



**Owner's Manual**





Switlik Survival Product's  
**CORD** Gen II Crew Overboard Rescue Device  
Owner's Manual

This publication is issued as the owner's manual for the Switlik **CORD** Gen II CREW OVERBOARD RESCUE DEVICE, part number S-4161-2.

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## WARNINGS

**WARNING!** Read these instructions fully before use. Failure to do so may result in injury or death.

**WARNING!** This device must be used in accordance with the instructions in this manual for maximum performance. Failure to comply with instructions could result in a lower level of performance or in failure of the device, which could result in death. Under some circumstances, even if used properly this device may not save your life.

**WARNING!** Do not inflate this device orally via the included oral inflation tubes and then pull the inflation tab. This could cause injury and may overstress the buoyancy chamber.

**WARNING!** This device is **not** designed to satisfy the requirements of a life raft for extended durations. This unit is designed for man-overboard or individual rescue operations.

**WARNING!** This unit requires limited periodic maintenance to ensure operation in an emergency. Do not use this unit if it has not been properly maintained. See "Care and Maintenance" section for additional details.

**WARNING!** Do not open or otherwise disassemble this device until needed. Maintenance should be performed only when needed. See "Care and Maintenance" section for additional details.

**WARNING!** Never use this device if it has obvious damage.



## Description

The Switlik Survival Product's **CORD** Gen II CREW OVERBOARD RESCUE DEVICE is designed to rescue a man overboard victim. The device consists of an underarm flotation device (UFD) that provides buoyancy to the victim and also acts as a lifting sling to pull the victim back onto the boat. One hundred fifty feet of floating line is connected from the flotation device and is anchored to the boat with a quick-disconnect shackle. The crew on the boat can use this line to retrieve the victim.

The device includes stainless steel lifting rings paired with tubular webbing that can easily support one or two victims in the event where hoisting is necessary. The floating line is visible in the water and the unit can be deployed in seconds to get the victim out of the water as quickly as possible.

The unit can be rearmed and repacked by the user.

In the event of a man overboard, alert the crew and begin your planned man overboard procedure. Slow the boat, then lift the red flap on top of the **CORD** case. Under the flap is a red inflation pull tab. Pull the tab upwards with a quick jerk. The flotation device inside will inflate and release itself from the case. The 150' of attached line pays out with it. Circle the man overboard until contact is made with the victim and the flotation device. At this point, perform a quick stop maneuver, and begin pulling the victim in via the retrieval line. Once alongside the boat, reach down and pull the victim aboard. On boats with high freeboard, connect hoisting tackle to the lifting rings of the flotation device and hoist the victim aboard.



## Mounting Instructions

The **CORD** must be installed vertically, outside the toerail, in a location free of obstructions or possible entanglements. It is critical to the operation of the **CORD** that there be a clear path between the bottom of the case and the water to allow the underarm flotation device to fall freely without becoming entangled.

On most boats the best location is outboard on the stern pulpit. However, if hull design or fittings on the transom impede the free deployment of the device into the water, installation on the quarter is possible. The problem with quarter-mounting is that there is danger of damaging the **CORD** during maneuvers at the dock.

The ideal location is at the intersections of all vertical and upper horizontal members of the pulpit rail. Note how the line from the **CORD** unit is secured to the stanchion with a snap shackle.







This mounting will work with either a rail or a cable (lifeline).



Even an angled stanchion will work.





If this location is not available, the **CORD** unit may be mounted on parallel rails. The lower rail attachment can be made with either the lacing flap, the lacing flap cord or with the snap shackle on the floating line, depending on the distance between the two rails.

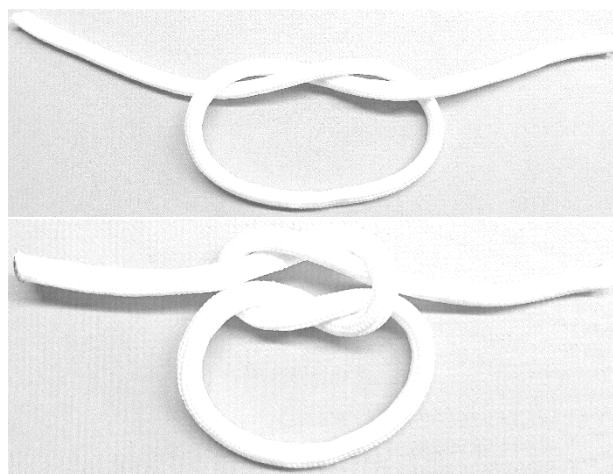
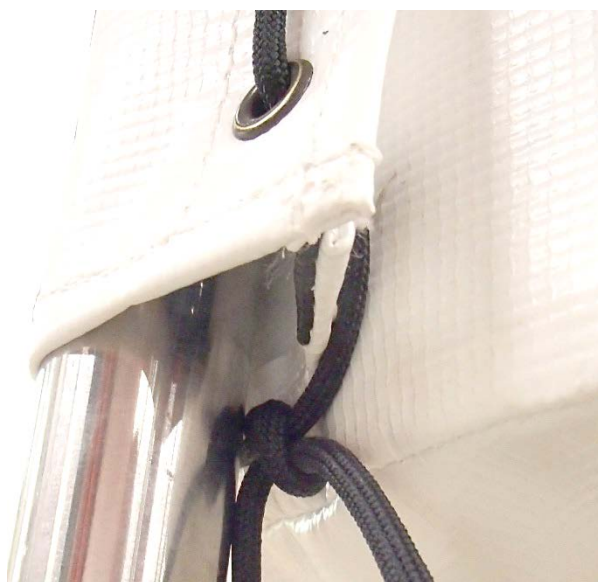


To secure the **CORD** to the rails, fully unlace the lacing flap. Place the flap over the top rail (or lifeline) and lace the flap back up. Note the lacing pattern below.





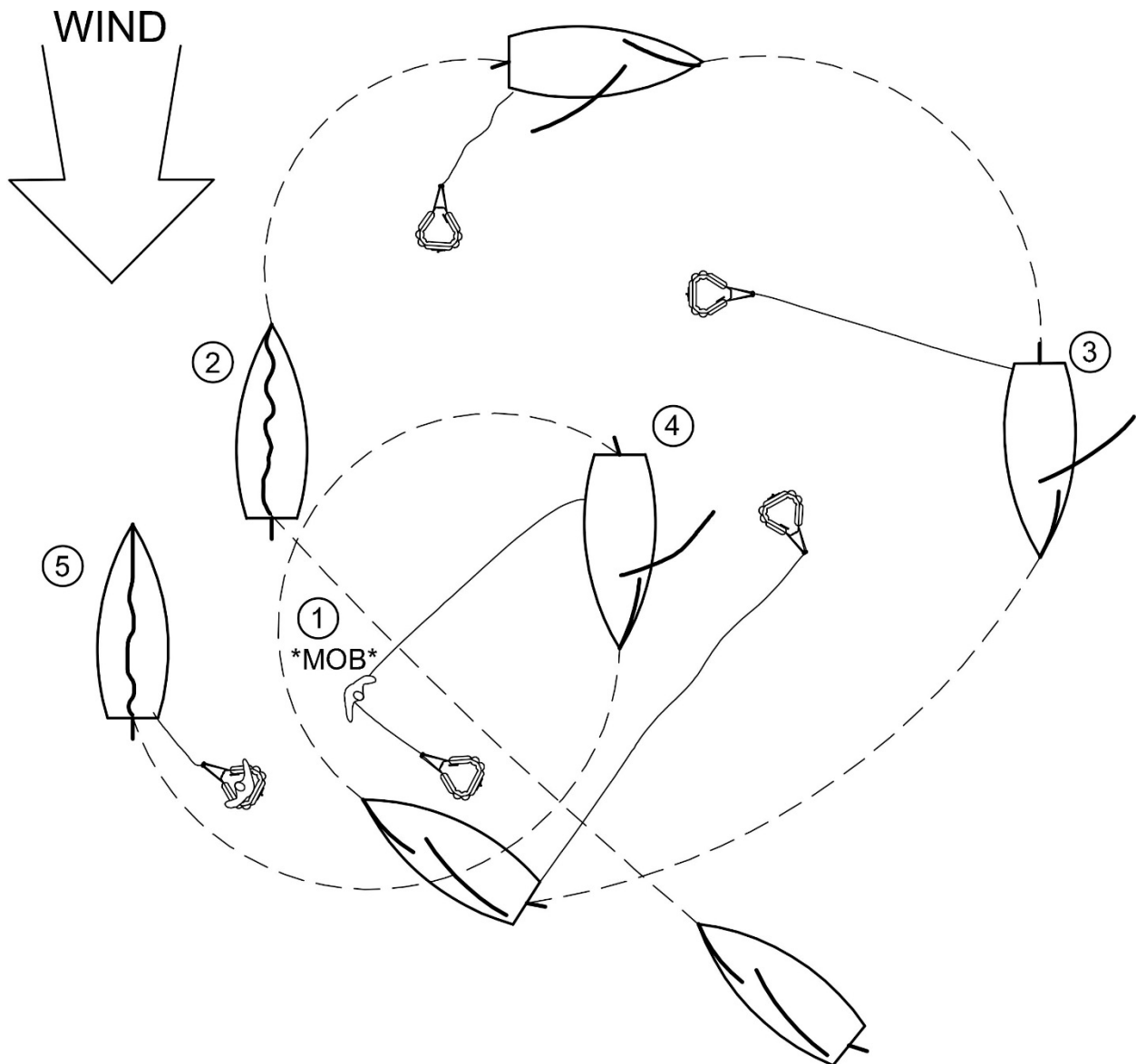
Secure the laces with a square knot.





## Operating Instructions

**Explain the CORD to everyone who comes aboard.** In the event of a man overboard emergency, every member of the crew must be prepared to act immediately. Although the CORD provides the fastest way to get rescue equipment into the water, actual rescue requires additional action by captain and crew. The captain should drill the crew thoroughly and frequently on the procedures to follow in such an emergency.



Refer to previous diagram:

1. **MAN OVERBOARD! Deploy the CORD.** As quickly as possible, deploy the **CORD** by lifting the red flap and pulling the inflation tab straight up with a sharp jerk. The flotation device will inflate, falling from the bag and drop into the water near the victim.



2. **Immediately put the boat about causing it to backwind.** We recommend all helmsmen study the Quick Stop maneuver. Crew members should perform tasks as assigned by the captain such as starting the engine, taking down the sails, preparing a heaving line, etc.

3. **Circle back to the victim.** The helmsman should designate a crewmember to sight the person overboard and maintain a visual as the boat circles back around.

4. **Continue circling until the overboard person can reach the CORD.**

5. **Pull in retrieval line with both hands after victim is secured in Underarm Flotation Device (UFD).** If victim cannot climb aboard, use the lifting straps to hoist victim. If necessary, a crew member should drop the end of the halyard to the victim and they should secure the end to the two lifting rings at the end of the lifting straps. Then, hoist the victim aboard.







**NOTE:** Under no circumstances should the victim leave the flotation device before being securely attached to the boat. Never put another crewmember overboard to assist a person in the water unless they are wearing a PFD, harness and are attached by a line to the vessel.

**Retrieve and Repack.** Bring the **CORD** device aboard. If possible, rinse it with fresh water and allow to air dry. Deflate the underarm flotation device (UFD) by pulling the black, dustcap off the oral inflation tube. Reverse the cap and press it back into the oral inflation tube. Then, roll up the device to squeeze all the CO<sub>2</sub> out. Reverse the dust cap on the oral inflation tube again to prevent air from coming back in. The Switlik Survival Product's **CORD** Gen II CREW OVERBOARD RESCUE DEVICE can be serviced and repacked by the user.

**NOTE:** It is recommended that the **CORD** unit be removed from its mount and stored below if the boat will be moored for extended periods.



## Operating Limitations

### PRESSURE:

- ◆ Underarm Flotation Device

Normal operating pressure:        2 psi

### TEMPERATURE:

The **CORD** is designed to operate between a temperature range of 32° F and 140° F.

At normal and higher temperatures, the raft will inflate to full-design shape within 10 seconds or less. At lower temperatures, inflation may take longer.



## Care & Servicing Instructions

### CLEANING:

The **CORD** case and flotation device may be cleaned with mild soap and water. Never use harsh chemicals on or around this product. If exposed to harsh chemicals such as hydraulic fluids, oils or solvents, have the unit cleaned and inspected by an authorized service center.

### SERVICING:

The Switlik Survival Product's **CORD** Gen II CREW OVERBOARD RESCUE DEVICE can be serviced by the user. However, only authorized parts may be used to service this device. See the parts section for available parts.

The **CORD should be serviced every year**. It also needs to be serviced after an actual deployment. Refer to the instructions in the "SERVICING – detailed" section of this manual.

**NOTE:** Except where specifically instructed, complete disassembly is neither required nor desired. Disassemble only to the extent required to clean, inspect, test and make necessary repairs or replacement.

**WARNING:** For servicing or repairs beyond the scope of this manual, or if you're not confident in the self-inspection servicing of your device in accordance with these instructions, return your **CORD** to a factory-authorized service center.

**NOTE:** Service Stations are to follow manual 25-61-25 for testing per service information letter STG-19165.

### IDENTIFICATION LABEL:

Located inside the end cap on the case is an identification label. The label contains the part number and serial number of your device.

P/N: S-4161-2  
SERIAL NO: CRD-XXXX



CLEANING - detailed

1. With the **CORD** inflated, wash with fresh water. A mild soap may also be used.
  - a. Be sure to also wash the retrieval line that was in the water.
  - b. Remove the cap on the auto-inflator (twist counter-clockwise), remove the yellow bobbin and wash out the white residue in the cap and inside the inflator.
  - c. Allow to air dry. **DO NOT PLACE IN DRYER.**
2. When dry, place the **CORD** on a clean work area, free of anything that could damage or puncture it.
3. Proceed to **SERVICING-detailed** section.

SERVICING – detailed

**UNPACKING THE CORD**

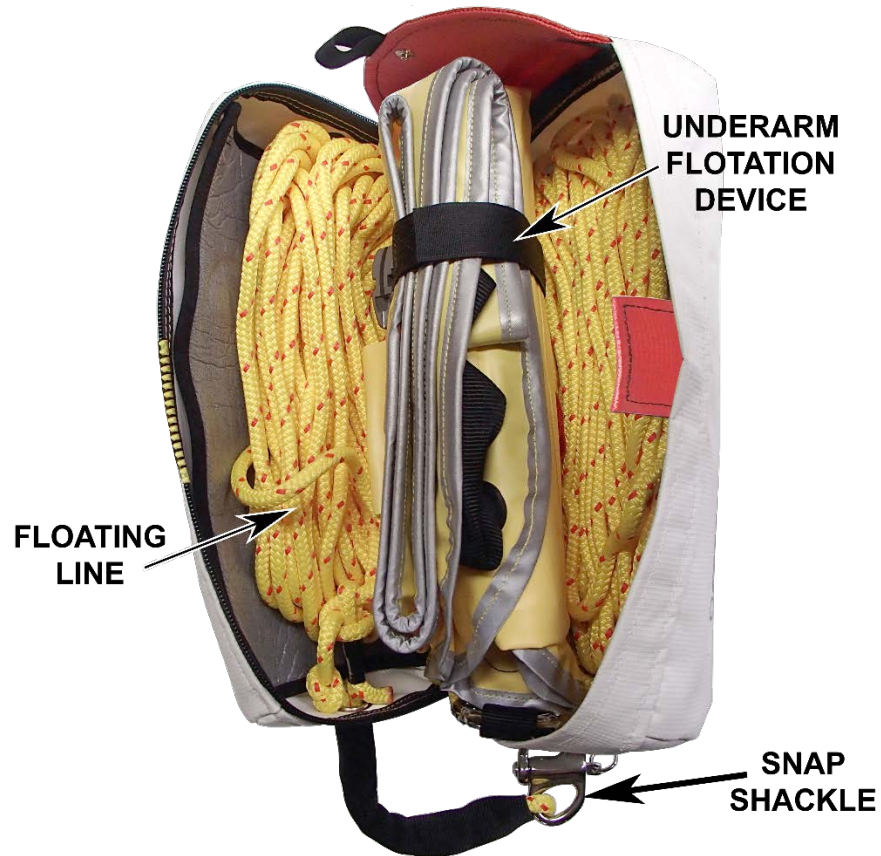
If the unit has not been deployed, proceed as follows:

1. Lift the flap at the top of the case and unzip the zipper. Lift the cover flap over the Quick-Burst section of the zipper and continue separating the zipper all the way to the bottom.



**CAUTION:** Do not remove the items inside until the inflation cylinder has been removed. Failure to remove the cylinder may cause an inadvertent inflation.

2. Note the location of the various components. The floating line cradles the underarm flotation device.

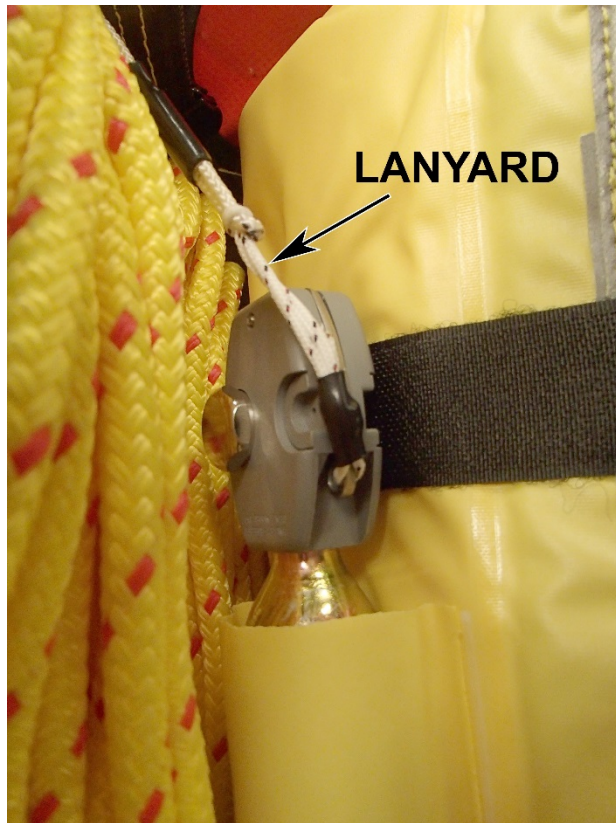


3. Remove the cylinder from the underarm flotation device.
  - a. **Be careful not to pull the UFD out of the case until the cylinder is removed. An inadvertent inflation could occur.**
  - b. If holding the inflator in your left hand, and holding the cylinder in your right, twist the cylinder counter-clockwise to remove.
  - c. Check the cylinder for corrosion and check that its weight meets the minimum weight marked. If there's no corrosion and the weight is good, you can re-use the cylinder.





4. Remove the breakaway arm from the inflator. It is located at the end of the inflation lanyard. Simply pull the lanyard away from the inflator and the breakaway arm will pop off.

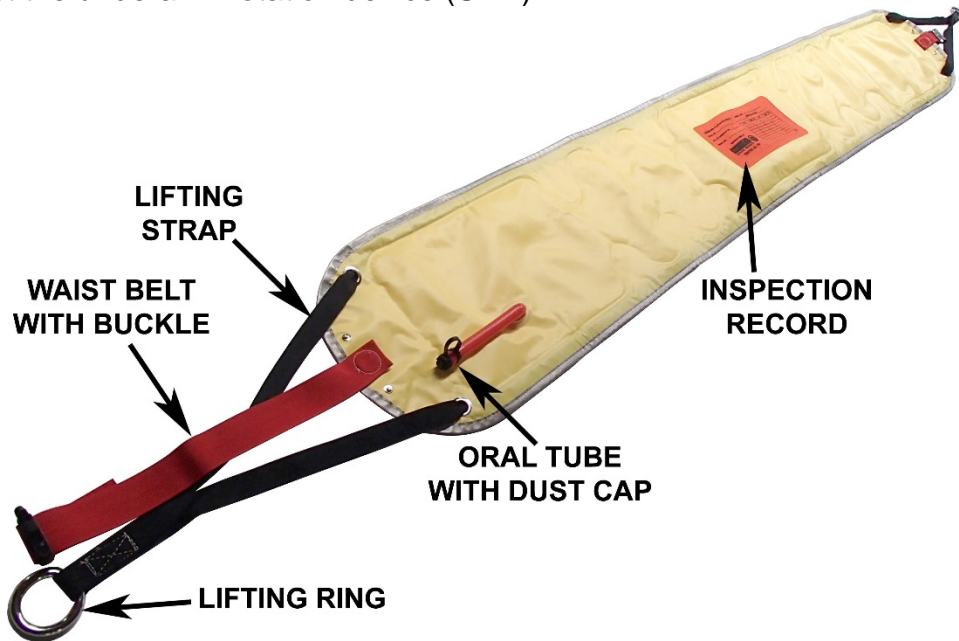


5. The components may now be removed from the case and inspected as necessary.



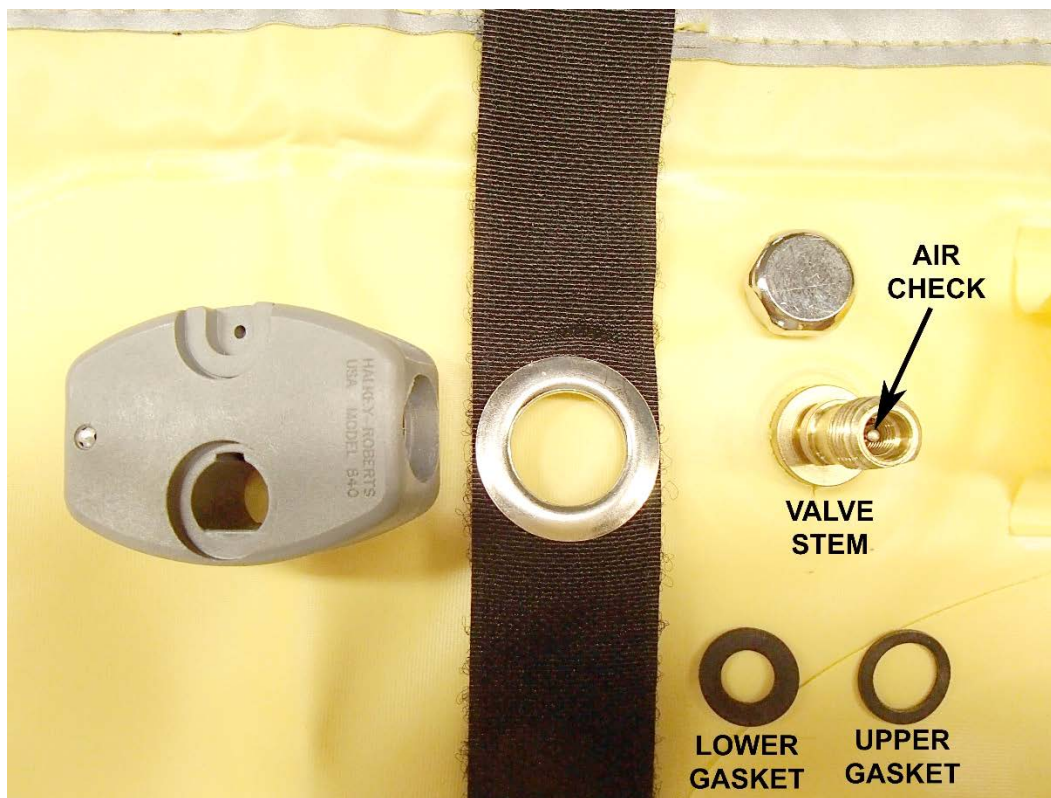
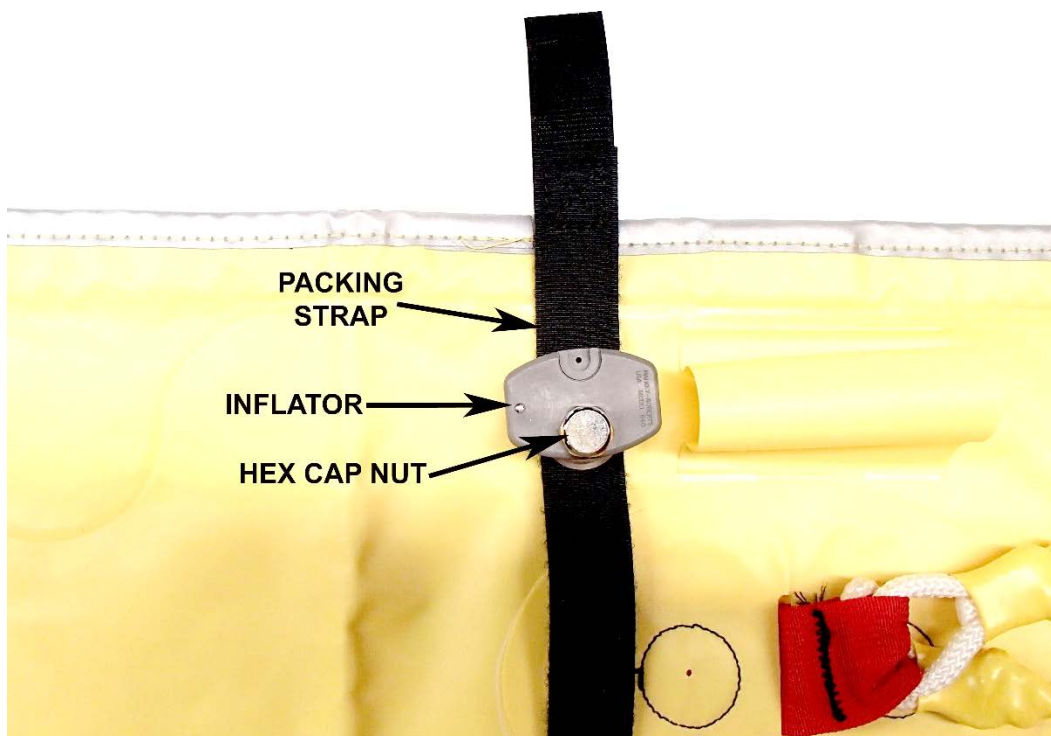
## INSPECTION

1. Lay out the components of the **CORD** on a flat, clean surface.
2. Inspect the underarm flotation device (UFD).



- a. If not previously removed, remove the CO<sub>2</sub> cylinder from the UFD. If holding the inflator in your left hand, and holding the cylinder in your right, twist the cylinder counter-clockwise to remove. Discard used cylinder.
- b. Check that the dust cap is on the oral tube. Replace if missing.
- c. Check the waist strap. Look for loose stitches. Check that the buckle works.
- d. Check the lifting straps. Check the stitching near the lifting rings.
- e. Check the inflator.
  - 1) Replace the seat seal gasket. It's located in the inflation cylinder port. The gasket is included in the **CORD** rearm kit.
  - 2) If the inflator is broken or leaking, replace it. Replace the inflator by removing the hex cap nut, then removing the upper gasket, then the inflator. Also remove the packing strap and the lower gasket. The upper and lower gaskets must always be replaced if the hex cap nut is loosened. These gaskets are included in the **CORD** rearm kit.





**CAUTION:** Failure to use only genuine Switlik Survival Products replacement parts could prevent the CORD unit from functioning properly.



Switlik Survival Product's  
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- 3) If the air check is leaking, replace it. **Use Switlik P/N S-567, only.** All air checks are not the same. Some open at different pressures.
- 4) When replacing the inflator, place a new lower gasket on the valve stem, first, then place the packing strap over the valve stem. Note how the lower gasket is wider than the upper gasket. Next, place the inflator on the valve stem followed by the upper gasket. Secure the inflator with the hex cap nut. Torque the nut to  $20 \pm 5$  inch-pounds. Make sure the grommet on the packing strap does not get caught between the inflator and the valve stem.
- f. If the entire underarm flotation device needs to be replaced, order Switlik P/N S-4110-3. Cut the heat shrink tubing covering the knot securing the floating line the underarm flotation device. Untie the bowline knot. Re-tie the line to the new UFD after folding is completed.
- g. Fill out the inspection record with the date and your name or initials when the inspection is complete.

**UNDERARM FLOTATION DEVICE** VESSEL NAME: \_\_\_\_\_

DEVICE P/N: \_\_\_\_\_ **INSPECTION RECORD**

DATE OF MANUFACTURE: \_\_\_ / \_\_\_ / \_\_\_

SERIAL NO.: \_\_\_\_\_

MANUFACTURED BY

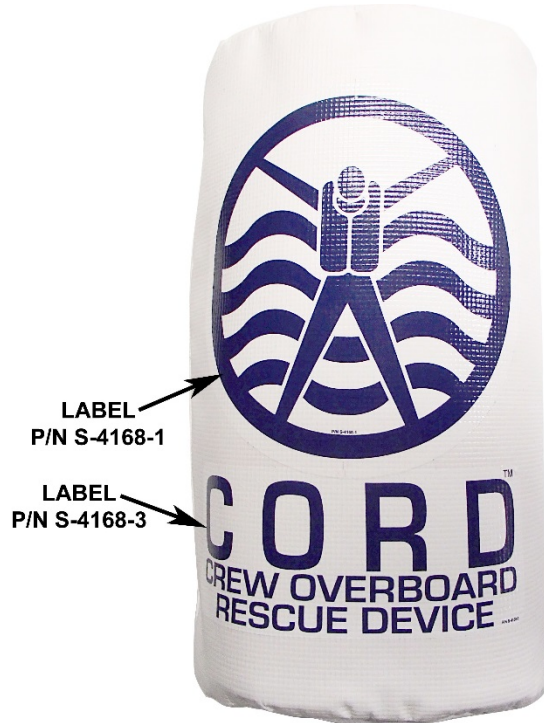
**SWITLIK**  
 SURVIVAL PRODUCTS  
 TRENTON, NJ, USA

DATE	SERV. STA.	DATE	SERV. STA.

S-3060-5

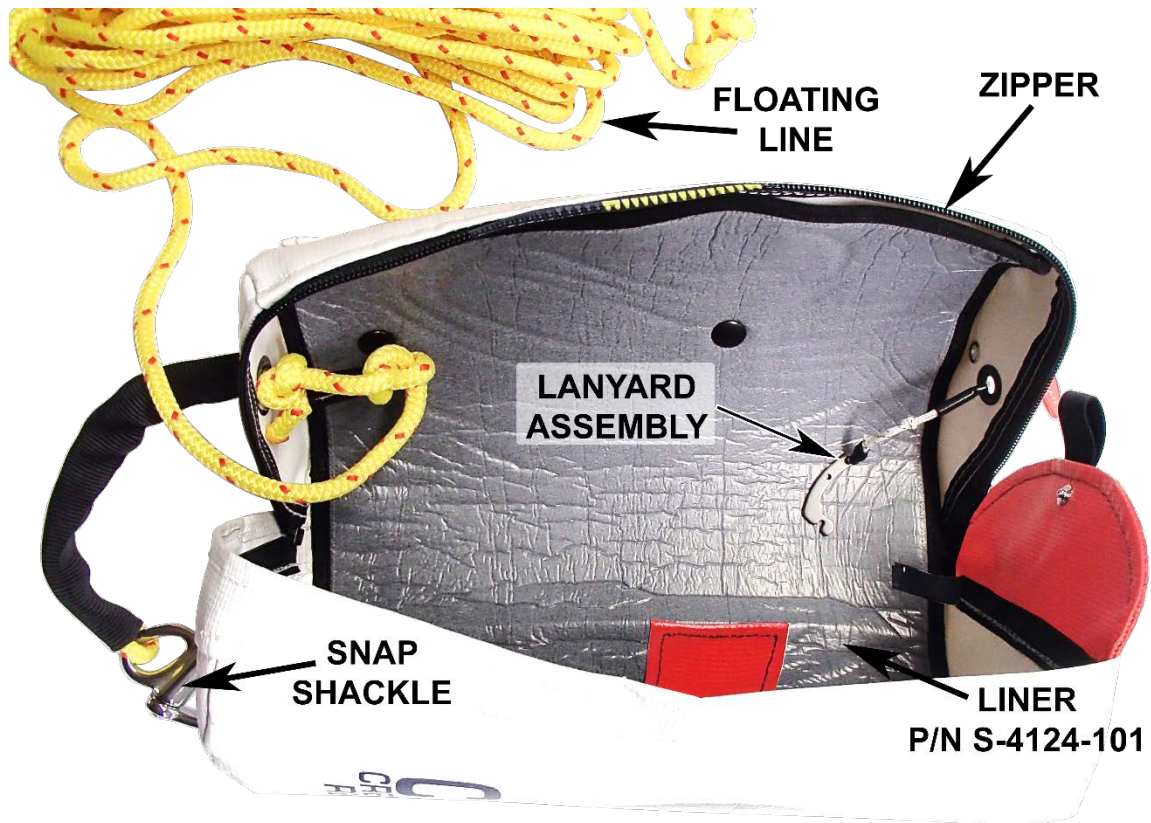


3. Inspect the case.
  - a. Check labels for legibility. Replace as needed.

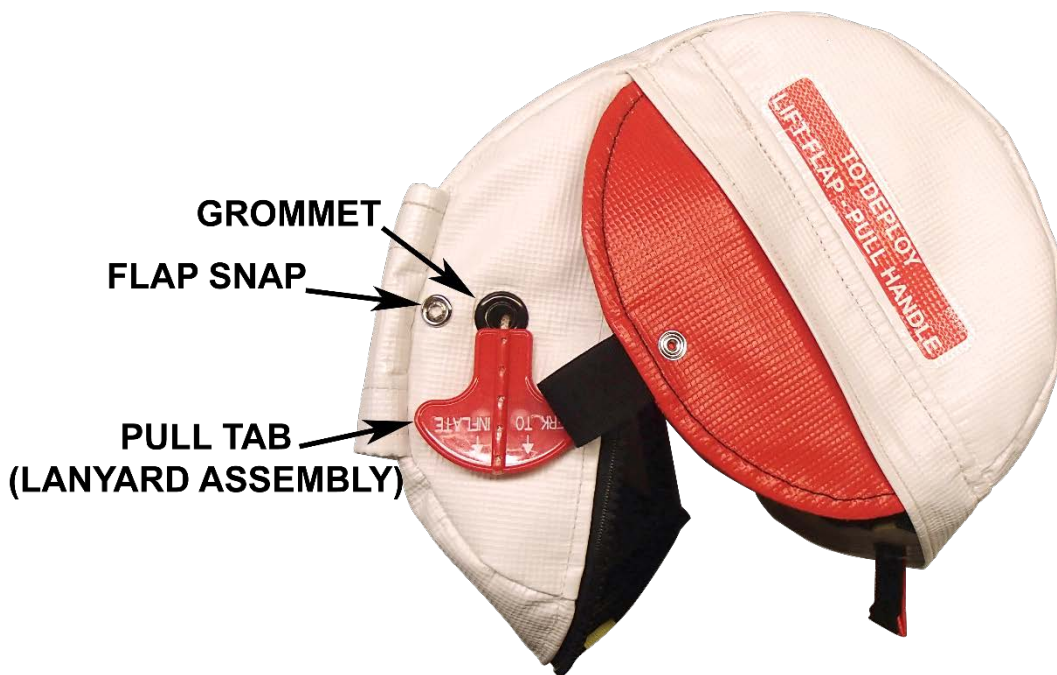




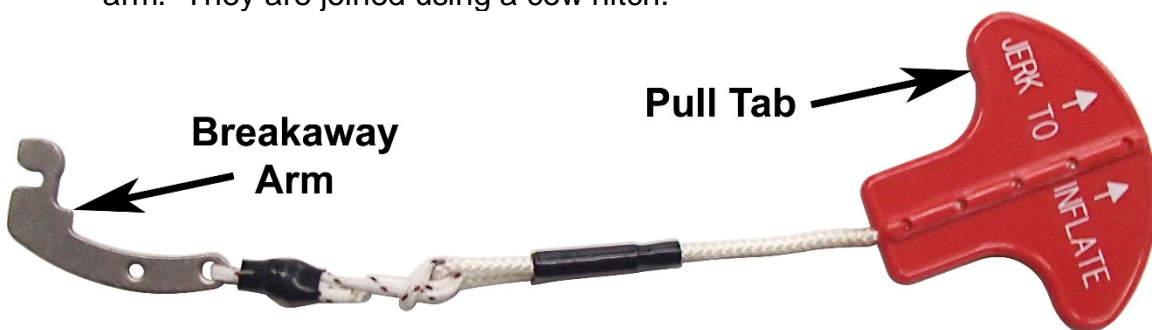
- b. Check lacing cord on back of case. If missing or frayed, replace.



- c. Check the case zipper. If the slider is broken or zipper teeth are missing, replace the case.
- d. Check the case liner. The liner can be removed using the two snaps. If damaged, replace.
- e. Check the snap shackle. If broken or heavily corroded, replace valise assembly.
- f. Check floating line. If cut or frayed, replace case assembly.
- g. Check that the grommet at the bottom of the valise is secure. If it's come free, replace the case assembly.



- h. Check that the flap at the top of the case can snap closed. This snap covers the zipper slider and the pull tab. If the snap doesn't work, replace the case.
- i. Check that the grommet at the top of the case is secure. If it's come free, replace the case.
- j. Check the lanyard assembly. If the breakaway arm or the red pull tab is missing, replace. If the cord is cut or frayed, replace.
  - 1) The lanyard assembly consists of two pieces; the pull tab and the breakaway arm. They are joined using a cow hitch.



- 2) To replace the lanyard, loosen the knot enough so that the breakaway arm can pass through.



- 3) Once the pull tab is through, separate the breakaway arm from the pull tab. For reassembly, reverse the procedure.







## **TESTING**

Inflate UFD through oral tube until firm and let stand overnight. A leaking UFD will not hold firmness and should be replaced.

## **PREPARING TO FOLD**

1. Remove trapped air from the device.
  - a. Invert the black, dust cap on the oral tube, pressing it back into the end of the tube to deflate.
  - b. Starting at the opposite end, roll the device towards the oral tube, squeezing out all the air. Repeat, as needed, to expel all air from the unit.





- c. When all the air has been expelled, pull out the dust cap to close the oral valve. Turn it back over and cap off the oral tube with it.

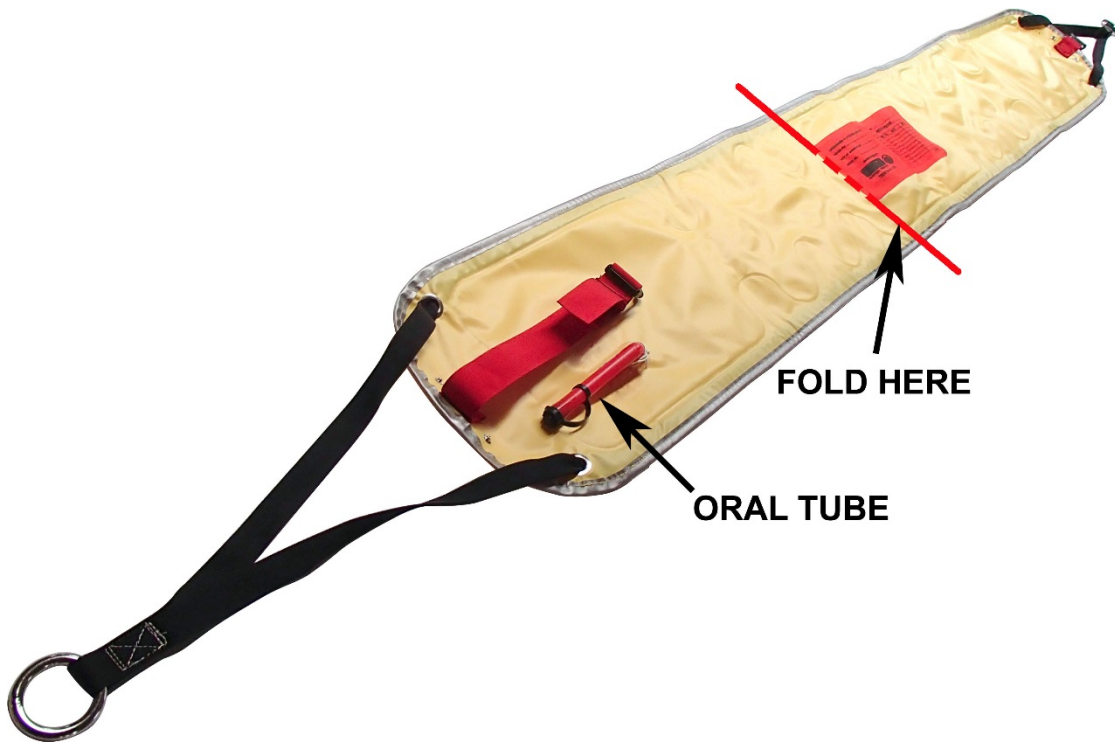
**WARNING: FAILURE TO CLOSE THE ORAL VALVE WILL PREVENT THE UNDERARM FLOTATION DEVICE FROM HOLDING THE CO<sub>2</sub> CHARGE.**



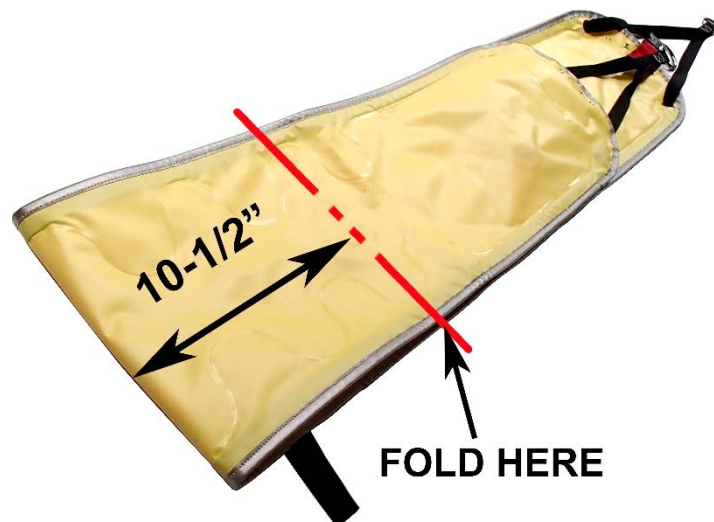


## FOLDING THE UNDERARM FLOTATION DEVICE

1. Lay out the device on a clean, flat surface. The side with the red oral tube should be facing up. While holding the end with the oral tube, fold the flotation device over at the edge of the ID patch as shown.



2. Make the next fold approximately 10-1/2" in from the last one.





3. Turn the Flotation device over.







4. Take the end of the device, top layer only, and fold it back to the edge of the previous fold.





5. Connect the buckle.



6. Bring the end you just folded back over to the other end. Note that the lifting straps are laying between the snaps. The lifting rings should stick out just past the snaps.





7. Close the snaps.



8. The last fold should lay approximately in the middle of the device. The fold should almost match up to the fold on the bottom.



9. Fold the device over at this point. The inflator and cylinder should now be on top. If not, flip the device over.







10. Flip the device over and start rolling up the side away from the inflator.





11. When finished, secure the roll with the hook & pile fastener.



12. Folding of underarm flotation device complete.





## PACKING THE CORD

1. Make sure the zipper slider is at the bottom of the case.



2. If the zipper has separated, join it back together. It joins the same way as a zipper on a jacket. Pull the zipper closed only about an inch or so. Then, tuck excess zipper inside the case.

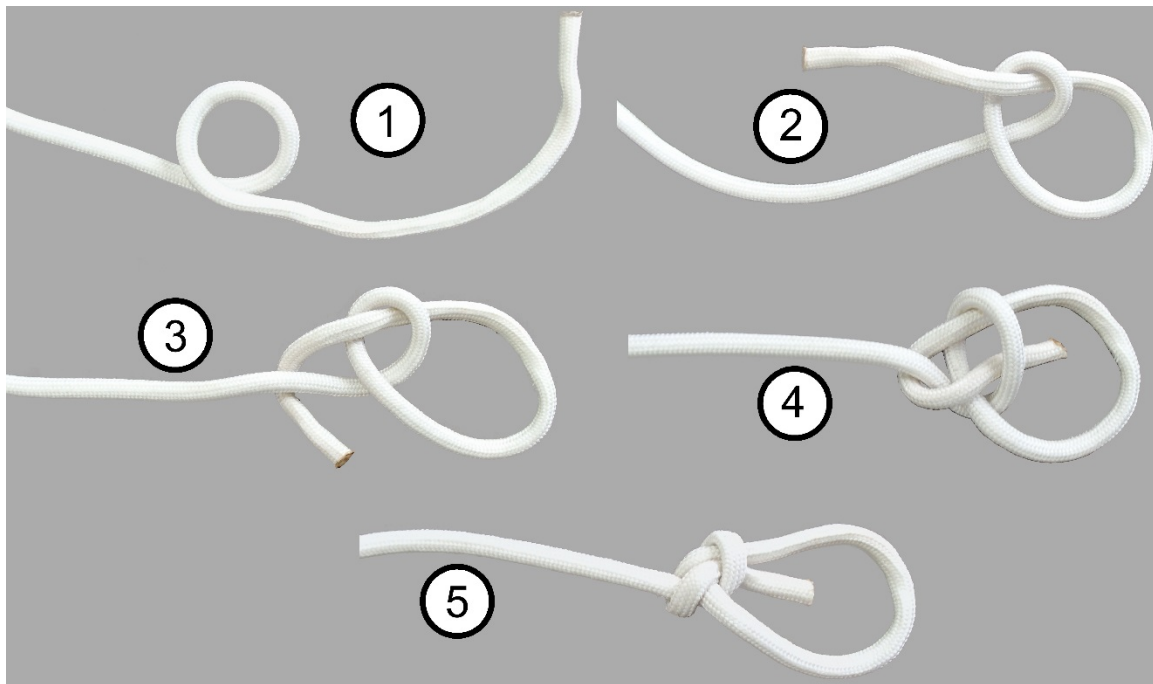




- Before placing the components in the case, ensure that the floating line is attached to the lifting rings with a bowline knot.



Follow the steps below to tie a bowline knot:



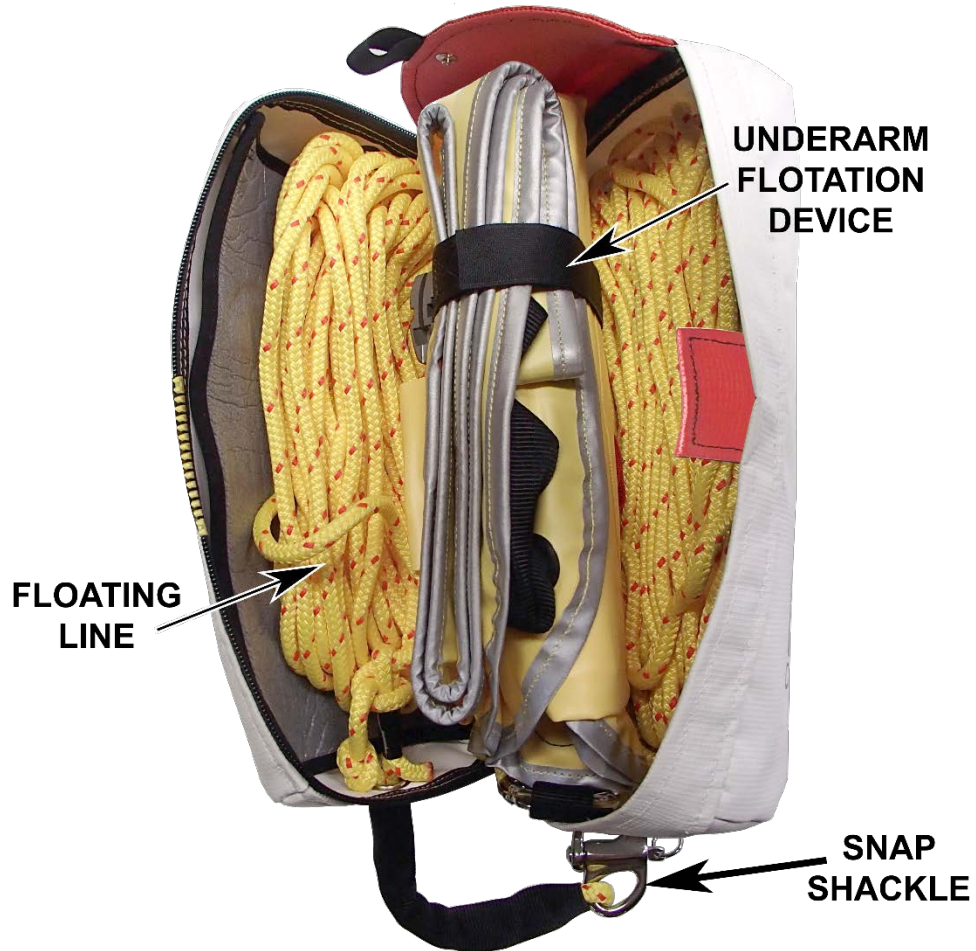
Use tape to secure the tail-end of the knot to the loop, as shown.



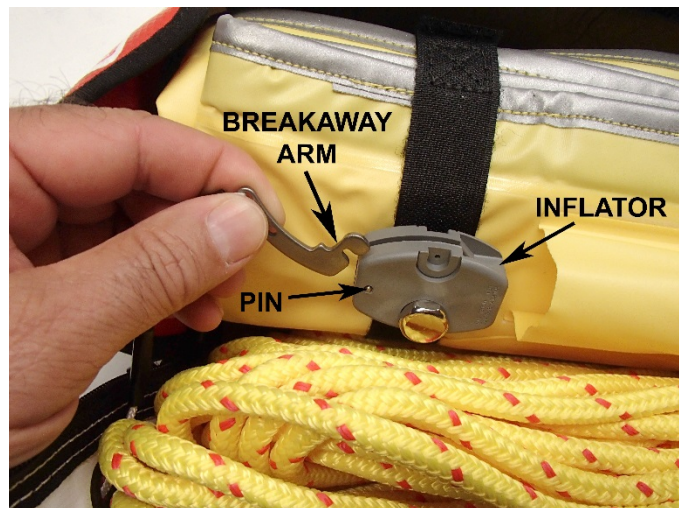




4. Place the components of the **CORD** into the case as shown below. The floating line is placed in first, with the UFD nestled in between.



5. The inflator on the underarm flotation device must be towards the top of the case, with the inflator cylinder port facing the bottom of the case.
6. Install breakaway arm into the inflator on the underarm flotation device.
  - a. Press the end of the breakaway arm down against the spring-loaded puncture pin in the inflator.
  - b. The slot in the breakaway arm goes over the pin in the inflator.





- c. While holding the breakaway arm against the force of the spring, rotate the arm about the pin until the arm lies fully encased within the inflator as shown.



7. Thread the cylinder into the inflator assembly, using the right-hand rule, until it is bottomed out. Then, torque to  $25 \pm 5$  in-lbs. (approximately  $\frac{1}{2}$  turn).
8. Pull the case zipper closed.



**CAUTION:** Failure to pull the zipper slider completely to the end of the zipper may prevent the CORD from inflating properly.





9. At the top of the case, pull the zipper slider all the way to the end. Failure to pull the zipper slider closed may result in damage to the zipper during normal operation of the device. Tuck any excess zipper back into the case.



10. Snap the top flap closed. Make sure the pull tab is tucked underneath the flap.





11. Close cover over Quick-Burst section of the zipper.



11. Place new "next service" label, P/N S-4168-6, over the old label. If the old label was removed, place the new label in the same location. Mark or punch out the month that the unit was inspected.

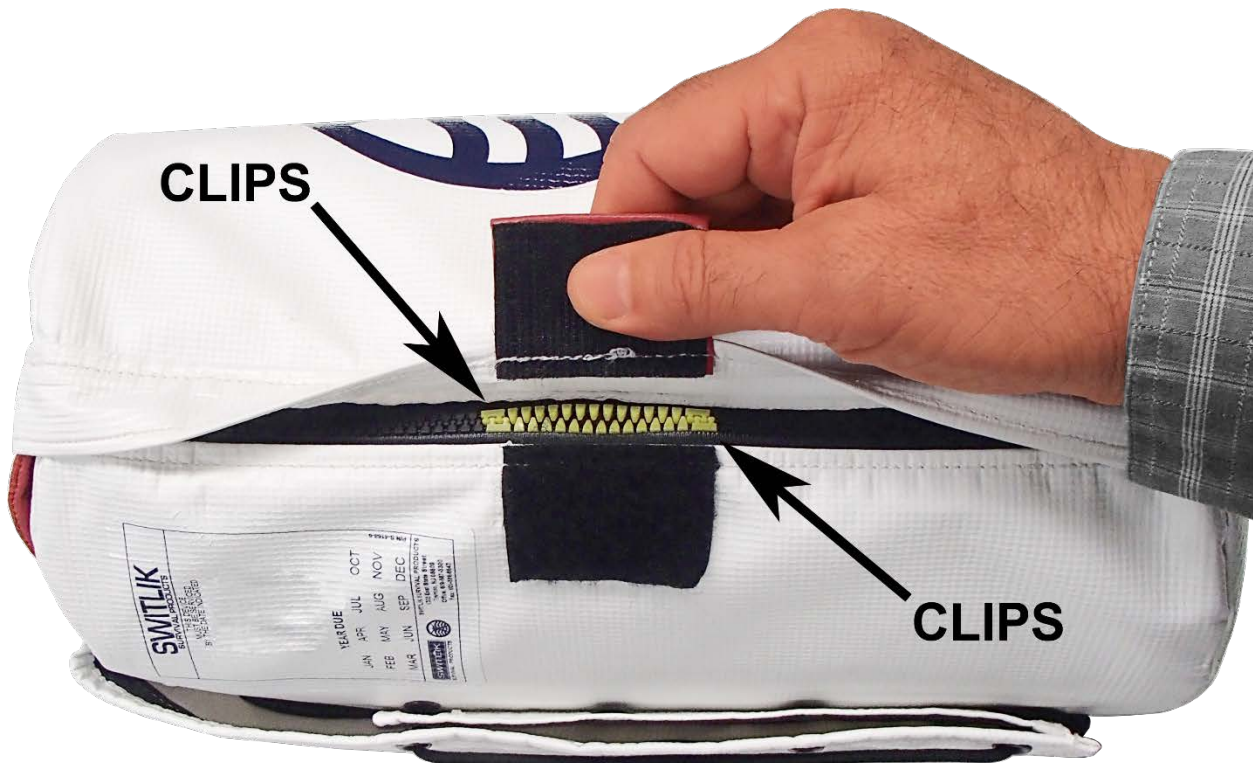


Mark or punch out the month that the unit was inspected.





12. **Check your CORD device often.** Especially before going out on your vessel. Make sure the zipper is not spreading apart by pulling back the Quick-Burst zipper cover. The clips at each end of the Quick-Burst section must be joined together.



13. If the zipper has separated, pull the zipper slider back down past the Quick-Burst section, then pull it all the way back up. This will join the Quick-Burst clips back together. Close the cover over the Quick-Burst section and snap the top cover flap closed.



## Storage

Proper storage of your **CORD** is very important. The better the care it receives, the longer it should last for you. When not in use, we recommend that you store the device in a climate controlled environment and not leave it outside. It should be stored in a clean and dry environment out of direct sunlight. The ideal storage temperature is between 60° F - 70° F with no more than 50% humidity.

Do not stuff it into a tight container or locker when not in use, nor allow other items to be stacked on top of it. Protect it against vermin, acids, gasoline, fuel oil, and other chemicals or their fumes which may contaminate the material. Do not expose to concentrations of ozone (produced by electric motors, generators, or switches). Do not store the unit on the ground. Keep this manual with the **CORD**.



## Replacement Parts

S-4167-2	<b>CORD</b> Rearm Kit		
		- items in kit-	Qty
S-566	Upper Inflator Gasket		1
S-569	Lower Inflator Gasket		1
S-1796	Seat Seal Gasket		1
S-1780	33 gram Cylinder		1
S-4168-6	Inspection Sticker		1
S-4110-3	Underarm Flotation Device		1
S-4124-4	Case		1
S-567	Air Check (Schrader valve)		1
S-1784-1	Dust Cap		1
S-565	Hex Cap Nut		1
S-1755-1	Inflator		1
S-4078-44	Lacing Cord		1
S-4124-101	Case Liner		1
S-4176-2	Lanyard Assembly		1
	Case Labels (refer to page 18)		
S-4168-1			1
S-4168-3			1
S-4168-5			1
S-4168-6	(part of <b>CORD</b> Rearm Kit)		1
S-4168-7			1
S-4178-2	<b>CORD</b> Owner's Manual		1











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