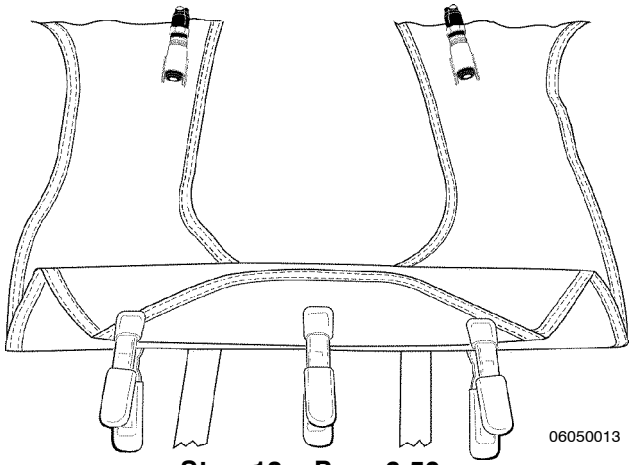
Step 12 - Para 6-50

CAUTION

Avoid placing spring clamps directly onto zipper closure of the inflation shell assembly. Spring clamps placed on zipper closures may damage bladders.

13. Place top of inflation shell assembly towards packer. Just below top zipper, make an approximately 3-inch inboard fold. Make additional accordion folds until all the shell assembly is lying flat and folded. This should be a 3 or 4 fold of 3 inches laying flat. Clamp as necessary.



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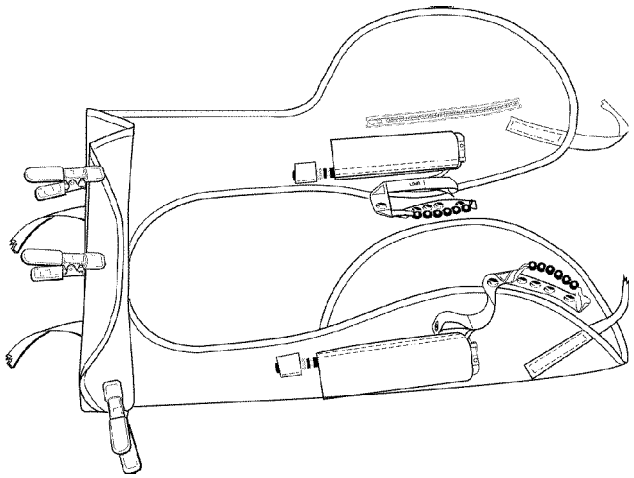
Step 13 - Para 6-50

14. Rotate assembly so that the right hand lobe is toward packer.

15. Fold the RH lobe under, in line with the outboard side of the inflation shell assembly. Clamp as necessary.



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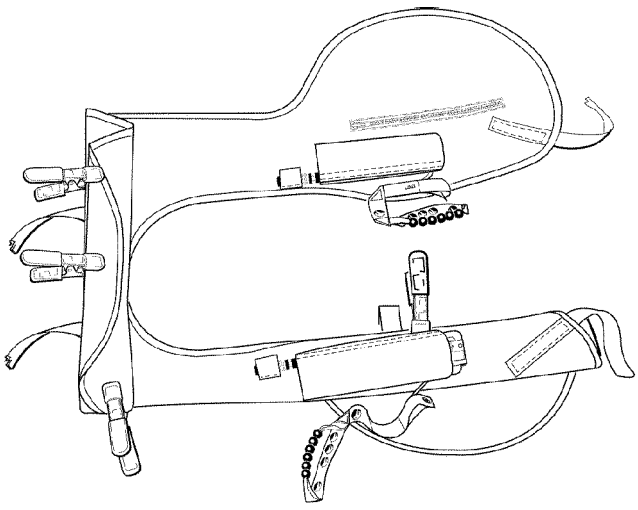
Step 15 - Para 6-50

16. Fold top portion of bladder lobe under inflation shell assembly and clamp. Ensure chest strap is accessible.



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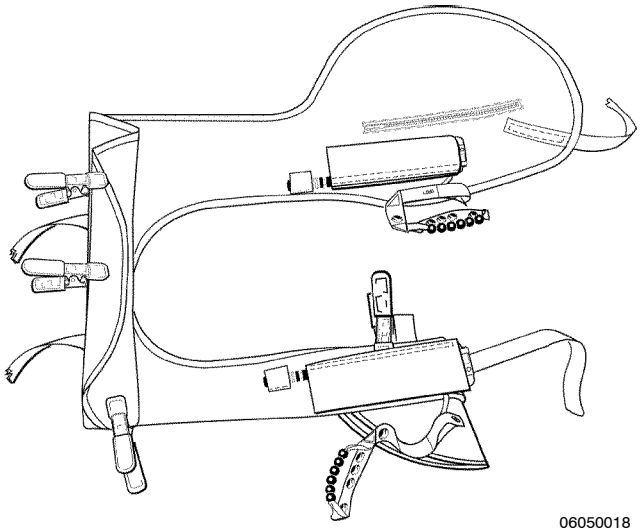
Step 16 - Para 6-50

17. Fold RH lobe back under inflation shell assembly approximately 2 1/2 inches or the width of the inflation shell assembly.

18. Fold RH lobe under inflation shell assembly even with end of inflation shell assembly. Clamp.



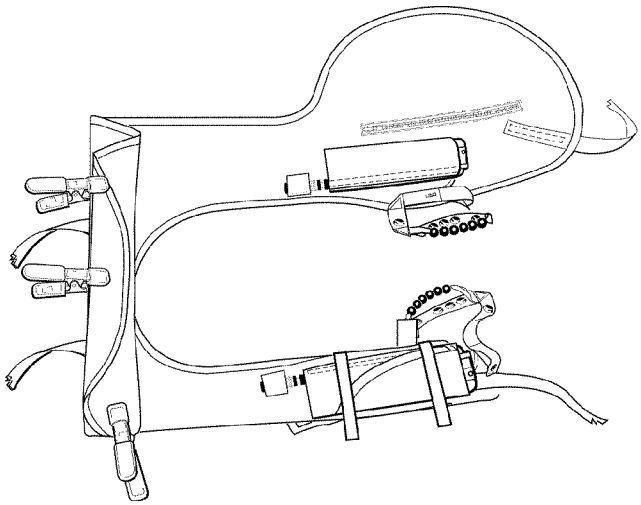
06050018

Step 18 - Para 6-50

NOTE

When placing packing aid (hook and pile) around folded inflation shell assembly ensure that the RH lower strap is retained by packing aid and facing out the bottom.

19. Fold remaining bladder assembly over inflation assembly roll excess under, even with edge of inflator assembly, and secure with hook and pile packing aids as needed.



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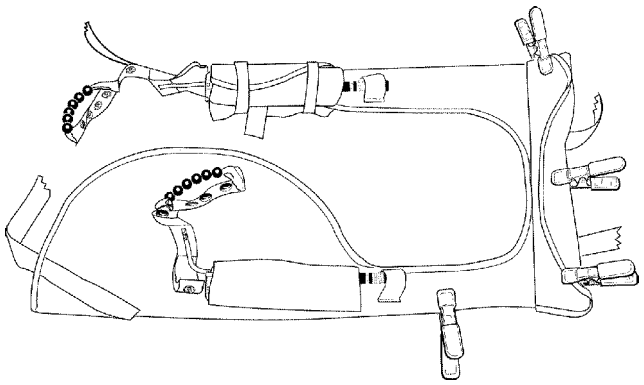
Step 19 - Para 6-50

20. Rotate assembly so that the left-hand lobe is toward packer.

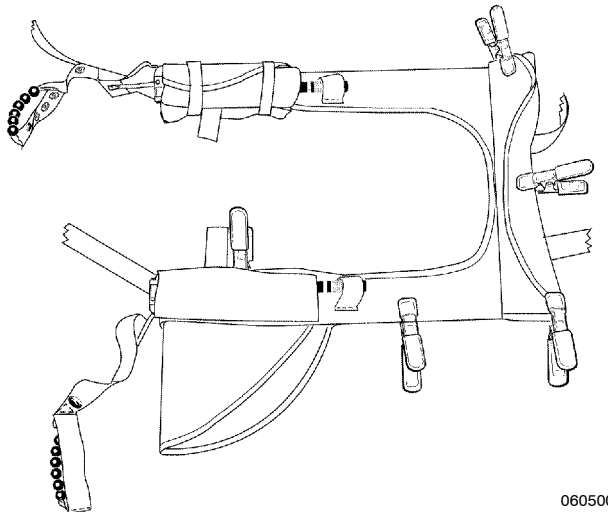
21. Fold the LH lobe under, in line with the outboard side of the inflation shell assembly. Clamp as necessary.



06050021

Step 21 - Para 6-50

22. Fold top portion of LH lobe under inflation shell assembly and clamp. Ensure chest strap is accessible.



06050022

Step 22 - Para 6-50

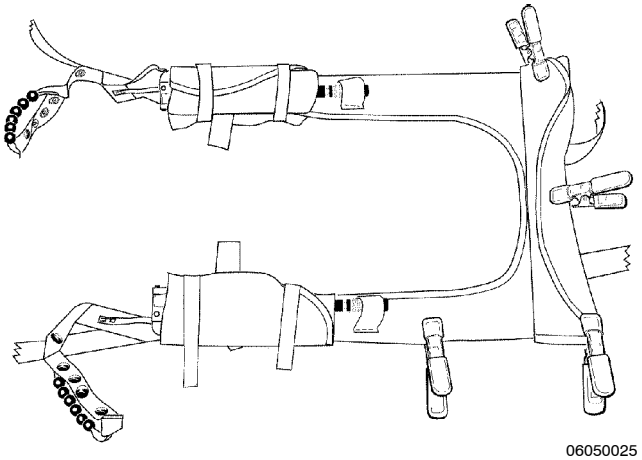
23. Fold LH lobe back under inflation shell assembly. Approximately 2 1/2 inches or the width of the inflation shell assembly.

24. Fold LH lobe under inflation shell assembly even with inflation assembly. Clamp.

NOTE

When placing packing aid (hook and pile) around folded inflation shell assembly ensure that the LH lower strap is retained by packing aid and facing out the bottom.

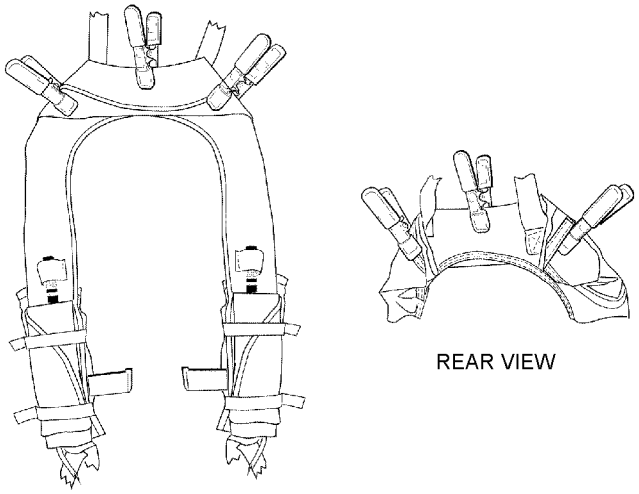
25. Fold remaining bladder assembly over inflation shell assembly, roll excess under even with edge of inflator assembly, and secure with hook and pile packing aids as needed.



06050025

Step 25 - Para 6-50

26. Fold top inflation shell corners under to form a 45-degree angle on both sides of inner shell assembly. Clamp as required.

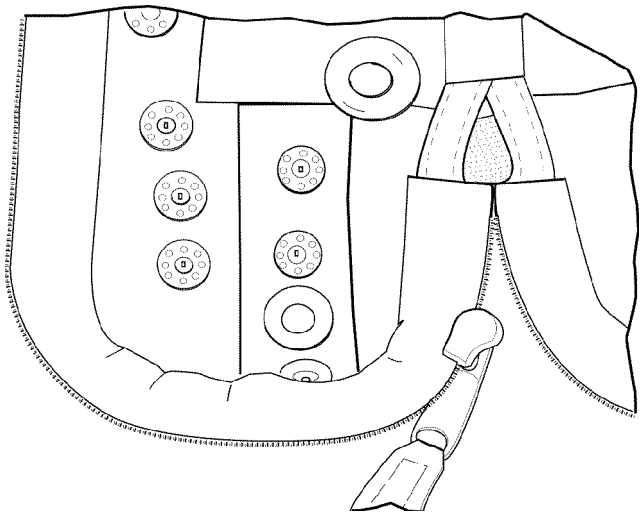


06050026

Step 26 - Para 6-50

27. Ensure that all folds are as previously directed.

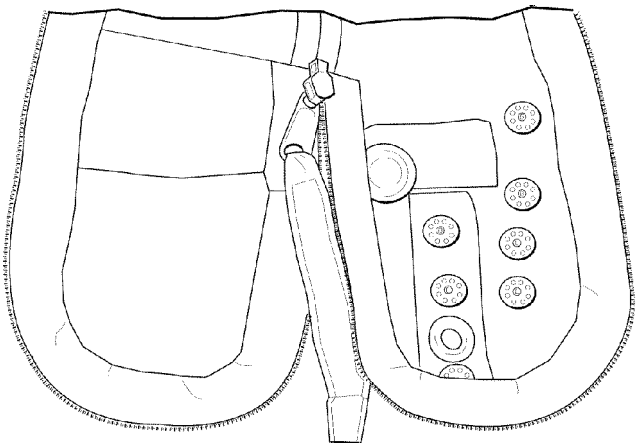
28. Attach sipper slider, flat opening first, on the exterior cover assembly (110210-1), starting on the RH lower bottom grommet side. Attach the slider to bottom side of the zipper chain. The zipper slider pull-tab will be on the outside of the exterior cover.



06050028

Step 28 - Para 6-50

29. Bring zipper slider all the way around to the LH side, lower bottom section of the exterior cover assembly.

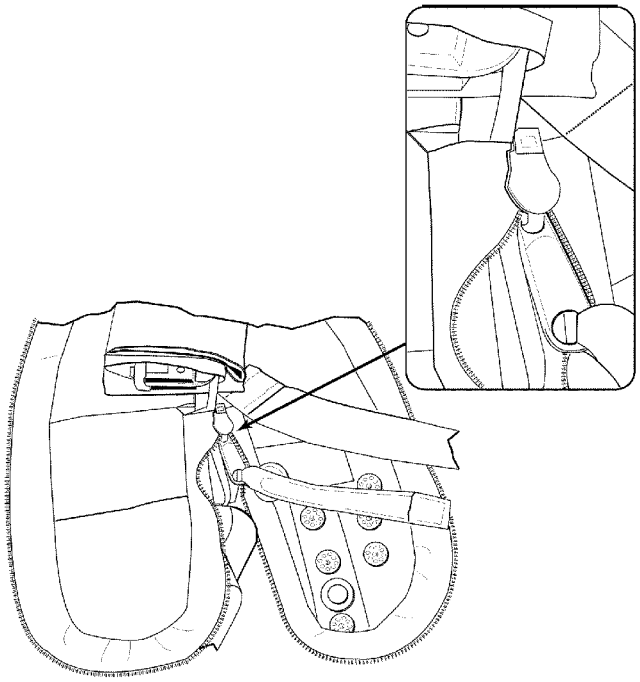


06050029

Step 29 - Para 6-50

30. Place folded inflation shell assembly into the exterior cover assembly with the LH lobe above the zipper slider.

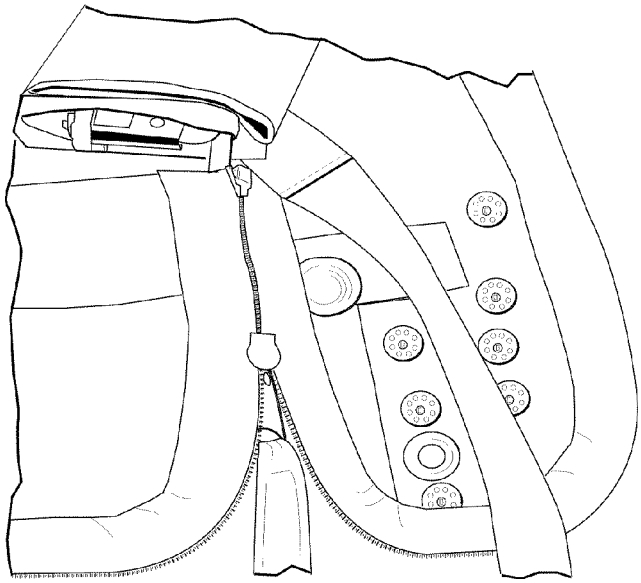
31. Position the red inflation lanyard to pass between the zipper halves. Connect zipper half to zipper slider.



06050031

Step 31 - Para 6-50

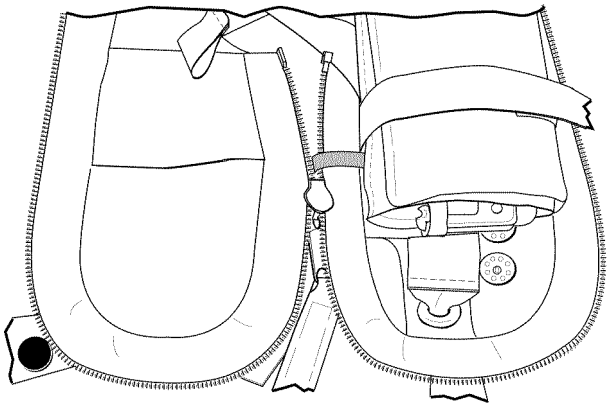
32. Pull slider down to where top of slider is between first two snaps.



06050032

Step 32 - Para 6-50

33. Separate the ends of the zipper halves down to the zipper slider.



06050033

Step 33 - Para 6-50

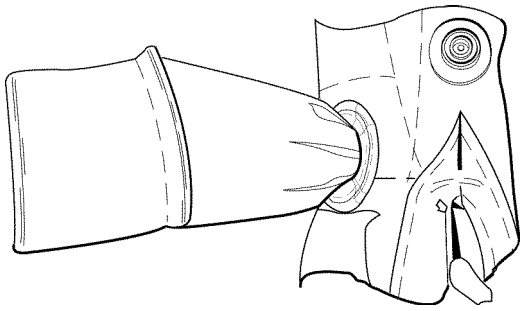
34. Route red inflation lanyard under inflator and between zipper halves.

WARNING

Failure to separate the zipper halves and proper routing of the red inflation lanyard as directed in steps 34 and 35 may result in a life preserver malfunction.

35. Route lower attachment strap through lower grommet and pull inflation assembly to end of exterior cover.

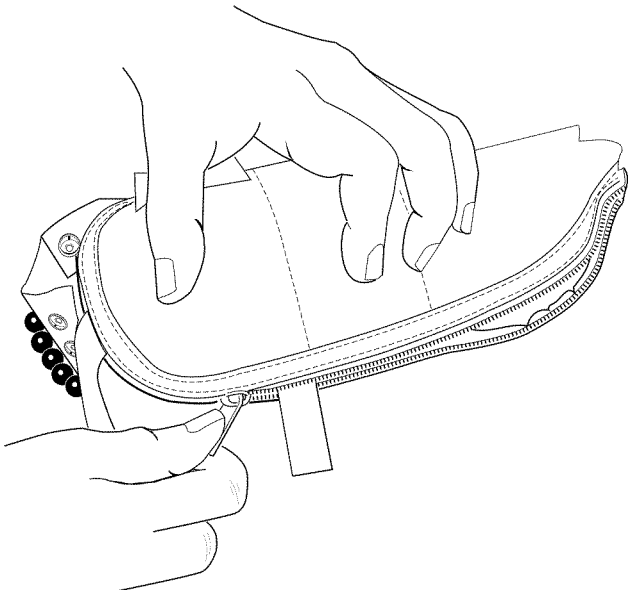
36. Put LH chest strap through chest strap grommet. Put upper LH back strap through grommet. Put upper RH back strap through grommet. Put RH chest strap through chest strap grommet. Put RH lower strap through lower grommet.



06050036

Step 36 - Para 6-50

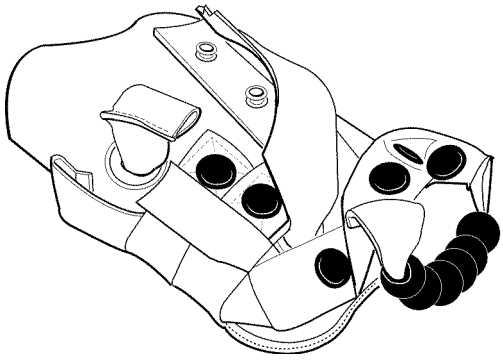
37. Close exterior cover assembly and pull slider assembly around outboard edge of the outer shell assembly. Close exterior cover carefully. Do not force zipper slider.



06050037

Step 37 - Para 6-50

38. Turn life preserver over to attach LH beaded handle. Attach snap above lanyard to exterior cover. Secure snap at 90-degree elbow of webbing to exterior cover and snap in place. Attach beaded handle snaps to exterior cover.



06050038

Step 38 - Para 6-50

39. Pack folded inner shell assembly into exterior cover, fold inner shell if necessary to fit into exterior cover. Continue removing packing aids as you progress.

40. Approaching the RH lobe, stuff/force the folded inner shell towards the top of the exterior cover to give more room for the zipper slider as it rounds the end of the lobe. Continue closing the exterior cover and remove packing aids.

41. Ensure red inflation lanyard is routed under inflator assembly.

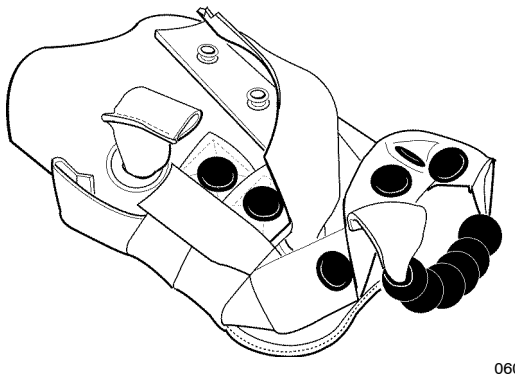
42. Check for zipper separation before removal of zipper slider. If separation is found, un-zip slider past point of separation, re-clamp as needed, and re-close exterior cover.

43. Remover zipper slider and retain for tool inventory.

NOTE

Beaded handle must not trap lower attachment strap leading from grommet on back of exterior cover. Lower strap must be able to fall free from grommet.

44. Turn life preserver over to attach RH beaded handle to the exterior cover. Attach snap above lanyard to exterior cover. Attach snap above lanyard to exterior cover. Secure snap at 90-degree elbow of webbing to exterior cover and snap in place. Attach beaded handle snaps to exterior cover.

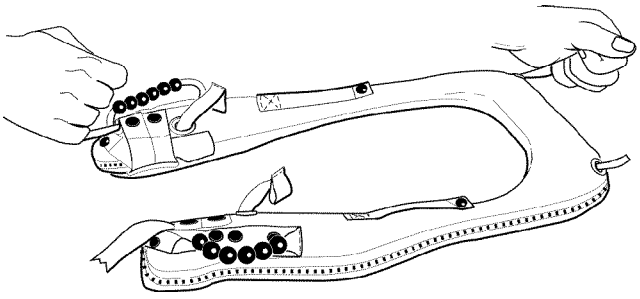


06050044

Step 44 - Para 6-50

45. Insert the two elastic straps through the 3/4-inch webbing loop and snap in place.

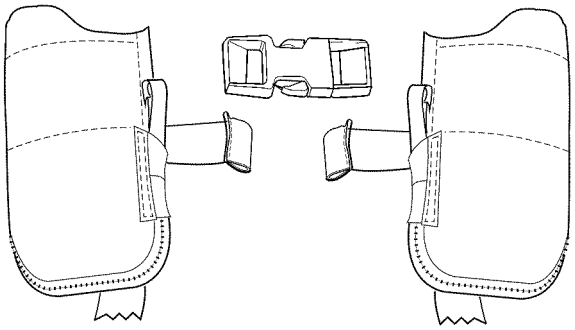
46. Grasp ends of the upper and lower LH strap and pull until internal stops are tight against grommets. Repeat for RH side.



06050046

Step 46 - Para 6-50

47. Turn life preserver over with front side up.



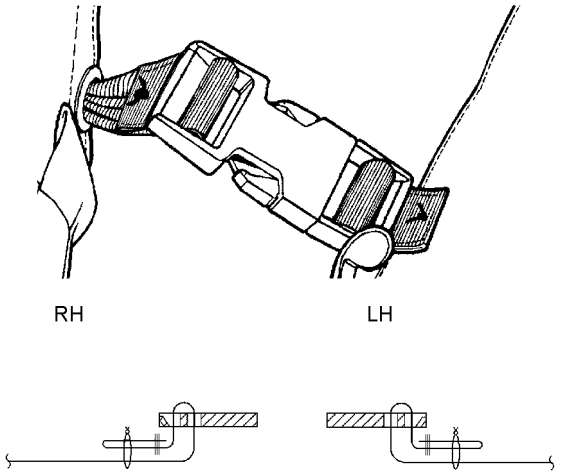
06050047

Step 47 - Para 6-50

NOTE

Use only buckle P/N 101-1100-5614. DO NOT substitute.

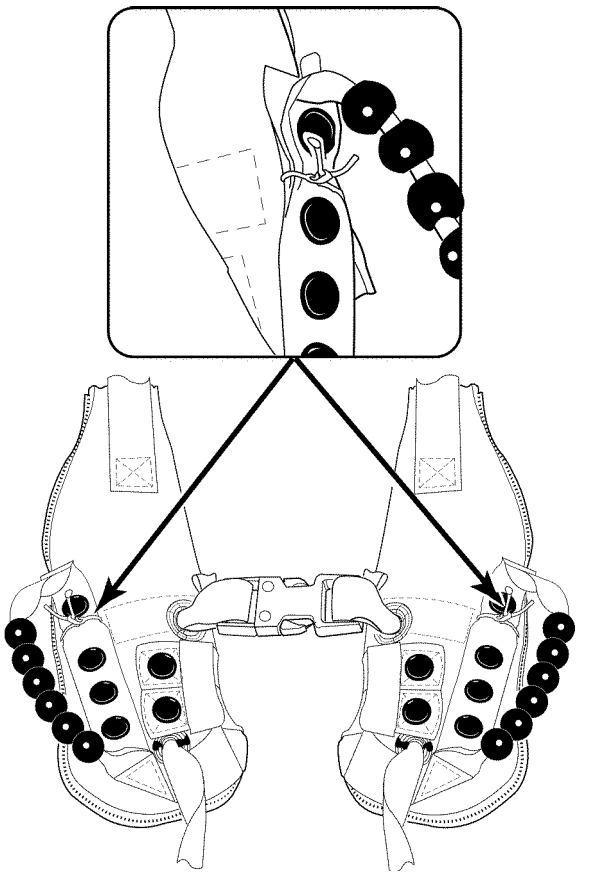
48. Weave LH buckle strap through LH (male) buckle half as shown. Route webbing inboard to outboard. Weave the RH buckle strap through RH (female) buckle half in the same manner as the LH side. Connect buckle halves together and pull tight. Tack LH and RH buckle webbing through the center of both pieces of the webbing, using 3 cord thread waxed, single. Use a surgeon's knot followed by a square knot.



06050048

Step 48 - Para 6-50

49. Safety tie beaded handles top snap webbing, below first snap, to exterior cover, route under webbing on exterior cover, with one turn of size E thread waxed, single. Tie with a surgeon's knot followed by a square knot.



06050049

Step 49 - Para 6-50

WARNING

Do not tie down beaded handles.

50. Inspect the zipper edge to ensure no coil separation. If separation is found, the exterior cover must be reassembled. Inspect male and female buckle halves for proper installation.

51. Account for all tools and packing aids.

52. Make necessary entries on appropriate forms in accordance with OPNAVINST 4790.2 Series to include:

a. Date of installation of each FLU-8B/P.

b. Date of manufacture of each FLU-8B/P.

c. Lot number of each FLU-8B/P.

d. Serial number of each FLU-8B/P.

e. Date of installation of batteries.

f. Date of manufacture of batteries (paragraph 6-33).

6-51. CLEANING AND SALTWATER DECONTAMINATION.

6-52. CLEANING. If required to clean any portion of the life preserver, remove any detachable items and proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Detergent, General Purpose	MIL-D-16791 NIIN 00-282-9699
As Required	Lint-free Cloth, Type II	MIL-C-85043 NIIN 00-044-9281

CAUTION

Solvents shall not be used to clean life preservers.

1. Prepare solution of detergent (MIL-D-16791) consisting of 1/4 to 1/2 ounce of detergent per gallon of water.

2. Apply cleaning solution to soiled area with a spray or sponge.

3. Allow solution to remain on surface for several minutes, then agitate with a soft brush or rag.

4. Rinse surface thoroughly with water, wipe with a cloth or sponge. Repeat this application until surface is free from all solution.

5. Dry life preserver with a lint-free cloth (MIL-C-85043) and allow to dry completely.

6-53. SALTWATER DECONTAMINATION. After every immersion in salt water, the life preserver shall be rinsed in clean fresh water as follows:

1. Rinse all components in fresh water.

2. Inflate bladder with air and allow to dry.

3. Clean all components in accordance with paragraph 6-52.

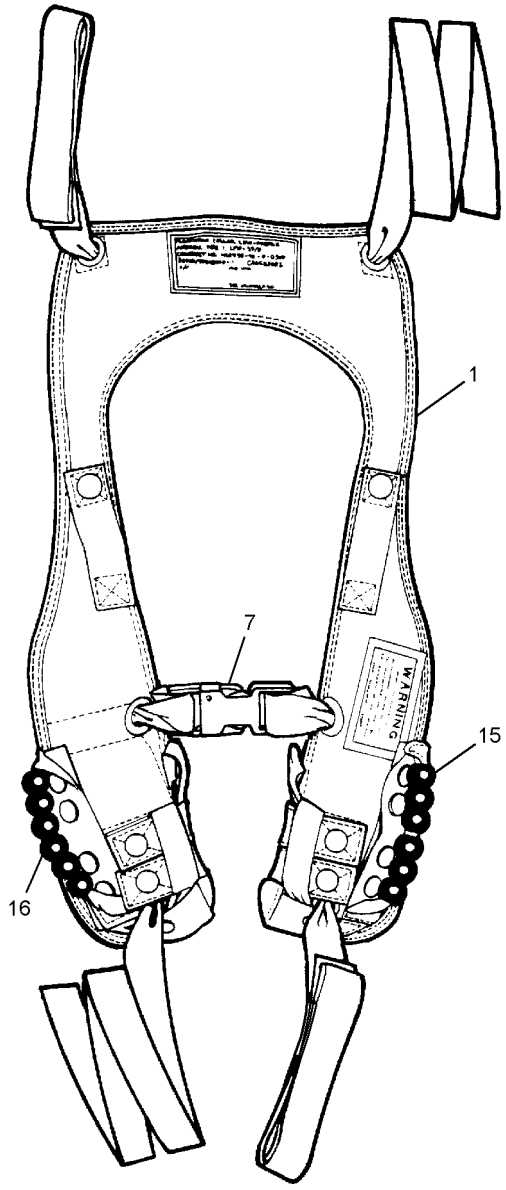
4. Perform 360-Day Special Inspection in accordance with paragraph 6-27.

Section 6-4. Illustrated Parts Breakdown (IPB)

6-54. GENERAL.

6-55. This section lists and illustrates the assemblies and detail parts of the LPU-36/P Low Profile Floatation Collar.

6-56. The Illustrated Parts Breakdown should be used during maintenance when requisitioning and identifying parts.



BACK VIEW

006009-1

Figure 6-9. LPU-36/P, Low Profile Floatation Collar, Life Preserver (Sheet 1 of 2)

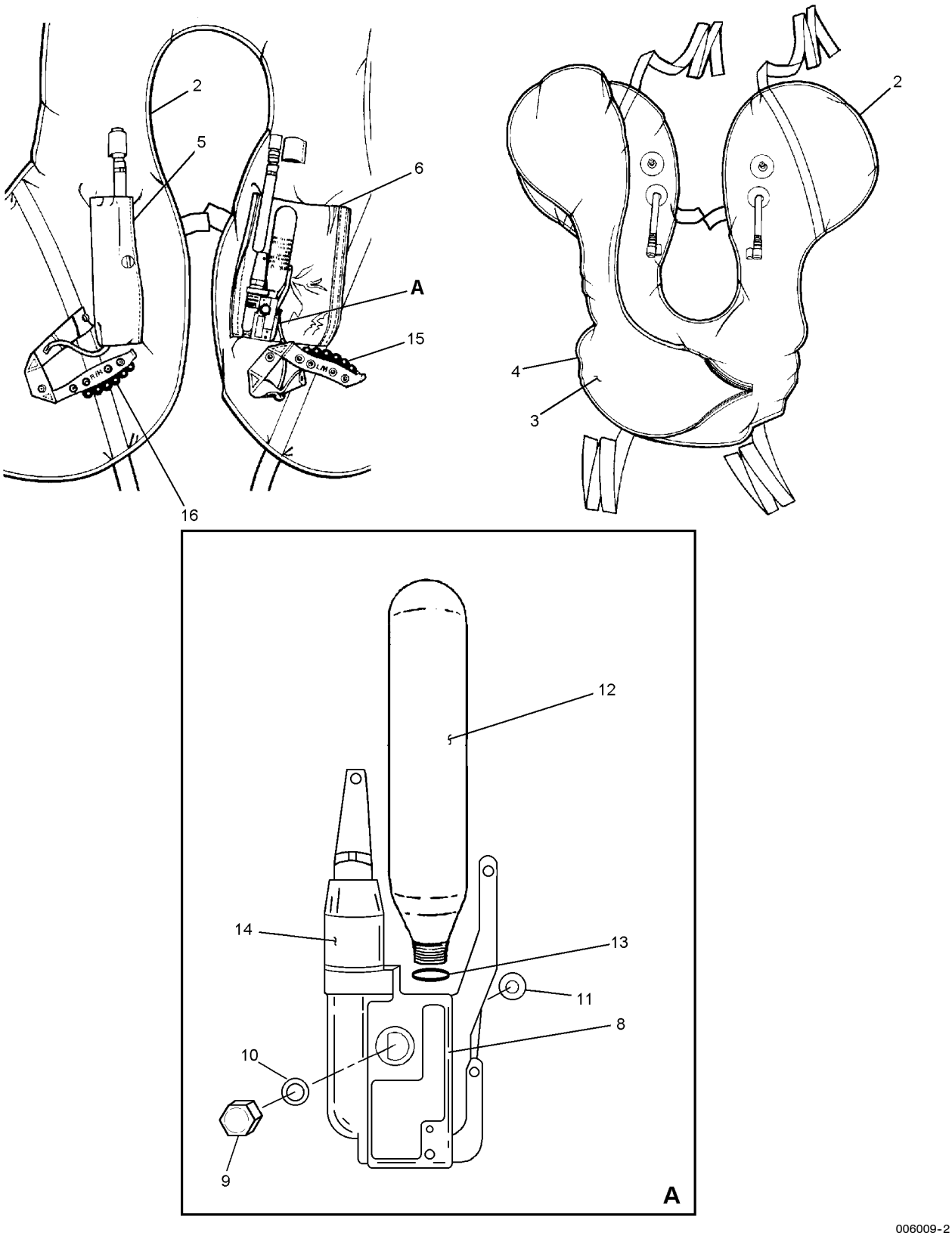


Figure 6-9. LPU-36/P, Low Profile Floatation Collar, Life Preserver (Sheet 2 of 2)

Figure and Index Number	Part Number	Description 1 2 3 4 5 6 7	Units Per Assembly	Usable On Code
6-9	830AS260-1	LPU-36/P, Low Profile Floatation Collar, ... Life Preserver (CAGE 30003)	REF	
	110500-1	LPU-36/P, Low Profile Floatation Collar, ... Life Preserver (CAGE 05DK2)	REF	
-1	110210-1	. EXTERIOR COVER ASSEMBLY . . . . . (CAGE 05DK2)	1	
-2	110221-1	. INFLATION SHELL ASSEMBLY . . . . . (CAGE 05DK2)	1	
-3	110230-1	. INNER (BOTTOM) INFLATABLE . . . . . ASSEMBLY (CAGE 05DK2)	1	
-4	110240-1	. OUTER (TOP) INFLATABLE ASSEMBLY . . . . . (CAGE 05DK2)	1	
-5	102228-1	. INFLATOR COVER RH (CAGE 05DK2)	1	
-6	102228-2	. INFLATOR COVER LH (CAGE 05DK2)	1	
-7	101-1100-5614	. PLASTIC BUCKLE, Male/Female (Note 3) . . . . (CAGE 02768)	1	
-8	1812-173-01	. INFLATION DEVICE, Automatic, FLU-8B/P . . . (CAGE 62323) (Note 5) (ATTACHING PARTS)	2	
-9	52A6600	. VALVE CAP, Inflator (CAGE 80049)	1	
-10	105AS100-3	. GASKET, Top (CAGE 30003) (Note 1)	1	
-11	105AS100-4	. GASKET, Bottom (CAGE 30003) (Note 1)	1	
		---*---		
-12	MIL-C-25369C	. CO_2 CYLINDER, Type III, 35 Gram (Note 5) . . .	2	
-13	NIIN 01-046-3300	. SEAT SEAL, O-ring, Multi	2	
-14	849AS103	. BATTERY, 6 Volt (CAGE 30003) (Note 5)	4	
-14A	1122-095	. SLEEVE, Battery Insulating (Note 4) . . . . . (Not Illustrated)	1	
-15	110251-2	. BEADED HANDLE RH (CAGE 05DK2)	1	
-16	110251-1	. BEADED HANDLE LH (CAGE 05DK2)	1	

Notes:
1. Top and bottom gaskets are obtained from Valve Stem Kit, P/N 105AS100-6, NIIN 00-113-8290, which contains one top and one bottom gasket.
2. Packing Aids for LPU-36/P:
   - Zipper Slide Assembly, P/N 101201 (CAGE 05DK2)
   - Bladder Assembly Keeper (4), P/N 101202 (CAGE 05DK2).
   - 1″ Spring Clamp, P/N 3201-HT
3. No substitutes authorized.
4. The battery insulating sleeve is not a stocked item. After installation directed by Aircrew Systems Bulletin 976, it becomes part of the FLU-8B/P Unit. Replacement sleeves are issued by Indian Head Division, NSWC.
5. The LPU-36/P will be shipped without the FLU-8B/P, batteries (4 each per assembly) and the CO_2 bottles (2 each per assembly). These items shall be procured separately and installed by the I-level prior to issue.

NUMERICAL INDEX

Part Number	Figure and Index Number	SM&R Code
MIL-C-25369C	6-9-12	PAGZZ
NIIN 01-046-3300	6-9-13	PAGZZ
101-1100-5614	6-9-7	PAGZZ
102228-1	6-9-5	PAGZZ
102228-2	6-9-6	PAGZZ
105AS100-3	6-9-10	PAGZZ
105AS100-4	6-9-11	PAGZZ
110210-1	6-9-1	PAGZZ
110221-1	6-9-2	PAGGG
110230-1	6-9-3	PAGZZ
110240-1	6-9-4	PAGZZ
110251-2	6-9-15	PAGZZ
110251-1	6-9-16	PAGZZ
110500-1	6-9	PAOGG
1122-095	6-9-14A	
1812-173-01	6-9-8	PAGGA
52A6600	6-9-9	PAGZZ
830AS260-1	6-9	PAOGG
849AS103	6-9-14	PCGZZ