

CHAPTER 8

SKU-10/A SEAT SURVIVAL KIT

Section 8-1. Description

8-1. GENERAL.

8-2. The SKU-10/A Seat Survival Kit Assembly P/N 366E100-5 is designed for use with the SJU-17(V)1/A, SJU-17(V)2/A and SJU-17(V)9/A Ejection Seats installed in F/A-18C BUNO 164197 and subsequent, F/A-18D BUNO 164196 and subsequent and F/A-18E and F/A-18F aircraft. The SKU-10/A Seat Survival Kit Assembly P/N 366E100-7 is designed for use with the SJU-17A(V)1/A, SJU-17A(V)2/A AND SJU-17A(V)9/A (Post ACC 646) Ejection Seats installed in F/A-18C BUNO 164197 and subsequent, F/A-18D BUNO 164196 and subsequent and F/A-18E and F/A-18F aircraft. The kit functions as a seat for the aircrewmember as well as a platform for mounting emergency oxygen and other survival equipment (figure 8-1). The SKU-10/A Seat Survival Kit Assembly, P/N 366E100-5 (366E100-7, Post ACC 646) is manufactured by East/West Industries (CAGE 30941) and supplied by Martin-Baker Ltd. (CAGE U1604).

8-3. CONFIGURATION.

8-4. The assembly includes a molded fiberglass seat lid, an emergency oxygen system, an AN/URT-33A radio beacon, a rucksack assembly, and a seat cushion.

8-5. The seat lid assembly is the primary structure and serves as a seat for the aircrewman as well as a mounting platform for the rucksack assembly and the emergency oxygen system. Two lapbelts are attached to the lid assembly at the aft outboard edges and are fitted with release assemblies which are attached to the aircrewman's torso harness.

8-6. The AN/URT-33A radio beacon is mounted on the top side of the lid assembly beneath the left thigh pad of the seat cushion.

8-7. A flexible oxygen and communications hose assembly, which consists of two hose subassemblies, is installed on the aft left side of the lid assembly. The first subassembly provides connection for communication and oxygen services between the aircraft console, through the ejection seat survival kit, to a quick dis-

connect union at the end of the subassembly. The second subassembly provides the interconnection between the quick disconnect and the aircrewman's chest mounted breathing oxygen regulator. Anti-g and vent air are provided directly to the aircrewman from the aircraft console.

8-8. The emergency oxygen system is mounted on the underside of the seat lid assembly. The system consists of a 100 cubic inch 1800-psi cylinder and gage, a pressure reducer assembly, and two actuation devices. The two actuation devices consist of a resettable manual actuation handle and a quick-disconnect lanyard for automatic actuation on ejection. The emergency oxygen system will deliver over 10 minutes of breathing oxygen to the aircrewmember.

8-9. The fabric rucksack container is divided into two compartments. The larger compartment at the rear of the rucksack, houses the liferaft and is closed by four flaps. The front compartment contains basic survival items and is closed by a zipper. When installed, the rucksack is retained against the underside of the lid assembly by five strap assemblies. The five strap assemblies and the four rucksack assembly flaps are secured by the manual deployment handle assembly. The manual handle assembly consists of two release pins attached by cable to two yellow handles.

8-10. The seat cushion is positioned on top of the lid assembly secured by four snap fasteners; two forward on the bottom inboard side of the thigh pads and two aft near the corners. A fabric strip is sewn to the underside of the cushion to form retaining channels for the flexible radio beacon antenna. (Post ACC 646) The seat cushion is shorter in order to provide space for the forward/aft adjustment of the ejection seat backpad also introduced by ACC 646.

8-11. The LRU-23/P liferaft is manufactured from single ply polyurethane coated nylon fabric. The canopy and floor are fully inflatable for extra exposure protection and a spray visor is installed for visibility. The dropline which connects the liferaft CO₂ inflation assembly to the lid assembly is stored in the base of the liferaft compartment.

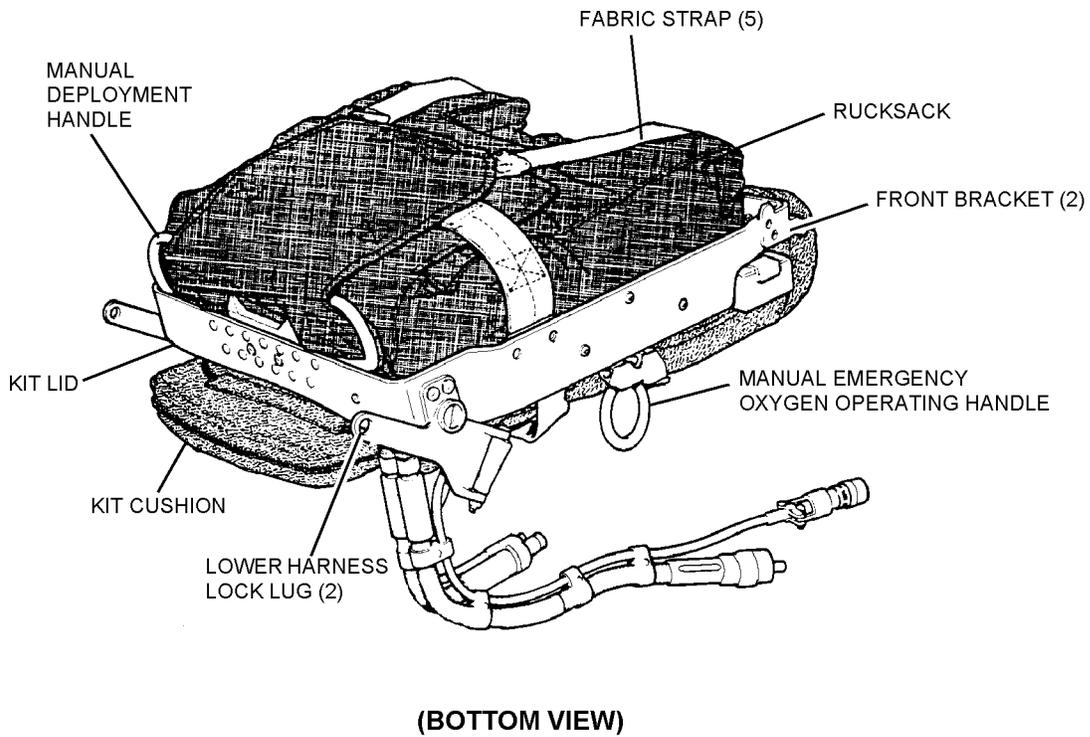
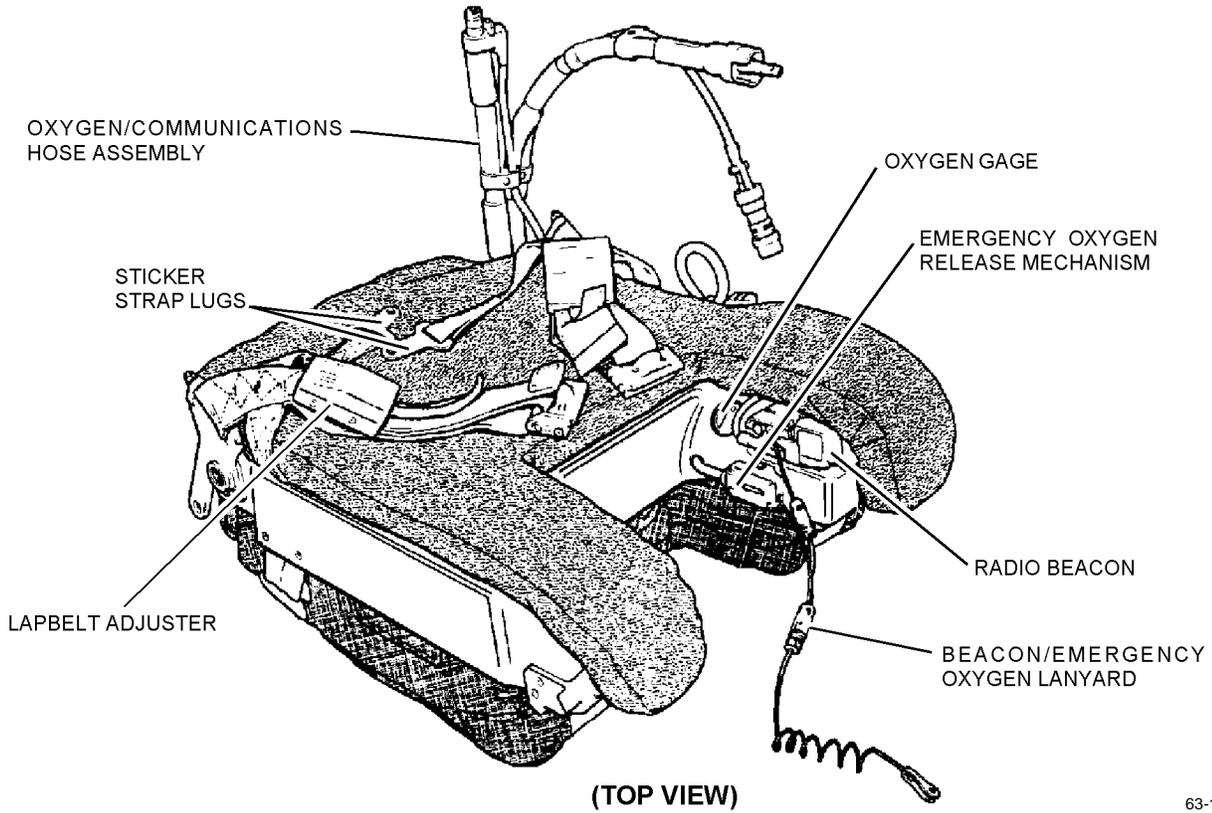


Figure 8-1. Seat Survival Kit, SKU-10/A - Assembly

8-12. REFERENCE NUMBERS, ITEMS, AND SUPPLY DATA.

8-13. Figures 8-16 through 8-20 of the Illustrated Parts Breakdown (IPB) contain data for each assembly, subassembly, and component part of the SKU-10/A Seat Survival Kit Assembly. Each figure contains a Group Assembly Parts List which provides reference or part number, description, and units per assembly for each part within the illustrated assembly or subassembly. The IPB also contains a numerical index of part numbers. This list provides an alpha-numerical listing of all indexed parts illustrated in the IPB with a reference to their figure location and SM&R coding.

8-14. APPLICATION.

8-15. The SKU-10/A Seat Survival Kit Assembly P/N 366E100-5 is designed for use in F/A-18C BUNO 164197 and subsequent, F/A-18D BUNO 164196 and subsequent and F/A-18E and F/A-18F aircraft equipped with SJU-17(V)1/A, SJU-17(V)2/A and SJU-17(V)9/A ejection seats. The SKU-10/A Seat Survival Kit Assembly P/N 366E100-7 is designed for use in F/A-18C BUNO 164197 and subsequent, F/A-18D BUNO 164196 and subsequent and F/A-18E and F/A-18F aircraft equipped with SJU-17A(V)1/A, SJU-17A(V)2/A and SJU-17A(V)9/A (Post ACC 646) ejection seats.

8-16. FUNCTION.

8-17. The survival kit provides support and comfort for the aircrewman, routing for oxygen and communications, and a platform base for mounting survival equipment and an emergency oxygen supply. Should the aircraft's oxygen system fail, or in the event of high altitude ejection, the emergency oxygen system will deliver breathing oxygen to the aircrewman.

8-18. IN-FLIGHT EMERGENCY. In the event of failure of the aircraft oxygen supply, the emergency oxygen system may be actuated by pulling the manual emergency oxygen actuation handle. If the aircraft oxygen supply is resumed, the emergency oxygen system may be reset by pushing the manual actuation handle back to its stowed position. The flow of emergency oxygen will be shut off and the system reset for normal use. An oxygen pressure gage

mounted in the left thigh support shows oxygen pressure remaining.

8-19. EJECTION SEQUENCE. During the seat ejection sequence, emergency oxygen system is automatically actuated by a lanyard attached to the cockpit floor. This initiates the same sequence of operation as the manual actuation handle.

8-20. As the ejection seat moves up the guide rails, the oxygen hose assembly is pulled free from the aircraft console. A shuttle valve at the survival kit input connect point prevents oxygen from escaping to the atmosphere (figure 8-2).

NOTE

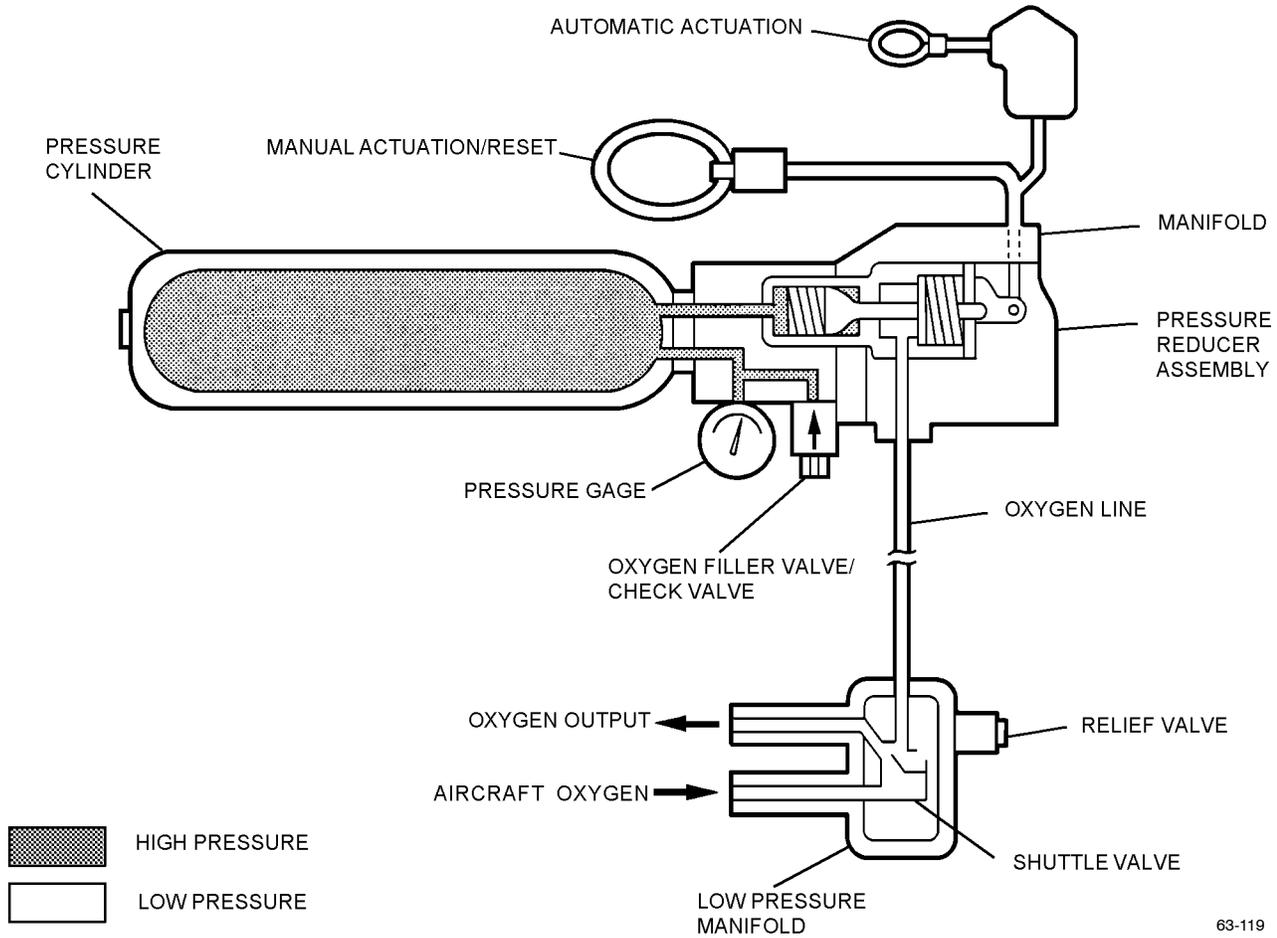
If automatic actuation of the emergency oxygen system fails, the system may be actuated by operating the manual actuation handle (green) located outboard of the aircrewmember's left thigh.

8-21. After a delay, varying with altitude and speed, the aircrewman's parachute will deploy and he will separate from the seat. The survival kit will remain attached to the aircrewman's torso harness.

8-22. Survival kit deployment during parachute descent may be actuated by pulling one of the manual deployment handles (yellow) at the rear of the survival kit. The rucksack will fall away extracting the liferaft and dropline. When the liferaft reaches the end of free-fall, the snubbing action on the dropline pulls a lanyard attached to the raft's CO₂ inflation assembly and the liferaft is inflated. The rucksack containing the basic survival items, is suspended below the inflated liferaft. The survival kit lid remains attached to the aircrewman by the lapbelts, which are connected to the PCU-56 series torso harness.

8-23. After entering the water, the aircrewman connects the liferaft retaining lanyard to an appropriate D-ring on his life preserver. He then boards the liferaft and retrieves the rucksack.

8-24. If the survival kit is not deployed until after water entry, operation of one of the manual deployment handles will release the survival package from the kit lid. The liferaft may then be manually inflated by pulling the liferaft manual inflation handle (attached to the dropline).



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Figure 8-2. Oxygen System - Schematic

Section 8-2. Modifications

8-25. GENERAL.

8-26. Modifications to the SKU-10/A Seat Survival Kit Assembly required or authorized at this time are listed in [Table 8-1](#).

Table 8-1. SKU-10/A Directives

Description of Modifications	Applications	Modification Code
NACES URT-33/A Beacon Radio and Emergency Oxygen Lanyard Connector Retention. This modification shall be incorporated at every 728-Day Inspection.	All NACES SKU-10/A Seat Survival Kits	IACC 66-570
To provide increased accommodation to Navy Common Ejection Seats (NACES) by modification of seat bucket and catapult (ECP MB9230)	All NACES SKU-10/A Seat Survival kits	ACC 646

Section 8-3. Rigging and Packing

8-27. GENERAL.

8-28. Unless operational requirements demand otherwise, rigging and packing of the SKU-10/A shall be accomplished at the Intermediate Level of maintenance every 24 months. The AN/URT-33A radio beacon shall be inspected every 364 days in accordance with inspection procedures listed in the NAVAIR 16-30URT33-1.

NOTE

Quality assurance steps are provided for critical operations. When a step is underlined, the Aircrew Survival Equipmentman shall perform the operation and then have performance verified by Quality Assurance (QA).

8-29. RIGGING AND PACKING PROCEDURES.

8-30. Rigging and packing of the SKU-10/A shall be accomplished in nine separate operations as follows:

1. Preliminary Procedures.
2. Radio Beacon Rigging and Installation
3. Survival Equipment Binding.
4. Survival Equipment Packing.
5. Stowing Dropline.
6. Liferaft Preparation.
7. Attaching and Stowing Sea Anchor.
8. Liferaft Folding and Stowing.
9. Closing Liferaft Container.

CAUTION

Ensure that the survival kit assembly is rigged and packed in a properly designated work area. Extreme care should be taken to prevent the survival kit from being damaged. Do not expose the kit to any oily substances. Do not slide kit on abrasive surfaces or into sharp objects which may puncture, tear, or otherwise damage the survival package or liferaft assembly.

8-31. PRELIMINARY PROCEDURES. The following preliminary procedures shall be accomplished prior to rigging and packing the SKU-10/A.

1. Ensure SKU-10/A and components have been inspected in accordance with [paragraph 8-65](#).
2. Inspect oxygen hose assemblies in accordance with NAVAIR 13-1-6.3-1.
3. Remove upper container assembly from lower container assembly.

WARNING

CO₂ bottle is under pressure. Use caution when disconnecting CO₂ bottle from liferaft. Do not loosen or attempt to remove inflation valve assembly from CO₂ cylinder.

CAUTION

Ensure actuating line is disconnected from CO₂ cylinder inflation valve before removal of CO₂ cylinder from liferaft.

4. Disconnect CO₂ cylinder from liferaft as follows:
 - a. Carefully remove liferaft from container.
 - b. Disconnect actuation line from CO₂ cylinder.

NAVAIR 13-1-6.3-2

c. Disconnect CO₂ cylinder from liferaft.

d. Remove large loop of drop line from CO₂ cylinders neck.

e. Ensure anti-chafing disc is installed. Reconnect CO₂ cylinder to liferaft finger tight. If functional test is required torque valve 80 to 90 in-lbs.

5. Ensure liferaft and CO₂ cylinder have been inspected in accordance with NAVAIR 13-1-6.1-1.

6. Remove and discard rubber bands from dropline.

NOTE

A newly fabricated or procured dropline assembly will have a final dimension of 26 feet, 4 inches \pm 2 inches. However, a dropline assembly is subjected to a certain amount of stretch during its stowing process, and shrinkage during its cleaning process, therefore a tolerance of \pm 12 inches is acceptable for an older dropline assembly.

7. Inspect dropline to ensure proper attachment to upper and lower containers. Also ensure dropline length is 26 feet, 4 inches \pm 12 inches.

8. Ensure survival items have been inspected in accordance with NAVAIR 13-1-6.5.

NOTE

Ensure battery service life does not expire prior to the next scheduled inspection cycle of the assembly in which the radio set is installed. Refer to NAVAIR 16-30URT33-1 for battery service life.

9. Remove radio beacon set from kit and ensure that the battery and radio beacon have been inspected in accordance with NAVAIR 16-30URT33-1.

10. Check seat pan and cushion assembly for cuts, tears, and abrasions, and hardware for security of

attachment, corrosion, damage, wear, and ease of operation.

8-32. RADIO BEACON RIGGING AND INSTALLATION. To rig and install the AN/URT-33A radio beacon, proceed as follows:

Materials Required

Quantity	Description	Reference Number
1	Actuator Indicator Assembly	125B300-1
1	Hairpin Cotter	LHCOTC NIIN 00-956-5633
1	Lanyard, Actuating	Fabricate IAW paragraph 8-101
As Required	Thread, Nylon, Size E, Type II Class A	V-T-295 NIIN 00-244-0609 or equivalent
3	Rubber Bands, Type I	MIL-R-1832 NIIN 00-568-0323

Support Equipment Required

Quantity	Description	Reference Number
1	T-wrench	Fabricate IAW paragraph 8-102

NOTE

Inspect actuating lanyard to ensure lanyard has been modified in accordance with [paragraph 8-101](#).

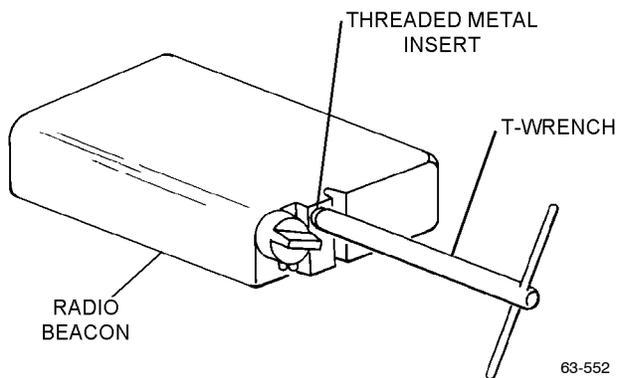
1. Ensure radio beacon ON/OFF slider switch is in OFF position, then determine if radio beacon has been modified in accordance with [steps 2 through 5](#).

NOTE

When slider switch is in OFF position, the ON position placard on beacon housing is not visible.

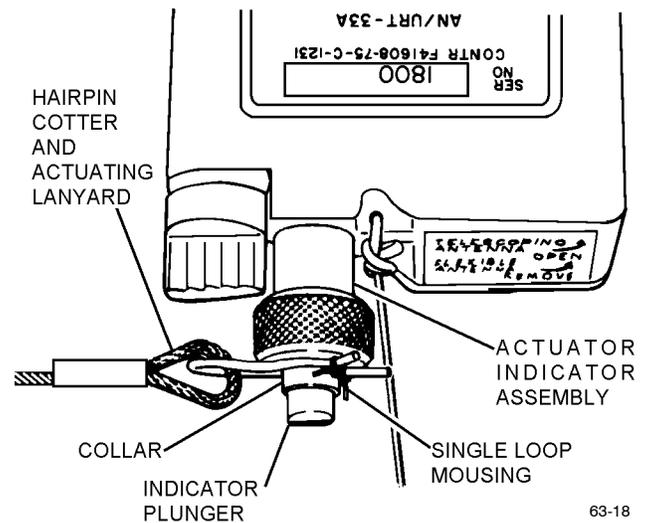
2. Remove automatic actuation plug and lanyard from radio beacon assembly.

3. Using locally fabricated T-wrench, remove threaded metal insert from radio beacon actuator plug position.



Step 3 - Para 8-32

8. Safety-tie open end of actuator indicator hairpin cotter by applying single-loop mousing using size E nylon thread. Secure mousing loop with square knot. Cut off excess thread approximately 1/8 inch from knot.



Step 8 - Para 8-32

4. Install actuator indicator assembly handtight in position from which threaded insert was removed.

5. Install hairpin cotter through loop on actuating lanyard tested and inspected in accordance with paragraph 8-101.

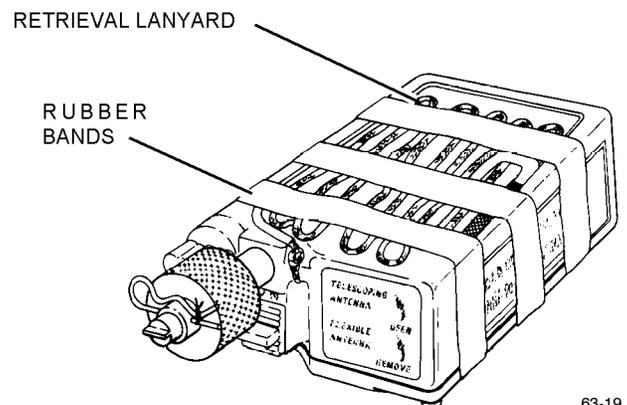
6. Depress actuator indicator plunger, align holes on collar and plunger, and insert hairpin cotter attached to lanyard loop.

7. Ensure hairpin cotter and collar are free to rotate 360° without binding.

NOTE

If there is no evidence of binding, proceed to step 8. If hairpin cotter and collar do not rotate freely, refer to NAVAIR 16-30URT33-1.

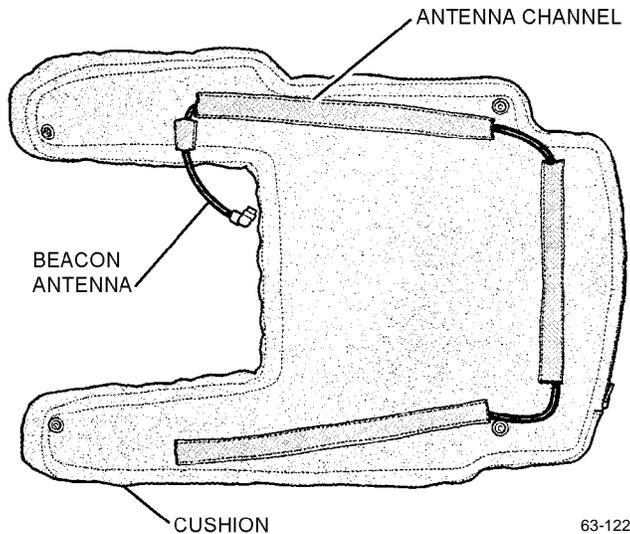
9. Accordion-fold retrieval lanyard on top of radio beacon and secure with three rubber bands. Ensure retrieval lanyard is attached at both ends with a bow-line knot, with an overhand knot tied at the tag end.



Step 9 - Para 8-32

NAVAIR 13-1-6.3-2

10. Insert flexible radio beacon antenna into retaining channel sewn on underside of seat cushion.



Step 10 - Para 8-32

11. Connect flexible antenna to radio beacon receptacle by pushing bayonet type fitting in and rotating to the right (clockwise).

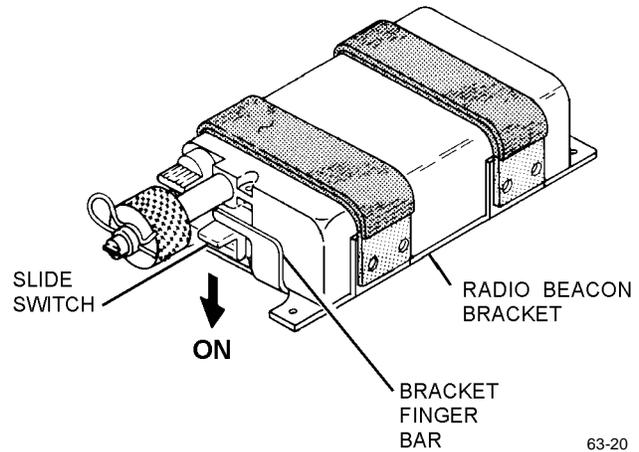
NOTE

Check to ensure actuator indicator plunger is secure in depressed position and hairpin cotter is safety-tied before moving slider switch to ON (armed) position.

12. Place beacon slider switch in ON (armed) position.

13. Holding beacon at approximately 45° angle install in beacon bracket with slider switch under the bracket finger bar. Press opposite end of beacon down to seat in bracket.

14. Ensure slider switch is secure in ON position under finger bar. Then secure radio beacon in bracket with hook and pile fastener.



Step 14 - Para 8-32

15. Check to ensure that antenna has not dislodged from beacon and position cushion on kit lid.

16. Position front edge of cushion's aft snap fasteners on lid snap fastener receptacles and press down to engage. Lift gently to check for proper connection.

17. Position lower edge of front snap fasteners on lid snap fastener receptacles and press down to engage. Lift gently to check for proper connection.

8-33. SURVIVAL EQUIPMENT BINDING. Ensure all survival items have been inspected in accordance with NAVAIR 13-1-6.5 before binding. To bind survival items, proceed as follows. Refer to [table 8-2](#).

Materials Required

Quantity	Description	Reference Number
As Required	Cord, Nylon, Type I	MIL-C-5040
As Required	Cloth, Duck, Nylon	MIL-C-3953
2	Envelope, Clear Vinyl Plastic	MIL-B-117

Table 8-2. Survival Kit Items (Note 1)

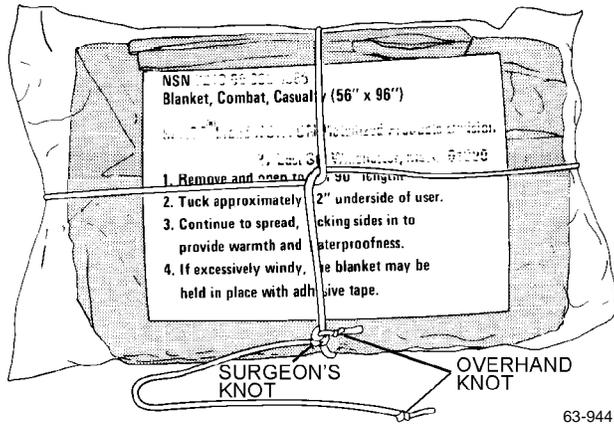
Nomenclature	Quantity	Reference Number
Ground/Air Emergency Code Card	1	NAVAIR 13-1-6.5
Nylon Cord, Type 1	50 ft	NAVAIR 13-1-6.5
Bailing Sponge, Type 2, Class 2	1	NAVAIR 13-1-6.5
Combat Casualty Blanket	1	NAVAIR 13-1-6.5
SRU-31/P Survival Kit, Packet No. 1 (Medical) (Note 2)	1	NAVAIR 13-1-6.5
SRU-31/P Survival Kit, Packet No. 2 (General) (Note 2)	1	NAVAIR 13-1-6.5
SRU-31A/P (Note 6)	Optional	NAVAIR 13-1-6.5
Radio Beacon	1	NAVAIR 13-1-6.5
Bag, Drinking Water (50 ml) (Note 4) or Water, Drinking Emergency (118 ml) (Note 4)	6 3	NAVAIR 13-1-6.5 NAVAIR 13-1-6.5
Smoke and Illumination Signal, (MK 13 MOD 0 or MK 124 MOD 0)	2	NAVAIR 13-1-6.5
Sea Dye Marker	2	NAVAIR 13-1-6.5
Latex Surgical Tubing	5 ft	NAVAIR 13-1-6.5
Green Lightstick, 12 hour (Note 3)	2	NAVAIR 13-1-6.5
S.O.S. Light, Green, 8 hour (Note 3)	2	NAVAIR 13-1-6.5
HGU-32/P Anti-Exposure Hood (Note 5)	1	NAVAIR 13-1-6.5
HAU-12/P Anti-Exposure Mittens (Note 5)	1 pr	NAVAIR 13-1-6.5

- Notes:
1. The items listed are typical and are considered mandatory for inclusion in the survival kit container. Deviation from the listed items may be required by certain Functional Air Wings (FUNCWINGS), Carrier Air Wings (CVW), COMFAIRS, or Marine Air Wings (MAW). Requests for deviations must be forwarded to and authorized by TYCOMS and with information to Fleet Support Team (FST) at NAVAIR-WARCENACDIV Patuxent River MD via Naval Message. When optional items are substituted, particular attention must be paid to the binding sequence so that physical sizes and binding order of substituted items remain approximately the same. That portion of an item name in parentheses is a common-use name or container size and is not intended for supply requisition purposes.
 2. SRU-31/P complete kit consisting of both the Medical Packet (#1) and General Packet (#2) may be ordered; instructions for packing and ordering these kits are found in NAVAIR 13-1-6.5.
 3. Replace Green Lightstick, 12 hour, with S.O.S. Light, Green, 8 hour, at Seat Survival Kit's next inspection cycle. Reference NAVAIR 13-1-6.5 for NIINs.
 4. If Bag, Drinking Water (50 ml), substitute Water, Drinking Emergency (118 ml), in accordance with NAVAIR 13-1-6.5.
 5. Not required to be packed if unavailable from supply.
 6. The selection of SRU-31/P or SRU-31A/P Individual Aircrewmember's Survival Kit will be at the discretion of the TYPE COMMANDER depending on mission requirements, reference NAVAIR 13-1-6.5, Chapter 9, for detailed information.

NOTE

To prevent loss of survival items, tie them individually and then tie them to a 155-inch length of nylon cord. Cord of the prescribed length required for this procedure shall be seared at both ends to prevent fraying (Table 8-3). All cord used shall be nylon (MIL-C-5040, Type I).

1. Combat Casualty Blanket. Tie overhand knot in each end of a 40-inch length of nylon cord. Wrap cord around casualty blanket. Rotate cord one quarter turn and wrap cord ends round opposite end of blanket. Tie with surgeon's knot. Ensure that an overhand knot is positioned snugly against surgeon's knot.

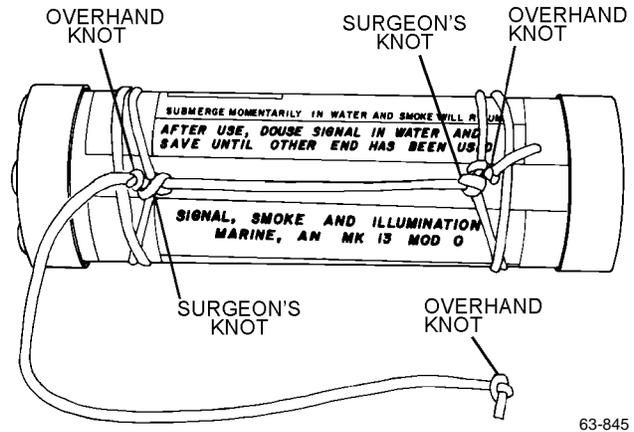


Step 1 - Para 8-33

Table 8-3. Nylon Cord Lengths Required For Binding

Length (Inches)	Number Required
12	8
24	2
30	2
36	3
40	1
155	1

2. Smoke and Illumination Signals. Tie overhand knot in both ends of a 36-inch length of nylon cord. Wrap one end of cord two overlapping turns around one end of signal flare and tie with surgeon's knot followed by an overhand knot positioned snugly against surgeon's knot. Route cord to opposite end of flare and tie in same manner. Cord between end-ties shall be drawn tight. Repeat procedure for second flare.



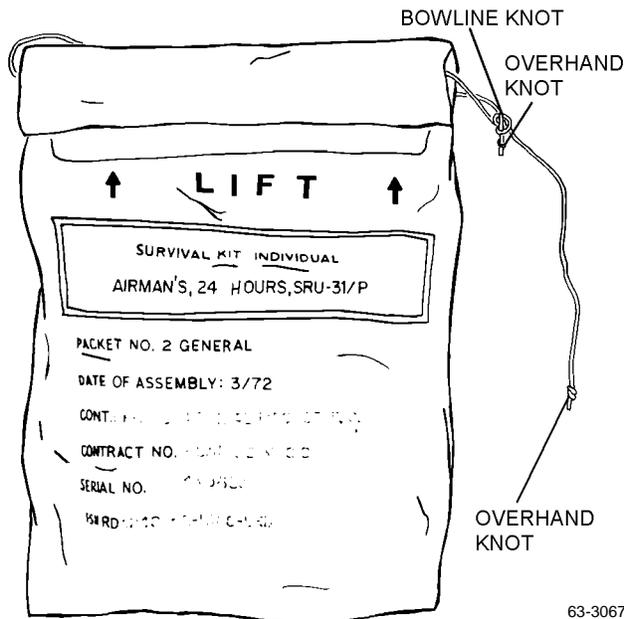
Step 2 - Para 8-33

3. Sea Dye Marker. Tie overhand knot at each end of a 12-inch length of nylon cord. Pass overhand knot through center grommet in dye marker and tie a bowline knot allowing a 1-inch loop. Position an overhand knot snugly against the bowline knot. Repeat procedure for second dye marker.

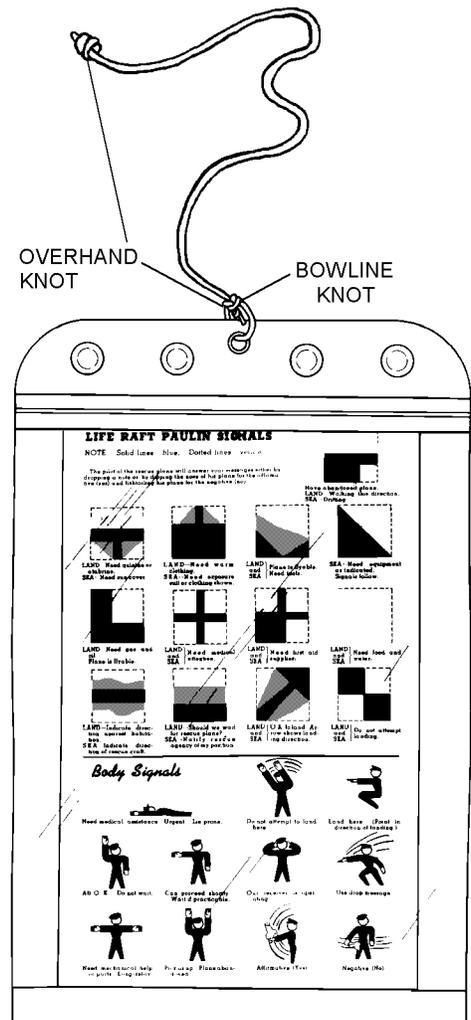


Step 3 - Para 8-33

4. SRU-31/P Survival Kit Packets #1 (Medical) and #2 (General). Tie overhand knot in both ends of a 24-inch length of nylon cord. Pass cord-end overhand knot through the tunnel formed by the cover flap and tie with a bowline knot allowing a four-inch loop. Position an overhand knot snugly against bowline knot. Tie Packet #2 in same manner.



5. Ground/Air Emergency Code Card. Place Ground/Air Emergency Code Card into clear vinyl envelope (MIL-B-117) and close sealing slide fastener. Tie an overhand knot in each end of a 12-inch length of nylon cord. Pass knot at one end through center hole in envelope. Secure with bowline knot with 1-inch loop; position overhand knot snugly against bowline knot.

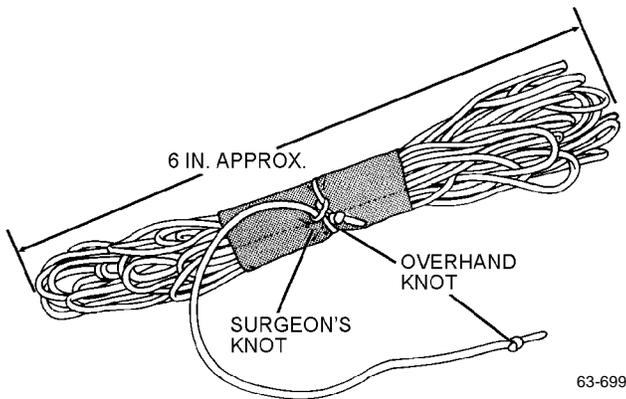


Step 4 - Para 8-33

Step 5 - Para 8-33

NAVAIR 13-1-6.3-2

6. Nylon Cord, Type I, 50 Feet. Cut one 2-inch by 4-inch piece of nylon duck material. Accordion-fold entire length of nylon cord in 6-inch bights and wrap nylon duck material around center of accordion folded cord. Tie an overhand knot at each end of a 12-inch length of nylon cord. Wrap one end of cord around center of duck material and cord bundle and tie with surgeon's knot. Ensure overhand knot is positioned snugly against surgeon's.

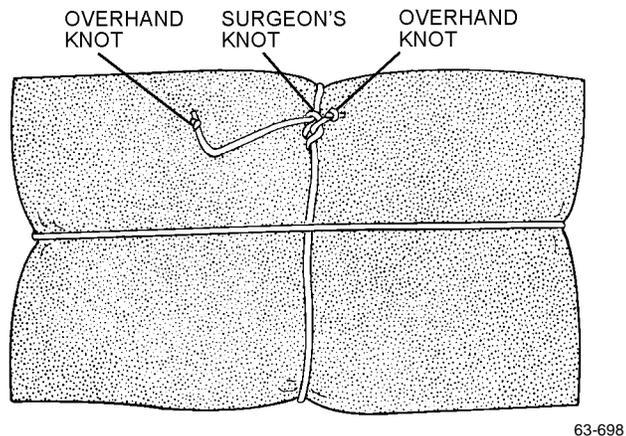


Step 6 - Para 8-33

NOTE

The bailing sponge should be compressed to a minimum thickness by compressing while damp and allowing it to dry in the compressed state before binding.

7. Bailing Sponge. Tie overhand knots in each end of a 30-inch length of nylon cord. Wrap cord around sponge until both ends meet, then rotate cord one quarter turn and wrap cord ends around opposite sides of sponge. Tie with surgeon's knot. Ensure an overhand knot is placed snugly against surgeon's knot.



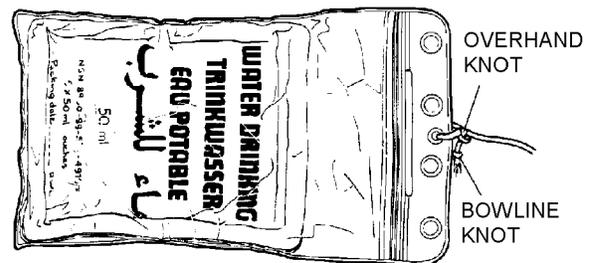
Step 7 - Para 8-33

8. Water Packets.

a. When utilizing Bag, Drinking Water (50 ml), NIIN 99-537-4919, place 6 water packets flat into clear vinyl envelope (MIL-B-117) and close sealing slide fastener.

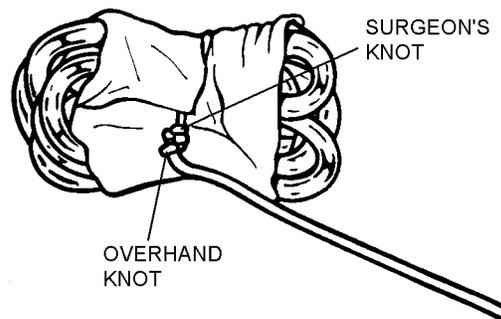
b. When utilizing Water, Drinking Emergency (118 ml), MIL-W-44126, fold the spout over about 1 1/2 inches, then fold bag in half. Place 3 individually folded bags into clear vinyl envelope (MIL-B-117) and close sealing slide fastener.

c. Using 12 inch length of nylon cord, tie overhand knot on each end and pass knot through center hole in envelope. Secure with bowline knot, allowing an approximate 1 inch loop. Position an overhand knot snugly against the bowline knot.



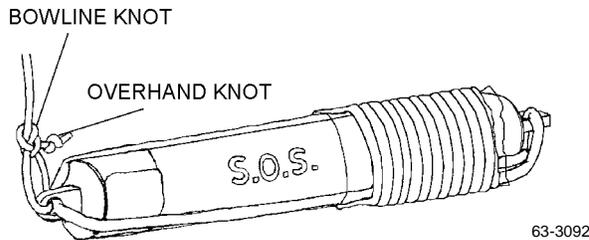
Step 8 - Para 8-33

9. Surgical Tubing. Cut one 2-inch by 5-inch piece of nylon duck material. Accordion-fold latex surgical tubing in 4-inch bights and wrap material around center of accordion folded tubing. Using 12-inch length of nylon cord, tie overhand knot near each end and secure one end of cord to center of material with surgeon's knot. Position an overhand knot snugly against surgeon's knot.



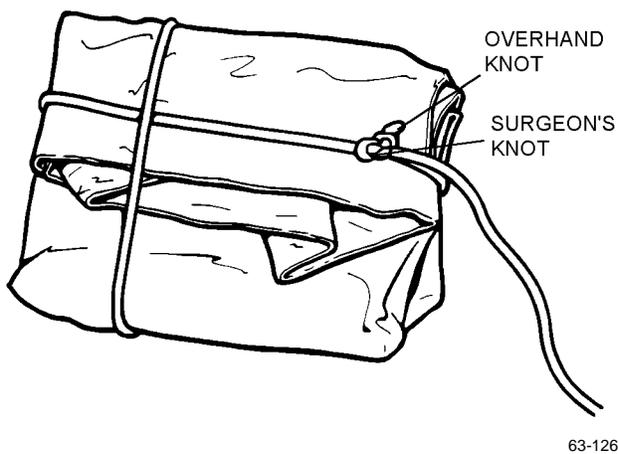
Step 9 - Para 8-33

10. S.O.S. Light, Green 8 Hour. Slip one end of a 12-inch length of nylon cord through capped end lanyard attachment tab. Tie overhand knots in both ends of nylon cord. Tie a bowline knot at the end where the nylon cord has been passed through attachment tab of lightstick. Ensure overhand knot is snugly placed against bowline knot. Repeat procedure for second lightstick.



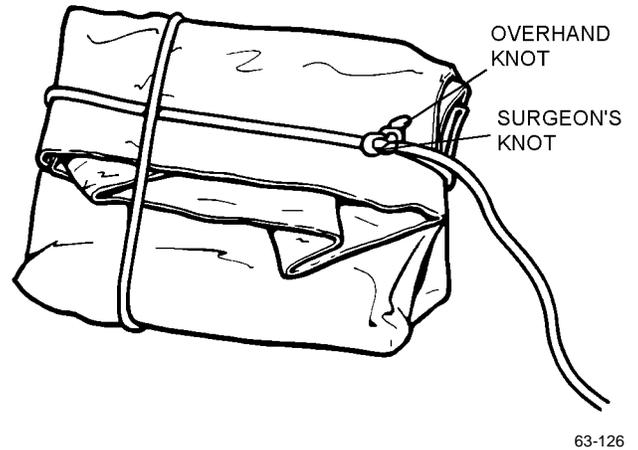
Step 10 - Para 8-33

11. Anti-Exposure Hood. Fold hood into a flat 3 1/2-inch x 4 1/2-inch package. Tie overhand knot in both ends of a 30-inch length of nylon cord. Wrap cord around folded hood until both ends meet, rotate cord one quarter turn and wrap cord ends around opposite side of hood. Tie with surgeon's knot. An overhand knot shall be placed snugly against surgeon's knot.



Step 11 - Para 8-33

12. Anti-Exposure Mittens. Evacuate trapped air and fold mittens into a flat 3 1/2-inch x 4-inch package. Ensure nylon cord connecting mittens is stowed inside package. Tie overhand knot in both ends of a 36-inch length of nylon cord. Wrap cord around folded mittens until both ends meet, rotate cord one quarter turn and wrap cord ends around opposite side of mittens. Tie with surgeon's knot. Position an overhand knot snugly against surgeon's knot.



Step 12 - Para 8-33

13. Binding Survival Items to Retaining Cord. Form an overhand loop knot approximately 12 inches from one end of a 155-inch length of nylon cord. Continue making nine additional overhand loop knots approximately 5 inches apart. Leave a 16-inch space and make six more overhand loop knots. A total of 16 overhand loop knots will be required.

14. Beginning at the first loop knot, tie one survival item to each overhand loop using a surgeon's knot in the order stated below (figure 8-3). Draw overhand knot tight after attaching survival item.

- a. SRU-31/P Packet No. 1 (Medical).
- b. Combat Casualty Blanket.
- c. Smoke and Illumination Signal.
- d. Smoke and Illumination Signal.
- e. Ground/Air Emergency Code Card.
- f. Sea Dye Marker.
- g. Anti-Exposure Hood.

- h. Anti-Exposure Mittens.
- i. Lightstick.
- j. Lightstick.
- k. Surgical Tubing.
- l. Nylon Cord, Type 1.
- m. SRU-31/P Packet No. 2 (General).
- n. Sea Dye Marker.
- o. Bagged Water.
- p. Bailing Sponge.

8-34. SURVIVAL EQUIPMENT PACKING. Pack survival equipment in rucksack as follows:

NOTE

No item has a top or bottom designation; however its longitudinal axis may be important.

References to left and right indicate relative positions when installed in aircraft. Rucksack pockets are marked L and R.

1. Ensure oxygen/communications hose assembly is not installed on survival kit lid. Position lid upside down on table with oxygen ON/OFF handle over edge of table and leg supports toward operator. Position survival equipment rucksack inside survival kit lid.

NOTE

If removing the oxygen/communications assemblies, cap inlet and outlet unions and ensure safe keeping of filter element in oxygen inlet union of low pressure manifold.

- 2. Open slide fastener.
- 3. Position bound items to be packed in front of survival kit.
- 4. Insert 12-inch bitter end (closest to SRU-31/P Packet No. 1) of 155-inch nylon cord through loop in inside center of rucksack. Tie with an approxi-

mate 2-inch loop bowline knot and an overhand knot. Ensure that overhand knot is snugly against bowline.

NOTE

Some early issue survival kits have slide fasteners which close from right to left and later kits have slide fasteners which close from left to right. Two procedures are therefore given for stowing the survival items.

5. If rucksack slide fastener closes from right to left, stow bound survival items into equipment compartment of rucksack as follows:

a. Fold SRU-31/P Packet No. 1 and stow in right leg pocket of rucksack. Position packet in bottom of pocket.

b. Stow casualty blanket on top of SRU-31/P Packet No. 1.

c. Stow the two smoke and illumination signals side-by-side on top of the casualty blanket; longitudinal axis lying fore and aft.

d. Stow ground/air emergency code card on top of signals; longitudinal axis lying fore and aft.

e. Stow first sea dye marker on top of emergency code card at rear of pocket.

f. Stow anti-exposure hood on top of the emergency code card in front of sea dye marker.

g. Stow mittens on top of hood.

h. Ensure that survival items in right pocket are properly stowed.

i. Ensure nylon cord does not become trapped in slide fastener. Move slide fastener to left to close right leg pocket of rucksack to retain survival items.

j. Stow both lightsticks in tunnel between leg pockets, with surgical tubing between them.

k. Position 16-inch length of cord (without knots) in tunnel between leg pockets.

l. Stow nylon cord in pocket at bottom rear of left leg pocket of rucksack.

m. Stow SRU-31/P Packet No. 2 in left leg pocket. Position flat in bottom of pocket leaving top flap out at front of pocket.

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n. Stow second sea dye marker behind SRU-31/P No. 2.

o. Stow bagged water flat on top of SRU-31/P, longitudinal axis lying fore and aft.

p. Stow sponge on top of bagged water.

q. Fold top flap of SRU-31/P Packet No. 2 over other items.

r. Ensure that survival items are properly stowed.

s. Ensure that nylon cord does not become trapped in slide fastener. Move slide fastener to left to close survival equipment compartment of rucksack.

t. Secure hook and pile tape on container.

6. If rucksack slide fastener closes from left to right, stow bound survival items into equipment compartment of rucksack as follows:

a. Stow SRU-31/P Packet No. 2 in left leg pocket. Position flat in bottom of pocket leaving top flap out at front of pocket.

b. Stow second sea dye marker behind SRU-31/P No. 2.

c. Stow bagged water flat on top of SRU-31/P, longitudinal axis lying fore and aft.

d. Stow sponge on top of bagged water.

e. Fold top flap of SRU-31/P No. 2 over other items.

f. Ensure that survival items in left leg pocket are properly stowed.

g. Ensure nylon cord does not become trapped in slide fastener. Move slide fastener to right to close left leg pocket to retain survival items.

h. Stow surgical tubing in the tunnel between the two lightsticks and nylon cord in left leg pocket.

i. Position 16-inch length of cord (without knots) in tunnel between leg pockets.

j. Stow nylon cord in pocket at bottom rear of right leg pocket in rucksack.

k. Fold SRU-31/P Packet No. 1 and stow in right leg pocket of rucksack. Position packet in bottom of pocket.

l. Stow casualty blanket on top of SRU-31/P Packet No. 1.

m. Stow the two smoke and illumination signals side-by-side on top of the casualty blanket, longitudinal axis lying fore and aft.

n. Stow ground/air emergency code card on top of signals, longitudinal axis lying fore and aft.

o. Stow first sea dye marker on top of emergency code card at rear of pocket.

p. Stow anti-exposure hood on top of the emergency code card in front of sea dye marker.

q. Stow mittens on top of hood.

r. Ensure survival items in right leg pocket are correctly stowed.

s. Ensure nylon cord does not become trapped in slide fastener. Move slide fastener to right to close survival equipment compartment of rucksack.

t. Secure container's hook and pile fasteners.

8-35. STOWING DROPLINE. Stow dropline as follows:

Materials Required

Quantity	Description	Reference Number
15 in.	Cord, Nylon, Type III	MIL-C-5040 NIIN 00-240-2146 or equivalent
4	Rubber Bands, Type I	MIL-R-1832 NIIN 00-528-0323
As Required	Thread, Nylon, Size E, Type I, Class A	V-T-295 NIIN 00-244-0609 or equivalent

1. Lay out dropline between rucksack and lid. Remove all twists. Ensure that short end (closest to red loop) is toward rucksack and long end is toward lid.

2. Ensure the dropline is attached to rucksack assembly as specified in the steps below. If incorrectly installed or not installed attach as follows:

a. Pull looped end of dropline marked "mount to lid" through the right side strap assembly loop where it is attached to the bracket. Create a lark's head knot by pulling the opposite end of dropline through loop end that had been pulled through the right side strap assembly. Tack lark's head knot and webbing of strap assembly using waxed 6 cord, tied with surgeon's knot followed by a square knot.

NOTE

Before proceeding, ensure no twists or knots are in dropline.

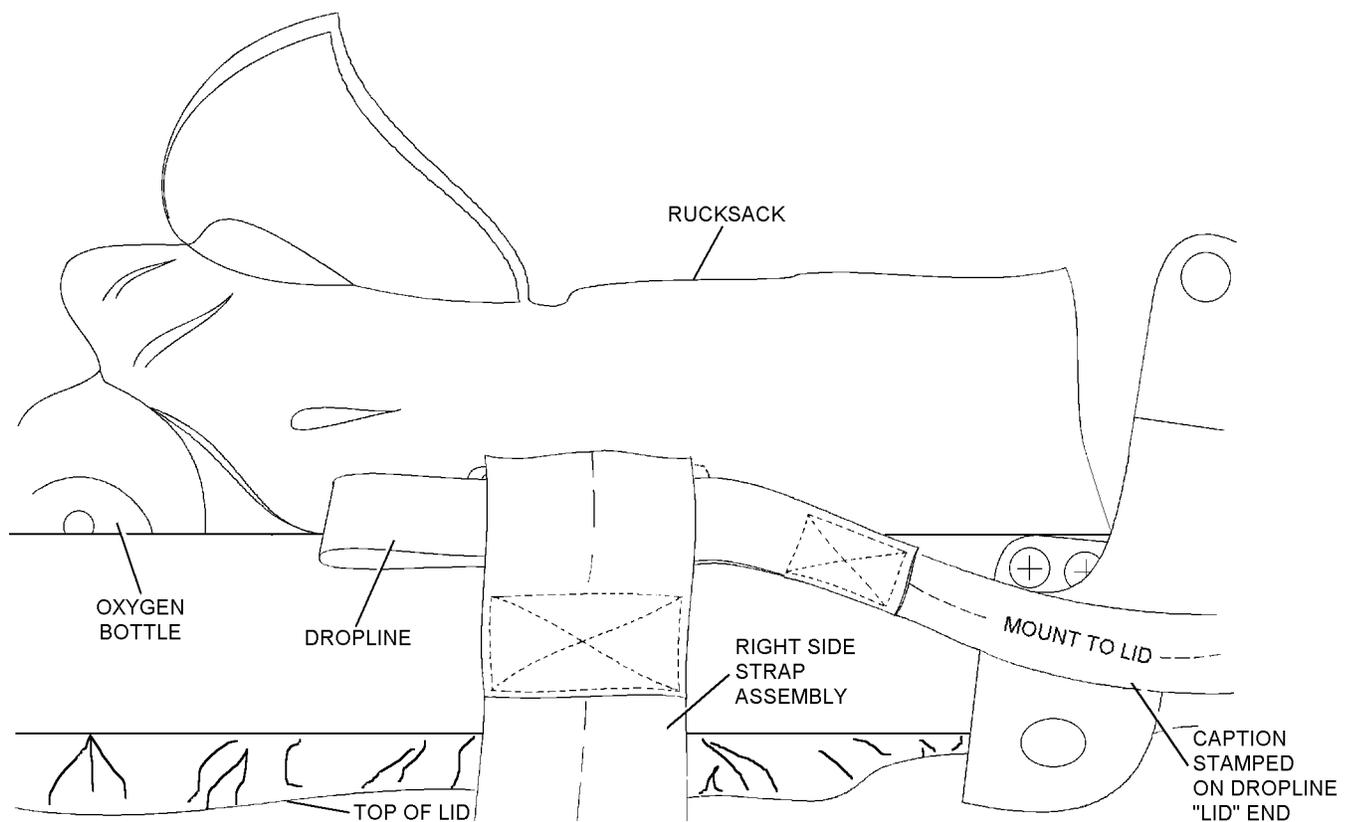
b. Remove the right side strap assembly using a phillips screwdriver and 3/8 inch wrench. Retain screws and nuts.

c. Pull looped end of dropline marked "mount to rucksack" through loop inside the liferaft compartment of the rucksack. Pull the right side strap assembly and dropline through loop creating a larks head knot (step a) and if no twists or knots are in dropline, tack larks head knot with waxed 6 cord, tied with a surgeon's knot.

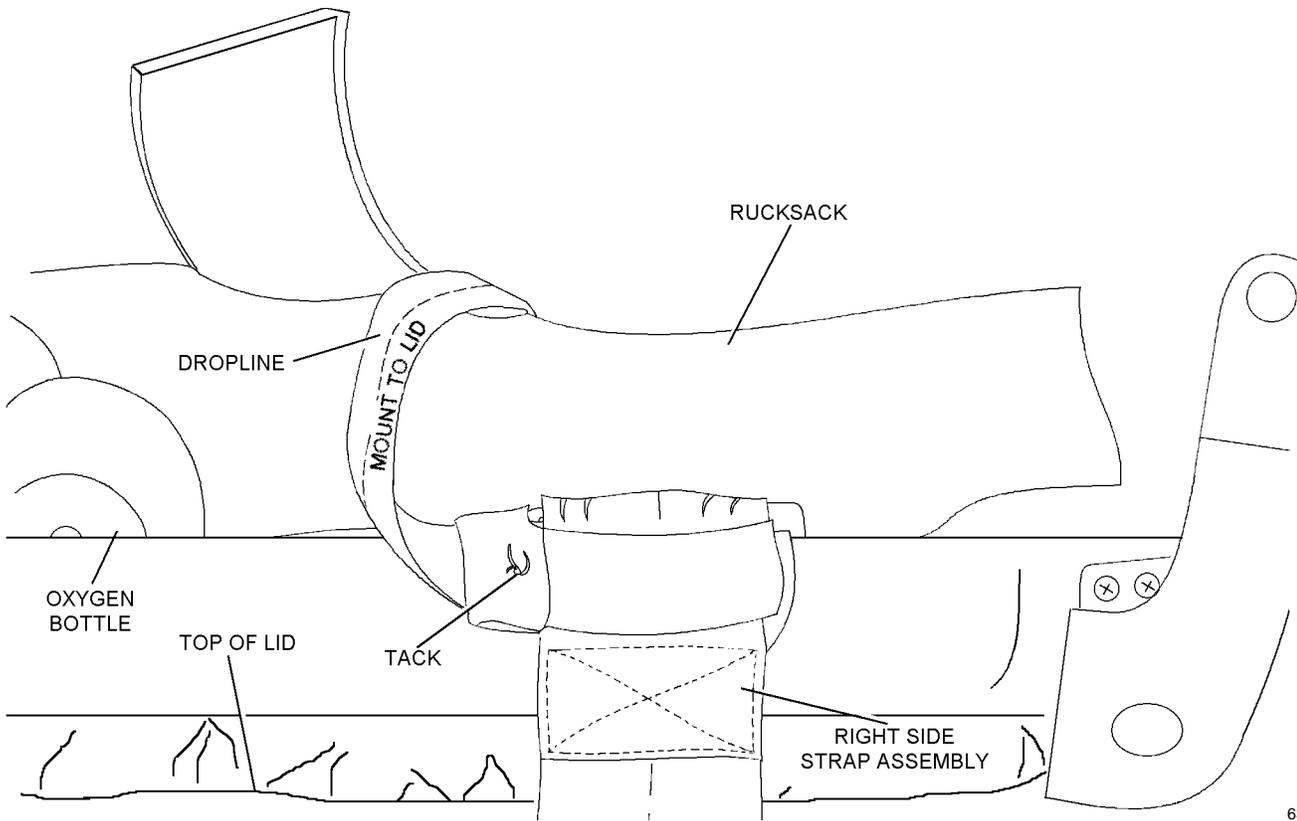
NOTE

Before reattachment of the right side strap assembly, ensure the dropline does not have any twists or knots.

d. Reattach the right side strap assembly ensuring that the larkshead knot is facing in the same direction when first attached to the side strap assembly. This is to ensure that the part number on the right side strap assemblies bracket is still visible.

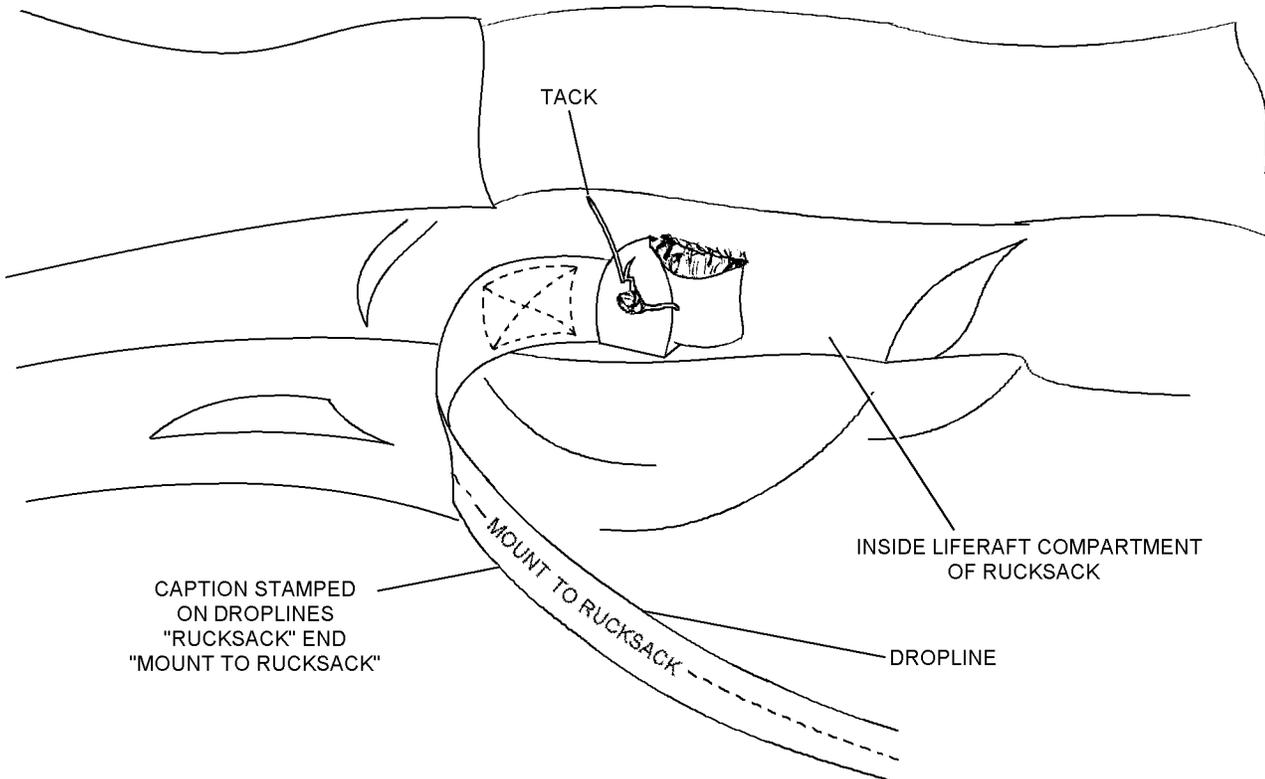


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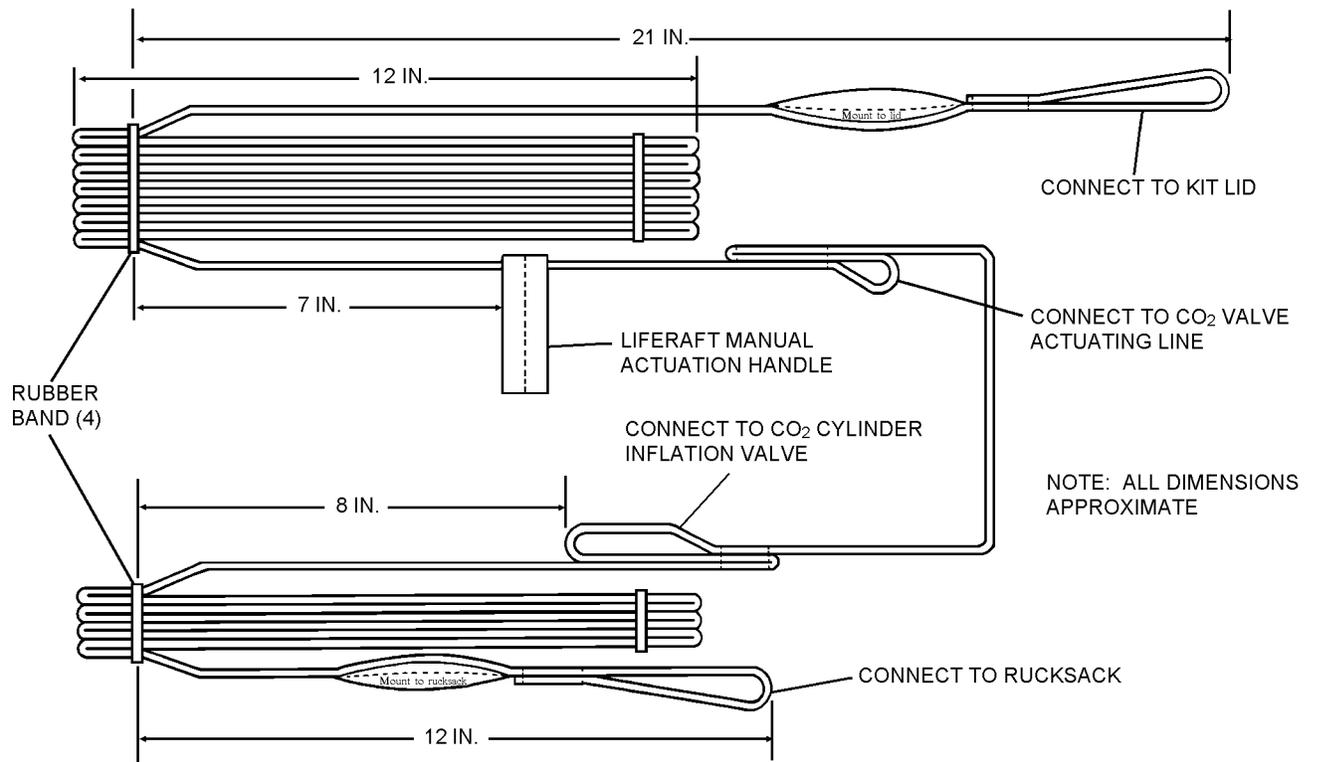
Step 2b - Para 8-35



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Step 2c - Para 8-35

- e. Ensure dropline has been attached properly.
- 3. Fold dropline into bights. Secure bights with rubber bands.
- 4. Stow folded dropline in base of liferaft compartment.



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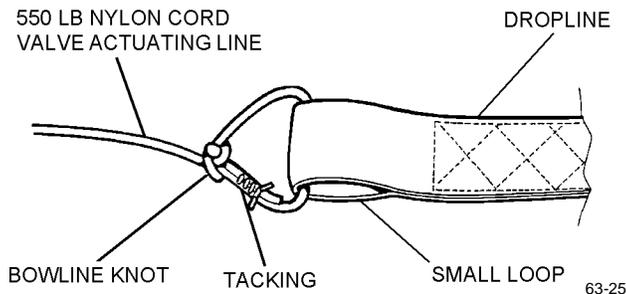
Step 3 - Para 8-35

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5. If the valve actuating line is damaged, incorrectly installed or not installed, install a new line as follows:

a. Cut a 15-inch length of 550-pound Type III nylon cord and sear ends.

b. Route one end through small loop on dropline and tie bowline knot. Tack with three turns of waxed, size E nylon thread, single. Tie ends with surgeon's knot followed by square knot.



Steps 5a and b - Para 8-35

8-36. LIFERAFT PREPARATION. Prepare liferaft for packing as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Talcum, Technical	MIL-T-50036A NIIN 01-080-9589
As Required	Thread, Nylon, Size 6, Type II, Class A	V-T-295 NIIN 00-559-5211 or equivalent
As Required	Thread, Nylon, Size E, Type I, Class A	V-T-295 NIIN 00-244-0609 or equivalent

1. Lay liferaft out flat with CO₂ cylinder adjacent to survival kit liferaft compartment (inside up and bow to the right).

NOTE

Ensure CO₂ cylinder has been removed from liferaft before proceeding to next step.

2. Deflate the liferaft in accordance with NAVAIR 13-1-6.1-1, ensuring that all air is removed and oral inflation valve is locked and stowed in pocket.

3. Lightly dust entire raft with talcum powder.

NOTE

Do not connect inflation valve to raft inlet valve at this time.

4. Install properly charged CO₂ cylinder in liferaft stowage pocket.

WARNING

The CO₂ cylinder contains gas under pressure. Do not loosen or attempt to remove inflation valve assembly from cylinder. Explosion may result.

5. Attach loop end of raft retaining lanyard around neck of inflation valve at CO₂ cylinder using lark's head knot (figure 8-4). Pull knot tight and tack with two turns of waxed, 6-cord, nylon thread, single. Tie ends with surgeon's knot followed by a square knot.

6. Accordion-fold raft retaining lanyard into 3-inch bights and stow in stowage pocket on raft. Make sure clip is enclosed in lanyard and that loop end is outside pocket. Close stowage pocket flap and secure with hook and pile fastener.

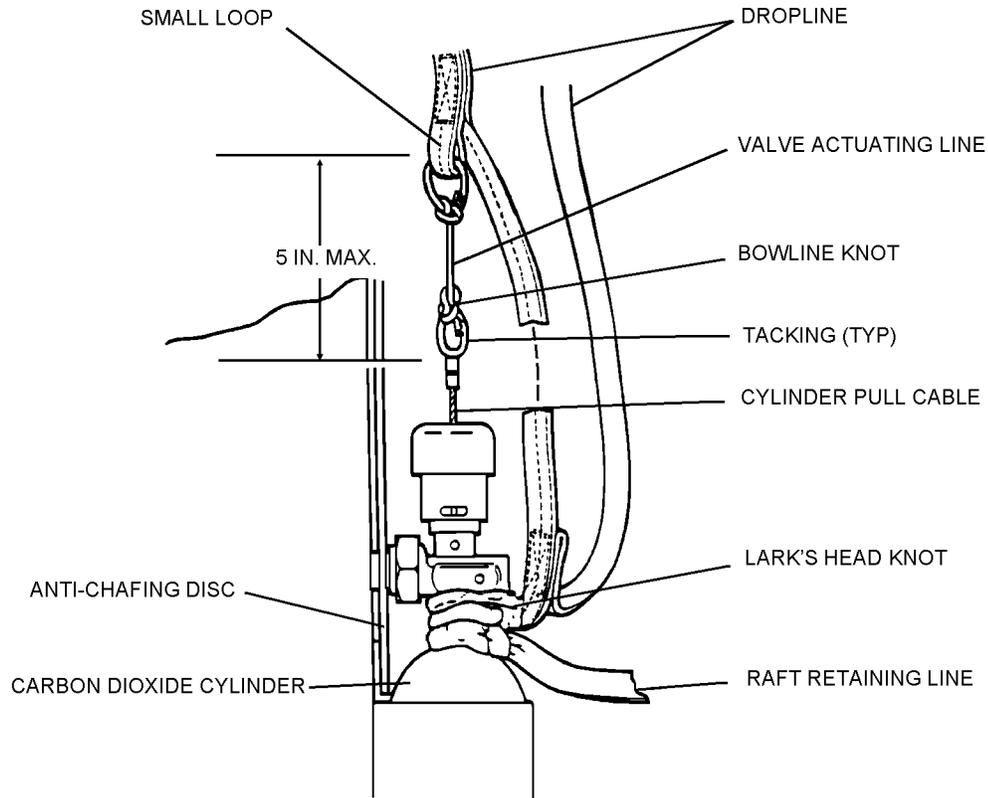
7. Attach large loop of dropline around neck of inflation valve at cylinder using lark's head knot. Pull knot tight and tack with two turns of waxed nylon 6-cord single. Tie ends with surgeon's knot followed by square knot.

8. Ensure anti-chafing disc is installed. Connect inflation valve to liferaft inlet valve. Torque coupling nut to 80-90 inch-pounds, taking care not to damage inlet valve.

WARNING

Final dimension of valve actuating line is critical. Finished length shall not exceed 5 inches.

9. Pass actuating line through loop in end of cylinder pull cable (figure 8-4). Tie loop, using bowline knot. Tack with three turns of waxed, size E, nylon thread, single. Tie ends with surgeon's knot followed by square knot. Finished length shall not exceed 5 inches.



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Figure 8-4. Liferaft Inflation Assembly

CAUTION

Ensure that end of dropline attached to rucksack does not become entangled in the liferaft during the folding operation.

10. Position short end of dropline leading to survival package (rucksack) clear of CO₂ cylinder.

8-37. ATTACHING AND STOWING THE SEA ANCHOR. Refer to [figure 8-5](#) and attach and stow the sea anchor as follows:

Materials Required

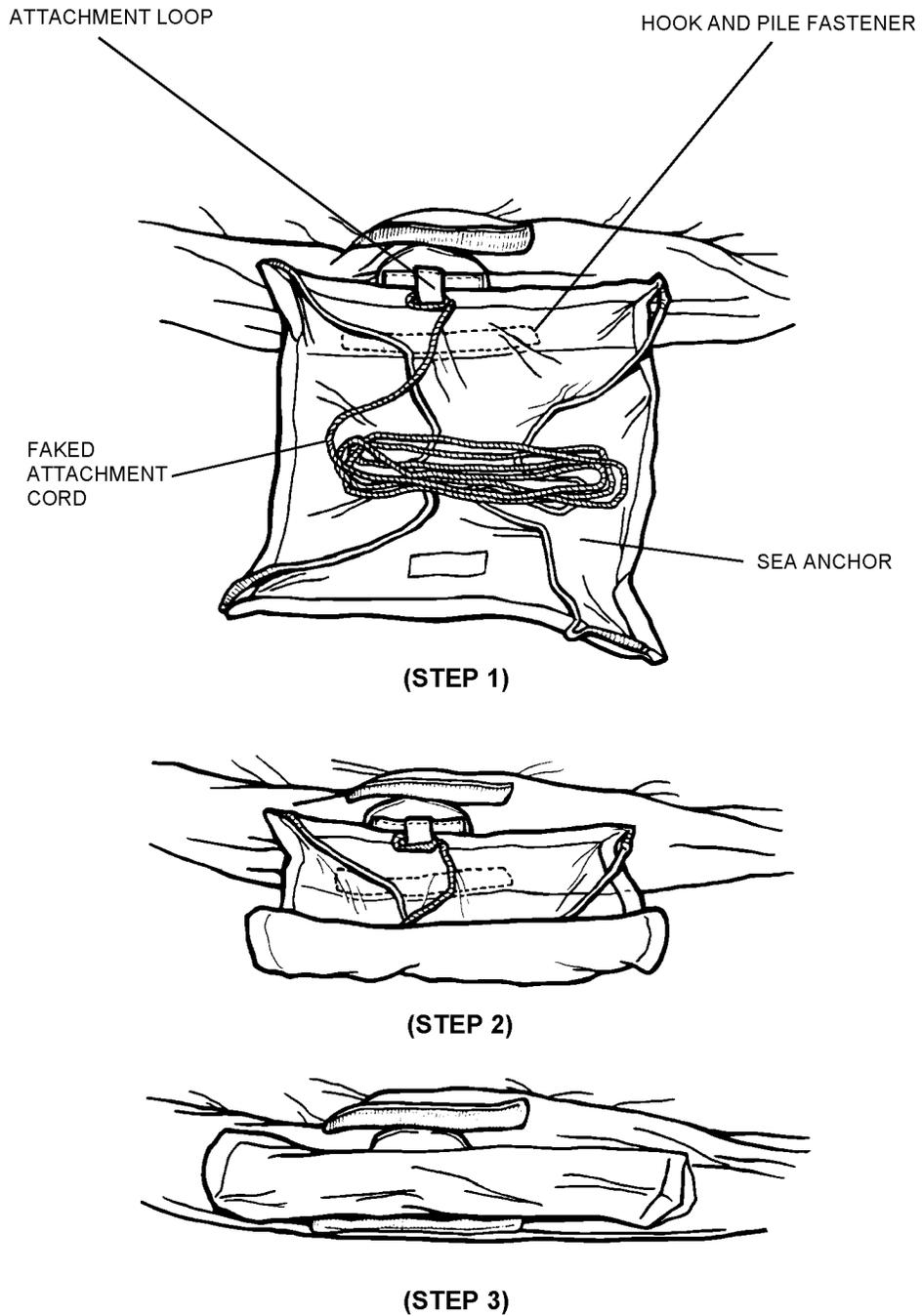
Quantity	Description	Reference Number
10 ft	Cord, Nylon, Type I	MIL-C-5040

1. Tie one end of a 10-foot length of Type I nylon cord to the eye of the sea anchor using a bowline knot.

2. Tie the free end of the cord to the sea anchor attachment loop at the bow end of the liferaft using a bowline knot.

3. Lay out the sea anchor adjacent to stowage position and fake the attachment cord into the center of the anchor ([step 1](#)). Roll the sea anchor toward the attachment point, enfolding the attachment cord ([step 2](#)).

4. Place the rolled sea anchor between the hook and pile fastener strips at the bow end of the liferaft. If necessary, crease the liferaft so that fastener strips engage to secure the sea anchor and attachment cord ([step 3](#)).



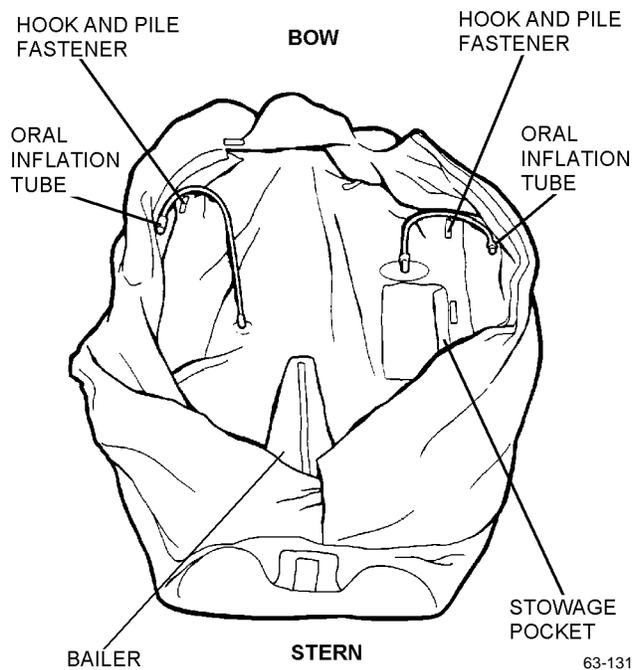
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Figure 8-5. Sea Anchor Attaching and Stowing

8-38. FOLDING THE LIFERAFT. Fold the liferaft as follows:

1. Ensure that all trapped air is expelled from the liferaft.

2. Lay the floor and buoyancy chamber oral inflation tubes toward the bow-end, inboard of the bow-end hook and pile tape fastener patches. Curve the tubes back toward the stern, outboard of the tape fastener patches.



Step 2 - Para 8-38

3. Starting at the bow-end, fold the canopy under and mate with the three hook and pile fastener tape fastener patches on each side of the buoyancy chamber. Ensure that the oral inflation tubes curve around the bow-end tape fastener patches from inboard to outboard and back toward the stern.

4. Fold the hood portion of the canopy toward the stern and lay the visor flat and even under the hood.

5. Lay canopy sides flat and even on the buoyancy chamber.

6. (Refer to [figure 8-6](#)) Fold stern of liferaft inboard to the center and align outer edge of fold approximately one inch wider than the end of the CO₂ cylinder ([step 1](#)).

7. Fold inboard end back on itself so inboard edge of fold aligns with end of inflation valve ([step 2](#)).

8. Fold bow end inboard to the center and align outer edge of fold approximately one inch wider than the end of the inflation valve. Smooth down the folds and lay the water pockets flat ([step 3](#)).

9. Fold the inboard end back on itself so that the inboard end aligns approximately with the end of the CO₂ cylinder and smooth down the folds ([step 4](#)).

10. Tuck the end of the fold adjacent to the CO₂ cylinder under so that the liferaft does not protrude beyond the cylinder ([step 5](#)).

8-39. STOWING THE LIFERAFT. Stow the liferaft as detailed below:

1. Ensure dropline is stowed neatly in bottom of liferaft compartment.

2. Position liferaft in compartment so that CO₂ cylinder lies adjacent to emergency oxygen cylinder with dropline aft of CO₂ cylinder.

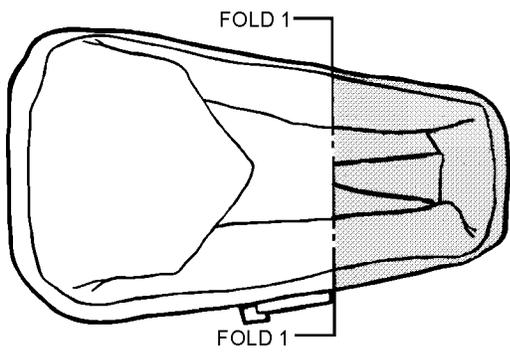
3. Position manual operating handle in front left corner.

4. Fold liferaft forward and form fold at rear of compartment.

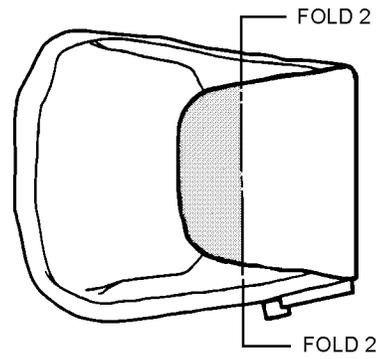
5. Fold liferaft aft and form fold against CO₂ cylinder.

6. Fold liferaft forward and form fold at rear of compartment.

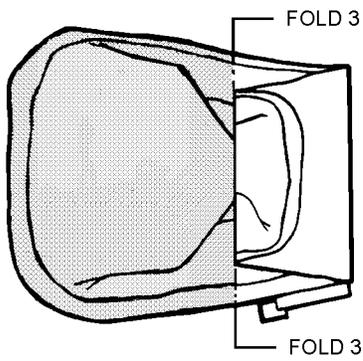
7. Fold liferaft under and aft and form fold at front of compartment, above CO₂ cylinder.



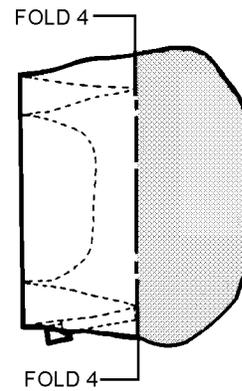
(STEP 1)



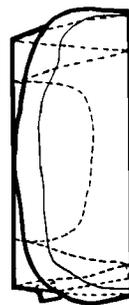
(STEP 2)



(STEP 3)



(STEP 4)



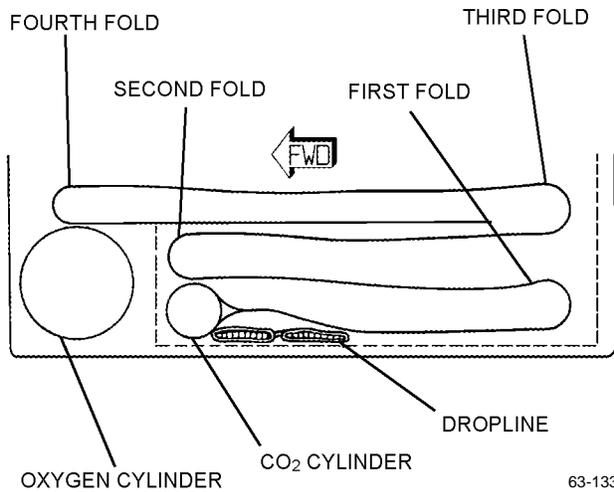
(STEP 5)

Figure 8-6. Folding the Liferaft

NOTE

Some adjustment of liferaft may be necessary to obtain flattest possible configuration.

8. Position manual operating handle (red) on top of folded liferaft.



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Steps 3 thru 8 - Para 8-39

8-40. CLOSING LIFERAFT CONTAINER. Close the life raft container as detailed below:

Materials Required

Quantity	Description	Reference Number
As Required	Cord, Nylon, Type III	MIL-C-5040 NIIN 00-240-2146 or equivalent
As Required	Thread, Nylon, Size A, Class A	V-T-295 NIIN 01-174-9604

Support Equipment Required

Quantity	Description	Reference Number
1	Dial Push/Pull Gage 0 to 50 Pounds	DPP-50 (CAGE 11710)

1. Hold folded liferaft as flat as possible and position side flaps over the top of liferaft.

2. Bring front closure flap over top of liferaft.

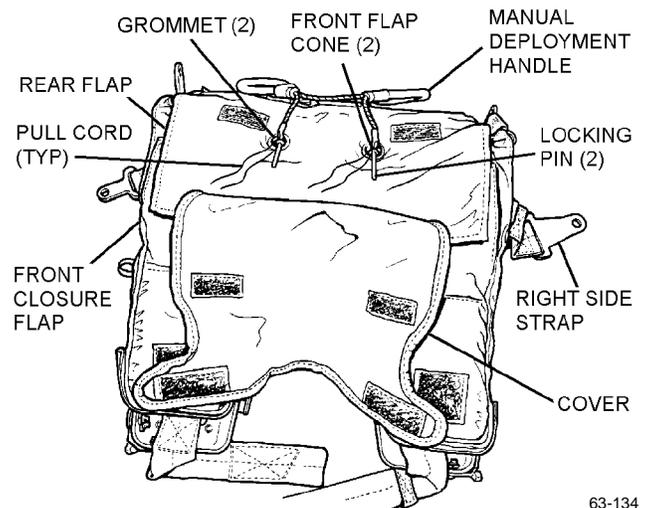
3. Prepare pull cords using two 25-inch lengths of Type III nylon cord. Remove and discard inner strands. Route nylon cord through each cone on front closure flap. Ensure an equal length of cord extends from each side of cone eye.

4. Bring over rear flap and route nylon cord through grommets of rear flap.

NOTE

Illustrations in following steps show use of manual deployment handle pins during closing of liferaft container.

5. Pull cones through grommets of rear flap using nylon cord. Install temporary locking pins in cones or use pins on manual deployment handle assembly.

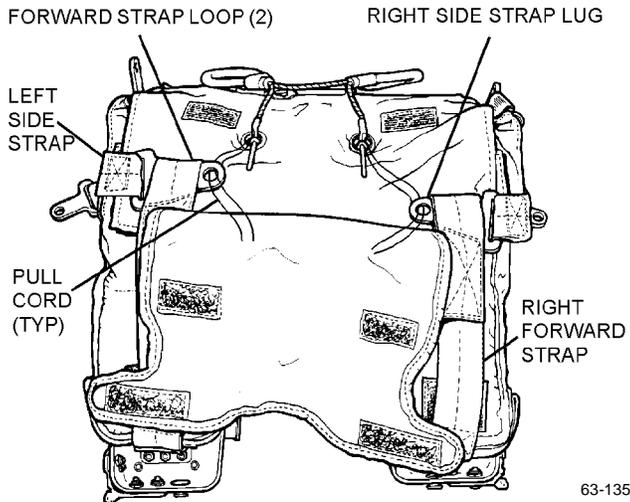


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Step 5 - Para 8-40

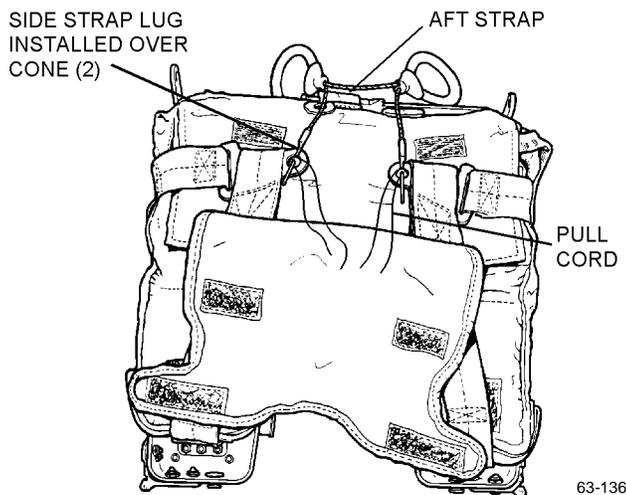
NAVAIR 13-1-6.3-2

6. Bring up left side strap and left forward strap and pass side strap lug through forward strap loop; route pull-cord through hole in side strap lug. Repeat procedure for straps on right side.



Step 6 - Para 8-40

7. Using nylon pull-cord, draw side strap lug into position snug against cone, remove locking pin from cone, pull cone through hole in lug, and reinstall locking pin.



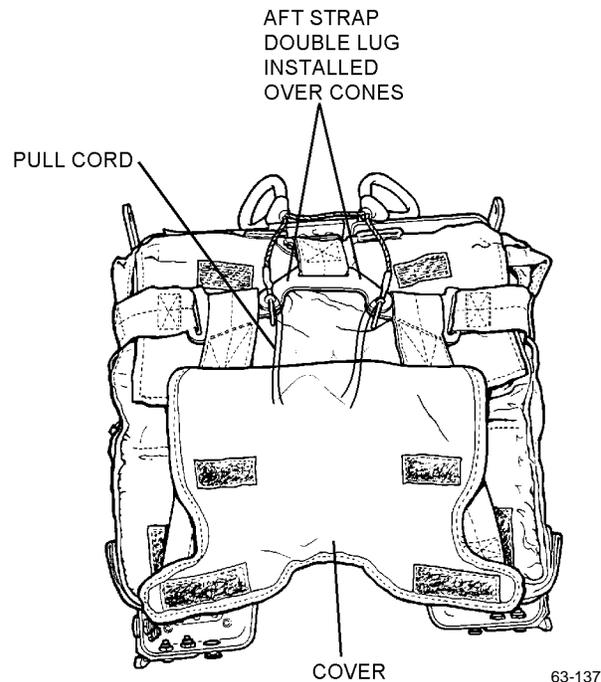
Step 7 - Para 8-40

NOTE

Use same procedure for both left and right side straps

8. Thread nylon cord through holes in rear strap double lug.

9. Using nylon cord, pull up rear strap and install double lug over cones. Remove and reinstall pins one at a time to retain double lug.

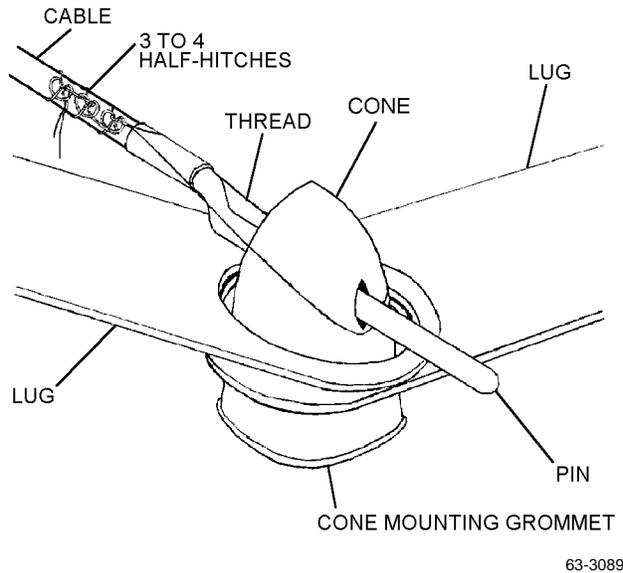


Step 9 - Para 8-40

10. If temporary locking pins were used, replace with pins of manual deployment handle. Remove nylon pull-cords from cones.

11. Using a 0-50-pound spring scale, check for movement of locking pins. Locking pins shall move when pull force, applied in either a right or left direction, is 30 pounds or less. If pull force is outside these limits, recheck packing and position of liferaft and rucksack in survival kit lid. Reinstall manual deployment handle and retest.

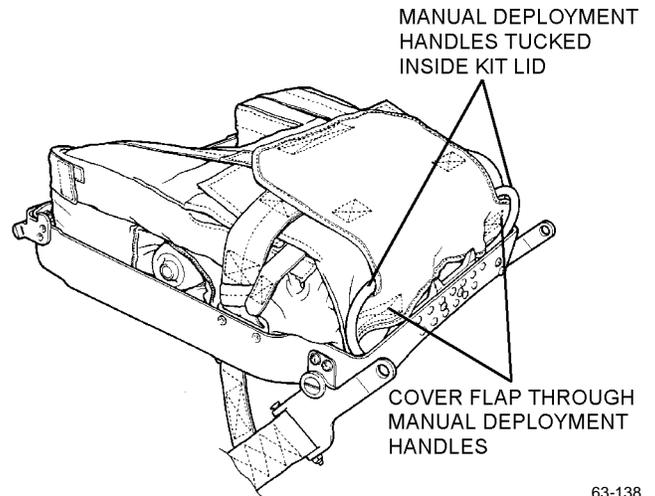
12. Safety tie both pins and cones by passing white thread, size A, single, under pin, around cone then securing thread to ripcord cable with three to four half hitches.



63-3089

Step 12 - Para 8-40

13. Ensure pins are correctly installed, close cover, position manual deployment handle assembly at rear of rucksack, pass corner flaps of cover through handles, and secure cover hook and pile fasteners. Ensure handles are tucked inside lid.



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Step 13 - Para 8-40

Section 8-4. Turnaround/Daily/Preflight/Postflight/Transfer/Special/Conditional Inspection

8-41. GENERAL.

8-42. TURNAROUND/DAILY/PREFLIGHT/POST-FLIGHT/TRANSFER INSPECTIONS. These are visual inspections performed in conjunction with the aircraft inspection requirements for the aircraft in which the survival kit is installed. The inspections shall be performed by line personnel (plane captain) or delegated aircrewmembers who have been

instructed and qualified by the Aviators' Equipment Branch.

8-43. CONDITIONAL INSPECTION. This is an unscheduled inspection required as a result of a specific situation or set of conditions; e.g., hard-landing inspections or any inspection directed by a higher authority that is not ordered in a technical directive.

8-44. SPECIAL INSPECTION. This inspection is performed on in-service survival kits installed in air-

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craft and in ready room issue. The inspection shall be performed at the Organizational Level of maintenance by personnel assigned to the Aviators' Equipment Branch. Completion and date of inspection shall be documented by making necessary entries on appropriate form in accordance with OPNAVINST 4790.2 Series.

8-45. INSPECTION PROCEDURES. Procedures for these visual type inspections are as follows:

1. Seat cushion for torn fabric or stitching, improper alignment on seat and secure fasteners.
2. Lapbelts for frayed or torn webbing, torn stitching, damaged or corroded connectors, adjusters and lid attachment fittings.
3. Lapbelt release assemblies for loose or missing screws and corrosion.
4. Ensure lapbelt attachment fittings have limited rotation (off-aircraft check only).
5. Oxygen/communications hose assembly (including those portions of the hose assembly between the aircraft console, the seat kit lid assembly, and the aircrewman's chest mounted regulator) for secure attachment, positioning of the communication connec-

tion to the 10 o'clock position, deterioration, corrosion, bent electrical connector pins and foreign matter in fittings. External communications lead for secure attachment.

6. Ensure oxygen gage indicates FULL.
7. Manual emergency oxygen actuation handle for security and deterioration.
8. Automatic emergency oxygen lanyard assembly, beacon actuator lanyard assembly, and lower coupling assembly for security of attachment, damage, and/or corrosion.
9. Lid assembly for cracks, breaks, or other obvious damage.

8-46. If discrepancies are found or suspected, Maintenance Control shall be notified.

8-47. Survival kits which do not pass inspection and cannot be repaired in the aircraft shall be removed in accordance with applicable aircraft manual and replaced with a Ready For Issue (RFI) survival kit. Non-RFI survival kits shall be forwarded to the nearest maintenance activity having repair capability for corrective action.

Section 8-5. Acceptance/Phased/SDLM/PDM Inspection

8-48. GENERAL.

8-49. An Acceptance Inspection shall be performed on a survival kit when it is placed into service or at the time a reporting custodian accepts a newly assigned aircraft from any source, and on return of an aircraft from SDLM/PDM or other major D-level rework. The Phased/SDLM/PDM Inspection cycle of the survival kit shall be every 24 months. In no case, however, shall the phased interval exceed 728 days. The battery test inspection cycle for the AN/URT-33A Radio Beacon is dependent upon the type of the battery installed. Refer to NAVAIR 16-30URT33-1 for battery test inspection cycles and requirements. For acceptance inspection purposes, verification of pyrotechnics and configuration is accomplished by visual record examination only. Disassembly beyond the daily inspection requirements of ap-

plicable publications is not required. Activities may elect to increase the depth of inspection if equipment condition, visual external inspection, or record examination indicates such action is warranted.



Ensure that maintenance on survival kit assembly is performed in a properly designated work area. Extreme care should be taken to prevent the survival kit from being damaged. Do not expose to any oily substances. Do not drop or slide on abrasive surfaces or into sharp objects which may puncture, tear, or otherwise damage the rucksack/survival package assembly or liferaft.

8-50. VISUAL INSPECTION. This inspection shall be performed prior to the functional check of the kit. Remove the seat cushion and rucksack and inspect for the following:

1. Seat cushion for stains, torn fabric; torn, loose, or frayed stitching and secure fasteners.
2. Lid assembly for structural damage, corrosion, damaged or deteriorated finish. All lid assembly attaching screws and connectors for disturbed tamper dots.
3. Lapbelts for frayed or torn webbing, torn stitching, damaged or corroded connectors, adjusters and attachment fittings.
4. Lapbelt release assembly for loose or missing screws and corrosion.
5. Lapbelt attachment fittings for limited rotation.
6. Oxygen/communications hose assembly (including those portions of the hose assembly between the aircraft console, the seat kit lid assembly, and the aircrewman's chest mounted regulator) for secure attachment, positioning of the communication connection to the 10 o'clock position, deterioration, corrosion, bent electrical connector pins and foreign matter in fittings. External communications lead for secure attachment.
7. Oxygen cylinder for distortion and chipped paint.
8. Emergency oxygen system for contamination, corrosion, damaged oxygen gage, crimped cable housing.
9. Rucksack assembly for stains, torn stitching, damaged fabric, damaged or worn eyelets and locking cones, slide fastener for corrosion and damage.
10. Drop line for fraying and contamination. Measure length of dropline. Length of dropline shall be 26 feet 4 inches ± 12 inches.
11. Manual deployment handle assembly for security of cables and pins, and for cuts and breaks. If cuts, abrasions, or breaks are superficial (no deeper than 0.065 inch, not longer than 1/2 inch), handle assembly is acceptable for installation. If cuts, breaks, or abrasions in the rubber expose underlying metal, replace handle assembly. Check security of yellow deployment handles.
12. Strap assemblies for frayed or torn webbing, torn stitching, damaged or loose eyelets and corroded fittings.

13. Automatic emergency oxygen lanyard assembly, beacon actuator assembly, and lower coupling assembly for security of attachment, damage, and/or corrosion

8-51. FUNCTIONAL CHECK. The functional check shall be performed any time a kit is placed in service, after any adjustment procedures, or when equipment condition, visual external inspection, or record examination indicates such action is warranted to determine the condition of kit.

Materials Required

Quantity	Description	Reference Number
As Required	Leak Detection Compound, Type I	MIL-L-25567
As Required	Cord, Nylon, Type III	MIL-C-5040 NIIN 00-240-2146
As Required	Lint-free Cloth	MIL-C-85043 NIIN 00-044-9281

Support Equipment Required

Quantity	Description	Reference Number
1	Test Stand	59A120 (CAGE 02551) or 31TB1995-1 (CAGE 99251)
1	Dial Push/Pull Gage, 0-50 Pounds	DPP-50
1	Pin Punch, 3/32 inch	—



Discontinue functional test if seat kit fails to pass any steps of test procedures. Repair malfunction before continuing procedures, or damage to seat kit may result. After repair, entire test procedure shall be performed.

NOTE

Performance of the test stand (figure 8-7) is dependent upon the skill of the operator. Test stand operators shall be thoroughly familiar with the instruments, controls

NAVAIR 13-1-6.3-2

and connections of the systems incorporated in the test stand. Refer to NAVAIR 17-15BC-20 and NAVAIR 13-1-6.4-4 for details of operation of the 59A120 or 31TB1995 series liquid oxygen test stands.

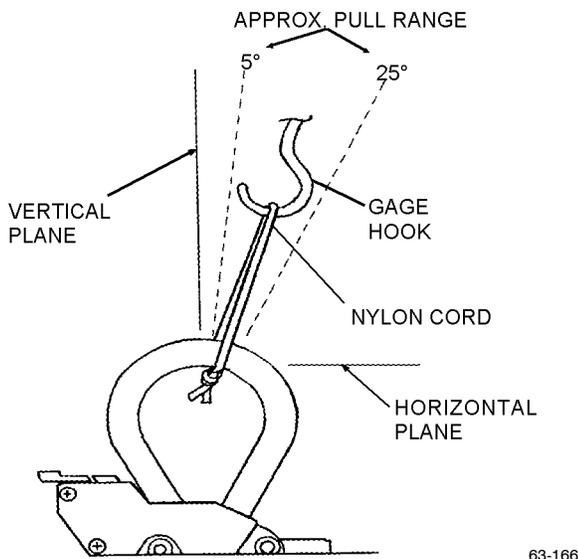
Emergency oxygen cylinder pressures used in this functional test were determined under ideal shop conditions of 70°F (21°C). Variations in ambient air temperature directly affect charging pressures. Refer to [table 8-5](#) for details.

Ensure that emergency oxygen cylinder is filled to 1800-2000 psi.

1. Remove bell jar and connect oxygen outlet hose of survival kit to fitting C-1 on test stand. Ensure that valve V-2 is open and all other test stand valves are closed ([figure 8-7](#)).

2. Thread approximately 10 inches of nylon cord through the manual emergency oxygen actuation handle and tie ends together.

a. Insert hook of push/pull gage in loop formed by nylon cord and pull at a 5 to 25 degree angle from the vertical plane toward rear of survival kit.



Step 2a - Para 8-51

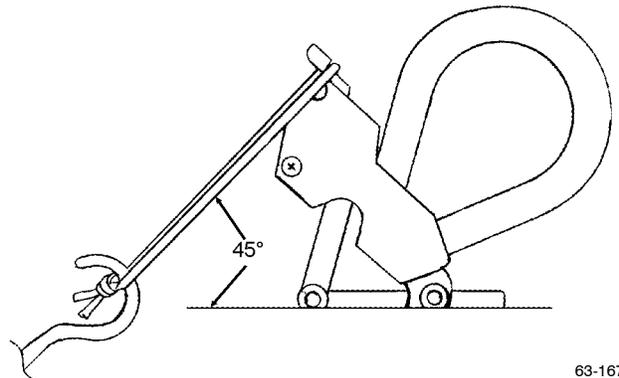
b. Measure force required to actuate manual oxygen actuation handle. Force required shall be 15 to 30 pounds. The emergency oxygen system shall actuate and indicate 30 to 90 psi on test stand gage PG-1.

3. Remove push/pull gage and nylon cord from manual actuation handle.

4. Using the 10-inch length of cord, form a loop using a binder knot and place loop over the push button arm (thumb lever) of the emergency oxygen manual actuation handle.

a. Position lid assembly on table with manual emergency oxygen actuation handle along the edge of the table.

b. Insert hook of push/pull gage in nylon cord loop placed over thumb lever of manual actuation handle and pull down and forward at about 45° angle.



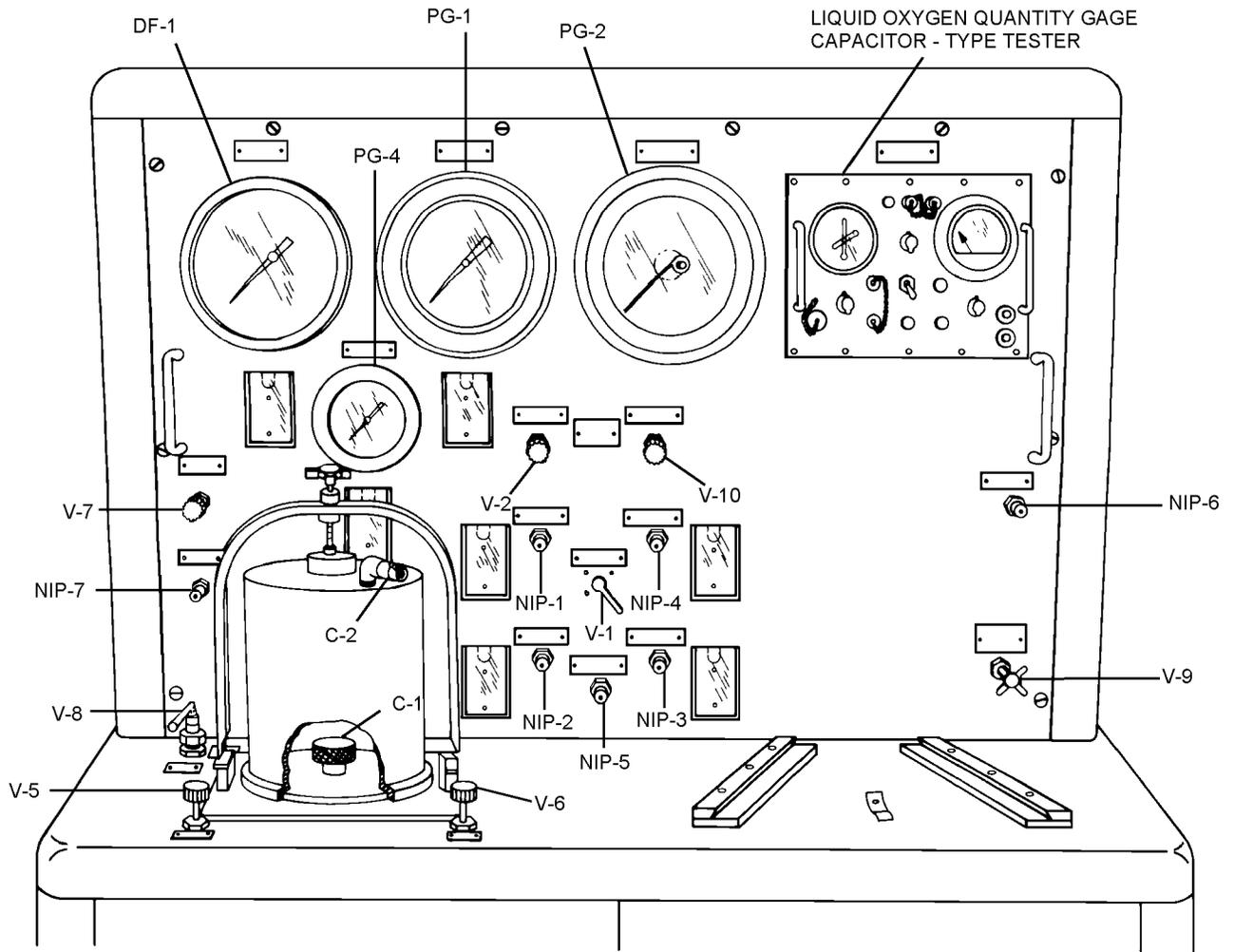
Step 4b - Para 8-51

c. Measure force required to reset manual oxygen handle using ON-OFF mechanism. Force required shall be 15 to 30 pounds.

d. Remove gage and nylon cord loop.

5. Turn on test stand oxygen supply cylinder.

6. Slowly open valve V-6 on test stand and adjust pressure on gage PG-1 to 90 psi.



- | | | | |
|-------|--|------|--|
| C-1 | BELL JAR BOTTOM COUPLING | PG-2 | FLOWMETER INDICATOR GAGE |
| C-2 | BELL JAR TOP COUPLING | PG-4 | 0 - 15 PSIG LOW PRESSURE TEST GAGE |
| DF-1 | 0 - 100" H ₂ O DIFFERENTIAL PRESSURE GAGE | V-1 | FLOWMETER SELECTOR GAGE |
| NIP-1 | 0 - 0.25 LPM FLOWMETER CONNECTION | V-2 | TEST PRESSURE GAGE TO BELL JAR VALVE |
| NIP-2 | 0 - 1 LPM FLOWMETER CONNECTION | V-5 | SYSTEM BLEED VALVE |
| NIP-3 | 0 - 50 LPM FLOWMETER CONNECTION | V-6 | OXYGEN SUPPLY VALVE |
| NIP-4 | 0 - 150 LPM FLOWMETER CONNECTION | V-7 | DIFFERENTIAL PRESSURE BLEED VALVE |
| NIP-5 | CONVERTER SUPPLY OUTLET CONNECTION | V-8 | DIFFERENTIAL PRESSURE SHUT-OFF VALVE |
| NIP-6 | SUPPLY TO CONVERTER CONNECTION | V-9 | CONVERTER SUPPLY FLOW CONTROL VALVE |
| NIP-7 | DIFFERENTIAL PRESSURE GAGE CONNECTION | V-10 | TEST PRESSURE GAGE BUILD-UP AND FLOW VALVE |
| PG-1 | 0 - 160 PSIG TEST PRESSURE GAGE | | |

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Figure 8-7. Test Stand Model 59A120

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7. Actuate manual emergency oxygen actuation handle.

NOTE

Any degree of leakage in the oxygen system requires corrective maintenance.

8. Use leak detection compound to check all pressure lines and fittings on survival kit to ensure no leakage.

9. Reset manual oxygen actuation handle.



Do not increase pressure above 150 psi when unseating relief valve.

NOTE

Unseating can be determined by listening and observing pressure test gage PG-1 on test stand.

10. Using valve V-6, increase pressure until relief valve unseats.

NOTE

Pressure may be reduced below opening (unseating) pressure of the relief valve by closing valve V-6 and opening valve V-5.

11. Repeat step 10 several times to establish a correct pressure.

12. Relief valve shall unseat at 120 to 140 psi when pressure is increased and reseat at 110 psi minimum when pressure is decreased. Once relief valve is resealed, observe test pressure gage PG-1 to ensure that there is no indication of leakage (pressure drop).

13. Use leak detection compound to check relief valve for leaks. No leakage is allowed.

14. Close valve V-6 and bleed oxygen pressure from system by opening valve V-5. All pressure is bled when gage PG-1 indicates zero psi.

15. Close valve V-5.

16. Make sure valve V-2 is opened and all other test stand valves are closed.

17. If connected, disconnect beacon actuating lanyard from cable to lanyard assembly.

18. Attach push/pull gage to cable of automatic oxygen actuating lanyard assembly.

19. Position lid assembly so pull force can be applied to the automatic oxygen actuating lanyard in a downward direction to simulate ejection seat egress movement.

20. Measure force required to disengage automatic oxygen actuating lanyard assembly. Force required shall be 20 to 40 pounds, the emergency oxygen system shall actuate, and pressure test gage PG-1 shall indicate 30 to 90 psi.

21. Reset automatic actuation mechanism as follows:

a. Insert a 3/32-inch pin punch into the slot in cover of automatic emergency oxygen actuation mechanism and push slide forward (toward front of seat kit). Remove pin punch.

b. Insert ball end of emergency actuating lanyard into hole in front of release mechanism and push slide back.

c. Remove cap and reset cam mechanism through hole in lid by inserting screwdriver and pushing down to reset.

d. Reinstall cap

e. Visually check to insure swagged ball is seated properly in the automatic release slide while applying a slight pull on the cable-to-lanyard assembly to assure positive engagement.

22. Open valve V-5. Ensure that all other test stand valves are closed.

23. Actuate manual oxygen actuation handle assembly to ensure positive flow through valve V-5. Reset manual oxygen actuation handle.

24. Open valve V-8.

25. Slowly close valve V-5 while observing gage DF-1.

NOTE

Observe gage DF-1 for two minutes to ensure no leakage. Any pressure rise indicates leakage in the reducer valve seat and requires corrective maintenance.

26. Close valve V-8, open valve V-5, and disconnect oxygen outlet hose from fitting C-1.

27. Ensure all valves on test stand are secured.

28. Connect oxygen outlet hose to fitting NIP-6. Ensure that valve V-10 is open and all other test stand valves are closed.

29. Connect test stand hose to fittings NIP-5 and NIP-4.

30. Turn valve V-1 to NIP-4 position.

31. Ensure kit oxygen cylinder contains 1800 to 2000 psi oxygen pressure.

32. Pull manual oxygen actuation handle. Oxygen pressure on gage PG-1 shall indicate 30 to 90 psi.

33. Slowly open valve V-9 to indicate 90 LPM on flowmeter gage PG-2. Oxygen pressure shall indicate 30 to 90 psi on gage PG-1.

NOTE

When needle of kit cylinder pressure gage is between letters E and F of REFILL, pressure in cylinder is approximately 250 psi.

34. Observe kit emergency oxygen pressure gage and allow system pressure to decrease to 250 psi while maintaining 90 LPM and 30 to 90 psi.

35. Close valve V-9.

36. With zero pressure indicated on gage PG-2, pressure indicated on gage PG-1 shall be 30 to 90 psi.

37. Reset manual oxygen actuation handle to OFF position.

38. Bleed oxygen pressure from system by opening valves V-5 and V-2. All pressure is depleted when gages PG-1 and PG-4 indicate zero (0) psi.

39. Disconnect kit from test stand.

40. Secure test stand.

41. All areas where leak detection compound was applied shall be wiped thoroughly clean. Dry with lint-free cloth, filtered low pressure compressed air, or low pressure nitrogen.

42. Recharge emergency oxygen cylinder to 1800 to 2000 psi oxygen pressure in accordance with [paragraph 8-52](#).

43. Perform electrical check of oxygen and communications hose assembly in accordance with NAVAIR 13-1-6.3-1. Check all elements of the hose assembly between the aircraft console, ejection seat survival kit assembly, and the aircrewman's chest mounted oxygen regulator.

8-52. PURGING AND CHARGING. Purge and charge the emergency oxygen cylinder as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Nitrogen, Type I, Class 1, Grade B	BB-N-411
As Required	Aviators Breathing Oxygen, Type I	MIL-O-27210
As Required	Leak Detection Compound, Type I	MIL-L-25567
As Required	Lint-free Cloth, Type II	MIL-C-85043 NIIN 00-044-9281

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Support Equipment Required

Quantity	Description	Reference Number
1	Adapter Set, Filler Valve or	T186C100-1 (CAGE 30941)
1	Adapter, Filling	21000-T130-1 (CAGE 53655)
1	Oxygen Purging Electric Heater or equivalent	C5378 (CAGE 96787)
1	Pressure Regulator	MIL-R-9198A

WARNING

Maintenance of emergency oxygen system shall be performed only after removal of survival kit from aircraft.

1. If survival kit has not been removed from the aircraft, remove kit from the aircraft in accordance with applicable maintenance manual prior to performing any maintenance on kit's emergency oxygen system.
2. Remove cushion assembly from survival kit assembly.

WARNING

If necessary to release pressure in oxygen bottle before purging or filling, pull emergency oxygen lanyard. This releases pressure through reducer/manifold. Do not release pressure through filler valve or adapter. Releasing high pressure oxygen through restriction of filler valve causes heat, possibly resulting in fire or explosion.

NOTE

Use of filling adapter on SKU-10/A survival kit is optional.

3. Remove plug and filler valve cap assembly and connect filling adapter to filler valve (figure 8-8).

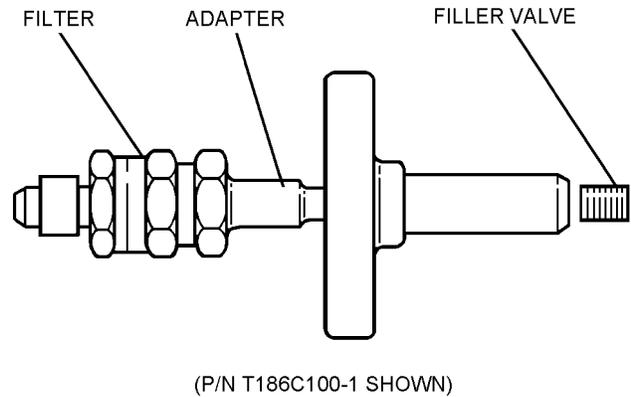


Figure 8-8. Filling Adapter

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NOTE

If the emergency oxygen system is contaminated, or the cylinder has remained empty for more than 2 hours, forward seat pan to AIMD for required purging. If the system or cylinder does not require purging, proceed to step 11 for charging sequence.

4. Deplete emergency oxygen cylinder if necessary.
5. Connect nitrogen source to filling adapter and close pressure reducer.

NOTE

If relief valve on Oxygen Purging Electric Heater will not allow 100 psi, raise pressure only to allowable limit.

6. Slowly pressurize to 100 psi with nitrogen at a temperature of 110 to 130°C (230 to 266°F) using electric heater.
7. Turn off nitrogen source and deplete oxygen cylinder.
8. Repeat steps 6 and 7 twice.
9. With pressure reducer open, turn on nitrogen source and purge for 10 minutes at a temperature of 110 to 130°C (230 to 266°F).
10. Turn off nitrogen source and disconnect.
11. Connect oxygen source to filling adapter with suitable pressure regulator and shut-off valve. Reset ON/OFF or lanyard activation mechanism as appropriate.

WARNING

Observe filling stages, as rapid application of oxygen pressure creates heat which may result in fire or explosion.

Allow no less than 3 minutes for each filling stage and 2 minute intervals for cooling between stages.

12. Slowly pressurize to 100 psi.

13. Deplete cylinder to 50 psi.

NOTE

(AIMD Only) If kit is to be stored, the emergency oxygen bottle shall be depleted, or filled, to 200 PSI (when needle on gage bisects E of REFILL). For shipping, fill to 25 PSI using the pressure gage on the oxygen refill cylinder.

14. Charge emergency oxygen system in stages in accordance with table 8-4 until pressure gage indicates correct pressure for existing ambient temperature (table 8-5).

15. Loosen oxygen filler adapter until all pressure is bled from high-pressure line. Remove filling adapter.

WARNING

Compound which is not clear and free from suspended material/sediment is considered contaminated and shall be disposed of. Also compound exhibiting peculiar odors such as acetone or alcohol is considered contaminated and shall be disposed of.

NOTE

Alternate Fill Valve P/N 9120097-27 is coreless and has a maximum leakage rate of 1 cc/hr. This will be evident by very tiny bubbles passing through the top of the valve when leak detection compound is applied level to top rim. No leaks around threads are acceptable. If large bubbles are evident, contact survival kit FST for disposition.

16. Examine leak detection compound then apply around connection points of oxygen gage, reducer, and filler valve. Check for leaks. Then thoroughly wipe clean and dry with lint-free cloth, filtered low-pressure compressed air, or low pressure oxygen.

17. Reinstall oxygen filler valve cap on filler valve. Filler valve cap should be hand tight only.

18. Reinstall plug and filler valve cap assembly.

19. Reinstall cushion assembly on survival kit.

20. If survival kit assembly was removed from aircraft in step 1, reinstall survival kit in accordance with applicable maintenance manual.

Table 8-4. Charging Stages

Stage	PSI
1	500
2	1000
3	1500
4	1800
5	2000

Table 8-5. Ambient Air Temperature Vs Charging Pressures

Ambient Air Temperature		Charging Pressure
°F	°C	PSI
0	-18	1550-1750
10	-12	1600-1775
20	-7	1625-1800
30	-1	1675-1850
40	5	1700-1875
50	10	1725-1925
60	16	1775-1975
70	21	1800-2000
80	27	1825-2050
90	32	1875-2075
100	38	1900-2125
110	43	1925-2150
120	49	1975-2200
130	54	2000-2225

Section 8-6. Maintenance

8-53. GENERAL.

WARNING

Keep working area clean and free from oil, grease and dirt. Do not attempt to perform any component removal with the oxygen system pressurized.

Ensure that maintenance on survival kit assembly is performed in a properly designated work area. Extreme care should be taken to prevent the survival kit from being damaged. Do not expose to any oily substances. Do not drop or slide on abrasive surfaces or into sharp objects which may puncture, tear, or otherwise damage the survival package assembly or liferaft.

8-54. This section contains procedures for troubleshooting, disassembly, cleaning, inspection of disassembled parts, repair or replacement of parts, assembly, and adjustment. Disassemble only to extent required to perform task. Work shall be performed in a clean, dust- and grease-free area.

8-55. TROUBLESHOOTING.

8-56. When malfunctions or other operating problems are encountered, locate probable cause and remedy using [table 8-6](#).

8-57. DISASSEMBLY.

8-58. UNPACKING SURVIVAL KIT. Refer to [figure 8-9](#) and unpack survival kit as follows:

1. Remove oxygen/communications lead assembly. Install dust covers on lead assembly and kit connectors.

1A. Disconnect beacon radio lanyard from radio (not pictured).

2. Place kit upside down on table, rear of kit toward packer.

3. Separate hook and pile fasteners (1) and lift cover flap (2) enclosing manual deployment (yellow) handles (8).

4. Carefully withdraw closure pins (6) from cones (7) of front closure flap (3) and remove manual deployment handles (8).

5. Remove side strap lugs (LH/RH) (5) from front closure flap cones and front strap loops.

6. Remove aft strap double lug (9) from cones (7) and open rear, front and side closure flaps to expose liferaft.

CAUTION

Use caution when removing liferaft from kit to ensure that inflation valve is not inadvertently actuated causing inflation of liferaft.

7. Carefully remove liferaft from rucksack.

8. Remove thread safety tie and disconnect valve actuating line from actuating valve pull cable loop.

9. Remove 6-cord safety tie and disconnect drop-line from CO₂ cylinder neck.

10. Release hook and pile fastener on survival items stowage pockets, fold flap downward and open zip fastener.

11. Remove survival items from stowage and disconnect retaining line from loop in center of rucksack.

12. Remove rucksack from kit lid assembly.

8-59. SURVIVAL KIT DISASSEMBLY. Disassemble survival kit in the order indicated, using index numbers in [figure 8-9](#) as reference.

Table 8-6. Troubleshooting

Trouble	Probable Cause	Remedy
Low or zero indication.	System empty.	Charge system (paragraph 8-52).
	Defective gage.	Replace gage.
	Leaking components.	Tighten connections or replace.
Oxygen system output pressure not within 30 to 90 psig limits.	Defective pressure reducer.	Replace reducer.
	Pressure reducer out of adjustment.	Adjust reducer (paragraph 8-97).
Relief valve leaking.	Dirty or defective relief valve.	Replace relief valve.
	Defective quadring.	Replace relief valve.
Relief valve does not unseat within tolerance of 120 to 140 psi when simulated pressure is applied during test.	Defective relief valve.	Replace relief valve.
No oxygen flow at kit-to-man hose from aircraft system (emergency oxygen system not actuated).	Defective outlet manifold.	Replace outlet manifold.
No oxygen output pressure with pressure reducer actuated.	Defective oxygen gage.	Replace gage and charge cylinder.
	Foreign matter in output flow path.	Bleed system, disassemble, clean, purge and recharge (paragraph 8-52).
	Weak or broken spring in pressure reducer.	Replace reducer (paragraph 8-88).
	Pressure reducer out of adjustment.	Adjust (paragraph 8-97).
Pulsating pressure at outlet port.	Pressure reducer out of adjustment.	Adjust (paragraph 8-97).
Oxygen system leaking; low pressure side of reducer.	Loose Fittings.	Tighten as required.
Oxygen system leaking; high pressure side of reducer.	Defective O-ring or backup ring.	Replace reducer.
Pressure reducer will not shut off.	Defective pressure reducer.	Replace reducer.
Manual emergency oxygen does not actuate (Pull up) or reset (Push down) within a tolerance of 15 to 30 pounds.	Crushed cable/conduit assy.	Replace cable/conduit assy.
No oxygen flow at kit-to-man hose when emergency oxygen system is actuated by automatic lanyard.	Automatic actuation cable pulls free of release assembly before reducer is actuated.	Adjust emergency oxygen automatic actuation assembly (paragraph 8-98).
Unable to obtain proper adjustment of lapbelt assembly.	Faulty lapbelt adjuster.	Inspect/replace lapbelt adjuster (paragraph 8-77).

Table 8-6. Troubleshooting (Cont)

Trouble	Probable Cause	Remedy
Unable to obtain proper adjustment of lapbelt assembly. (cont)	Improper routing of webbing.	Disassemble lapbelt assembly (paragraph 8-77) and reassemble correctly.
	Dirt/grease on slides.	Disassemble lapbelt assembly (paragraph 8-77) and clean slides using clean, dry cloth. Reassemble lapbelt adjuster.
Loss of aircraft communications.	Broken or misaligned pins and sockets in hose connectors.	Perform electrical check (NAVAIR 13-1-6.3-1). Replace oxygen/communication hose assembly as required.
	Open or short circuit in oxygen hose wiring.	
Pull force to deploy kit is not within a tolerance of 20 ± 10 lbs.	Survival kit not properly packed.	Repack survival kit.
	Heavily burred release pin.	Replace manual deployment handle assembly.

NOTE

Discard all O-rings, cotter pins, seals, and teflon tape from oxygen connections during disassembly.

Support Equipment Required

Quantity	Description	Reference Number
1	Drive Pin Punch, 1/16 inch	—

8-60. Determine area of malfunction using [table 8-6](#) and disassemble only to the extent required to adjust or replace malfunctioning component.

1. Actuate emergency oxygen actuation handle (10) to discharge the cylinder as required.

NOTE

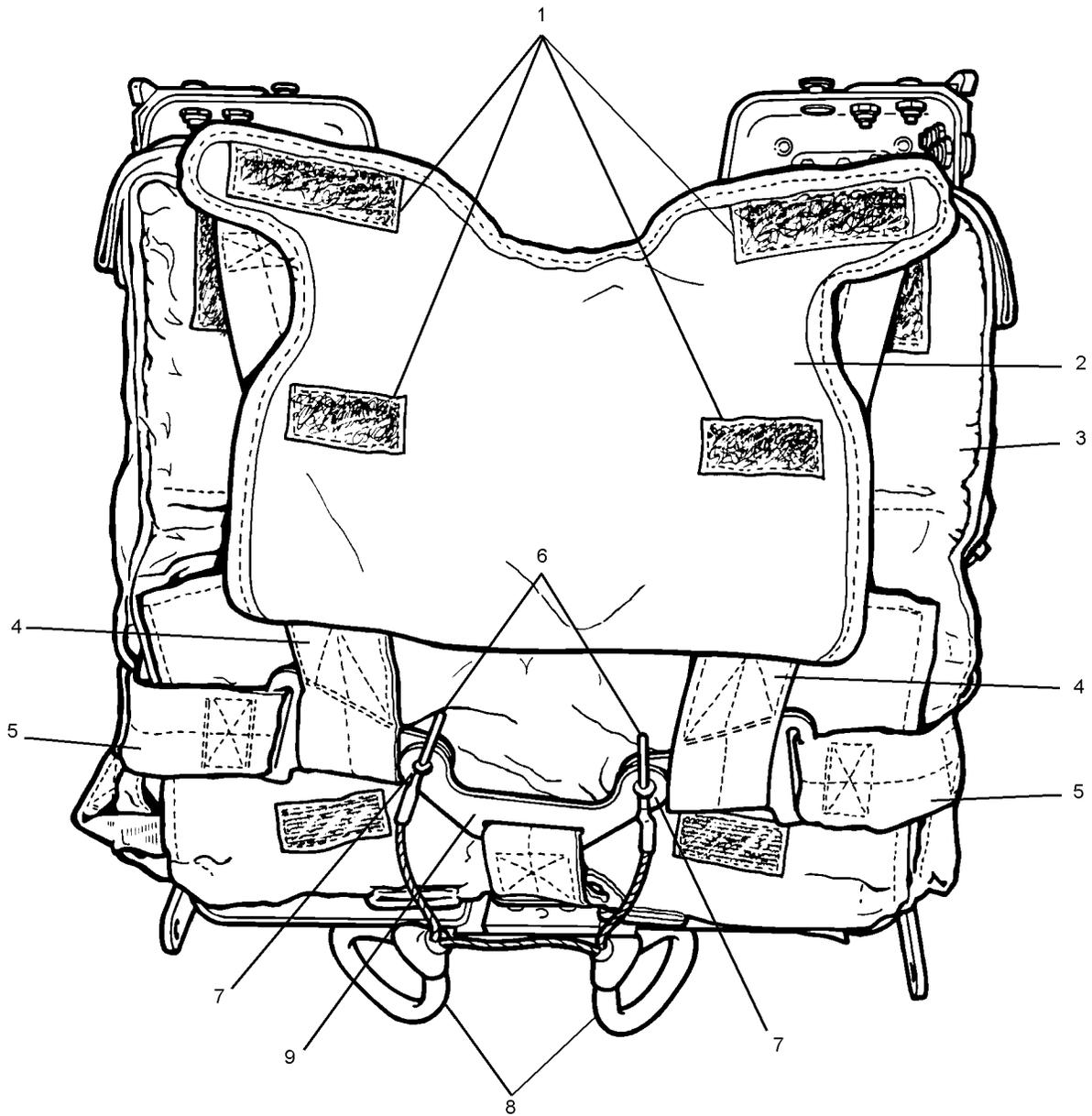
If the cylinder is completely discharged, it may require purging prior to charging. Refer to [paragraph 8-52](#).



Do not use oil or any material containing oil in conjunction with oxygen equipment. Oil, even in minute quantities, coming in contact with oxygen can cause explosion or fire. Dust, lint and fine metal particles are also dangerous.

2. Pull and remove automatic actuating lanyard assembly (11).
3. Remove filler valve plug and cap assembly (12).
4. Remove four attaching screws (13), washers (14) and cap nuts (15) and remove pressure reducer assembly cover (16) from lid assembly.

8-61. LID ASSEMBLY. Refer to [figure 8-9](#) and disassemble lid assembly as follows:



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Figure 8-9. SKU-10/A Seat Survival Kit Components (Sheet 1 of 4)

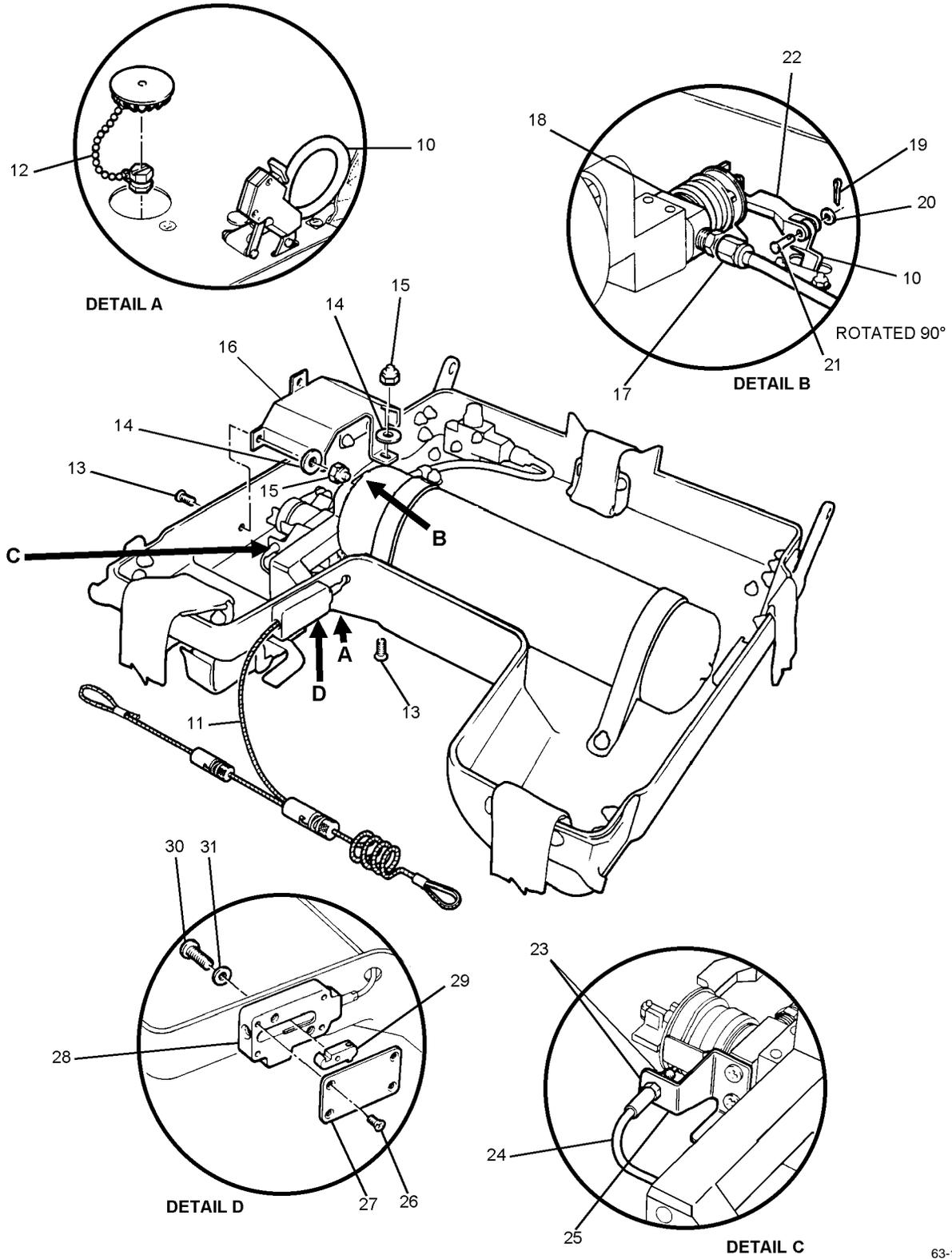
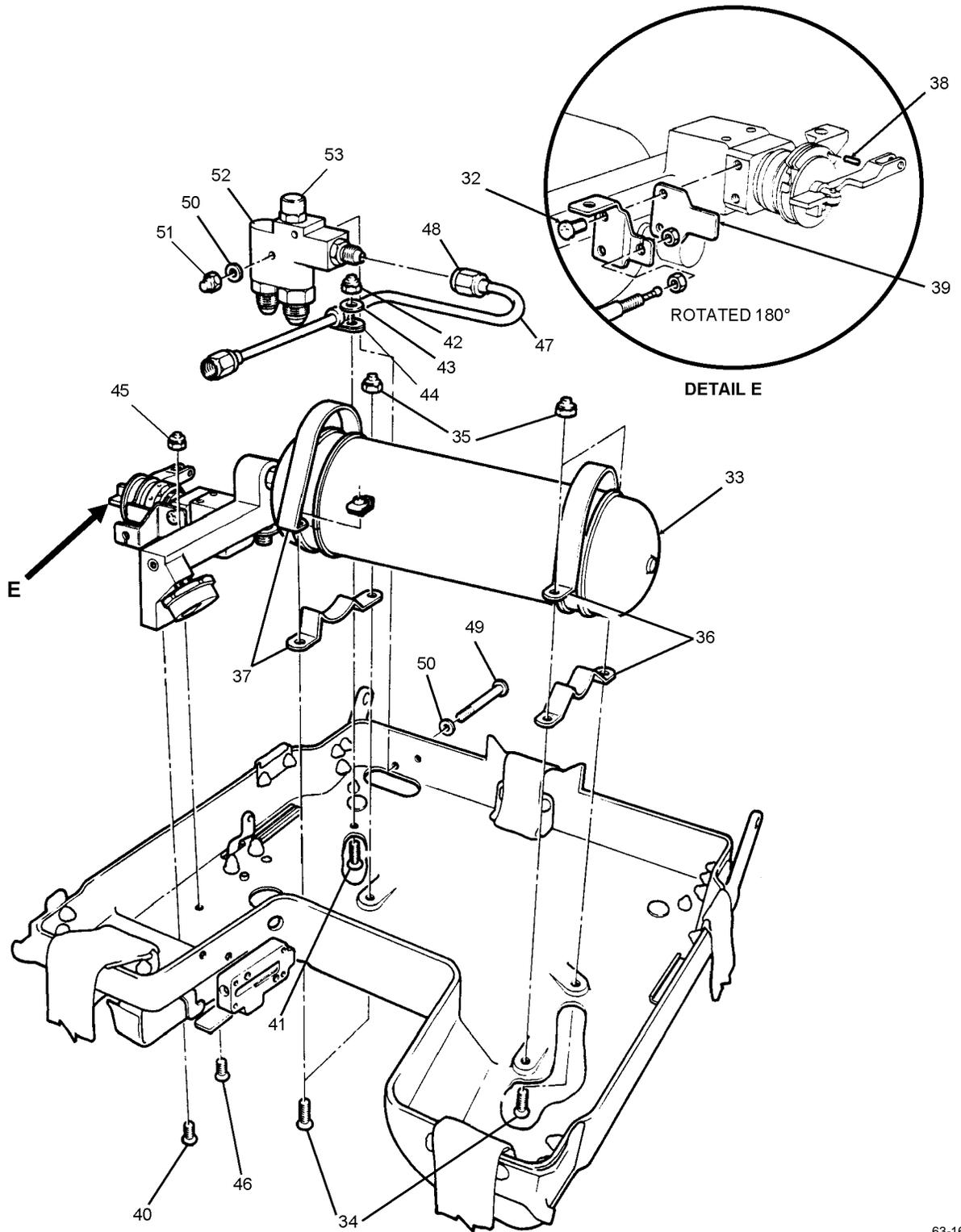


Figure 8-9. SKU-10/A Seat Survival Kit Components (Sheet 2 of 4)



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Figure 8-9. SKU-10/A Seat Survival Kit Components (Sheet 3 of 4)

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- | | |
|--|---|
| 1. HOOK AND PILE FASTENER | 27. COVER, AUTOMATIC RELEASE ASSEMBLY |
| 2. COVER FLAP | 28. HOUSING, AUTOMATIC RELEASE ASSEMBLY |
| 3. FRONT CLOSURE FLAP | 29. SLIDE, AUTOMATIC RELEASE ASSEMBLY |
| 4. FORWARD STRAP ASSEMBLY | 30. SCREW |
| 5. SIDE STRAP ASSEMBLY | 31. WASHER |
| 6. CLOSURE PINS | 32. SCREW |
| 7. CONES, FRONT CLOSURE FLAP | 33. EMERGENCY OXYGEN CYLINDER ASSEMBLY |
| 8. MANUAL DEPLOYMENT HANDLES | 34. SCREW |
| 9. AFT STRAP DOUBLE LUG ASSEMBLY | 35. CAPNUT |
| 10. EMERGENCY OXYGEN MANUAL ACTUATION HANDLE | 36. CYLINDER CLAMP ASSEMBLY |
| 11. AUTOMATIC ACTUATING LANYARD | 37. CYLINDER CLAMP ASSEMBLY |
| 12. PLUG AND CAP ASSEMBLY | 38. SPRING PIN |
| 13. SCREW | 39. CANTILEVER SPRING |
| 14. WASHER | 40. SCREW |
| 15. CAP NUT | 41. SCREW |
| 16. COVER | 42. CAPNUT |
| 17. NUT, LOW PRESSURE TUBE UNION | 43. WASHER |
| 18. PRESSURE REDUCER ASSEMBLY | 44. CLAMP |
| 19. COTTER PIN | 45. CAPNUT |
| 20. WASHER | 46. SCREW |
| 21. PIN, STRAIGHT (THREADED) | 47. LOW PRESSURE TUBE ASSEMBLY |
| 22. SEAR | 48. NUT, LOW PRESSURE TUBE UNION |
| 23. NUT, SPECIAL RETAINER | 49. BOLT |
| 24. CONDUIT, AUTOMATIC ACTUATION | 50. WASHER |
| 25. CONDUIT BRACKET | 51. CAPNUT |
| 26. SCREW | 52. LOW PRESSURE MANIFOLD |
| | 53. RELIEF VALVE |

INDEX LEGEND

Figure 8-9. SKU-10/A Seat Survival Kit Components (Sheet 4 of 4)

5. Disconnect low pressure tube union nut (17) from pressure reducer (18).
6. Remove cotter pin (19), washer (20) and threaded pin (21) connecting pressure reducer sear (22) to emergency oxygen actuation handle assembly (10).
7. Loosen, but do not remove, retention nuts (23) securing automatic actuation conduit assembly (24) to conduit bracket (25).
8. Remove four attaching screws (26) from automatic release housing cover (27) and remove cover and slide (29) from housing (28).
9. Remove two attaching screws (30) and washers (31) which secure automatic release housing (28) to lid assembly.

CAUTION

On completion of the following step, the emergency oxygen system will no longer be fastened to the lid assembly. Any undue movement of the oxygen system may damage the automatic actuation conduit.

10. Remove conduit bracket screws (32), manifold screw (40), and four cylinder clamp screws (34) and cap nuts (35) from clamps (36) and (37).
11. Remove conduit bracket screw (46) and cap nut (45).
12. Carefully move oxygen cylinder assembly (33) so automatic release housing (28) can be removed from conduit (24) and lid assembly.

CAUTION

The pressure reducer assembly (18) shall not be disassembled. A malfunctioning reducer shall be replaced if malfunction cannot be corrected by adjustment.

13. Remove oxygen cylinder assembly (33) from the lid assembly.
14. Using a 1/16-inch pin punch, remove spring pin (38) retaining automatic actuation cable in reducer automatic actuation cam.

15. Remove automatic actuation conduit special retaining nuts (23).
16. Remove automatic actuation conduit assembly (24).
17. Remove conduit bracket (25) and cantilever spring (39).
18. Remove screw (41), washer (43) and cap nut (42) from clamp (44) securing low pressure tube assembly (47) to lid assembly.
19. Disconnect low pressure tube assembly union (48) and remove tube assembly (47).
20. Remove two attaching bolts (49), washers (50) and cap nuts (51) and remove low pressure manifold (52) from lid assembly.

8-62. CLEANING.

8-63. To clean the disassembled oxygen and non-oxygen components of the kit (except for cushions and fabric components) refer to NAVAIR 13-1-6.4-1.

8-64. Seat Cushions and Fabric Components. Clean seat cushions and all fabric components as follows:

Materials Required		
Quantity	Description	Reference Number
As Required	Cleaning Compound	MIL-C-25769
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

NOTE

If using cleaning compound (MIL-C-25769) combine one part compound with three parts water. If using general purpose detergent, follow the instructions on the container.

1. Prepare detergent or cleaning compound (MIL-C-25769) solution.
2. Apply solution to soiled area with spray or sponge.

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3. Allow solution to remain on surface for a few minutes, then scrub with soft brush or cloth.

4. Rinse surface thoroughly with water; wipe with cloth or sponge.

5. Repeat [steps 1 thru 4](#) until material is clean.

6. Repeat [step 4](#) until material is free of all solution.

7. Allow material to dry thoroughly.

NOTE

If survival kit seat cushion cover can not be thoroughly cleaned using above instructions, replacement of cushion top cover panel is authorized on a one-time only basis for each seat cushion assembly. Refer to [paragraph 8-75](#) for replacement instructions.

8-65. INSPECTION.

8-66. SURVIVAL ITEMS. Inspect in accordance with NAVAIR 13-1-6.5, Rescue and Survival Equipment, and NAVAIR 13-1-6.7-2, Aircrew Personal Protective Equipment (Clothing).

8-67. DISASSEMBLED PARTS. Inspect disassembled parts as detailed in [table 8-7](#).

8-68. REPAIR AND REPLACEMENT.

8-69. Repair of individual components within any assembly is authorized only in accordance with procedures outlined in this manual. All authorized repairs shall be documented by making necessary entries on appropriate form in accordance with OPNAVINST 4790.2 Series.

8-70. All individual components that fail to pass inspection shall be replaced except where repair procedure is indicated. Refer to source code listing (SM&R code) in the [Numerical Index](#) of the Illustrated Parts Breakdown to aid in determining replaceable components. All adjustable components and other assemblies that fail to pass respective tests and cannot be adjusted to meet required specifications shall be replaced.

8-71. SEAT CUSHION ASSEMBLY - REPAIR AND REPLACEMENT. Repair/replace the seat cushion as follows:

8-72. Removal.

1. Disconnect front snap fasteners by lifting at top edge and pulling away (Pull-the-Dot type snap fastener).

2. Disconnect aft snap fasteners by lifting at aft edge and pulling away (Pull-the-Dot type snap fastener).

3. Pull radio beacon antenna from fabric channel on underside of cushion and remove cushion from aircraft.

4. Inspect replacement cushion for damage, fraying and security of snap fasteners.

8-73. Repair. General repair of cushion assembly is limited to sewing loose or open seams, broken stitches and small rips and tears. Replacement of top cover panel of seat cushion is authorized one time only for each seat cushion assembly in accordance with [paragraph 8-75](#).

8-74. Installation.

1. Insert radio beacon antenna into fabric channel on underside of cushion.

2. Make sure antenna does not become dislodged from beacon and position cushion on lid assembly.

3. Engage front edge of aft snap fasteners and press down to engage. Lift gently to check proper connection.

4. Engage lower edge of front snap fasteners and press down to engage. Lift gently to check proper connection.

8-75. REPLACEMENT OF SEAT CUSHION COVER TOP PANEL. Replacement of seat cushion is authorized one time only for each seat cushion assembly as follows:

Materials Required		
Quantity	Description	Reference Number
As Required	Cloth, Type II, Class 1, Color USAF 1590 Sage Green	MIL-C-83429 NIIN 00-147-2064

Table 8-7. Inspection

Component	Task
Cushion Assembly (Figure 8-16)	Inspect fabric for wear, tears, stains, frayed edges and loose or broken stitches.
	Inspect for deteriorated padding.
	Inspect for security of snap fasteners on front and rear of cushion.
	Check for wear or breakdown of cushion foam and replace as required.
Rucksack Assembly (Figure 8-16)	Inspect slide fastener for security of attachment and smooth operation.
	Inspect fabric for wear, tears, stains, frayed edges and loose or broken stitching.
	Ensure that hook and pile fasteners are firmly attached to rucksack assembly flaps.
	Check for presence and secure attachment of cones and eyelets.
	Inspect dropline assembly for wear, tears, stains, fraying, loose or broken stitches.
	Measure overall length of dropline. Overall length shall be 26 ft 4 in. ±12 in.
	Inspect retaining lanyard for wear, tears, stains, fraying, loose or broken stitching.
AN/URT-33A Radio Beacon	Inspect in accordance with NAVAIR 16-30URT33-1.
Manual Deployment Handle Assembly (Figure 8-16)	Inspect handles for cuts and breaks.
	Inspect release pins for excessive burrs and secure attachment.
	Inspect cable for wear, fraying, loose or broken strands and secure swagings.
Harness Assembly (Figure 8-19)	Inspect webbing for stains, wear, tears, fraying and loose or broken stitches.
	Inspect harness adjusters and covers for cracks around attachment screws.
	Inspect harness adjusters for damage and wear, corrosion, scratches penetrating finish, loose attachment and weak release springs.
	Inspect adjuster release tabs for stains, wear and loose or broken stitches.
	Inspect release fittings for damage, wear, corrosion, loose attachment, weak springs and correct operation.
	Inspect rear fittings and other metal hardware for proper attachment.

Table 8-7. Inspection (Cont)

Component	Task
Strap Assemblies (Figure 8-19) (Note 1)	Inspect strap assemblies for stain, wear, tears, fraying and loose or broken stitches.
	Inspect strap fittings for wear, corrosion and scratches penetrating finish.
Radio Beacon Bracket (Figure 8-19)	Inspect for damage, worn, torn, frayed or loose hook and pile fastener and scratches penetrating finish.
Beacon Actuator Lanyard Assembly (Figure 8-19)	Inspect beacon lanyard for damage and security of swaged ends.
Cable-to-Lanyard Assembly and Lower Cable Assembly (Figure 8-16)	Inspect cable for fraying, broken strands and security of swaged balls.
	Inspect cable sleeve for wear, breaks and distortion.
Conduit Assembly (Figure 8-17)	Inspect cable for wear, fraying, and security of swaged balls.
	Inspect for dents.
	Inspect adjuster threads for damage.
	Ensure cable moves freely in conduit.
Oxygen Actuation Assembly (Figure 8-16)	Operate handle and ensure freedom of movement.
Housing, Automatic Release Assembly (Figure 8-14)	Inspect for damage around contour end of threads.
Lid Assembly (Figure 8-13)	Inspect for damage; dents, gouges and scratches penetrating finish.
Miscellaneous Hardware and Attaching Parts	Inspect threaded parts for damaged or stripped threads.
	Inspect nuts for rounded hexagon flats.
	Inspect washers and spacers for damage and elongated holes.
	Inspect self-locking bolts for damaged or worn locking devices (nylon pellets).
Low Pressure Manifold Assembly (Figure 8-14)	Inspect body ports and threads for damage.
	Inspect connectors for damaged threads and rounded hexagon flats.
	Inspect relief valve for damaged threads and rounded hexagon flats.
	Ensure integral filter present and secure in threaded shaft.
Emergency Oxygen Assembly (Figure 8-14)	Inspect cylinder for cracks, nicks, gouges, deep scratches, bulges or dents.
	Inspect filler valve for presence of valve cap, damaged threads and leakage around valve core.
	Inspect high pressure manifold ports and threads for damage.

Table 8-7. Inspection (Cont)

Component	Task
Emergency Oxygen Assembly (Figure 8-14) (cont)	Inspect oxygen gage for cracked or missing glass, bent needle, legible dial, security, damaged threads and rounded corners on hexagon flats.
	Ensure integral filter present and secure in threaded shaft.
Pressure Reducer Assembly (Figure 8-15)	Inspect automatic actuation cam and sear cam for galling of contact surfaces (figure 8-12).
	Inspect reducer body for damage and threads on outlet fitting for damage.
	Inspect adjusting cap and lock ring (figure 8-12) for damaged adjusting holes and tamper dots for presence and integrity (figure 8-11).
Notes: 1. There are five strap assemblies, two side, two forward, and one aft.	

1. Remove foam cushion from cushion cover assembly.

2. Turn cover inside out.



Take care not to damage gusset portion of seat cushion cover. If gusset is ripped, torn, or worn, a new cushion assembly must be procured.

3. Remove top panel portion of cover assembly by removing stitching. Retain gusset and bottom portion of cushion cover assembly, which should remain attached to each other.

4. Spread required amount of MIL-C-83429 cloth on flat surface. Using top panel of cover assembly as a template, trace around template 3/8 ± 1/8 inch from its edge to form pattern for new top panel.

5. Cut out new cushion cover top panel.

NOTE

Stitching used shall be FED STD 731, Type 301 LOCKSTITCH, with minimum backstitching of 1/2 inch, using 6 to 8 stitches per inch.

6. Ensure gusset and bottom portion of cushion cover is inside out. Sew new cushion cover top panel to gusset and attached bottom portion of cover assembly keeping seam 3/8 inch from edge.

7. Topstitch both top panel and gusset to prevent fraying. Topstitching will be visible when cushion cover assembly is turned right side out.

8. Reinstall cushion foam into cover assembly. Ensure cushion cover fits foam in same manner as original cover.

8-76. RADIO BEACON AN/URT-33A REPLACEMENT. Replace the radio beacon as follows:

1. Unsnap left thigh cushion and fold back.

2. Remove radio beacon from bracket.

3. Place radio beacon slide switch in OFF position.

4. Remove flexible antenna from receptacle by pushing bayonet fitting in and rotating to the left (counterclockwise).

5. Forward beacon to appropriate level maintenance facility.

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6. Obtain RFI beacon and inspect for damage.

NOTE

Refer to [paragraph 8-32](#) to determine if replacement beacon has been modified.

7. Refer to [paragraph 8-32](#) for rigging and packing procedures of beacon.

8. Reattach snap fastener of left thigh cushion.

8-77. REPLACEMENT OF RESTRAINT HARNESS LAPBELT ADJUSTER. Replace restraint harness lapbelt adjuster as follows:

Materials Required

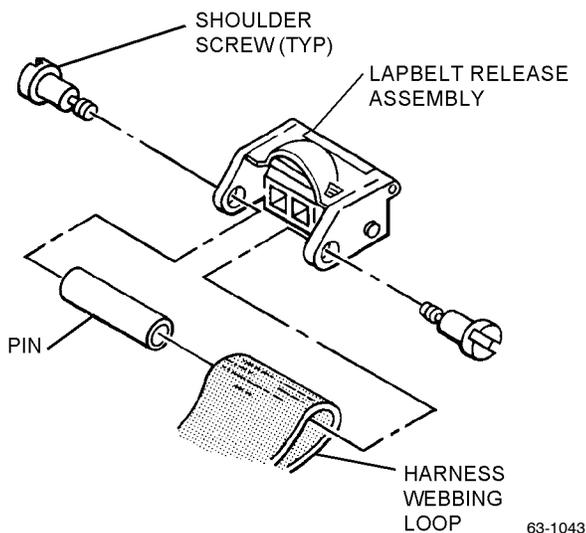
Quantity	Description	Reference Number
As Required	Sealing, Locking, and Retaining Compound, Grade A	MIL-S-22473 NIIN 00-081-2339 (Note 1)

Notes: 1. Use any contrasting color.

NOTE

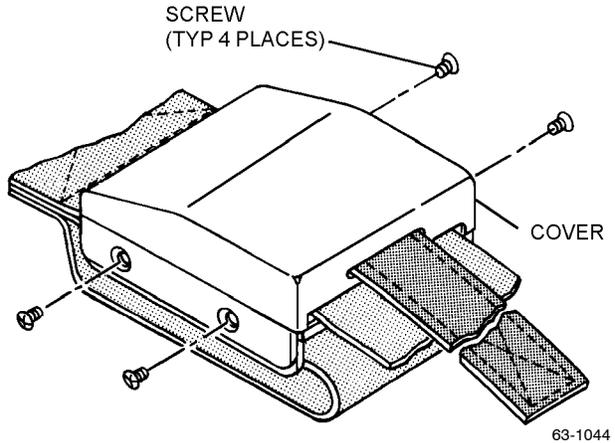
These replacement procedures may be used on either right or left side restraint harness assemblies.

1. Remove lapbelt release assembly by removing two shoulder screws. Pull release assembly away from webbing and slide pin out of harness webbing loop. Retain all parts.



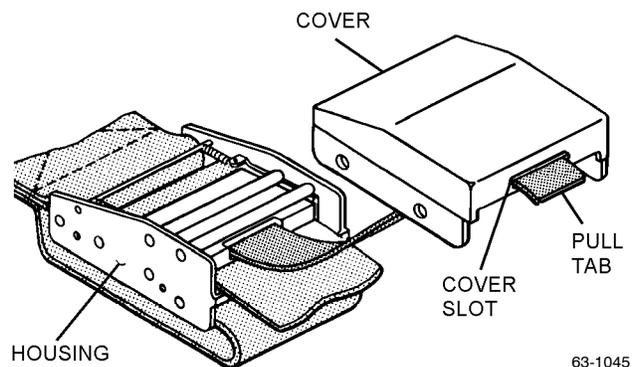
Step 1 - Para 8-77

a. Remove four screws (two on each side) from cover of lapbelt adjuster assembly.



Step 1a - Para 8-77

b. Remove cover from lapbelt adjuster housing and slide pull tab through cover slot.

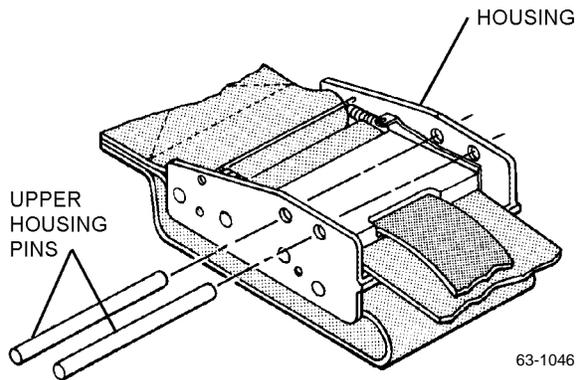


Step 1b - Para 8-77

c. Slide upper housing pins out of housing.

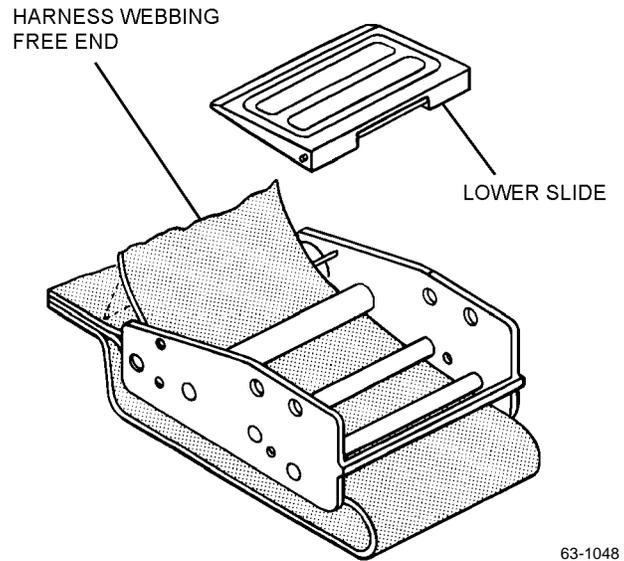
NOTE

Slide is held to guide plate by pins. Pull slide up so guide plates are above edge of housing and rotate slide out of guide plates.



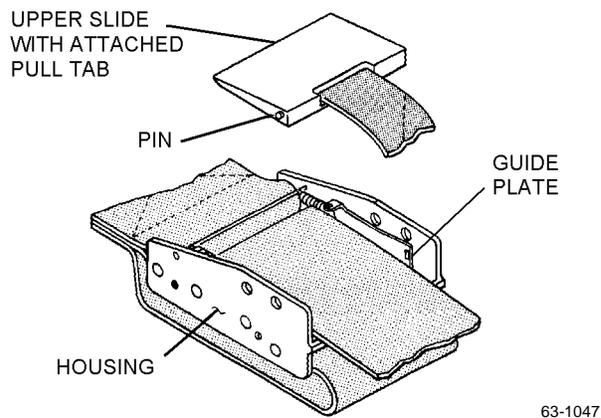
Step 1c - Para 8-77

e. Lift free end of harness webbing and remove lower slide.



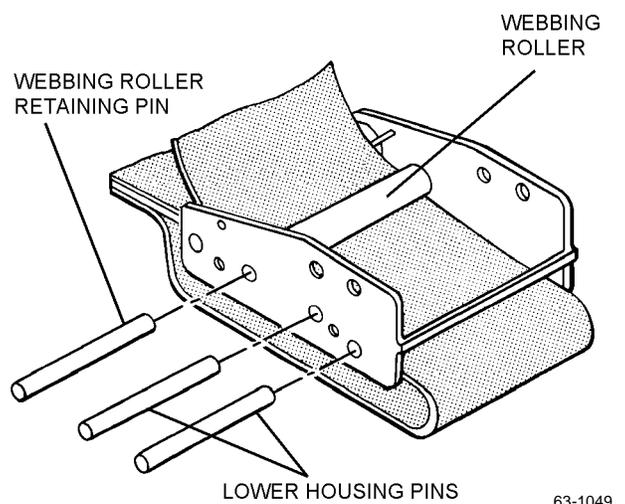
Step 1e - Para 8-77

d. Remove upper slide with attached pull tab.



Step 1d - Para 8-77

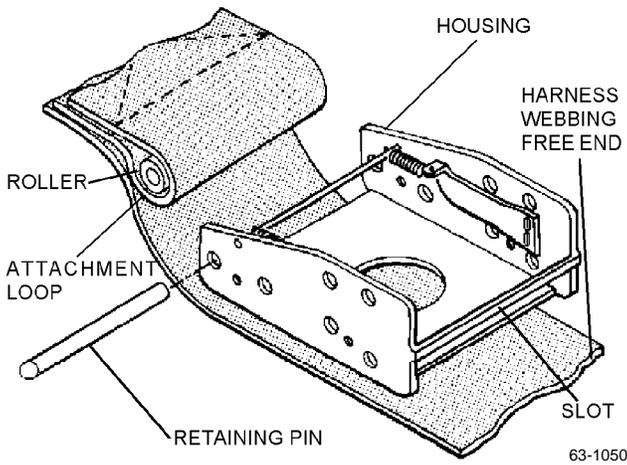
f. Position guide plates up and out of the way. Remove two lower housing pins and webbing roller retaining pin. Webbing roller will fall away.



Step 1f - Para 8-77

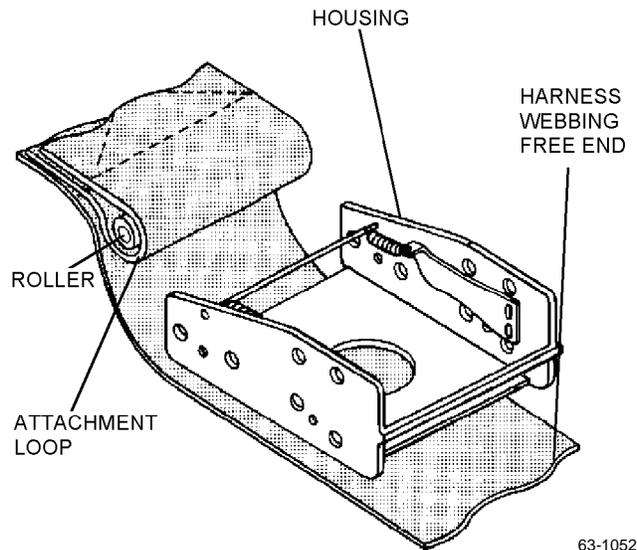
NAVAIR 13-1-6.3-2

g. Pull free end of harness webbing through slot in housing. Remove pin retaining harness webbing attachment loop roller. Housing will fall away.



Step 1g - Para 8-77

b. Insert roller into attachment loop of harness webbing. Place adjuster housing on to free end of harness webbing so that aft end of housing faces attachment loop.



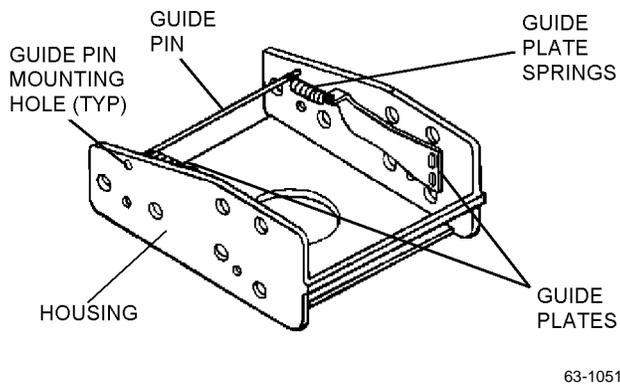
Step 2b - Para 8-77

2. Install lapbelt adjuster as follows:

NOTE

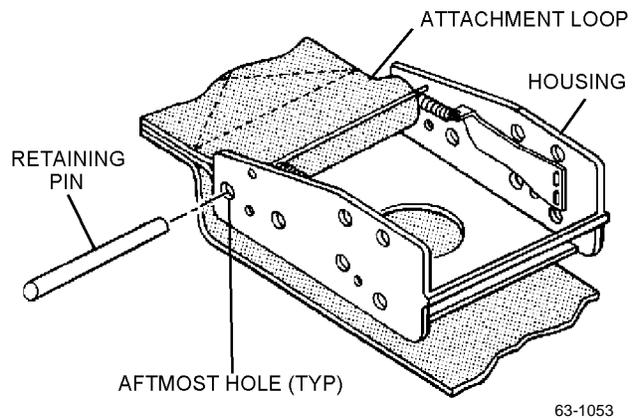
The six pins (two retaining and four housing) are interchangeable. The two rollers are interchangeable.

a. If required, slide guide plate springs on to guide pin and ensure guide plates are positioned correctly. Install assembly into adjuster housing guide pin mounting holes.



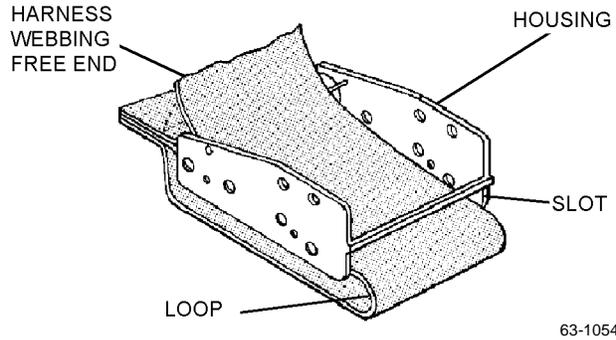
Step 2a - Para 8-77

c. Position housing on to attachment loop and roller. Align hole through roller with aftmost holes in housing and install retaining pin.



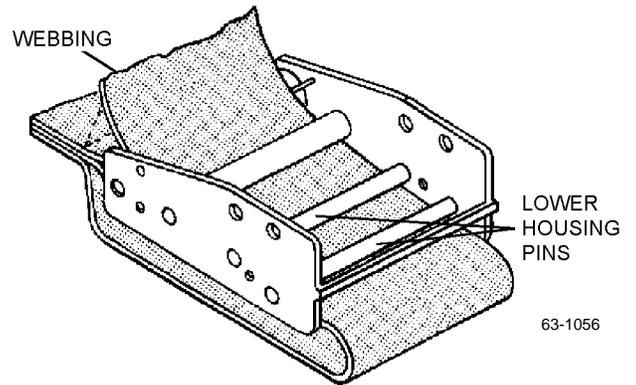
Step 2c - Para 8-77

d. Fold free end of webbing back towards housing. Insert end through slot in housing to form loop in webbing forward of adjuster. Guide plates may be positioned up and back to avoid any interference.



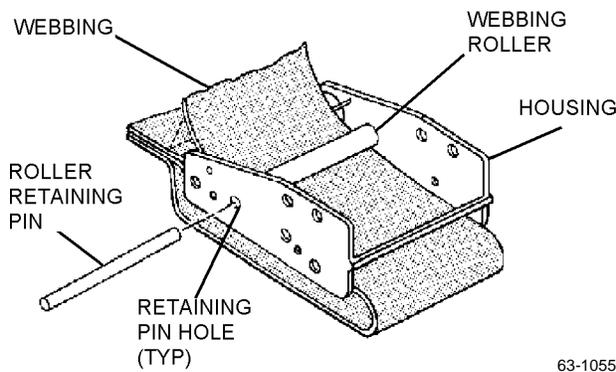
Step 2d - Para 8-77

f. Insert lower housing pins. Ensure that pins are resting on top of webbing.



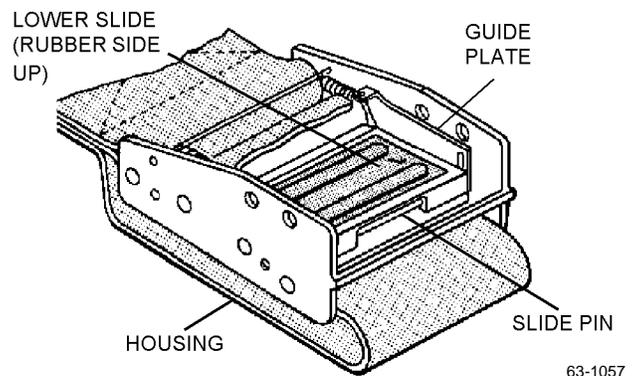
Step 2f - Para 8-77

e. Install webbing roller into housing on top of webbing. Position roller to align with proper holes in housing and insert roller retaining pin.



Step 2e - Para 8-77

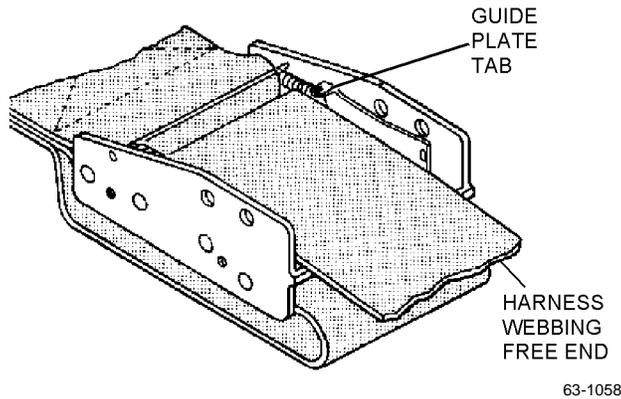
g. Position guide plates into housing on top of lower housing pins. Install lower slide, rubber side up. Ensure that slide pin is correctly positioned into lower slot of guide plates.



Step 2g - Para 8-77

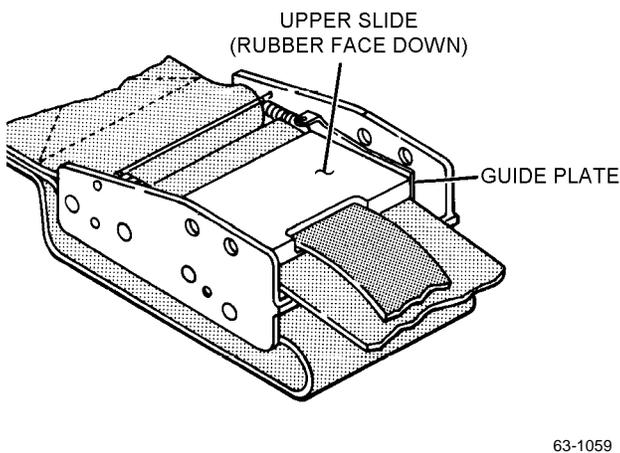
NAVAIR 13-1-6.3-2

h. Position harness webbing free end under tabs of guide plates and lay webbing down over lower slide.



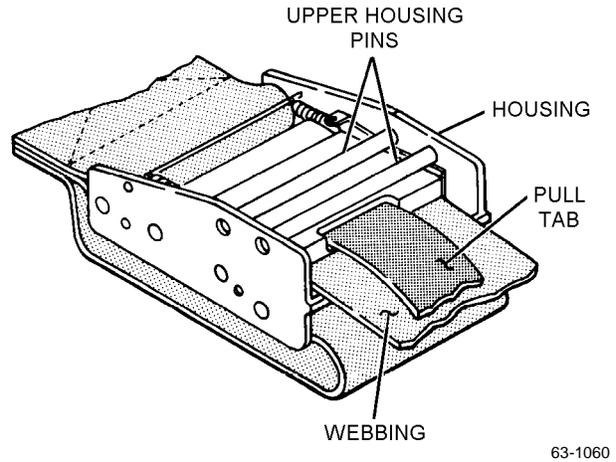
Step 2h - Para 8-77

i. Install upper slide, rubber face down. Ensure that lower slide does not come out of place and that pins sit securely in slots of guide plates.



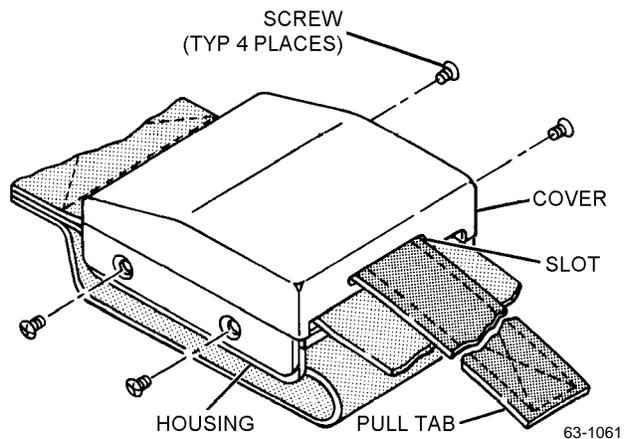
Step 2i - Para 8-77

j. Install upper housing pins. Ensure slides operate correctly (pull on pull tab to check simultaneous movement of slides). Webbing shall slide with ease through adjuster in either direction.



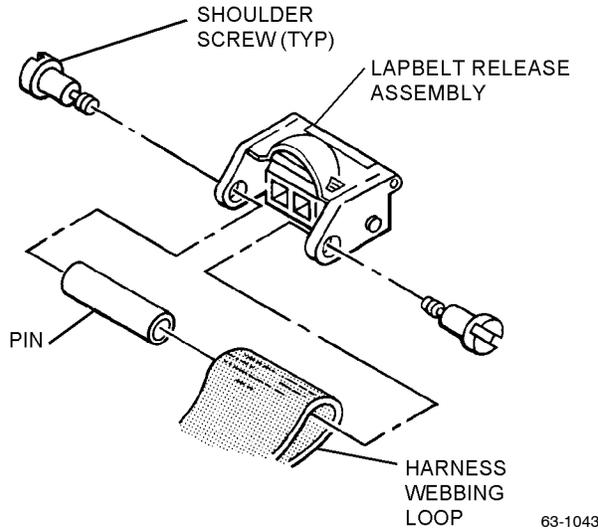
Step 2j - Para 8-77

k. Insert pull tab from inside out through slot in cover. Place cover on housing and align four screw poles. Apply sealing compound to threads of attaching four screws and secure cover to housing.



Step 2k - Para 8-77

3. Apply sealing compound to threads of two shoulder screws. Insert pin in webbing harness loop and position in lapbelt release assembly. Reinstall shoulder screws.



Step 3 - Para 8-77

4. Make necessary entries on appropriate form in accordance with OPNAVINST 4790.2 Series.

8-78. REPLACEMENT OF LAPBELT ASSEMBLIES. Refer to figure 8-19 and replace either left (21) or right (22) adjustable harness assembly (lapbelt) as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Sealing, Locking, and Retaining Compound, Grade A	MIL-S-22473 NIIN 00-081-2339 (Note 1)

Notes: 1. Use any contrasting color.

NOTE

If item cannot be acquired from supply, repair of lapbelt in accordance with paragraph 8-78A is authorized for one time only. A second repair is not authorized. Repaired lapbelts shall be replaced with new assets upon availability from the supply system.

1. Remove Koch connector by removing two shoulder screws. Pull connector away from webbing and slide pin out of the harness webbing loop (paragraph 8-77). Retain all parts.

2. Remove cap nut (25, figure 8-19) and withdraw harness retention pin (26). Separate lapbelt from rear fitting (34). Remove retention roller (27) from the harness webbing loop. Retain all parts.

3. Remove two attaching screws (23) from footman bracket (24) and remove bracket from harness webbing loop. Retain all parts.

4. Install harness assembly (lapbelt) by installing retention roller (27) in harness webbing loop. Position harness loop and retention roller in rear fitting (34), insert retention pin (26) through rear fitting and retention roller and secure with cap nut (25).

5. Insert footman bracket (24) through the webbing loop on lapbelt harness and secure bracket on lid assembly with two attaching screws (23).

6. Apply sealing compound to threads of two shoulder screws. Insert pin in webbing harness loop, position in Koch connector, and reinstall shoulder screws (paragraph 8-77).

8-78A. REPAIR OF LAPBELT ASSEMBLIES.

If item cannot be acquired from supply, repair of lapbelt is authorized for one time only. No deviations from this repair shall be authorized without the express written consent of the survival kit engineering support activity, NAWCAD Patuxent River, Code 4621. A second repair is not authorized. Repaired lapbelts shall be replaced with new assets upon availability from the supply system. If new assets are unavailable from supply, repair lapbelt assembly as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Webbing, Textile Treated, Type 13	MIL-W-4088 NIIN 00-260-4586
As Required	Thread, Nylon Bonded Finish, Type II, Class A, Size 3, Olive Drab	V-T-295 NIIN 00-559-5212

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Support Equipment Required

Quantity	Description	Reference Number
As Required	Needle, Sewing Machine, Size 23 (Note 1)	—

Notes: 1. If using class 111 or 211 sewing machine.

NOTE

Repair of lapbelt assembly is for one time only. If lapbelt has been repaired, a second repair is not authorized. All stitching shall be ASTM-D-6193, Type 301 Lockstitch, 8 stitches per inch and backstitch 1 inch minimum.

1. Remove adjuster and release assembly from lapbelt in accordance with restraint harness lapbelt adjuster replacement procedures (paragraph 8-77).

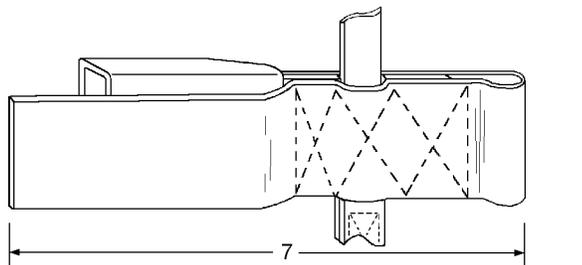
2. Lay out lapbelt on work bench with adjuster loops facing down toward work bench surface and webbing laying flat (RH lapbelt will have sticker clip facing toward technician, LH lapbelt will have sticker clip facing away from technician).

3. Measure 7 inches from the end of the rear fitting loop and place a mark. This mark should be past the folded sewn end of the lapbelt.

NOTE

Ensure no sharp edges are on the webbing after searing.

4. Sear cut the webbing at the 7 inch mark made in step 3.



Step 4 - Para 8-78A

5. With webbing laying on the work bench as in step 2, measure 3 inches from the sear cut end and mark webbing.

6. Cut a 26 1/4 inch length of Type 13, treated webbing.

NOTE

Ensure no sharp edges are on the webbing after searing.

7. Sear both ends of the webbing.

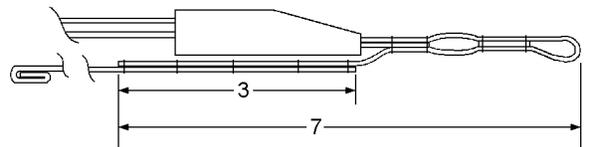
8. Measure 3 inches from one end and mark the webbing across the entire width.

9. Measure 1/4 inch inward from mark made in step 8 and make a small mark at the edge of the webbing.

10. Measure 1/2 inch inward from mark made in step 9 and place another small mark at the edge of the webbing. Repeat until 5 marks are made, each 1/2 inch apart. Last mark should be 1/4 inch from the sheared edge of the webbing.

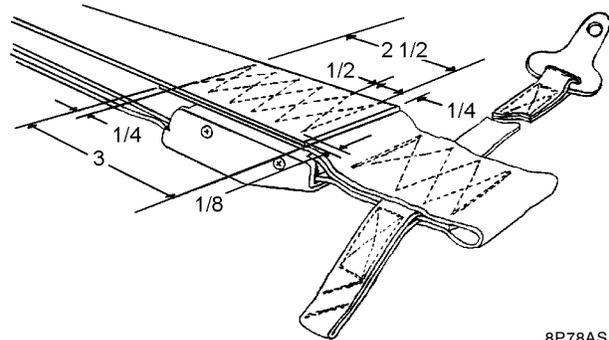
11. Mark opposite side of the webbing directly across from the marks made in step 10.

12. Place the 3 inch section of marked webbing over top of webbing marked in step 5. Ensure that 3 inch mark made in step 8 and webbing edge align.



Step 12 - Para 8-78A

13. Starting 1/8 inch from the outside edge furthest away from the adjuster attaching loop, sew a 6 point cross-stitch pattern 1/8 inch from the edges of the webbing using the 5 marks made in step 10 as a guide. Cross-stitch points should be 1/2 inch from adjacent points.

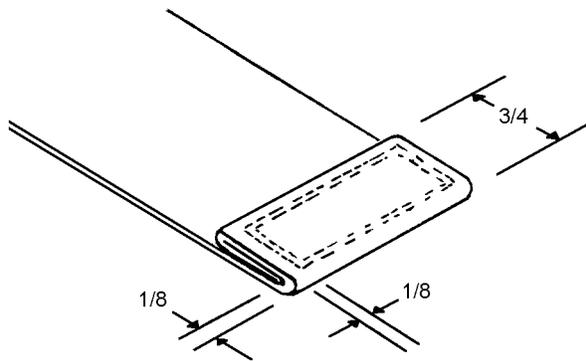


Step 13 - Para 8-78A

14. Measure in 1 1/2 inches from the other seared end of the webbing and mark webbing.

15. Double fold end of webbing marked in [step 12](#), making a 3/4 inch fold on webbing end. Double fold shall be located on the same side of webbing as the lapbelt adjusting attaching loop.

16. Sew 2 rows of stitches in the double fold using box stitch pattern 1/8 inch from edges.



Step 16 - Para 8-78A

8P78AS16

17. Reinstall lapbelt adjuster and release assembly in accordance with respective lapbelt adjuster replacement procedures using retained hardware ([paragraph 8-77](#)).

18. Quality Assurance Representative shall inspect webbing for stitching, adjuster for smoothness of operation, and proper installation of lapbelt assembly.

19. Reinstall repaired lapbelt assembly(s) onto survival kit rear fitting(s) and ensure kit is RFI.

20. Make necessary entries on appropriate form in accordance with OPNAVINST 4790.2 Series.

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8-79. REPLACEMENT OF FORWARD STRAP ASSEMBLY. To replace the right or left forward strap assembly refer to items 1 and 2, [figure 8-19](#), and proceed as follows:

1. Remove three attaching screws (3) and cap nuts (4) and remove forward strap from lid assembly.
2. Install forward strap assembly on lid assembly using three screws (3) and new cap nuts (4).

8-80. REPLACEMENT OF SIDE STRAP ASSEMBLIES. To replace the right or left side strap assembly refer to item 9, [figure 8-19](#), and proceed as follows:

1. Remove two attaching cap nuts (10) and screws (11) and remove the side strap from lid assembly.
2. Ensure that folded over and seared edges of side strap assembly face toward the rucksack. Then install side strap on lid assembly using two attaching screws (11) and new cap nuts (10).

8-81. REPLACEMENT OF THE AFT STRAP ASSEMBLY. To replace aft strap assembly refer to item 5, [figure 8-19](#), and proceed as follows:

1. Remove aft strap assembly from lid assembly by removing two attaching cap nuts (6), screws (7) and washers (8).
2. Ensure folded over and seared edges of aft strap assembly face toward rucksack. Then install aft strap assembly on lid assembly using two attaching screws (7), washers (8) (installed under head of screws), and new cap nuts (6).

8-82. REPLACEMENT OF REAR FITTING ASSEMBLY. To replace either left or right rear fitting assembly refer to item 34, [figure 8-19](#), and proceed as follows:

1. Remove lapbelt assembly ([paragraph 8-78](#)).
2. Remove rear fitting from lid assembly by removing attaching cap nut (37), washer (38), anti-chafe washer (36), and rear attachment pin (35).
3. Install rear fitting on lid assembly using rear attachment pin (35) with anti-chafe washer (36) installed under head of pin, washer (38), and new cap nut (37).

4. Reinstall lapbelt assembly ([paragraph 8-78](#)).

8-83. REPLACEMENT OF REAR ATTACHMENT FITTING ASSEMBLY. To replace either left or right rear attachment fitting assembly refer to item 39, [figure 8-19](#), and proceed as follows:

1. Remove lapbelt assembly ([paragraph 8-78](#)).
2. Remove the rear fitting assembly ([paragraph 8-82](#)).
3. Remove two attaching cap nuts (40), four washers (42), and two screws (41) securing fitting (39) to side of lid assembly.
4. Remove attaching cap nut (43), two washers (45) and screw (44) securing fitting to top of lid assembly and remove rear attachment fitting (39) from lid.
5. Install rear attachment fitting (39) to side of lid assembly using two attaching screws (41), four washers (42) (one washer under each screw head and one under each cap nut), and two new cap nuts (40).
6. Secure top of rear attachment fitting (39) to lid assembly using attaching screw (44), two washers (45) (one under head of screw and one washer under cap nut), and new cap nut (43).
7. Reinstall rear fitting (34) ([paragraph 8-82](#)).
8. Reinstall lapbelt assembly (21 or 22) ([paragraph 8-78](#)).

8-84. REPLACEMENT OF EMERGENCY OXYGEN ACTUATION HANDLE ASSEMBLY. To replace emergency oxygen actuation handle assembly, proceed as follows:

1. Remove handle assembly (12, [figure 8-19](#)) from lid assembly by removing two attaching cap nuts (13), four washers (15) and screws (14). Remove cotter pin (45, [figure 8-17](#)), washer (44), and pin (43). Discard cotter pin (45).
2. Install handle assembly (12, [figure 8-19](#)) on lid assembly using two attaching screws (14), four washers (15) (one under each screw head and one under each cap nut), and two new cap nuts (13). Install pin (43, [figure 8-17](#)), washer (44), and new cotter pin (45). Bend cotter pin ends outward to 90° angle.

8-85. REPLACEMENT OF STUD AND EYELET ASSEMBLY. Refer to [figure 8-19](#) and replace stud and eyelet assembly as follows:

NAVAIR 13-1-6.3-2

Materials Required

Quantity	Description	Reference Number
As Required	Sealing, Locking, and Retaining Compound, Grade A	MIL-S-22473 NIIN 00-081-2339 (Note 1)

Notes: 1. Use any contrasting color.

1. Remove screw (19), washer (20), stud (17) and eyelet (18) from lid assembly and discard all damaged items.

2. Apply sealing compound to threads of screw (19). Install eyelet (18) and stud (17) on lid assembly and secure with washer (20) and screw (19).

8-86. REPLACEMENT OF PIVOT FITTING ASSEMBLY. To replace either right or left pivot fittings refer [figure 8-19](#) and proceed as follows:

1. Remove two attaching cap nuts (53), four washers (55), and two screws (54) from front of pivot fitting (51, 52). Then from side of fitting remove two attaching cap nuts (53), two washers (55), installed shims (57, 58, and 59, as applicable), and two screws (56).

NOTE

When removing pivot fittings, note number and size of shims installed between fitting and lid assembly.

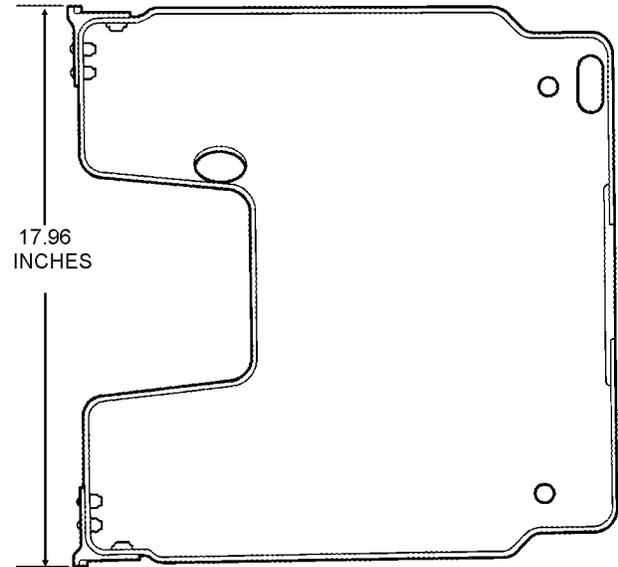
2. Install pivot fitting assembly (51, 52) on side of lid assembly by installing two attaching screws (56), shims (57, 58, and 59) between fitting and lid in same quantity and size removed (as applicable), two washers (55), and two new cap nuts (53).

NOTE

Shims (57, 58 and 59) shall be installed in equal numbers under each pivot fitting as required to ensure overall width of the kit lid is 16.71 inches ([figure 8-10](#)).

3. Secure the front of fitting by installing two attaching screws (54), four washers (55) (one under head of each screw and one under each cap nut), and two new cap nuts (53).

8-87. REPLACEMENT OF THE RADIO BEACON BRACKET. To replace radio beacon bracket refer to item 46, [figure 8-19](#) as follows:



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Figure 8-10. SKU-10/A Lid Assembly Overall Width

1. Remove and discard rubber pads (49) from bracket (46). Drill out four rivets (47) securing the bracket to the kit lid. Discard rivets (47) and washers (48).

2. To install radio beacon bracket, position bracket on lid assembly over drilled rivet holes. Install four rivets (47) with one washer (48) under the head of each rivet to secure the bracket to lid assembly.

3. Using a suitable impact adhesive, apply two new rubber pads (49) in bottom of bracket to cushion radio beacon.

8-88. REPLACEMENT OF PRESSURE REDUCER. To replace the pressure reducer assembly refer to item 1, [figure 8-18](#), and proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Sealing, Locking, and Retaining Compound, Grade B, Type B	MIL-S-22473 NIIN 01-163-3483 (Note 1)
As Required	Sealing, Locking, and Retaining Compound, Grade A	MIL-S-22473 NIIN 00-081-2339 (Note 1)

Notes: 1. Use any contrasting color.

1. Remove emergency oxygen assembly from lid assembly in accordance with [paragraph 8-61](#). Remove two threaded pins (2) from high pressure manifold (6) and separate pressure reducer (1) from manifold.

NOTE

Do not disassemble the pressure reducer.

2. Install pressure reducer assembly (1) in high pressure manifold (6). Apply sealing compound to threads of two attaching pins (2) and secure pressure reducer assembly.

NOTE

Use any contrasting color when applying tamper dots to attaching pins.

3. Apply tamper dots on two attaching pins using sealant MIL-S-22473 ([figure 8-11](#)).

4. Reinstall emergency oxygen assembly on lid assembly ([paragraph 8-95](#)).

8-89. REPLACEMENT OF EMERGENCY OXYGEN CYLINDER ASSEMBLY. To replace oxygen cylinder assembly refer to item 3, [figure 8-18](#) and proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Anti-seize Tape	MIL-T-27730
As Required	Lint-free Cloth	MIL-C-85043 NIIN 00-044-8291
As Required	Krytox 240 AZ	MIL-G-27617 NIIN 01-007-4384
As Required	Sealing, Locking, and Retaining Compound, Grade B, Type B	MIL-S-22473 NIIN 01-163-3483 (Note 1)

Notes: 1. Use any contrasting color.

1. Remove emergency oxygen assembly in accordance with [paragraph 8-61](#).

2. Remove oxygen cylinder (3) from high pressure manifold (6). Remove and discard O-ring (5) from

nipple union (4). Remove nipple union from oxygen cylinder. Remove any residual anti-seize tape attached to the threads of the nipple union. Clean threads using lint-free cloth moistened with water.

3. To install oxygen cylinder assembly, apply anti-seize tape to a maximum of 1 1/2 turns to both threaded ends of nipple union (4). Ensure that tape has no loose ends and is started one complete thread from ends of nipple union.

4. Lightly lubricate contact surfaces of new O-ring (5) with Krytox 240 AZ and install on nipple union. Install nipple union on manifold (6) and torque to a maximum of 125 inch-pounds.

5. Install oxygen cylinder on taper thread of nipple union while restraining the nipple union with a spanner. Torque cylinder onto nipple union to a maximum of 125 inch-pounds. Ensure that not more than four threads are showing between nipple union and bottle end cap.

NOTE

Use any contrasting color when applying tamper dots.

6. Apply tamper dot using sealant MIL-S-22473 ([figure 8-11](#)).

7. Reinstall emergency oxygen assembly lid assembly ([paragraph 8-95](#)).

8-90. REPLACEMENT OF OXYGEN GAGE ASSEMBLY. To replace oxygen gage assembly refer to [figure 8-18](#), and proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Anti-seize Tape	MIL-T-27730
As Required	Lint-free Cloth	MIL-C-85043 NIIN 00-044-8291
As Required	Sealing, Locking, and Retaining Compound, Grade B, Type B	MIL-S-22473 NIIN 01-163-3483 (Note 1)

Notes: 1. Use any contrasting color.

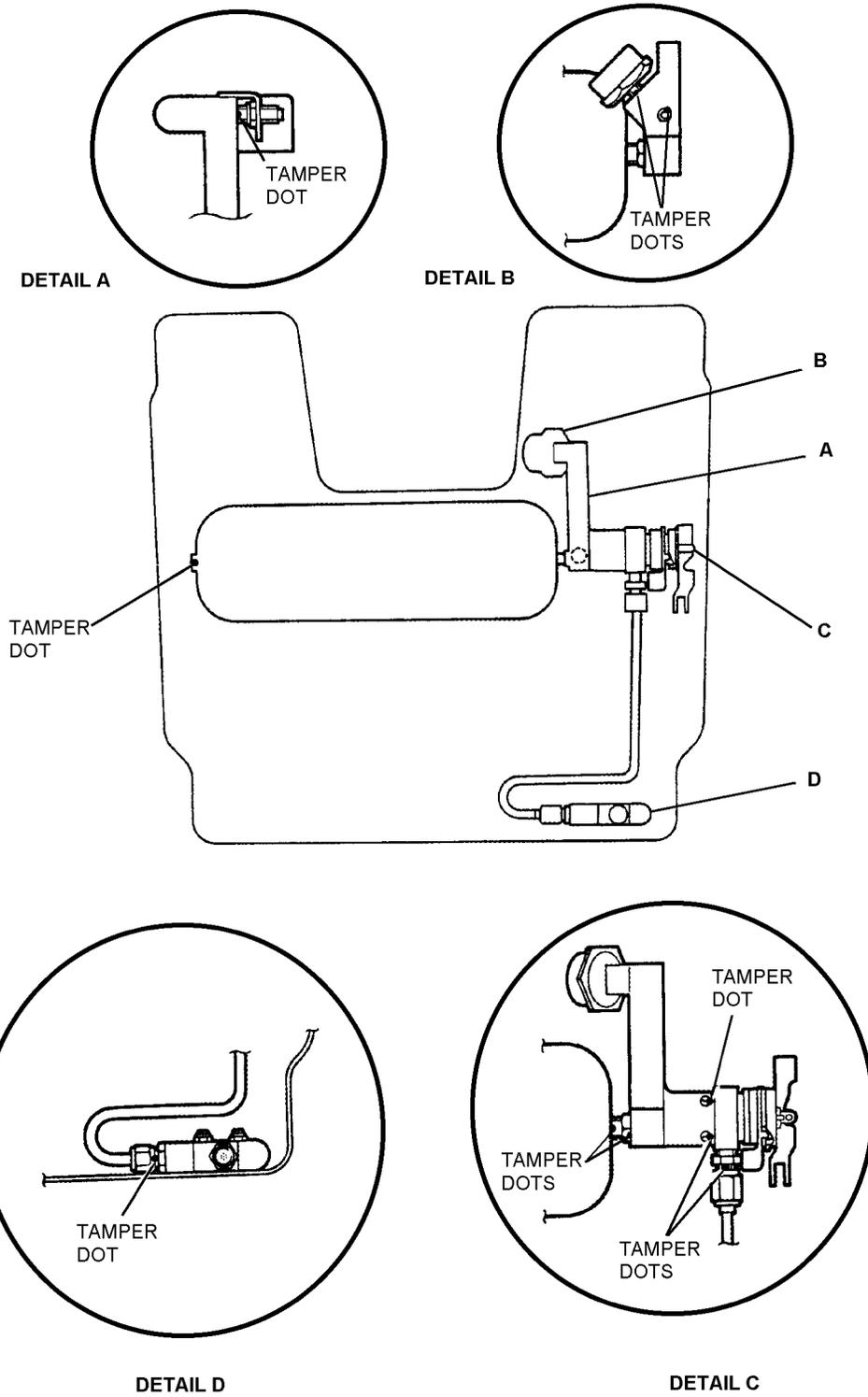


Figure 8-11. Location of Tamper Dots

1. Remove emergency oxygen assembly from lid assembly (paragraph 8-61). Remove oxygen pressure gage (7) from high pressure manifold (6).

2. To install oxygen pressure gage (7), ensure that all foreign matter is removed from threads of gage using lint-free cloth moistened with water. Apply anti-seize tape to threads a maximum of 1 1/2 turns. Ensure that there are no loose ends and that tape starts one complete thread from beginning of gage thread.

3. Install gage (7) in manifold (6) and torque to a maximum of 125 inch-pounds.

NOTE

Use any contrasting color when applying tamper dot.

4. Apply tamper dot using sealant MIL-S-22473 (figure 8-11).

5. Reinstall emergency oxygen assembly (paragraph 8-95).

8-91. REPLACEMENT OF OXYGEN FILLER VALVE ASSEMBLY. To replace oxygen filler valve assembly refer to item 11, figure 8-18 and proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Anti-seize Tape	MIL-T-27730
As Required	Lint-free Cloth	MIL-C-85043 NIIN 00-044-8291
As Required	Sealing, Locking, and Retaining Compound, Grade A	MIL-S-22473 NIIN 00-081-2339 (Note 1)
As Required	Sealing, Locking, and Retaining Compound, Grade B, Type B	MIL-S-22473 NIIN 01-163-3483 (Note 1)

Notes: 1. Use any contrasting color.

1. Remove emergency oxygen assembly (paragraph 8-61).

2. Remove attaching screw (9) and washer (10), and filler valve retaining bracket (8).

3. Remove filler valve (11) from high pressure manifold (6), and remove filter (13).

4. To install filler valve, ensure all foreign matter is removed from threads using lint-free cloth moistened with water. Apply anti-seize tape to threads of filler valve to a maximum of 1 1/2 turns. Ensure that there are no loose ends and that tape starts one complete thread from beginning of filler valve thread.



Filter must not be installed when using alternate Fill Valve P/N 9120097-27.

5. Install filter (13) in high pressure manifold (6). Install filler valve (11) in manifold and torque to a maximum of 125 inch-pounds.

6. Apply sealing compound to threads of screw (9). Position retaining bracket (8) over filler valve and secure with washer (10) and screw (9).

NOTE

Use any contrasting color when applying tamper dot.

7. Apply tamper dot using sealant, MIL-S-22473 (figure 8-11).

8. Reinstall emergency oxygen assembly (paragraph 8-95).

8-92. OXYGEN FILLER VALVE CORE REPLACEMENT. Remove seat survival kit from aircraft in accordance with applicable maintenance manual.



If necessary to release oxygen pressure, pull emergency oxygen lanyard. This releases oxygen through pressure reducer manifold. Do not release pressure through filler valve or adapter. High pressure oxygen moving through restriction of filler valve causes heat and could result in fire or explosion.

NOTE

Replacement of valve core procedures are not applicable if using alternate Fill Valve P/N 9120097-27.

1. Release oxygen pressure by pulling emergency oxygen actuating lanyard.

2. Remove survival kit seat cushion (paragraph 8-72).

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3. Remove plug and cap assembly (1, [figure 8-17](#)).
4. Remove valve core using extractor tool.

WARNING

Valve cores used with high pressure oxygen systems are specially oxygen cleaned and packaged. Ensure package has not been damaged and valve core has not been contaminated.

5. Install valve core using extractor tool.
6. Fill emergency oxygen cylinder to 1800 - 2000 psi ([paragraph 8-52](#)).
7. Install plug and cap assembly (1, [figure 8-17](#)).
8. Install survival kit seat cushion ([paragraph 8-74](#)).
9. Reinstall seat survival kit in aircraft in accordance with applicable maintenance manual.

8-93. REPLACEMENT OF THE RUCKSACK SLIDE FASTENER. Replace rucksack slide fastener (5, [figure 8-16](#)) as follows:

Materials Required

Quantity	Description	Reference Number
1	Fastener, Slide, Interlocking, Type I, Style 3, Size M	V-F-106
As Required	Thread, Nylon, Size E	V-T-295

1. Remove slide fastener by carefully cutting thread securing slide fastener to the rucksack. Remove and discard old slide fastener.
2. Remove all of the old thread from the stitching pattern.

NOTE

Install slide fastener so that it opens by moving slide fastener from left to right.

3. Following existing stitching pattern, stitch slide fastener to rucksack using size E nylon thread.

4. After completion of installation, operate the slide fastener to ensure smooth operation.

8-94. ASSEMBLY.

8-95. ASSEMBLY AND INSTALLATION OF EMERGENCY OXYGEN ASSEMBLY. To assemble and install emergency oxygen assembly on lid assembly refer to [figure 8-9](#) and proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Sealing, Locking, and Retaining Compound, Grade A	MIL-S-22473 NIIN 00-081-2339 (Note 1)
As Required	Sealing, Locking, and Retaining Compound, Grade B, Type B	MIL-S-22473 NIIN 01-163-3883 (Note 1)

Notes: 1. Use any contrasting color.

1. Apply sealing compound to threads of two attaching screws (32). Install conduit bracket (25), cantilever spring (39) and attaching screws (32) on reducer assembly (18). Ensure cantilever spring is installed with bend facing toward and applying pressure on reducer sear cam.

2. Ensure cantilever spring is properly installed by rotating sear (22) and reducer auto actuation cam. The cantilever spring should bend outward. Rotate cam to the ON position with lever parallel to the sear and facing away from the cantilever spring.

3. Apply sealing compound to threads of long nipple of conduit assembly (24). Install one retaining nut (23) and position it approximately midpoint on long nipple, insert nipple into conduit bracket (25) and install second nut (23), hand tight only.

4. Install the auto actuation cable into slot in reducer automatic actuation cam. Install spring pin (38) to retain cable.

5. Position emergency oxygen assembly (33) in lid assembly so auto actuation conduit protrudes through access hole in automatic release housing (28). Apply sealing compound to threads of conduit nipple and install housing (28) on automatic actuation conduit (24).

6. Loosely install cylinder clamp assemblies (36 and 37) as follows:

a. Install clamp with clip nut at reducer end of cylinder.

b. Clamp with uneven length legs installed at opposite end; longer leg toward front of kit.

7. Apply sealing compound to threads of one attaching screw (40) and install through lid into base of high pressure manifold. Tighten screw.

8. Install screw (46) and cap nut (45) to secure conduit bracket (25) to lid assembly.

9. Tighten cylinder clamp screws (34) and cap nuts (35).

10. Install low pressure manifold (52) on lid assembly using two attaching bolts (49), washers (50) and cap nuts (51).

NOTE

Use any contrasting color when applying tamper dots to connecting unions.

11. Install low pressure tube assembly (47) on reducer (18) and low pressure manifold (52). Torque connecting union nuts (17 and 48) to no more than 125 inch-pounds. Apply tamper dots to connecting unions using sealant ([figure 8-11](#)).

12. Install straight pin (21), washer (20), and cotter pin (19) to attach sear (22) to emergency oxygen handle (10).

13. Secure tube assembly (47) to lid assembly using clamp (44), screw (41), washer (43) and cap nut (42). If tube assembly requires slight bending to install, make only large radius bends. Do not crease or kink tube.

14. Apply sealing compound to threads of two attaching screws (30), and install automatic release housing (28) on lid assembly using two washers (31) and screws (30).

15. Rotate automatic actuation cam to the ON position, insert actuation cable ball in slide (29) and insert slide in housing (28).

16. Ensure cable is properly positioned in slide (29). Move slide back and forth in its track to ensure that cable moves freely in conduit assembly (24).

17. Apply sealing compound to threads of four attaching screws (26) and install cover (27) on release assembly housing (28).

18. Secure automatic actuation conduit (24) to bracket (25) by tightening two retaining nuts (23).

NOTE

Use any contrasting color when applying tamper dots to retaining nuts.

19. Ensure that slide (29) moves to full forward position before automatic actuation cable (24) becomes taut. If necessary, adjust two retaining nuts (23) to obtain proper slide position. Apply tamper dots to retaining nuts using sealant ([figure 8-11](#)).

20. Using a suitable pin punch, move slide (29) to its forward position.

21. Insert the ball of cable-to-lanyard assembly (11) into slide (29). Rotate reducer cam to the OFF position. If necessary, reset manual actuation handle (10) to the OFF position.

22. Pull lanyard assembly (11) and ensure that automatic actuation cam is tripped to the ON position and that lanyard (11) releases from slide (29).

23. Insert the ball of cable-to-lanyard assembly (11) into slide (29) and reset manual actuation handle (10) to the OFF position.

24. Apply a light pull on the cable to ensure that lanyard is retained by slide (29).

25. Reinstall cover (16) to lid assembly using four attaching screws (13), washers (14) and cap nuts (15).

26. Purge and charge emergency oxygen system in accordance with [paragraph 8-52](#).

27. Perform Functional Check in accordance with [paragraph 8-51](#).

28. Adjust as necessary ([paragraph 8-96](#)).

8-96. ADJUSTMENTS.

8-97. PRESSURE REDUCER. To adjust flow rates and outlet pressures on pressure reducer assembly, refer to [figure 8-12](#) and proceed as follows:

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Support Equipment Required

Quantity	Description	Reference Number
1	Tool Set, Wrench Spanner	T361D907-11 (CAGE 30941) NIIN 01-419-9842

1. Loosen lock ring.
2. Turn adjusting cap counter-clockwise to decrease pressure and clockwise to increase pressure.
3. Tighten lock ring.
4. Perform Functional Check ([paragraph 8-51](#)).

8-98. EMERGENCY OXYGEN AUTOMATIC RELEASE ASSEMBLY. To adjust emergency oxygen automatic release assembly, proceed as follows:

1. To tighten cable, loosen special nut (23, [figure 8-17](#)) located on threaded end of conduit (22) inside

of bracket (25). Turn nut (23) counterclockwise to loosen, but do not remove from conduit.

2. Turn special nut (23) on the outside of bracket (25) counterclockwise to remove slack from actuation cable.

3. When slack has been removed from actuation cable, turn special nut (23) on inside of bracket (25) clockwise to tighten it against bracket (25) and secure conduit (22).

NOTE

Use any contrasting color when applying tamper dots.

4. Apply tamper dots to special nuts (23), bracket (25), and threaded end of conduit (22) ([figure 8-11](#)) using sealant.

5. Inspect cable to ensure all slack has been removed.

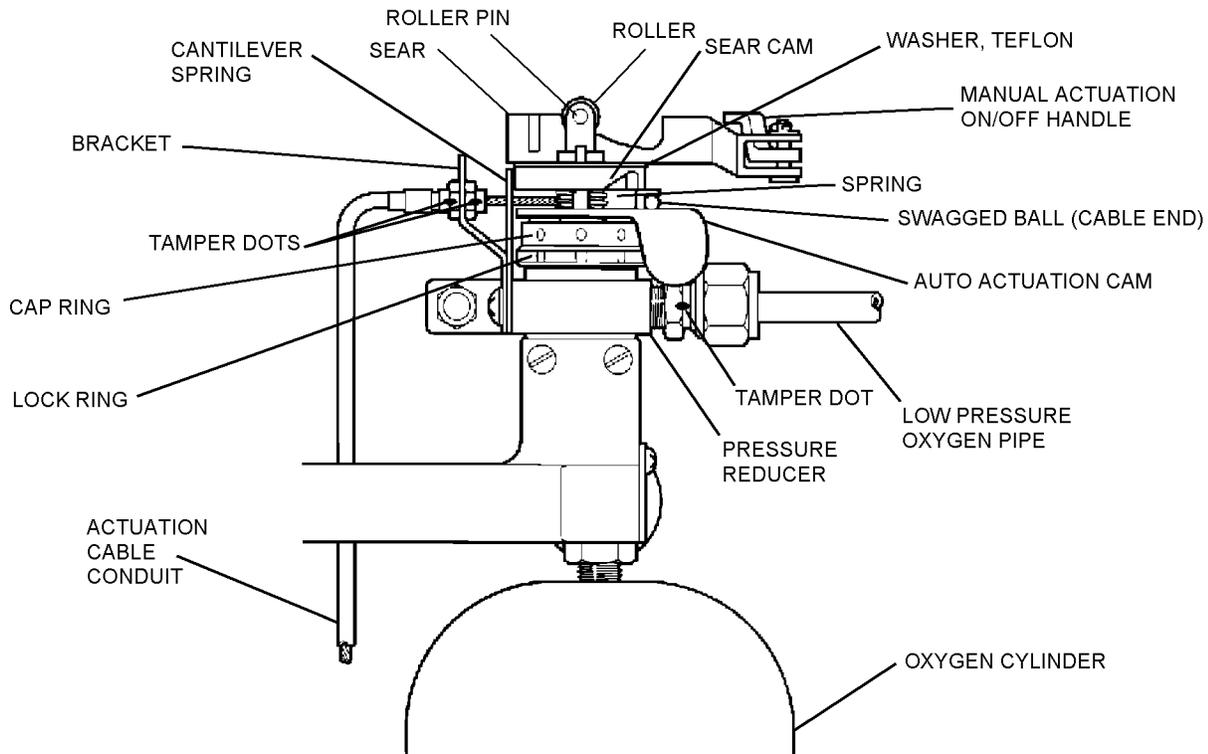


Figure 8-12. Pressure Reducer

Section 8-7. Fabrication

8-99. GENERAL.

8-100. This section contains instructions for fabrication of tools and components which can be manufactured by local maintenance activities.

8-101. ACTUATING LANYARD, AN/URT-33A RADIO BEACON. This lanyard may be fabricated by modifying actuating lanyard P/N 12227-1, 325C365-1, or MBEU130145 as follows:

Materials Required

Quantity	Description	Reference Number
1	Swaging Sleeve	MS51844-61 NIIN 00-127-9488
1	Lanyard, Actuating or	P/N 12227-1 NIIN 01-170-8367
	Lanyard, Actuating	325C365-1 (MBEU130145)
As Required	Cord, Nylon, Type III	MIL-C-5040

Support Equipment Required

Quantity	Description	Reference Number
1	Crimping Tool	MIL-C-22520

1. Remove roll pin from actuator plug housing and separate housing, actuator plug, and swaged ball and lanyard. Discard pin and actuator plug (figure 8-13).

2. Cut lanyard cable directly behind swaged ball installed on end of cable and discard swaged ball.

NOTE

Total length of lanyard cable and bayonet connector should be 5 1/4 (± 1/16) inches.

3. Insert cable through swaging sleeve and route cable end back into swaging sleeve to form 1/2-inch loop (figure 8-14).

4. Ensure cable end is flush with swaging sleeve and crimp sleeve securely to cable using crimping tool.

NOTE

Total length of finished modified cable (without hairpin cotter attached) should be 4 1/4 (± 1/16) inches.

5. Perform pull test to check security of swaged sleeve as follows:

a. Install length of nylon cord through loop-end of lanyard cable.

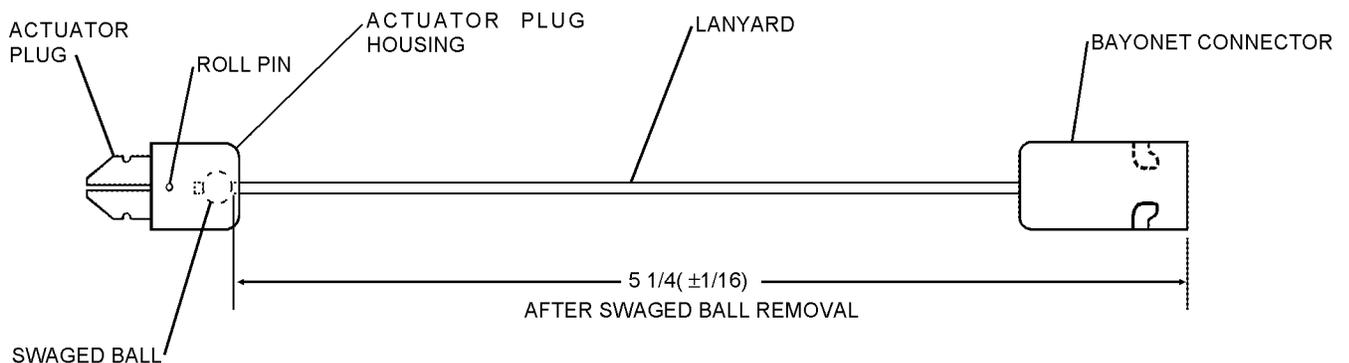


Figure 8-13. Actuating Lanyard Before IACC 589

Materials Required

NOTE

Quantity	Description	Reference Number
1	Disposable Razor or Knife	—
As Required	CONFOR Foam, 1 Inch Thick, CF-47100 Green or CF-45100 Blue	NIIN 01-370-6116 NIIN 01-449-1789

Ensure bulk CONFOR foam is large enough to make the new foam cushion one solid piece.

1. Remove old foam from seat cushion cover.
2. Use the old foam as a template, place old foam on top of CONFOR foam.

3. Trace around old foam onto the CONFOR foam, including hole for observing the emergency oxygen gage.
4. Cut CONFOR foam along the traced line.
5. Install new foam cushion into seat cushion cover. Ensure seat cushion cover fits cushion foam snugly, but does not cause bowing or excessively loose condition.
6. Write the date installed on foam with permanent marker so it can be seen easily.

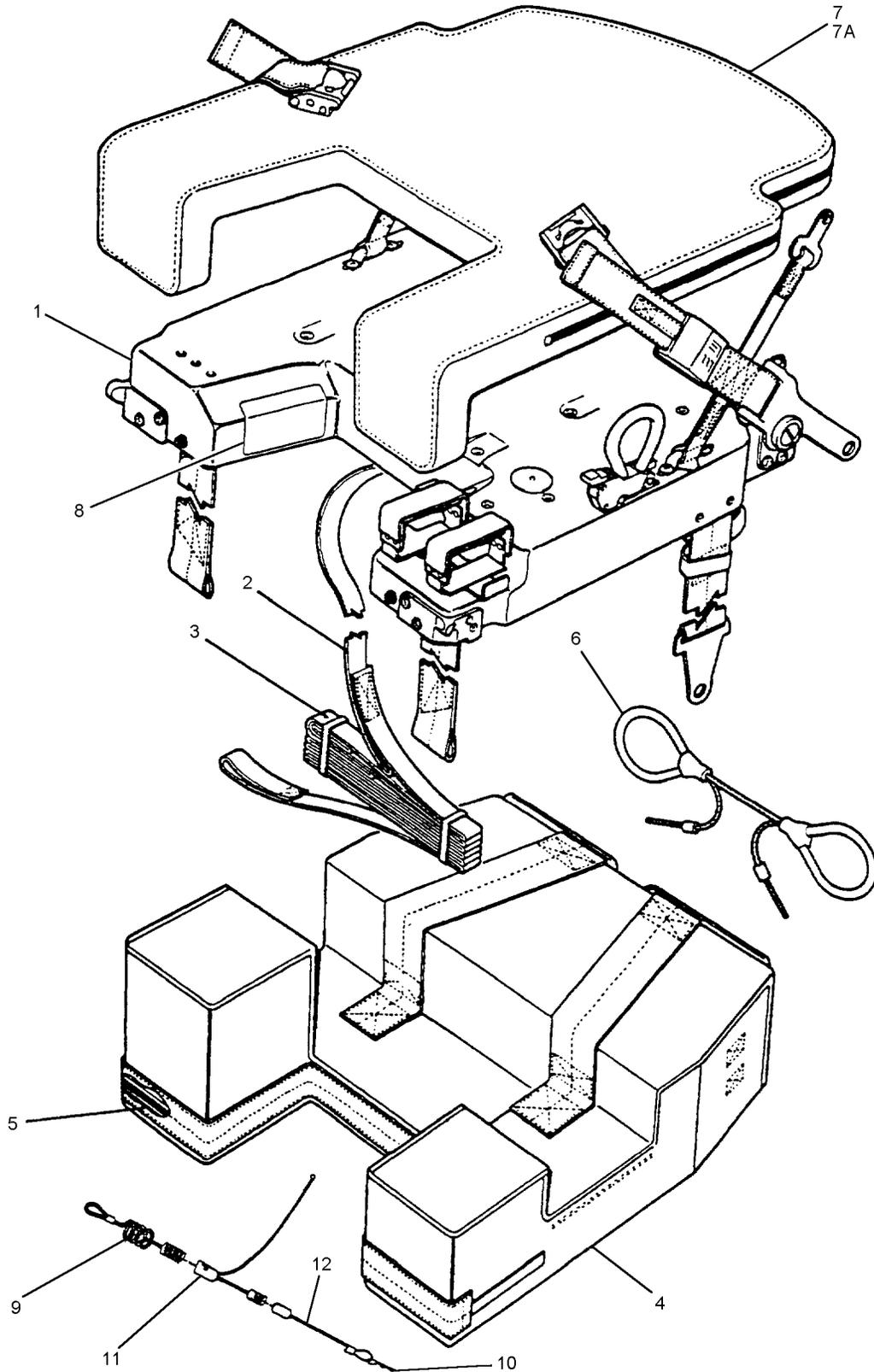
Section 8-8. Illustrated Parts Breakdown

8-104. GENERAL.

8-105. This section lists and illustrates the assemblies and detail parts of the SKU-10/A Seat Survival Kit, Part Number 366E100-5 and 366E100-7 (Post ACC 646). The kit is manufactured by East/West Industries

(CAGE 30941) and is supplied by Martin-Baker Ltd (CAGE U1604).

8-106. The Illustrated Parts Breakdown should be used during maintenance when requisitioning and identifying parts.



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Figure 8-16. Seat Survival Kit Assembly (SKU-10/A)

Figure and Index Number	Part Number	Description 1 2 3 4 5 6 7	Units Per Assembly	Usable On Code	
8-16	MBEU147443	SURVIVAL KIT ASSEMBLY, SKU-10/A	REF	A	
	MBEU147443-1	SURVIVAL KIT ASSEMBLY, SKU-10/A	REF	B	
	MBEU147444	SURVIVAL KIT ASSEMBLY (empty), SKU-10/A . . . (Note 1)	REF	A	
	MBEU147444-1	SURVIVAL KIT ASSEMBLY (empty), SKU-10/A . . . (Note 1)	REF	B	
	366E100-5	SURVIVAL KIT ASSEMBLY (empty), SKU-10/A . . . (Note 1)	REF	A	
	366E100-7	SURVIVAL KIT ASSEMBLY (empty), SKU-10/A . . . (Note 1)	REF	B	
	-1	366E200-5	. LID ASSEMBLY (See figure 8-17 for BKDN)	1	
	-2	325E620-1	. RETAINING LANYARD ASSEMBLY	1	
	-3	ZZ-R-001415	. ELASTIC TIE	4	
	-4	325E400-1	. RUCKSACK ASSEMBLY	1	
	-5	EW49004	. . SLIDE FASTENER, Rucksack	1	
	-6	361E560-1	. DEPLOYMENT HANDLE ASSEMBLY	1	
-7	366E671-9	. CUSHION ASSEMBLY (Note 2)	1	A	
-7A	366E672-1	. CUSHION ASSEMBLY (Notes 1 and 2)	1	B	
-8	MBEU130399	. NAMEPLATE	1		
	EW91062	. NAMEPLATE	1		
-9	361D367-1	. LOWER COUPLING ASSEMBLY, Lanyard	1		
-10	MS16562-192	. PIN, Spring, beacon actuating lanyard	1		
-11	325D363-1	. CABLE TO LANYARD ASSEMBLY	1		
-12	325C365-1	. LANYARD ASSEMBLY, Beacon actuator	1		
<p>Notes: 1. Cushion Assembly P/N 366E672-1 is to be used only in aircraft with ACC 646 incorporated.</p> <p>2. Alternate rate dependent cushion foam has been authorized for use. See Fabrication, Section 8-7.</p> <p>Usable on Codes: A – Before incorporation of ACC 646. B – After incorporation of ACC 646.</p>					

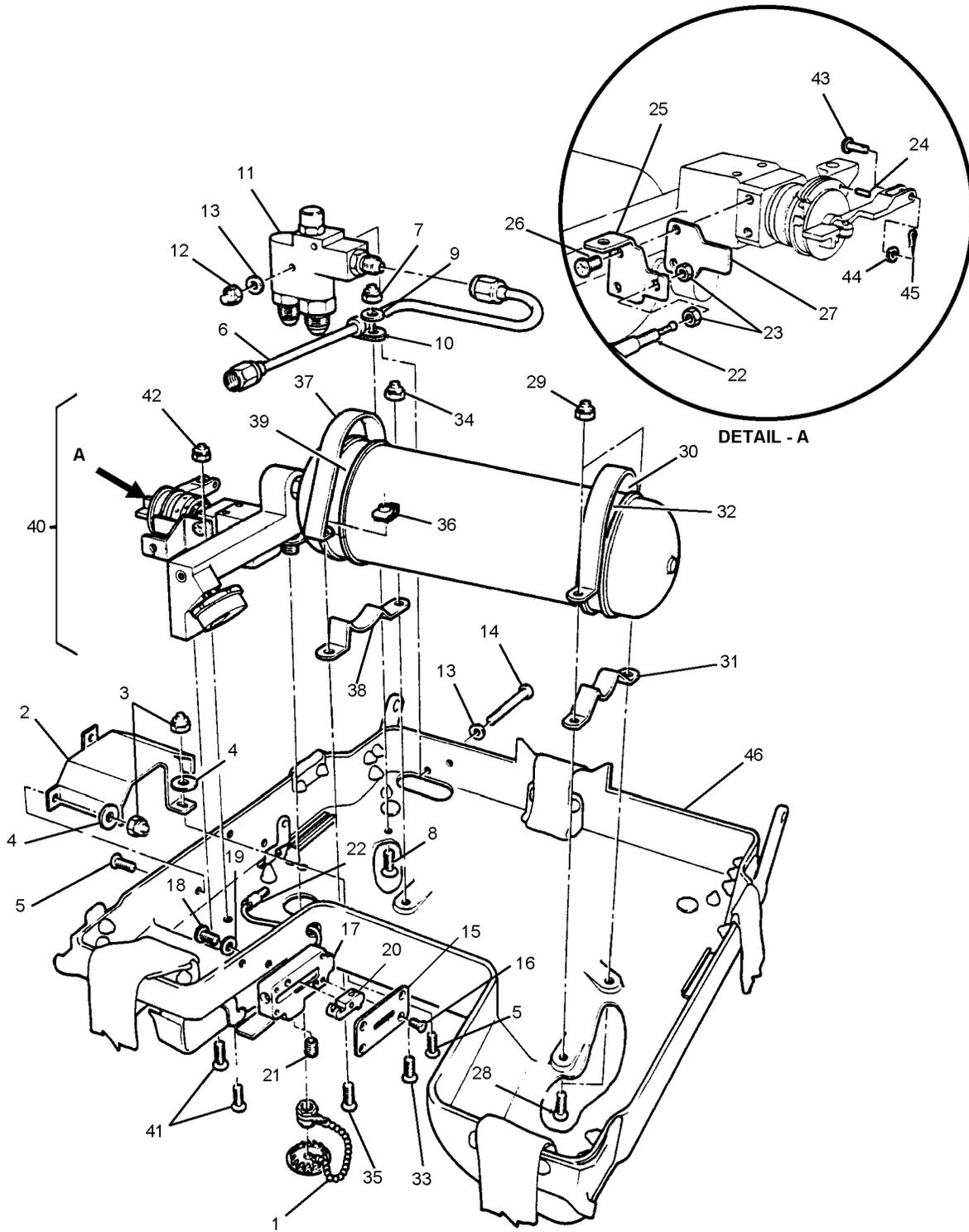


Figure 8-17. Lid Assembly

Figure and Index Number	Part Number	Description	Units Per Assembly	Usable On Code		
					1	2	3	4	5	6	7
8-17	366E200-5	LID ASSEMBLY, Survival Kit (See figure 8-16 for NHA)	1			
-1	361C280-1	. PLUG AND CAP ASSEMBLY	1			
-2	361D839-11	. COVER (ATTACHING PARTS)	1			
-3	EW42008	. NUT, Cap, self-locking	4			
	F22K1-62	. NUT, Cap, self-locking	4			
-4	AN960C6	. WASHER	4			
-5	MS24693-C28	. SCREW ---*---	4			
-6	361D355-1	. TUBE ASSEMBLY, Low pressure (ATTACHING PARTS)	1			
	325E355-1	. TUBE ASSEMBLY, Low pressure (ATTACHING PARTS)	1			
-7	EW42005	. NUT, Cap, self-locking	1			
	F22K1-82	. NUT, Cap, self-locking	1			
-8	MS24693-C50	. SCREW	1			
-9	AN960C8L	. WASHER	1			
-10	MS21919-DG4	. CLAMP ---*---	1			
-11	325D317-3	. MANIFOLD ASSEMBLY, Low pressure (See figure 8-20 for BKDN) (ATTACHING PARTS)	1			
-12	EW42005	. NUT, Cap, self-locking	2			
	F22K1-82	. NUT, Cap, self-locking	2			
-13	AN960C8L	. WASHER	4			
-14	MS27039-C0818	. SCREW ---*---	2			
-15	325C391-11	. COVER, Auto release (ATTACHING PARTS)	1			
-16	MS24693-C3	. SCREW ---*---	4			
-17	325D392-13	. HOUSING, Auto release (ATTACHING PARTS)	1			
-18	MS51958-63	. SCREW	2			
-19	AN960C10L	. WASHER ---*---	2			
-20	325D394-13	. SLIDE, Auto release	1			
-21	EW50021	. BALL PLUNGER	1			
-22	325E395-1	. CONDUIT ASSEMBLY (ATTACHING PARTS)	1			
-23	221B363-11	. NUT, Special	2			
-24	MS171432	. PIN, Spring ---*---	1			

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Figure and Index Number	Part Number	Description							Units Per Assembly	Usable On Code
		1	2	3	4	5	6	7		
8-17-25	325D838-11	.	BRACKET, Conduit	.	.	.	.	.	1	
			(ATTACHING PARTS)							
-26	MS51957-41	.	SCREW	.	.	.	.	.	2	
			---*---							
-27	325D852-11	.	SPRING, Cantilever	.	.	.	.	.	1	
	325E230-1	.	CLAMP ASSEMBLY	.	.	.	.	.	1	
			(ATTACHING PARTS)							
-28	MS24693-C273	.	SCREW	.	.	.	.	.	2	
-29	EW42001	.	NUT, Cap, self-locking	.	.	.	.	.	2	
	F22K1-02	.	NUT, Cap, self-locking	.	.	.	.	.	2	
			---*---							
-30	325E230-11	.	CLAMP	.	.	.	.	.	1	
-31	325E230-13	.	STRAP	.	.	.	.	.	1	
-32	325C235-11	.	INSERT	.	.	.	.	.	1	
	325E240-1	.	CLAMP ASSEMBLY	.	.	.	.	.	1	
			(ATTACHING PARTS)							
-33	MS24693-C273	.	SCREW	.	.	.	.	.	1	
-34	EW42001	.	NUT, Cap, self-locking	.	.	.	.	.	1	
	F22K1-02	.	NUT, Cap, self-locking	.	.	.	.	.	1	
-35	MS24693-C274	.	SCREW	.	.	.	.	.	1	
			---*---							
-36	RM52LHA4972-4-3	.	NUT, Clip	.	.	.	.	.	1	
-37	325E240-11	.	CLAMP	.	.	.	.	.	1	
-38	325E240-13	.	STRAP	.	.	.	.	.	1	
-39	325C235-11	.	INSERT	.	.	.	.	.	1	
-40	366E310-1	.	EMERGENCY OXYGEN ASSEMBLY	.	.	.	.	.	1	
			(See figure 8-18 for BKDN)							
			(ATTACHING PARTS)							
-41	MS24693-C272	.	SCREW	.	.	.	.	.	2	
-42	EW42001	.	NUT, Cap, self-locking	.	.	.	.	.	1	
	F22K1-02	.	NUT, Cap, self-locking	.	.	.	.	.	1	
-43	MS20392-1C13	.	PIN	.	.	.	.	.	1	
-44	AN960C4L	.	WASHER	.	.	.	.	.	1	
-45	MS24665-1011	.	PIN, Cotter	.	.	.	.	.	1	
			---*---							
-46	366E200-7	.	LID SUB-ASSEMBLY	.	.	.	.	.	1	
			(See figure 8-19 for BKDN)							

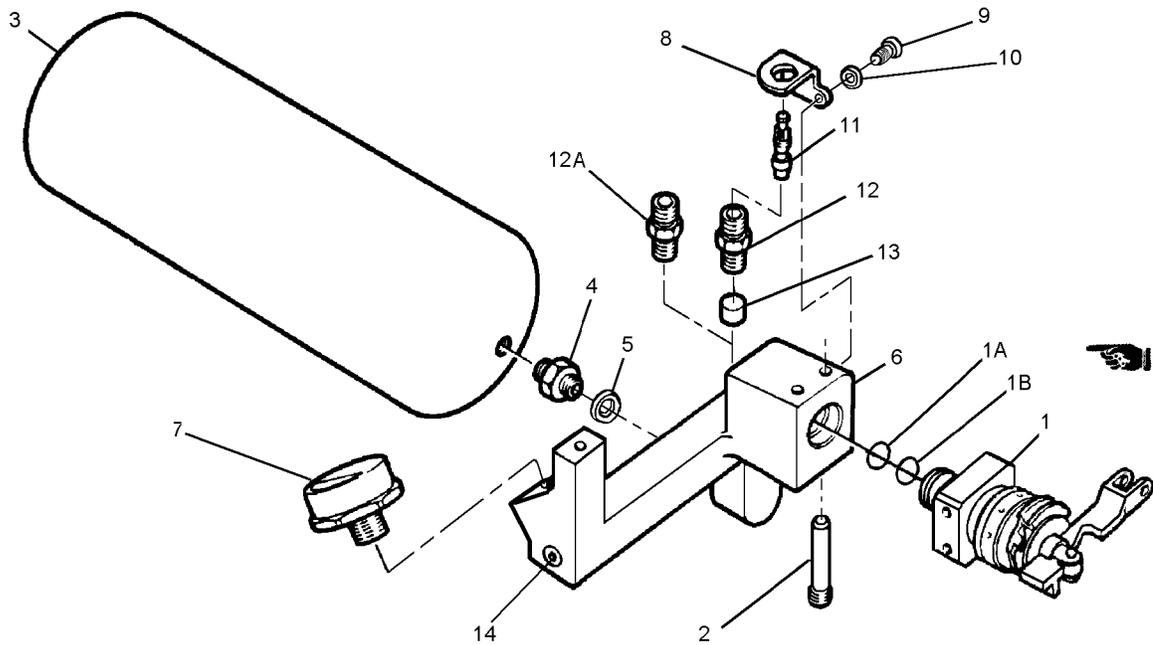
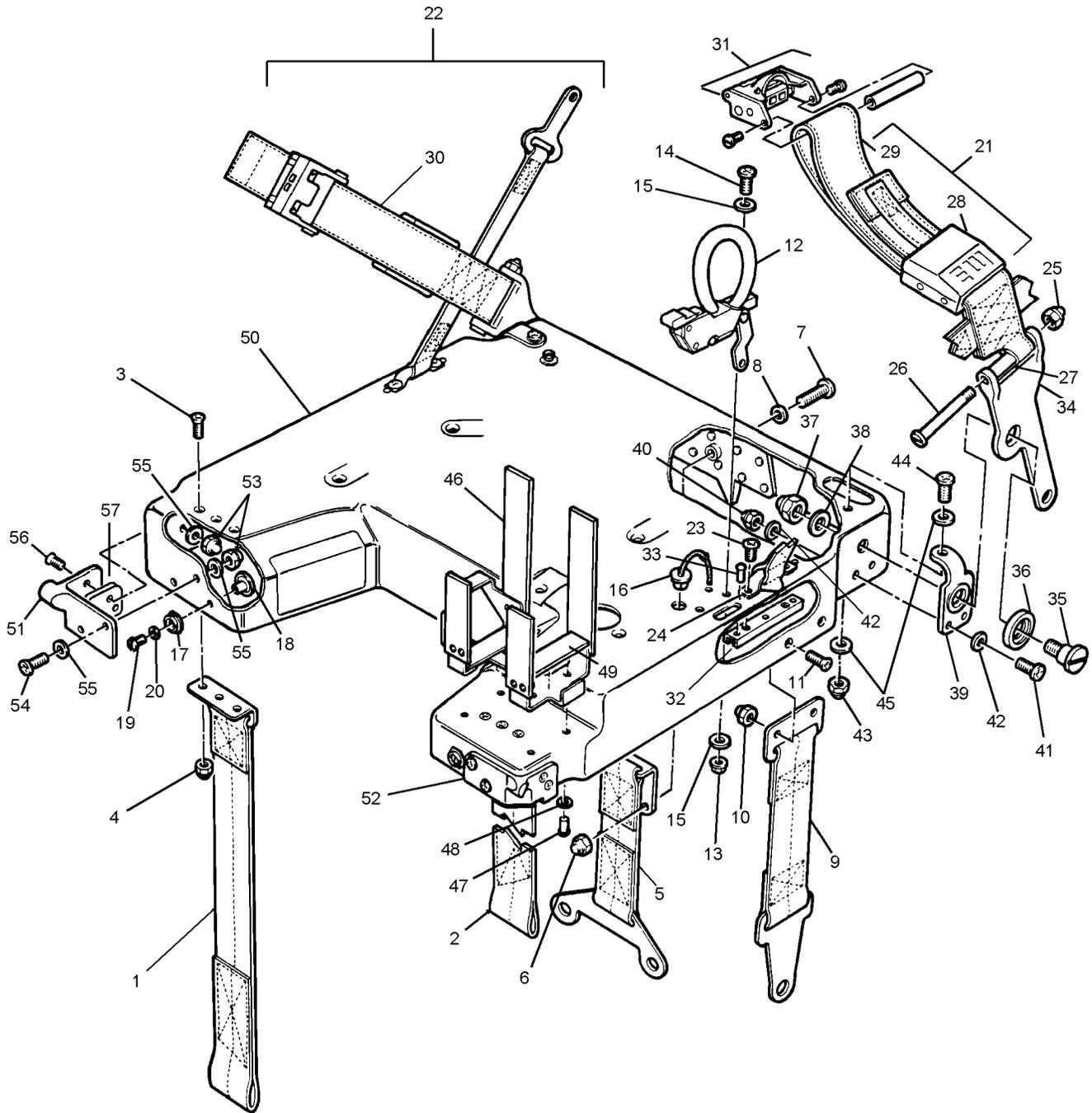


Figure 8-18. Emergency Oxygen Assembly

008018

Figure and Index Number	Part Number	Description	Units Per Assembly							Usable On Code
			1	2	3	4	5	6	7	
8-18	366E310-1	EMERGENCY OXYGEN ASSEMBLY							1	
-1	361E840-1	. PRESSURE REDUCER ASSEMBLY, Adj							1	
		(ATTACHING PARTS)								
-1A	NAS1611-014	. O-RING							1	
-1B	325D813-11	. RING, Backup							1	
-2	266C702-11	. PIN							2	
		---*---								
-3	235D500-3	. CYLINDER ASSEMBLY							1	
-4	266B830-11	. NIPPLE, Union							1	
-5	MS9068-011	. O-RING							1	
	366E310-3	. MANIFOLD ASSEMBLY							1	
-6	325E812-11	. . MANIFOLD ASSEMBLY, High pressure							1	
-7	EW68001	. . GAGE							1	
-8	325D312-11	. . BRACKET, Anti-rotation, filler valve							1	
		(ATTACHING PARTS)								
-9	MS51957-26	. . SCREW							1	
-10	AN960C6L	. . WASHER							1	
		---*---								
	325B380-1	. . VALVE ASSEMBLY, Filler							1	
-11	EW63001	. . . VALVE CORE							1	
-12	102C383-11	. . . BODY, Valve							1	
-12A	9120097-27	. □. □ FILL VALVE (Note □) □.							1	
-13	204B419-11	. . FILTER, Filler valve							1	
-14	MS27769-S1	. . PLUG							2	
Notes: 1. Fill Valve can be used as an alternate to replace Filler Valve Assembly P/N 325B380-1 or Valve Core P/N EW63001 and Valve Body P/N 102C383-11.										



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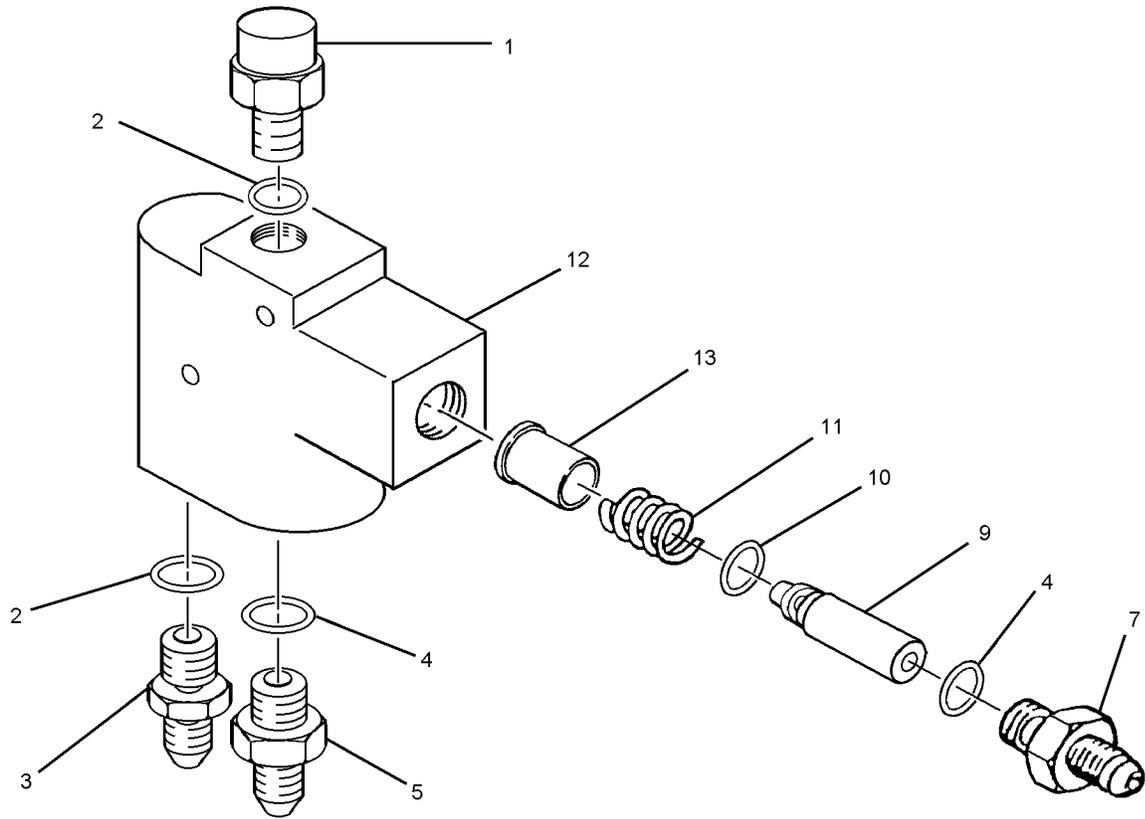
Figure 8-19. Lid Subassembly

Figure and Index Number	Part Number	Description	Units Per Assembly	Usable On Code		
					1	2	3	4	5	6	7
8-19	366E200-7	LID SUB-ASSEMBLY (See figure 8-17 for NHA)	1			
-1	361D650-3	. STRAP ASSEMBLY, Forward (RH)	1			
-2	361D650-1	. STRAP ASSEMBLY, Forward (LH) (ATTACHING PARTS FOR EACH OF ITEMS 1 AND 2)	1			
-3	MS24693-C28	. SCREW	3			
-4	EW42008	. NUT, Cap, self-locking	3			
	F22K1-62	. NUT, Cap, self-locking ---*---	3			
-5	325D660-1	. STRAP ASSEMBLY, Aft (ATTACHING PARTS)	1			
-6	EW42005	. NUT, Cap, self-locking	2			
	F22K1-82	. NUT, Cap, self-locking	2			
-7	MS51957-46	. SCREW	2			
-8	AN960C8L	. WASHER ---*---	2			
-9	325D630-1	. STRAP ASSEMBLY, Side (ATTACHING PARTS)	2			
-10	EW42005	. NUT, Cap, self-locking	2			
	F22K1-82	. NUT, Cap, self-locking	2			
-11	MS24693-C50	. SCREW ---*---	2			
-12	325E350-1	. HANDLE ASSEMBLY, (Manual Actuation) (ATTACHING PARTS)	1			
-13	H14-3	. NUT, Self-locking	2			
-14	MS51958-65	. SCREW	2			
	AN960C10L	. WASHER ---*---	4			
-16	361C261-1	. PLUG ASSEMBLY	1			
-17	MS27983-3N	. STUD	4			
-18	MS27983-5N	. EYELET (ATTACHING PARTS FOR EACH OF ITEMS 17 AND 18)	4			
-19	EW41002	. SCREW	1			
-20	NAS620C-5L	. WASHER ---*---	1			
-21	325D680-1	. HARNESS ASSEMBLY, (Lapbelt), Adj (LH)	1			
-22	325D680-2	. HARNESS ASSEMBLY, (Lapbelt), Adj (RH) (ATTACHING PARTS FOR EACH OF ITEMS 21 AND 22)	1			
-23	MS51958-63	. SCREW	2			
-24	102C101-13	. BRACKET, Footman	1			
-25	EW42001	. NUT, Cap, self-locking	1			

NAVAIR 13-1-6.3-2

Figure and Index Number	Part Number	Description							Units Per Assembly	Usable On Code
		1	2	3	4	5	6	7		
8-19	F22K1-02	.	NUT, Cap, self-locking	.	.	.	.	.	1	
-26	221B691-11	.	PIN, Retention, harness	.	.	.	.	.	1	
-27	221B210-11	.	ROLLER, Retention	.	.	.	.	.	1	
			---*---							
-28	184C100-1	.	ADJUSTER, Harness restraint	.	.	.	.	.	1	
-29	325E690-1	.	HARNESS ASSEMBLY (LH)	.	.	.	.	.	1	
-30	325E690-2	.	HARNESS ASSEMBLY (RH)	.	.	.	.	.	1	
-31	MBEU144299	.	KOCH CONNECTOR (NOSES 2 and 3)	.	.	.	.	.	1	
	015-11365-1	.	KOCH CONNECTOR (NOSES 2 and 3)	.	.	.	.	.	1	
-32	102C281-11	.	BACKPLATE	.	.	.	.	.	2	
			(ATTACHING PARTS)							
-33	MS20470A3-5	.	RIVET	.	.	.	.	.	3	
			---*---							
-34	253C645-11	.	FITTING, Rear	.	.	.	.	.	2	
	253C645-13	.	FITTING, Rear	.	.	.	.	.	2	
			(ATTACHING PARTS)							
-35	361B646-11	.	PIN, Rear attachment	.	.	.	.	.	1	
-36	221B648-11	.	WASHER, Anti-chafe	.	.	.	.	.	1	
-37	EW42003	.	NUT, Cap, self-locking	.	.	.	.	.	1	
	F22K1-048	.	NUT, Cap, self-locking	.	.	.	.	.	1	
-38	AN960C416L	.	WASHER	.	.	.	.	.	1	
			---*---							
-39	325D640-11	.	ATTACHMENT FITTING, Rear	.	.	.	.	.	2	
			(ATTACHING PARTS)							
-40	EW42001	.	NUT, Cap, self-locking	.	.	.	.	.	2	
	F22K1-02	.	NUT, Cap, self-locking	.	.	.	.	.	2	
-41	MS51958-63	.	SCREW	.	.	.	.	.	2	
-42	AN960C10L	.	WASHER	.	.	.	.	.	4	
-43	EW42001	.	NUT, Cap, self-locking	.	.	.	.	.	1	
	F22K1-02	.	NUT, Cap, self-locking	.	.	.	.	.	1	
-44	MS51958-63	.	SCREW	.	.	.	.	.	1	
-45	AN960C10L	.	WASHER	.	.	.	.	.	2	
			---*---							
-46	325E511-3	.	BRACKET ASSEMBLY, Beacon	.	.	.	.	.	1	
			(ATTACHING PARTS)							
-47	MS20426A4-7	.	RIVET	.	.	.	.	.	4	
-48	AN960C4L	.	WASHER	.	.	.	.	.	4	
			---*---							
-49	325D513-11	.	PAD, Rubber	.	.	.	.	.	2	
-50	325J221-11	.	LID, MACHINED	.	.	.	.	.	1	
-51	325D212-12	.	PIVOT FITTING (RH)	.	.	.	.	.	1	

Figure and Index Number	Part Number	1 2 3 4 5 6 7	Units Per Assembly	Usable On Code
8-19-52	325D212-11	. . PIVOT FITTING (LH) (ATTACHING PARTS FOR EACH OF ITEMS 51 AND 52)	1	
-53	EW42005	. . NUT, Cap, self-locking	4	
	F22K1-82	. . NUT, Cap, self-locking	4	
-54	MS27039-C0809	. . SCREW	2	
-55	AN960C8L	. . WASHER	6	
-56	MS24694-C6	. . SCREW ---*---	2	
-57	217B220-15	. . SHIM, LAMINATED	A/R	
Notes: 1. Deleted. 2. When ordering P/N MBEU144299, P/N 015-11365-1 may be received. Both are acceptable and interchangeable in pairs only. 3. When replacing lapbelt assembly connectors P/N MBEU144299 or P/N 015-11365-1, apply sealing, locking, and retaining compound, MIL-S-22473, to shoulder screws.				



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Figure 8-20. Manifold Assembly, Outlet

Figure and Index Number	Part Number	Description	Units Per Assembly	Usable On Code
8-20	325D317-3	MANIFOLD ASSEMBLY, OUTLET	REF	
-1	EW63004	. RELIEF VALVE (30941)	1	
	P103-673	. RELIEF VALVE (91816)	1	
	Z02RV04-4	. RELIEF VALVE (91816) (Note 1)	1	
-2	MS9068-012	. O-RING (Note 2)	2	
-3	325D336-11	. UNION	1	
-4	MS9068-013	. O-RING (Note 2)	2	
-5	325C335-11	. UNION	1	
-6	Deleted			
-7	325C334-11	. UNION	1	
-8	Deleted			
-9	325C331-11	. SPINDLE	1	
-10	MS9068-010	. O-RING (Note 2)	1	
-11	295B333-11	. SPRING	1	
-12	325D319-13	. MANIFOLD BODY	1	
-13	325C320-11	. SPRING RETAINER	1	
Notes: 1. Torque to a value of 70 ± 5 in-lb. 2. Apply a light film of Krytox 240 AZ lubricant, MIL-G-27617, prior to assembly.				

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Part Number	Figure and Index Number	SM&R Code	Part Number	Figure and Index Number	SM&R Code
AN960C-10L	8-17-19	PAOZZ	MBEU144299	8-19-31	PAGZZ
	8-19-15	PAOZZ	MBEU147443	8-16	AGOOG
	8-19-42	PAOZZ	MBEU147443-1	8-16	AGOOG
	8-19-45	PAOZZ	MBEU147444	8-16	PAGGG
AN960C416L	8-19-38	PAGZZ	MBEU147444-1	8-16	PAGGG
AN960C4L	8-17-44	PAGZZ	MS16562-192	8-16-10	PAGZZ
	8-19-48	PAGZZ	MS171432	8-17-24	PAGZZ
AN960C6	8-17-4	PAGZZ	MS20392-1C13	8-17-43	PAGZZ
AN960C6L	8-18-10	PAGZZ	MS20426A4-7	8-19-47	PAGZZ
AN960C8L	8-17-9	PAGZZ	MS20470A3-5	8-19-33	PAGZZ
	8-17-13	PAGZZ	MS21919-DG4	8-17-10	PAGZZ
	8-19-8	PAGZZ	MS24665-1011	8-17-45	PAGZZ
	8-19-55	PAGZZ	MS24693-C272	8-17-41	PAGZZ
EW41002	8-19-19	PAGZZ	MS24693-C273	8-17-28	PAGZZ
EW42001	8-17-29	PAGZZ		8-17-33	PAGZZ
	8-17-34	PAGZZ	MS24693-C274	8-17-35	PAGZZ
	8-17-42	PAGZZ	MS24693-C28	8-17-5	PAGZZ
EW42001	8-19-25	PAGZZ		8-19-3	PAGZZ
	8-19-40	PAGZZ	MS24693-C3	8-17-16	PAGZZ
	8-19-43	PAGZZ	MS24693-C50	8-17-8	PAGZZ
EW42003	8-19-37	PAGZZ		8-19-11	PAGZZ
EW42005	8-17-12	PAGZZ	MS24694-C6	8-19-56	PAGZZ
	8-19-6	PAGZZ	MS27039-C0809	8-19-54	PAGZZ
	8-19-10	PAGZZ	MS27039-C0818	8-17-14	PAGZZ
	8-19-53	PAGZZ	MS27769-S1	8-18-14	PAGZZ
EW42008	8-17-3	PAGZZ	MS27983-3N	8-19-17	PAGZZ
	8-17-7	PAGZZ	MS27983-5N	8-19-18	PAGZZ
	8-19-4	PAGZZ	MS51957-26	8-18-9	PAGZZ
EW49004	8-16-5	PAGGG	MS51957-41	8-17-26	PAGZZ
EW50021	8-17-21	PAGZZ	MS51957-46	8-19-7	PAGZZ
EW63001	8-18-11	PAGZZ	MS51958-63	8-17-18	PAGZZ
EW63004	8-20-1			8-19-23	PAGZZ
EW68001	8-18-7	PAGZZ		8-19-41	PAGZZ
EW91062	8-16-8	MDGZZ		8-21-44	PAGZZ
F22K1-02	8-17-29	PAGZZ	MS51958-65	8-19-14	PAGZZ
	8-17-34	PAGZZ	MS9068-010	8-20-10	PAGZZ
	8-17-42	PAGZZ	MS9068-011	8-18-5	PAGZZ
	8-19-25	PAGZZ	MS9068-012	8-20-2	PAGZZ
	8-19-40	PAGZZ	MS9068-013	8-20-4	PAGZZ
	8-19-43	PAGZZ	NAS1611-014	8-18-1A	PAGZZ
F22K1-048	8-19-37	PAGZZ	NAS620C-5L	8-19-20	PAGZZ
F22K1-62	8-17-3	PAGZZ	P103-673	8-20-1	
	8-19-4	PAGZZ	RM52LHA4972-4-3	8-17-36	PAGZZ
F22K1-82	8-17-7	PAGZZ	ZZ-R-001415	8-16-3	PAGZZ
	8-17-12	PAGZZ	Z02RV04-4	8-20-1	
	8-19-6	PAGZZ	015-11365-1	8-19-31	PAGZZ
	8-19-10	PAGZZ	102C101-13	8-19-24	PAGZZ
F22K1-82	8-19-53	PAGZZ	102C281-11	8-19-32	PAGZZ
H14-3	8-19-13	PAGZZ	102C383-11	8-18-12	PAGZZ
MBEU130399	8-16-8	MDGZZ			

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204B419-11	8-18-13	PAGZZ	325E230-1	8-17	PAGZZ
217B220-15	8-19-57	PAGZZ	325E230-11	8-17-30	PAGZZ
221B210-11	8-19-27	PAGZZ	325E230-13	8-17-31	PAGZZ
221B363-11	8-17-23	PAGZZ	325E240-1	8-17	PAGZZ
221B648-11	8-19-36	PAGZZ	325E240-11	8-17-37	PAGZZ
221B691-11	8-19-26	PAGZZ	325E240-13	8-17-38	PAGZZ
235D500-3	8-18-3	PAGZZ	325E350-1	8-19-12	PAGZZ
253C645-11	8-19-34	PAGZZ	325E355-1	8-17-6	PAGZZ
253C645-13	8-19-34	PAGZZ	325E395-1	8-17-22	PAGZZ
266B830-11	8-18-4	PAGZZ	325E400-1	8-16-4	PAGGG
266C702-11	8-18-2	PAGZZ	325E511-3	8-19-46	XBGZZ
295B333-11	8-20-11	PAGZZ	325E620-1	8-16-2	PAGZZ
325B380-1	8-18	PAGGG	325E690-1	8-19-29	PAGZZ
325C235-11	8-17-32	PAGZZ	325E690-2	8-19-30	PAGZZ
	8-17-39	PAGZZ	325E812-11	8-18-6	XAGZZ
325C320-11	8-20-13	PAGZZ	325J221-11	8-19-50	PAGGG
325C331-11	8-20-9	PAGZZ	361B646-11	8-19-35	PAGZZ
325C334-11	8-20-7	PAGZZ	361C261-1	8-19-16	PAGZZ
325C335-11	8-20-5	PAGZZ	361C280-1	8-17-1	PAGZZ
325C365-1	8-16-12	PAGZZ	361D355-1	8-17-6	PAGZZ
325C391-11	8-17-15	XBGZZ	361D367-1	8-16-9	PAOZZ
325D212-11	8-19-52	PAGZZ	361D650-1	8-19-2	PAGZZ
325D212-12	8-19-51	PAGZZ	361D650-3	8-19-1	PAGZZ
325D312-11	8-18-8	XBGZZ	361D839-11	8-17-2	XBGZZ
325D317-3	8-17-11	PAGGG	361E560-1	8-16-6	PAGZZ
	8-20	PAGGG	361E840-1	8-18-1	PAGZZ
325D319-13	8-20-12	XAGZZ	366E100-5	8-16	PAGGG
325D336-11	8-20-3	PAGZZ	366E100-7	8-16	PAGGG
325D363-1	8-16-11	PAGZZ	366E200-5	8-16-1	PAGGG
325D392-13	8-17-17	XBGZZ		8-17	PAGGG
325D394-13	8-17-20	PAGZZ	366E200-7	8-17-46	PAGZZ
325D513-11	8-19-49	XBGZZ		8-19	PAGZZ
325D630-1	8-19-9	PAGZZ	366E310-1	8-17-40	AGGGG
325D640-11	8-19-39	PAGZZ		8-18	AGGGG
325D660-1	8-19-5	PAGZZ	366E310-3	8-18	PAGGG
325D680-1	8-19-21	AGGGG	366E671-9	8-16-7	PAOZZ
325D680-2	8-19-22	AGGGG	366E672-1	8-16-7A	PAOZZ
325D813-11	8-18-1B	PAGZZ	9120097-27	8-18-12A	PAGZZ
325D838-11	8-17-25	XBGZZ			