



**Owner's Manual** 

This publication is issued as the owner's manual for the Switlik Survival Product's **MOM™ 8-S** Gen II Man Overboard Module, part number S-4134-2.

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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**

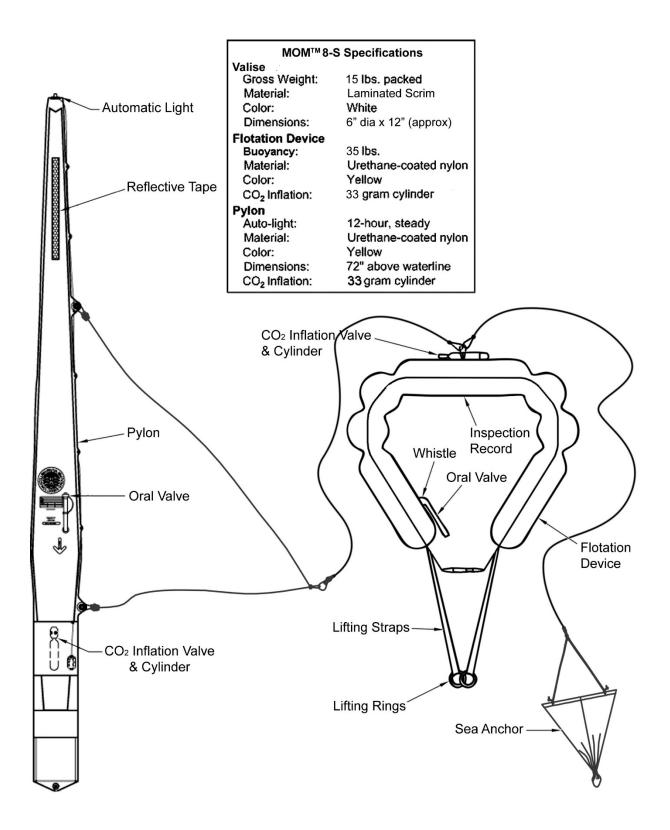
The Switlik Survival Product's **MOM**<sup>TM</sup> **8-S** Gen II Man Overboard Module is designed to rescue a man overboard victim. The device consists of an underarm flotation unit, a sea anchor and a lighted pylon. The flotation unit provides buoyancy to the victim and also acts as a lifting sling to pull the victim back onto the boat.

A pylon is tethered to the underarm flotation device and supports a water-activated light approximately six feet above the water. A ballast bag at the base of the pylon helps keep it vertical.

A sea anchor is also attached to the underarm flotation device. The sea anchor is designed to minimize drifting. There is a wire cable in the mouth of the sea anchor to hold it open.

The **MOM**<sup>TM</sup> **8-S** 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 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. Immediately put the boat about causing it to backwind. At this point, perform a quick stop maneuver. Once alongside the boat, reach down and grab the lifting straps to pull the victim aboard. On boats with high freeboard, connect hoisting tackle to the lifting rings on the lifting straps and hoist the victim aboard.



## **Mounting Instructions**

The **MOM**<sup>™</sup> **8-S** must be installed vertically, outside the toerail, in a location free of obstructions or possible entanglements. It is critical to the operation of the MOM that there be a clear path between the bottom of the case and the water to allow the inflatable devices 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 MOM into the water, installation on the quarter is possible. The problem with quarter-mounting is that there is danger of damaging the unit during maneuvers at the dock.

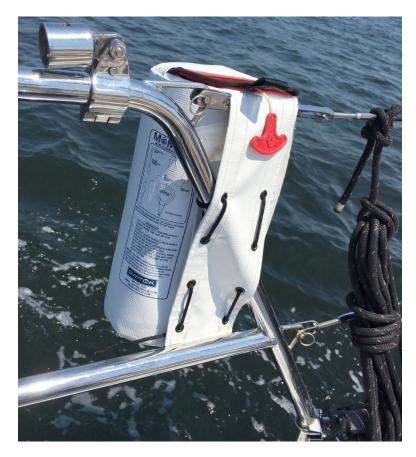
The ideal location is at the intersections of all vertical and upper horizontal members of the pulpit rail.



This mounting will work with either a rail or a lifeline.



Even an angled stanchion will work.



If this location is not available, the **MOM**<sup>TM</sup> **8-S** unit may be mounted on parallel rails. The lower rail attachment can be made with either the lacing flap or the lacing flap cord, depending on the distance between the two rails.



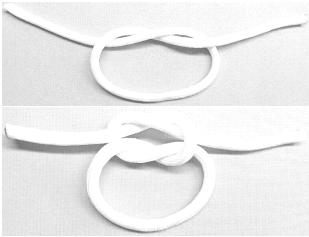
To secure the **MOM<sup>™</sup> 8-S** to the rails, fully unlace the lacing flap. Place the flap over the top rail (or lifeline) and lace the flap back up. Note the lacing pattern below.





Secure the laces with a square knot.

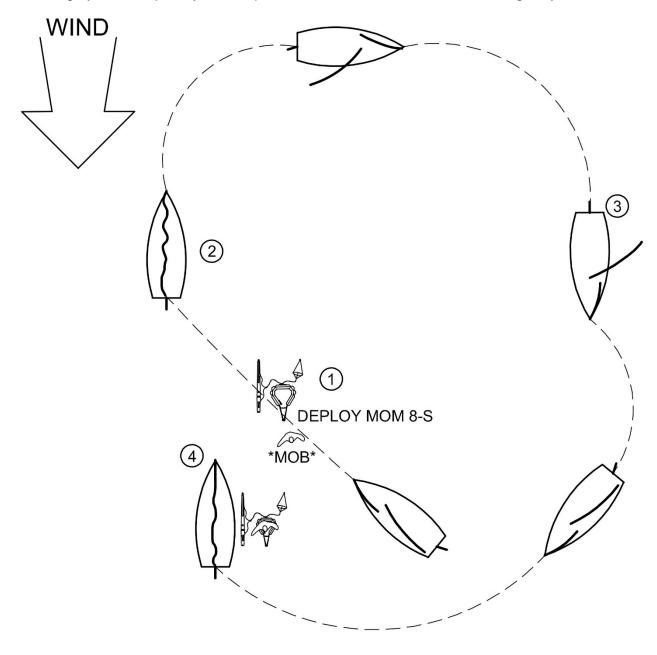






# **Operating Instructions**

**Explain the MOM 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 MOM 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 MOM<sup>™</sup> 8-S. As quickly as possible, deploy the MOM<sup>™</sup> 8-S by lifting the red flap and pulling the inflation tab straight up with a sharp jerk. The flotation device and pylon will inflate, falling from the bag and drop into the water near the victim.



The person overboard should get to the buoyant MOM devices as quickly as possible. The Underarm Flotation Device should be placed under the arms and the red waist belt should be tightened. Expend as little energy as possible and stay calm. Grab the black lifting straps and lifting rings to be ready for when the boat approaches. Do not attempt to swim while in the MOM device. A whistle is attached to the oral tube of the flotation device to aid in alerting the crew of your location.

- 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 to the victim.

4. Stop the boat alongside the victim. Call out to the victim upon approach and ask if they are 'OK'. Stop the Engine. A crew member should throw a heaving line to the person in the water. Once pulled in near the boat, 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. 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 MOM device aboard. If possible, rinse it with fresh water and allow to air dry. Deflate the underarm flotation device and pylon 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 devices 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 **MOM**<sup>TM</sup> **8-S** Gen II Man Overboard Module can be serviced and repacked by the user.

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

# **Operating Limitations**

### PRESSURE:

Underarm Flotation Device 2 psi

Pylon 4 psi

### **TEMPERATURE:**

The **MOM<sup>™</sup> 8-S** 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 **MOM**<sup>TM</sup> **8-S** case and flotation devices 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 **MOM**<sup>TM</sup> **8-S** Gen II Man Overboard Module 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 **MOM**<sup>™</sup> **8-S should be serviced every year**. It also needs to be serviced after an actual deployment. Refer to the instructions in the "<u>SERVICING</u> – 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 of your device in accordance with these instructions, return your **MOM**<sup>TM</sup> **8-S** 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 bottom end cap on the case is an identification label. The label contains the part number and serial number of your device.

P/N: S-4134-2

SERIAL NO: M8S-XXXX

#### CLEANING - detailed

- 1. With the **MOM<sup>™</sup> 8-S** inflated, wash with fresh water. A mild soap may also be used.
  - a. Wash the underarm flotation device, the pylon, the sea anchor and tethers.
  - b. Allow to air dry. DO NOT PLACE IN DRYER.
- 2. When dry, place the **MOM**<sup>TM</sup> **8-S** on a clean work area, free of anything that could damage or puncture it.
- 3. Proceed to **SERVICING-detailed** section.

<u>SERVICING</u> – detailed

#### UNPACKING THE MOM<sup>™</sup> 8-S

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

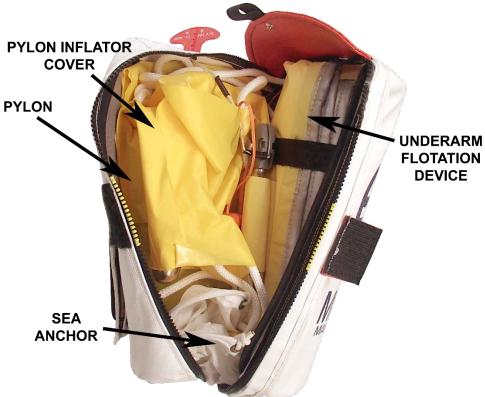
1. Lift the flap at the top of the case and unzip the zipper. Lift the cover flap over the Quick-Burst section of the zipper and continue separating the zipper all the way to the bottom.



CAUTION: Do not remove the items inside until the inflation cylinders have been removed. Failure to remove the cylinders may cause an inadvertent inflation.



 Note the location of the various components. The pylon is to the left, or back-side of the case. The underarm flotation device is to the right, or the front-side of the case. The sea anchor is folded up on the bottom. The pylon cylinder is located under the inflator cover.



- 3. Remove the cylinders from the pylon and the underarm flotation device.
  - a. Be careful not to pull the items out of the case until the cylinders are 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 cylinders for corrosion and check that their weight meets the minimum weight marked. If there's no corrosion and the weight is good, you can re-use the cylinders.



4. Remove the breakaway arms from the inflators. These are located at the end of the inflation lanyard. Simply pull the lanyard away from the inflator and the breakaway arm will pop off.

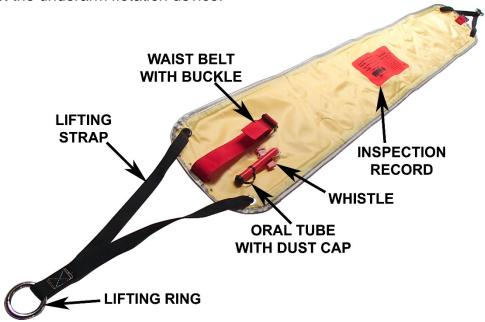




5. The components may now be removed from the case and inspected as necessary.

#### INSPECTION

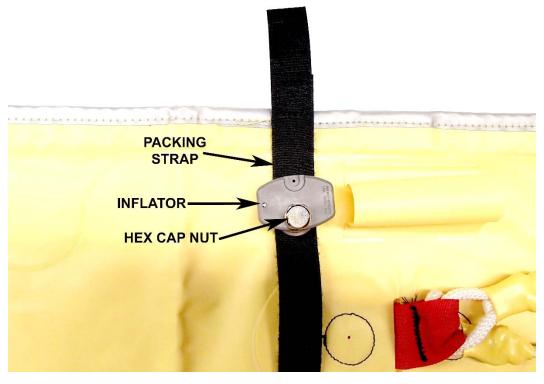
- 1. Lay out the components of the **MOM**<sup>TM</sup> **8-S** on a flat, clean surface.
- 2. Inspect the underarm flotation device.



- a. If not previously removed, remove the CO<sub>2</sub> cylinder from the underarm flotation device. 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 whistle. Blow the whistle to make sure it works. It should make two separate tones. Make sure that it's tied to the oral tube. Replace if missing.
- d. Check the waist strap. Look for loose stitches. Check that the buckle works.
- e. Check the lifting straps. Check the stitching near the lifting rings.
- f. Check the inflator.
  - Replace the seat seal gasket. It's located in the inflation cylinder port. The gasket is included in the MOM<sup>TM</sup> 8-S 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



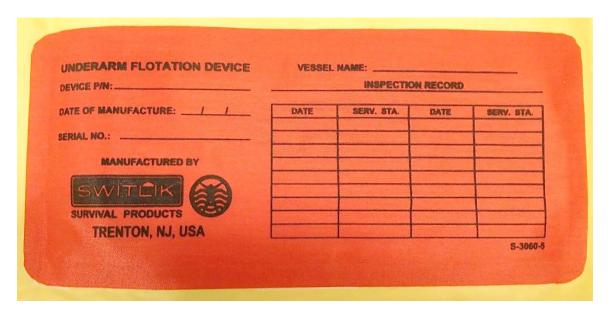
lower gaskets must always be replaced if the hex cap nut is loosened. These gaskets are included in the  $\mathbf{MOM^{TM}}$  8-S rearm kit.





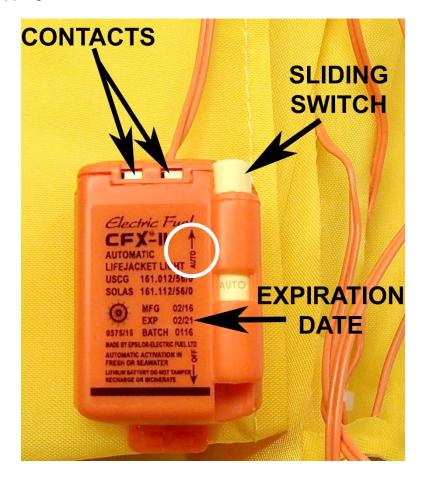
CAUTION: Failure to use only genuine Switlik Survival Products replacement parts could prevent the MOM unit from functioning properly.

- 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 ± 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-4110-2. Cut the heat shrink tubing covering the knots securing the pylon and sea anchor tethers to the underarm flotation device. Untie the bowline knots. Tie the tethers to the new underarm flotation device after folding is completed.
- g. Fill out the inspection record with the date and your name or initials when the inspection is complete.





- a. If not previously removed, remove the CO<sub>2</sub> cylinder from the pylon. 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 ballast bag. If the bag is torn and leaking, or rusted, replace it.
- d. Check the reflective tape. Replace as needed.
- e. Check the inflator. Replace the seat seal gasket. See paragraph 2.e. above.
- f. Check the light and battery assembly.
  - 1) The light is water-activated. When water contacts the battery, the light will flash on and off, about once a second. When the water is removed, the light goes off.
  - 2) The light can be checked by placing a paper clip across the battery contacts, or dipping the contacts in water.

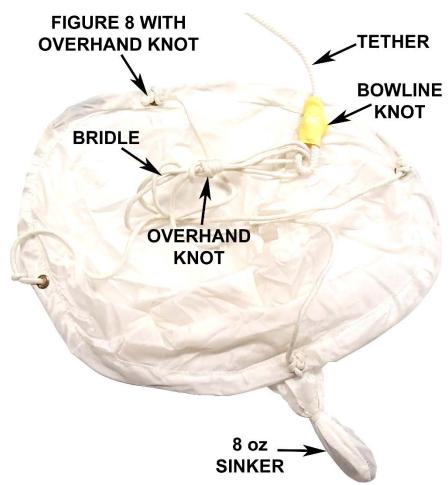


3) If the light does not function or the expiration date has been reached, replace the light and battery assembly with Switlik P/N 800041-2. This kit includes the light and battery, as well as seven mini cable ties which are used to secure the battery wire to the pylon. Refer to instructions that are included in the kit.



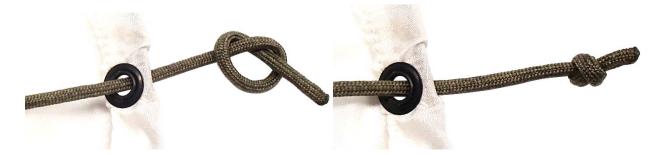
- 4) If the pylon needs to be replaced, order Switlik P/N 810042. Cut the heat shrink tubing covering the bowline knot securing the pylon tether to the underarm flotation device. Untie the knot. Tie the new tether to the underarm flotation device after folding is completed.
- 5) Fill out the inspection record with the date and your name or initials when the inspection is complete.

#### 4. Inspect the sea anchor.



- a. Check that the sinker is secure at the bottom of the sea anchor. It's held in place by a mini cable tie. Replace sinker if missing.
- b. Check that the sea anchor bridle has an overhand knot at the end where it meets the tether.
- c. Check that the tether is secured to the bridle with a bowline knot covered with heat shrink tubing. See Step 3 under **PACKING THE MOM™ 8-S** for instructions on tying a bowline knot.
- d. Check the wire hoop on the sea anchor. If wires are poking through the sea anchor fabric or the wire is broken, replace the sea anchor.

- e. Check the stitching around the wire hoop and on the main sea anchor panel. Repair as necessary or replace sea anchor.
- f. Check that the bridle is secured to the sea anchor with figure 8 and overhand knots.
  - 1) Pass the bridle cord through the grommet, then tie an overhand knot. Pull it tight.



2) Pull the cord back over the sea anchor hoop and pass the cord under itself. Then, pass the end through the loop just formed.



3) Pull the figure 8 knot tight.

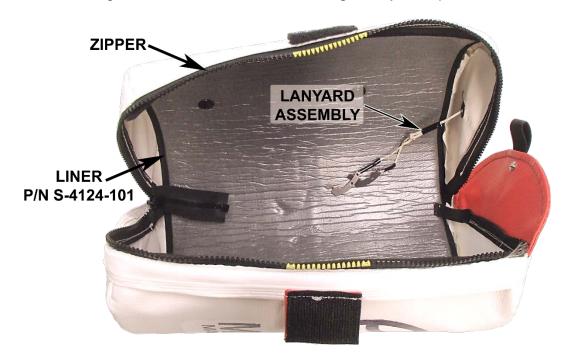


- g. If the sea anchor needs to be replaced, order Switlik P/N 811046. Cut the heat shrink tubing covering the bowline knot securing the sea anchor tether to the underarm flotation device. Untie the knot. Tie the new tether to the underarm flotation device after folding is completed.
- 5. Inspect the 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.



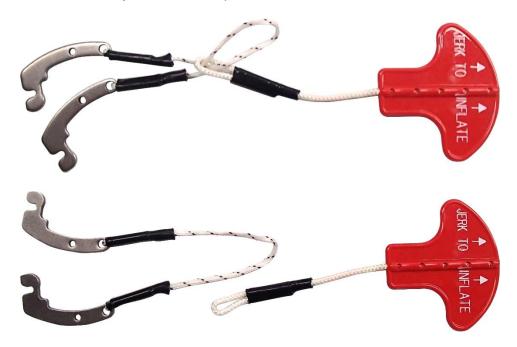
- e. Check that the flap at the top of the case can snap closed. This snap covers the zipper slider and the pull tab. If the snap doesn't work, replace the case.
- f. Check that the grommet at the top of the case is secure. If it's come free, replace the case.
- g. Check the lanyard assembly. If the breakaway arms 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 arms. They are joined using a cow hitch.



2) To replace the lanyard, loosen the knot enough so that the pull tab can pass through.



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



#### **TESTING**

Inflate UFD and Pylon by orally inflating oral tubes until firm and let stand overnight. A leaking UFD or Pylon 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.
  - 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.

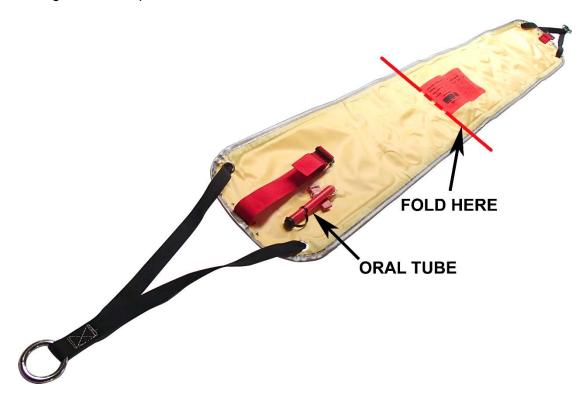


d. Repeat this procedure to deflate the pylon.

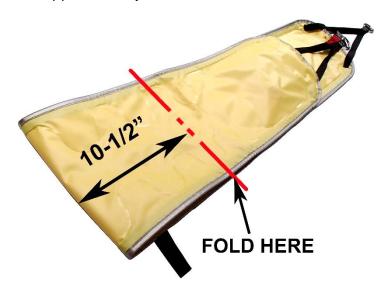


#### FOLDING THE UNDERARM FLOTATION DEVICE

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.



#### **FOLDING THE PYLON**

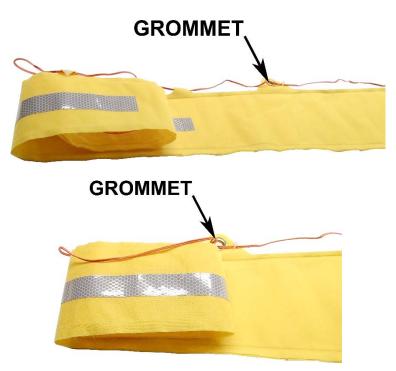
1. Lay out the pylon on a clean, flat surface. The side with the red oral tube should be facing up. Starting at the top, fold the light down approximately 8".



2. Fold the end down another 8 inches.



3. Fold the end down again. The edge of the last fold should be even with the brass grommet.



4. Make an 'S' fold, also called an 'accordian' fold, using the previous folds as a guide for the width of the fold.



5. Make another 'S' fold. The folds should end up over the oral inflation tube.





6. Grab the ballast bag and move it to the other side of the pylon, over the top of the previous folds.



7. Move the ballast bag back onto the previously folded portion of the pylon.



8. Fold the remaining portion of the pylon, with the light battery and the inflator, over the top of the ballast bag.



9. Make sure the slider switch on the light battery is set to the 'AUTO' position.

Folding of the pylon is complete.



### **FOLDING THE SEA ANCHOR**

1. Lay the sea anchor out flat.



2. Take the ring that forms the mouth of the sea anchor and twist it into a figure '8'.



3. Fold one half of the figure '8' over on itself.





### PACKING THE MOM<sup>™</sup> 8-S

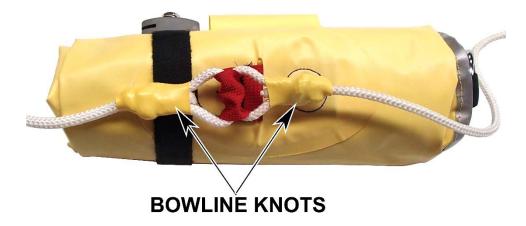
1. Make sure the zipper slider is at the bottom of the case.



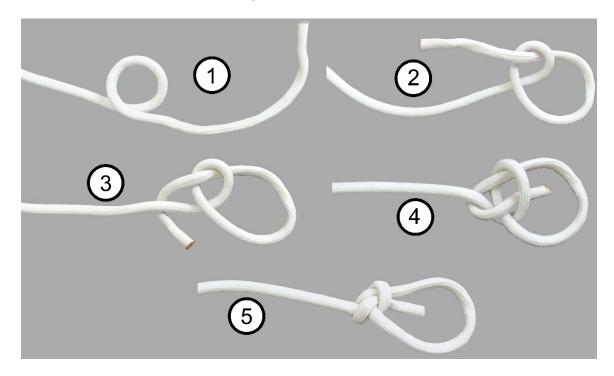
2. If the zipper has separated, join it back together. It joins the same way as a zipper on a jacket. Pull the zipper closed only about an inch or so. Then, tuck excess zipper inside the case.



3. Before placing the components in the case, ensure that all tethers are attached with bowline knots and secured with heat shrink tubing.



Follow the steps below to tie a bowline knot:



If heat shrink tubing is not available, use tape to secure the tail-end of the knot to the loop, as shown.



4. Place the components of the **MOM<sup>TM</sup> 8-S** into the case as shown below.



- 5. The inflators on the underarm flotation device and the pylon must be towards the top of the case, with the inflator cylinder ports facing the bottom of the case. The pylon inflator is located under the pylon inflator cover.
- 6. Install breakaway arms into the inflators on the underarm flotation device and the pylon.
  - a. Press the end of the breakaway arm down against the springloaded 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 cylinders into the inflator assemblies, using the right-hand rule, until they are 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 MOM<sup>TM</sup> 8-S 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.

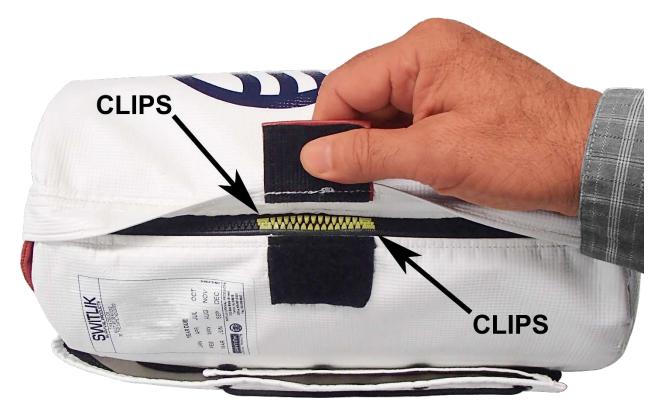


11. Place new "next service" label, P/N S-4168-6, over the old label. If the old label was removed, place the new label in the same location. Mark or punch out the month that the unit was inspected.



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

12. **Check your MOM8-S 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 **MOM<sup>™</sup> 8-S** is very important. The better the care it receives, the longer it should last 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 near the **MOM**<sup>TM</sup> **8-S**.

## **Replacement Parts**

S-4167-1	MOM <sup>™</sup> 8-S Rearm Kit - items in kit-	Otv
S-566	Upper Inflator Gasket	Qty 2
S-569 S-1796	Lower Inflator Gasket Seat Seal Gasket	2
S-1796 S-1780	33 gram Cylinder	2 2
S-4168-6	Inspection/Next Service Sticker	1
840033	Re-Inspection Certificate	1
S-4110-2	Underarm Flotation Device	1
810042	Pylon	1
811046	Sea Anchor	1
S-4124-3	Case	1
S-567	Air Check (Schrader valve)	2
S-1784-1	Dust Cap	2
S-565	Hex Cap Nut	2
S-1755-1 800041-2	Inflator	2
S-1625	Light & Battery Kit Whistle	1
S-4154	Pylon Ballast Bag	1
240011	Pylon Reflective Tape	2
S-3643-2	8 oz Sinker	1
S-4126	Mini Cable Tie	1
S-4078-44	Lacing Cord	1
S-4124-101	Case Liner	1
S-4176-2	Lanyard Assembly	1
•	Case Labels (refer to pages 22 & 23)	
S-4168-1		1
S-4168-2		1
S-4168-4 S-4168-6	(part of <b>MOM<sup>™</sup> 8-S</b> Rearm Kit)	1 1
S-4168-7	(part of word 6-3 itealin kit)	1
O +100-1		'
S-4179-2	MOM <sup>™</sup> 8-S Owner's Manual	

# **Servicing Record**

DATE	TYPE OF SERVICE (REPACK/REPAIR)



Switlik Parachute Company 1325 E. State Street Trenton, NJ 08607 (609) 587-3300 (609) 586-6647 FAX www.switlik.com

P/N S-4179-2 (rev F, 06/19)