

# 24 and 38 Series Manual/Automatic

## Inflatable Personal Flotation Device (PFD) Owner's Manual



### World Class 38 Series

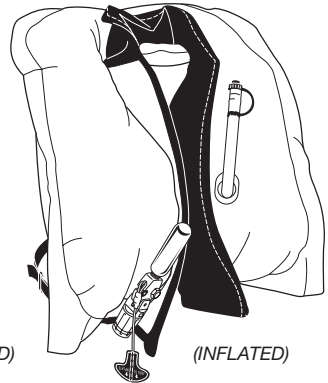
- 38ALNG
- 38AREG
- 38AHRN (With Harness)

Date Purchased \_\_\_\_\_

### Sport 24 Series

- 24ASPT

Date Purchased \_\_\_\_\_



**WARNING**

**THIS PFD WILL NOT FLOAT YOU WITHOUT INFLATION!  
EACH CO<sub>2</sub> INFLATOR BODY WILL ONLY INFLATE  
THE PFD ONCE. YOU MUST REARM THIS  
PFD AFTER EACH USE OF THE CO<sub>2</sub>.**

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## Different Models

There are four SOSPENDERS® brand PFDs described in this manual, the World Class 38 Series (three models), and the Sport 24 Series (one model). The World Class and Sport models use different inflator mechanisms, so **it is critical that you identify which model you own and follow the instructions for that model throughout this manual.** The model number of your PFD is indicated on the front cover of this manual.

Refer to Figure 1 or 2 on the next page to familiarize yourself with the components of your particular PFD model.

## WORLD CLASS 38 MODELS

Model 38ALNG and 38AREG are the same except that model 38ALNG is sized for taller adults. Model 38AHRN is similar to the other two models except that it also includes an **integrated safety harness**, which makes the U. S. Coast Guard approval conditions different for this model. All three models provide adult swimmers with a minimum of 35 pounds (16 kg) of buoyancy when inflated with the CO<sub>2</sub>. In addition the 38 Series PFDs also include reflective tape on the bladder and a signal whistle.

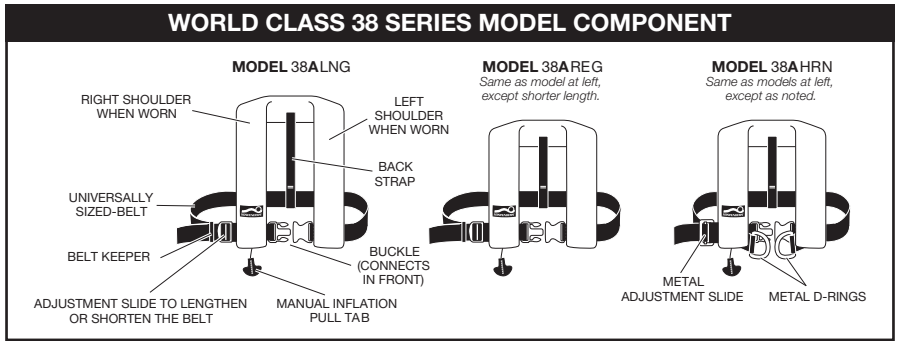
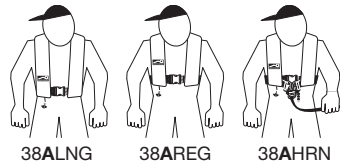


Figure 1

## SPORT 24 MODEL

Model 24ASPT is similar to the World Class models except that it is a lighter-duty design, uses a smaller CO<sub>2</sub> cylinder, and provides a lower level of buoyancy. The Sport model provides adult swimmers with a minimum of 25 pounds (11 kg) of buoyancy when inflated with the CO<sub>2</sub>.

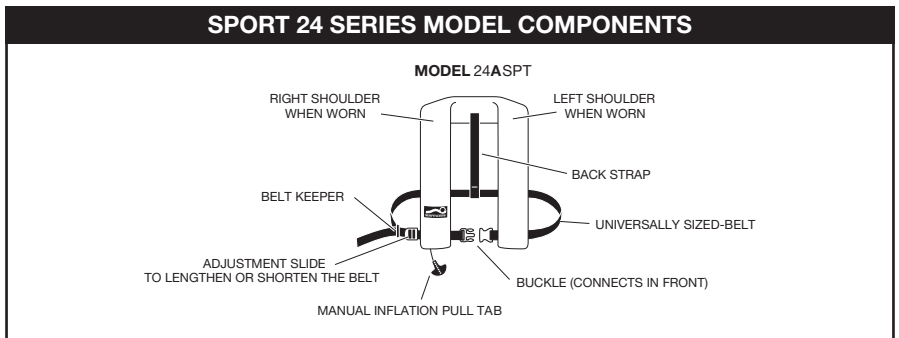


Figure 2

## Approval Conditions

### ALL MODELS

All four models described in this manual are U.S. Coast Guard conditionally approved personal flotation devices (PFDs) that only satisfy the carriage requirements for use on recreational vessels when they are worn. Therefore, they are referred to as **“Approved only when worn.”** These PFDs may also be converted to manual CO<sub>2</sub> inflation only (see Page 15). These models are **not** approved for water skiing or other high impact, high speed activities.

These inflatable PFDs were designed to be more comfortable and less restrictive to wear than inherently buoyant PFDs. When worn, used, and serviced according to this owner's manual, this PFD can greatly increase your chances of survival in the water. Not recommended for non-swimmers or weak swimmers. Users of inflatable PFDs must be at least 16 years old.

### WORLD CLASS 38 MODELS

World Class models 38AREG, 38ALNG and 38AHRN are all **Type V** PFDs because they are approved only when worn. When inflated they have **Type II** performance. In addition, model 38AHRN is a **Type V** PFD because it also has a built-in safety harness that can cause injury if not used properly. A separate section titled “Safety Harness Instructions” discusses requirements and features of model 38AHRN only and is found on Page 9. USCG approval does not apply to the safety harness because the risks associated with its use have not been evaluated.

### SPORT 24 MODEL

Sport model 24ASPT is a **Type V** PFD because it is approved only when worn. When inflated it has **Type III** performance.

## U.S. Coast Guard Mandatory Carriage Requirements

Federal Regulations in 33 CFR 175 require you to carry Coast Guard approved personal flotation devices (PFDs) that are legibly marked with the Coast Guard approval number which are in good and serviceable condition and are the correct size for each person aboard. To be considered serviceable, this PFD shall not exhibit deterioration that could diminish its performance such as broken or deformed hardware, detached webbing, rotted structural components, air leaks, or nonfunctional oral inflation tube. Unless worn inflated, this PFD must also be properly armed in either the “Manual Only” or “Automatic Backup” mode. When armed in the “Manual Only” mode the PFD will have a full CO<sub>2</sub> cylinder, inflation system status indicator, a yellow “Manual Only” cap (with a Manual warning tag), and an accessible manual inflation lanyard. When armed in the “Automatic Backup” mode the PFD will have a full CO<sub>2</sub> cylinder, inflation system status indicators, a Bobbin and a clear Auto Cap. In addition, these PFDs are approved only when worn.

## Instructions for Use

All models described in this manual are universally sized for adult swimmers over 80 pounds (36 kg) with chest sizes between 30 and 52 inches (76 and 132 cm). **However, persons need to be a minimum height of 5 ft. 5 in. (165 cm) to use the safety harness (see Page 9 for instructions concerning model 38AHRN). Not for use by non-swimmers or weak swimmers. Not for use by children younger than 16 years of age, or by persons weighing less than 80 pounds (36 kg).**

All models are designed for continuous wear so it's available in an emergency. **When worn, make sure the SOSPENDERS® logo is facing forward. If this product is worn inside out inflation could cause severe injury.** Your inflatable may be equipped with external pockets. **Make sure that you do not put loose fishing hooks or other sharp items inside the pockets that could damage the inflatable.**

When inflated with the CO<sub>2</sub> gas, the World Class and Sport models provide different levels of buoyancy. **World Class** models provide in excess of **35 pounds (150 N)** of buoyancy, which will turn **most** people from face down to face up, head back, mouth clear of the water. The **Sport** model provides in excess of **25 pounds (110 N)** of buoyancy, which will turn **some** people from face down to face up, head back, mouth clear of the water.

Models 38ALNG and 38AREG and 24ASPT are designed for general boating activities. Model 38AHRN has a built-in safety harness that can also be used as a rescue harness to retrieve a person from the water in a man-overboard situation. **Your PFD is not suitable for use in whitewater, with personal watercraft, while water-skiing, kneel boarding, or other high speed impact sports or where the user is constantly getting wet.**

These inflatable PFDs are designed to be worn on the outside of other clothing.

### **WARNING** **DROWNING HAZARD:**

- READ OWNER'S MANUAL BEFORE EACH USE.
- FOLLOW MANUFACTURER'S USE, CARE AND MAINTENANCE INSTRUCTIONS.
- YOU MUST INFLATE THIS DEVICE TO FLOAT.
- WEAK OR NON-SWIMMERS SHOULD NOT USE THIS DEVICE.

### **WARNING** **TO REDUCE THE RISK OF DROWNING:**

- BEFORE DONNING, CHECK THAT THE DEVICE IS PROPERLY ARMED AND PACKED IN ACCORDANCE WITH THIS OWNER'S MANUAL, AND THAT A FULLY CHARGED CO<sub>2</sub> CYLINDER PROPERLY SIZED FOR YOUR PFD IS IN PLACE.
- PERFORM SERVICE TEST EACH SEASON BEFORE USING THIS DEVICE (SEE PAGE 12).
- CHOOSE THE RIGHT TYPE AND SIZE PFD AND WEAR IT, FASTEN ALL CLOSURES AND ADJUST FOR SNUG FIT.
- DO NOT USE BELOW FREEZING.
- DO NOT FASTEN DEVICE TO BOAT.

### **WARNING** **INJURY HAZARD:**

- DO NOT WEAR THIS DEVICE UNDER CLOTHING.

### **CAUTION:**

- THIS PFD REQUIRES REARMING AFTER EACH CO<sub>2</sub> INFLATION. ALWAYS HAVE THE CORRECT REARMING KITS ON HAND TO SERVICE THIS INFLATABLE PFD (SEE PAGE 19).

**Do not wear an inflatable under any clothing because inflation could restrict breathing, injure you or destroy the clothing.** Make sure your clothing is compatible with this inflatable and that the "Jerk-to-Inflate" pull tab is accessible in case you fall in the water. Clothing that develops air pockets or has inherent buoyancy can alter the in-water performance of this PFD.

The gas contained in the CO<sub>2</sub> cartridge expands with hot weather and contracts with cold weather. Under freezing conditions you get less buoyancy from the CO<sub>2</sub> gas and it will fill the PFD more slowly. Under freezing conditions you may want to partly inflate the PFD with 1 to 2 breaths of air to compensate.

## FREEZING TEMPERATURES

At or below 40 °F (4 °C) inflation time with CO<sub>2</sub> gas will be longer. Wearing a partially inflated PFD in these conditions will provide some initial buoyancy while the PFD fully inflates.

**Caution:** Do not fully inflate orally and then inflate with the CO<sub>2</sub> cylinder. Repeated CO<sub>2</sub> inflation after oral inflation will damage the PFD to the point it will not hold air or float.

## It's Mandatory that the User Check the Status of the CO<sub>2</sub> Cylinder and the Inflator Before Each Outing

### INSPECT THE CO<sub>2</sub> CYLINDER

**Make sure that the CO<sub>2</sub> cylinder has not been used before, has no leaks and is tightly screwed in.** Hand tighten only. If the CO<sub>2</sub> cartridge has been discharged, the cap on the threaded end will be pierced as shown in Figure 3. If a small scale (like a postal scale) is available, it is recommended that the cartridge be checked by weighing it. The minimum gross weight of the cartridge is printed on the cartridge which includes the gas charge.

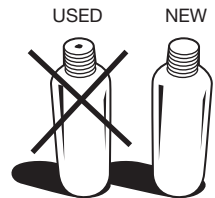


Figure 3

## IMPORTANT

**World Class** models use a **38 gram** CO<sub>2</sub> cylinder with 1/2 inch threading. The **Sport** model uses a **24 gram** CO<sub>2</sub> cylinder with 1/2 inch threading. Be certain to use the correct size CO<sub>2</sub> cylinder for your particular PFD. These cylinders are **not** interchangeable, and **use of the wrong CO<sub>2</sub> will damage your PFD or fail to inflate it properly.** Be sure to only use a rearming kit approved for your PFD (see rearming kits on Page 13).

## INSPECT THE INFLATOR

Refer to Figure 4 below for a description of the inflator status indicators.

- A. An unbroken green tab, locked lever and green arming indicator shows this unit is **“ready”**.

The following examples show the inflator is **“not ready”** and must be serviced:

- B. Exposed red semicircle and lever indicate that CO<sub>2</sub> cylinder may be empty.
- C. Exposed lever means unit is not properly armed, and exposed red spring means bobbin is missing and/or the clear cap is not hand tightened.
- D. Exposed red semicircle indicates that the CO<sub>2</sub> cylinder may be empty. Exposed red spring means the bobbin is missing and/or the clear cap is not hand tightened.

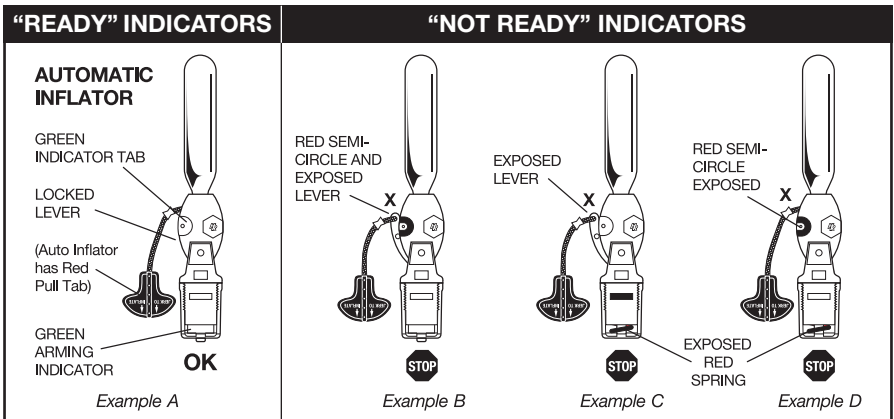


Figure 4

## INSPECTING THE INFLATOR WHEN ARMED IN THE MANUAL-ONLY MODE WITH YELLOW CAP

Refer to Figure 5 at right.

An unbroken green tab and yellow cap shows that the unit is **“ready”**. Also inspect the CO<sub>2</sub> cylinder to ensure that it has not been used. If green tab is broken or missing, inflator must be serviced. Slip the “manual” tag through the edge of the PFD cover so it is visible on the outside of the PFD.

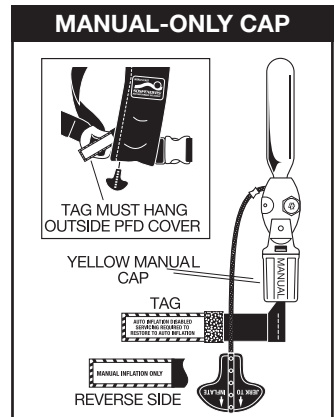


Figure 5

## Donning Instructions

Donning procedures are the same for all models. **When worn, make sure the SOSPENDERS® logo is facing forward, if the PFD is worn inside-out inflation could cause severe injury.** Familiarize yourself with the components of your particular PFD model by reviewing the illustrations on Page 3.

- Step 1.** Try on your inflatable to obtain a proper fit. Wear SOSPENDERS® like a jacket or vest. Put your left arm through the left shoulder between the shoulder and back strap (Figure 6).

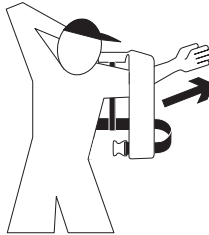


Figure 6

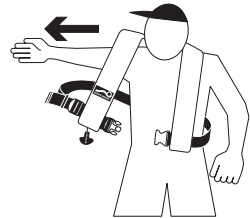


Figure 7

- Step 2.** Put your right arm through the shoulder and back strap (Figure 7).

- Step 3.** To lengthen the belt pull outward with your right hand on the bottom layer of webbing underneath and behind the slide located on your right side (Figure 8).



Figure 8

- Step 4.** Snap buckle together in front (Figure 9).

- Step 4a.** See “Safety Harness Instructions” section on Page 9 for important donning instructions for model 38AHRN.

- Step 5.** Tighten the belt by pulling on the free end of the webbing with your right hand. SOSPENDERS® need to be a snug fit to operate effectively. Secure the free end of the webbing by adjusting the belt keeper (slide the keeper to take up the slack). Be sure the product is the correct size for you and is properly adjusted. Make sure the “Jerk-to-Inflate” pull tab protrudes from the bottom of the shroud for easy access in case the unit needs to be inflated quickly (Figure 10).

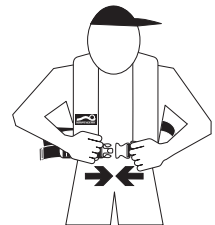


Figure 9



Figure 10



## Safety Harness Instructions

### MODEL 38AHRN ONLY

SOSPENDERS® Model 38AHRN is an inflatable PFD with a built-in harness and metal “D” rings (see Figure 11). **You need to be at least 5 ft. 5 in. (165 cm) tall to use this safety harness.** This section explains the use and risk factors pertaining only to the safety harness.

The safety harness has been dynamically load-tested in accordance with the Offshore Racing Council (ORC) requirements and is used in conjunction with a tether to prevent falls overboard. See information below for tether requirements. The potential for personal injury from harness use has not been evaluated.



Figure 11

### CAUTION

**Use of a safety harness to prevent falls overboard presents several risks. In case of capsizing or sinking, you may be taken down by the boat, resulting in death. You could also drown while being dragged.** Do not attach the harness to the boat unless it is with a tether of less than 6 ft. 6 in. (200 cm) in length and which has quick-release-under-load hardware. **U.S. Coast Guard approval does not apply to this harness.**

**Under no circumstances should the safety harness be used in any climbing task or activity. Failure to comply with this restriction in use may result in serious injury or death.**

### USING THE SAFETY HARNESS

**WARNING: Safety harnesses are designed to be worn at the chest area to provide the wearer with the least injury potential should the user be subject to sudden high shock loads.** The harness belt should be worn as high on the chest as possible but in all cases at least **2 inches (5 cm) above the lowest rib** measured from the bottom of the belt (see Figure 12). **Failure to correctly wear the safety harness may result in serious injury, or even death.**

When Model 38AHRN is worn, the chest belt **must** be tightened as **snugly** as is tolerable. A loose belt can increase the potential for injury. Tighten the belt by pulling the free end of the webbing outward. It is located on your right side when the unit is worn. Secure the free end of chest webbing by adjusting the belt keeper (slide the keeper to take up the slack). To serve as a safety harness, a tether must be attached to **both** “D” rings which are located on the front of the harness.

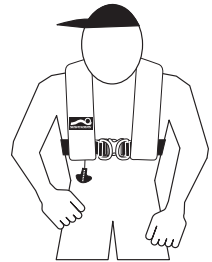


Figure 12

The tether must be equipped with **quick-release under-load hardware and be less than 6 ft. 6 in. (200 cm) in length.** The quick-release hardware is necessary so that in an emergency, such as a sinking or capsizing boat, the tether can be released with the weight of the wearer on it, so the wearer will not be dragged down with the boat. To release the tether from the harness, pull the quick-release pin out and away from the tether buckle. See Figure 13.

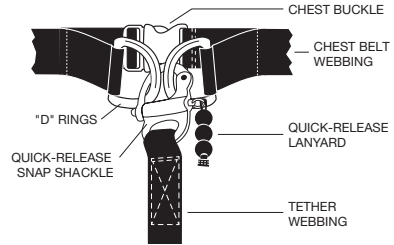


Figure 13

This safety harness can also be used as a rescue harness to pull the wearer out of the water in a man-overboard emergency. Again, it is important to attach any means of lifting to **both** "D" rings, because the plastic buckle is not designed to take the load.

## SAFETY HARNESS MAINTENANCE

Between outings check that the webbing, "D" rings and tether hardware are still strong and free from cracks and that the thread is securely sewn, and webbing is not significantly faded or frayed.

## Inflation and Deflation

### CO<sub>2</sub> INFLATION

This PFD also has an automatic water-activated inflation system which will inflate the PFD ten seconds after full immersion in water.

Grasp the "Jerk-to-Inflate" pull tab (shown in Figure 14) and pull sharply downward. The PFD will inflate instantly. See Figure 15.

### YELLOW INFLATOR CAP

If the yellow "Manual Only" cap is installed on the inflator (instead of the clear auto cap) and is properly armed, it can only be inflated with the CO<sub>2</sub> by pulling the "Jerk-to-Inflate" pull tab sharply downward. Use of the yellow "Manual Only" cap is explained on Page 15.

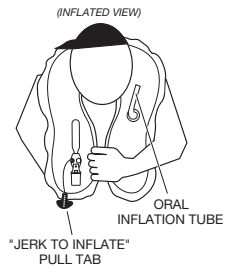


Figure 14

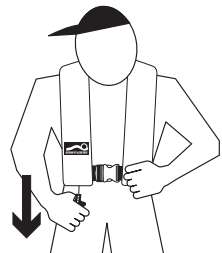


Figure 15

## ORAL INFLATION

The oral inflation tube is located inside the cover on the left side when the PFD is worn. To inflate orally, open the top portion of the left cover to get access to the oral inflation tube. Remove the dust cap and blow air into the oral inflation tube until the inflatable is firm. See Figure 16.

**Note:** Oral Inflation is a secondary method of inflation. It can be used for testing the air holding ability of the bladder or as a back-up in the event there is a problem with the CO<sub>2</sub> inflator. CO<sub>2</sub> gas will permeate the bladder much quicker than air. Therefore, oral inflation can be used to refill the bladder if you get stuck in the water for an extended period. **However, do not fully orally inflate the PFD and inflate again with the CO<sub>2</sub> gas because this could destroy the bladder.**

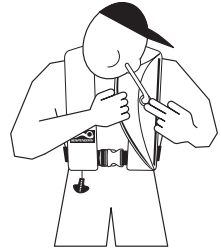


Figure 16

## DEFLATION

The deflation tab is located on top of the dust cap. Turn the dust cap upside down and insert the deflation mechanism inside the opening of the oral tube. Hold the deflation mechanism in place with your finger and gently squeeze all the air out. See Figure 17.

To get the air out, squeeze the bladder into a ball and force the last bit of air out. If the PFD is not **totally** deflated it will be very difficult to fold. Replace the dust cap to the original position. If the PFD has been inflated while worn, it may be necessary to at least partially deflate the unit to remove it from the body.

## PRACTICE INFLATION PROCEDURES FOR ALL MODELS

If an emergency arises, there is very little, or no time to learn how your inflatable works. Be prepared in advance. Practice wearing and adjusting your inflatable using different types of light weight and bulky clothing. Inflate the PFD by jerking firmly downward on the pull tab, or using the oral inflation tube with the CO<sub>2</sub> cylinder removed. Wade into shallow water, then let the inflatable float you in different positions. Make sure you have 100% confidence in your inflatable PFD. See "How and Why to Test Your PFD?" on Page 19 for more details.

## IMPORTANT

**Each CO<sub>2</sub> cylinder may only be used one time to inflate the PFD and then a new rearming kit needs to be obtained.** See rearming instructions on Pages 16 & 17.

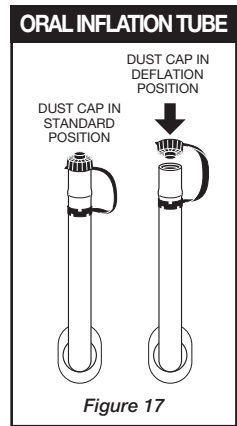


Figure 17

## Is Your PFD in Good and Serviceable Condition?

Check your PFD between outings to be sure that it is properly armed; that it is free of rips, tears, or holes; that all seams are securely sewn; and that the fabric, straps and hardware are still strong. Inspect the inflatable portion of the PFD in accordance with the care and maintenance instructions discussed below. If your inflatable is damaged in any way **replace it!** Please call SOSPENDERS® about replacing the unit.

In order to meet United States Coast Guard regulations, make sure the PFD is properly armed and in good condition as discussed in "U.S. Coast Guard Mandatory Carriage Requirements" on Page 4.

## Care and Maintenance

SOSPENDERS® require responsibility by the owner for maintenance. Sign and date the maintenance record located on the outside of the shroud after thorough maintenance checks. Please call SOSPENDERS®, if you have any questions. Our toll free number is 1-800-835-3278.

### VISUALLY INSPECT AND LEAK TEST YOUR PFD.

To check for leaks, remove the CO<sub>2</sub> cylinder, orally inflate the device until firm and leave overnight. The PFD should still be firm in the morning. This leakage test should be performed at the beginning of the boating season and at least every two months thereafter if you are a light user, and more often if you are a heavy user. After this test, deflate, and rearm (see Pages 16 and 17) the inflator. Then fold your PFD model in accordance to the folding instructions on Page 18.

#### INFLATABLE PFD CHECKLIST

*When preparing for an outing, ask yourself:*

- Have I checked the status of the inflator and made sure that the CO<sub>2</sub> cylinder is not punctured? Check both before each outing.
- Have I checked my inflatable PFD for leaks in the last two months?
- Do I have the right PFD for this activity?
- How does my PFD work in the water? Have I tested it this season?
- Do I have the right size PFD for each person (according to the label) and do they fit snugly?
- Have I checked my other inflatable PFDs in the same manner in which I checked my own?

## FOR ALL MODELS, THE CO<sub>2</sub> CARTRIDGE MAY ONLY BE USED ONE TIME TO INFLATE THE PFD AND THEN A NEW REARMING KIT NEEDS TO BE OBTAINED.

There are different rearming kits for World Class 38 Series and for Sport 24 Series PFDs. Kits used for World Class models are shown in Figure 18. Kits for Sport models are shown in Figure 19.

There are CO<sub>2</sub> cylinders that are not compatible with PFD inflation systems. Using one of these may result in your PFD not inflating automatically. To ensure your PFD is armed properly, only use an appropriate SOSPENDERS® rearming kit.

### REARMING KIT FOR WORLD CLASS 38 SERIES PFDs

#### SOSPENDERS® REARMING KIT 38ARK

*For Halkey Roberts V85000 Automatic Inflator*

**CONTAINS:** 38 gram CO<sub>2</sub> Cylinder (with 1/2" threads), Water-Sensitive Bobbin, Green Tab, and Instructions.

**FITS: World Class 38 models:** 38ALNG, 38AREG, and 38AHRN



Figure 18

### REARMING KIT FOR SPORT 24 SERIES PFDs

#### SOSPENDERS® REARMING KIT 24ARK

*For Halkey Roberts V85000 Automatic Inflator*

**CONTAINS:** 24 gram CO<sub>2</sub> Cylinder (with 1/2" threads), Water-Sensitive Bobbin, Green Tab, and Instructions.

**FITS: Sport 24 model:** 24ASPT



Figure 19

## BOBBIN

The Bobbin is the water-sensitive element that dissolves in water, triggering automatic inflation for the Halkey Roberts V85000 inflator. Replace the Bobbin every 3 years or more often if the unit gets wet or is used in hot, humid or foggy conditions.

## **SPECIAL CONSIDERATION FOR AUTOMATIC DEVICES**

Premature automatic inflation creates several risks that you must address to avoid drowning. The PFD might not be armed when needed, either knowingly or unknowingly. Much less common but also important are:

- 1) Double inflation could damage the PFD,
- 2) Inflation when stored in a tight space could damage the PFD, and
- 3) The PFD could inflate when you're in an awkward place or position.

**CONVERTING INFLATOR TO MANUAL-ONLY OPERATION (See Page 15)**

**INFLATOR REARMING INSTRUCTIONS (See Page 16 and 17)**

**FOLDING INSTRUCTIONS (See Page 18)**

## HALKEY ROBERTS V85000 MANUAL INFLATOR

### CONVERSION OF INFLATOR TO MANUAL-ONLY OPERATION

Remove the yellow manual cap and spare CO<sub>2</sub> cylinder from the pocket located under the left cover of the inflatable cell. Place the clear cap in the pocket for future use.

**Step M1.** If the manual/auto unit has become wet and prematurely inflated, deflate the PFD.

**Step M2.** **Unscrew** used CO<sub>2</sub> cylinder in a **counter-clockwise** direction and to avoid confusion later in the rearming process, we suggest that you throw away the old CO<sub>2</sub> cylinder now. **Do not insert** new cylinder at this time. It will discharge.

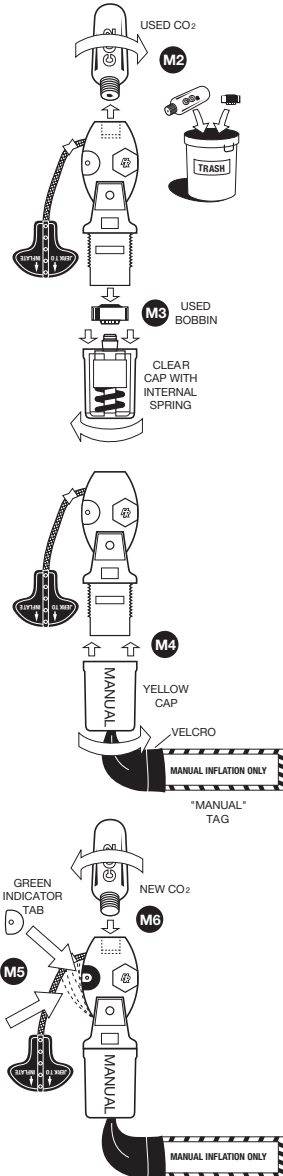
**Step M3.** **Unscrew** the clear cap on the bottom of the inflator in a **counter-clockwise** direction and place it in the PFD pocket for future use. **Remove** and **discard** the used plastic bobbin element.

**Step M4.** **Screw on the yellow cap** (it has the word "MANUAL" printed on side), **DO NOT OVERTIGHTEN**. Secure the Velcro of the "MANUAL INFLATION ONLY" warning tag to the Velcro on the inside of the right cover of the PFD so it will hang exposed on the outside of the PFD. The inflator has now been converted to manualonly, **rip-cord activated** CO<sub>2</sub> inflation.

**Step M5.** If manual lever is not **locked** or the **green indicator tab** is missing, **close** the lever **within** the inflator body and carefully **insert** a new **green indicator tab** so that it fully **covers** the **red semi-circle** on the body.

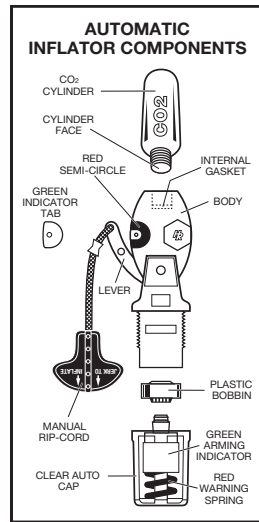
**Step M6.** **Screw** the new properly-sized cylinder in a **clockwise** direction into the cylinder receiver firmly. **DO NOT OVERTIGHTEN**, but ensure the fit is snug.

**Note:** The yellow cap does not contain a spring, and must be used to convert the inflator to manual only operation. **Attempting to use the clear cap without a bobbin would instantly puncture the CO<sub>2</sub> cylinder.**

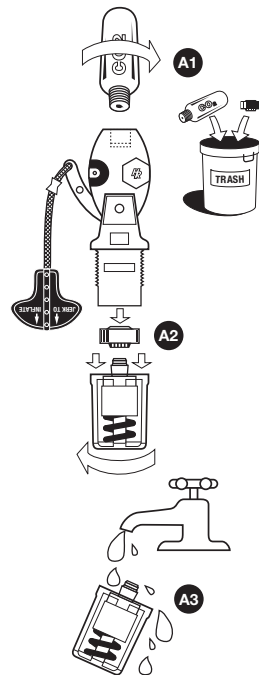


## HALKEY ROBERTS V85000 MANUAL INFLATOR WITH AUTOMATIC BACKUP

# REARMING INSTRUCTIONS

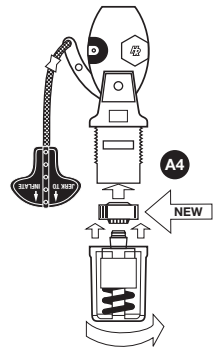


- Step A1.** **Unscrew** used CO<sub>2</sub> cylinder in a **counter-clockwise** direction and to avoid confusion later in the rearming process, we suggest that you throw away the old CO<sub>2</sub> cylinder now. **Do not insert** new cylinder at this time. It will discharge.
- Step A2.** **Unscrew** the clear cap on the bottom of the inflator in a **counter-clockwise** direction. **Remove** and **discard** the used plastic **bobbin** element.
- Step A3.** **Rinse** any white **residue** remaining in or on the **cap** and from the **body** of the inflator. Shake dry or allow to air dry. (**Fresh water rinse** is desirable.)

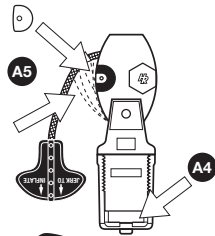




**Step A4.** Check the **date** on the side of the **bobbin** to ensure that the bobbin is less than **3 years** old. **Insert** the **fresh** bobbin, lining up the slots on the bobbin with the ridges inside the body. **Replace** clear **cap** on inflator securely, but **do not overtighten**. (The **indicator** at the bottom of the cap will change from **red** to **green** when the bobbin is properly loaded. **The inflator will not work in the automatic mode without the bobbin.**)



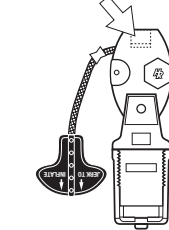
**Step A5.** If manual **lever** is not **locked** or the **green** indicator **tab** is missing, **close** the lever **within** the **inflator** body and carefully **insert** a new **green** indicator **tab** so that it fully **covers** the **red** semicircle on the body.



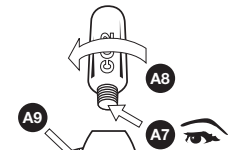
**Step A6.** Look into the threaded cylinder receiver and **view** the gasket. **Replace** if worn.



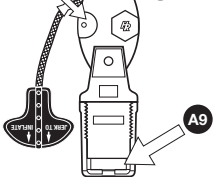
**Step A7.** **Inspect** the face of the new **cylinder**. Be sure it is **smooth** and has **no** **holes** or **scratches**. There is a gross weight on the cylinder. If you have any question about cylinder integrity, weigh the cylinder on a small scale, such as a postage scale. **Compare** the **weight** printed on the **cylinder** to the **actual weight**. If they **do not match**, get **another** cylinder.



**Step A8.** **Screw** the new properly-sized **cylinder** in a clockwise direction into the cylinder receiver firmly. **DO NOT OVERTIGHTEN**, but ensure the fit is snug.

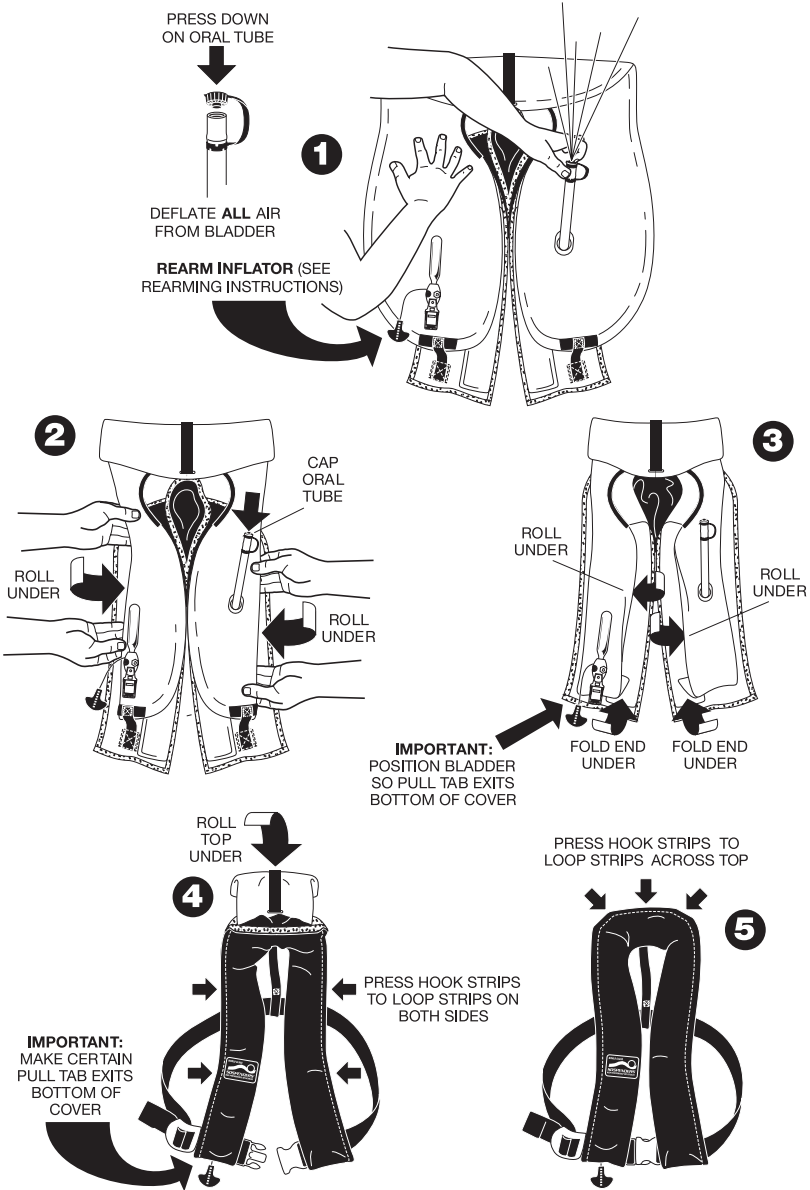


**Step A9.** **Check** **cylinder face** and ensure that the **arming** indicators on your inflator are **green** before each boating trip. They will tell you if there is need for service.



# SOSPENDERS®

## 24 AND 38 SERIES PFD FOLDING INSTRUCTIONS



## Why are PFDs Required Safety Equipment?

Drownings are the leading cause of fatalities involving recreational boating. A Personal Flotation Device (PFD) provides flotation to help keep your head above water, help you stay face up in the water, and increase your chances for survival and rescue. Most adults only need an extra 7 to 12 pounds (31 to 53 Newtons) of flotation to keep their heads above water. The proper size PFD will properly support the weight of the wearer. **Since this inflatable PFD does not have inherent buoyancy, it provides flotation only when inflated.** Familiarize yourself with the use of this PFD so you know what to do in an emergency.

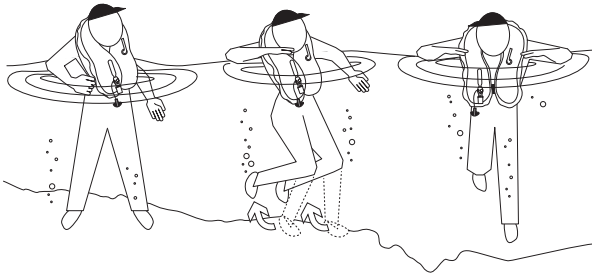
## How and Why to Test Your PFD?

Inflate your PFD and try it out in the water to:

- Make sure it floats you:
  - Comfortably (When worn properly)
  - Adequately for expected wave conditions (Body shapes/densities affect performance)
- Make sure it works:
  - A flow of bubbles should not appear (See “Visually Inspect and Leak Test Your PFD” on Page 12)
  - It should inflate quickly and easily
- Learn how it works by:
  - Activating the CO<sub>2</sub> inflation system
  - Rearming the CO<sub>2</sub> inflation system
  - Using the Oral inflator tube

The U.S. Coast Guard recommends that you purchase two rearming kits (38ARK for World Class models, 24ARK for the Sport model, as described on Page 13). One kit is to be used immediately in testing the automatic inflation system (see “HOW DO YOU TEST YOUR PFD USING THE AUTOMATIC INFLATOR?”) and the other to carry onboard as a spare.

Since you should replace the bobbin (water sensing element) each year, the U.S. Coast Guard recommends you test the automatic inflation system in-the-water at the beginning of each boating season. By doing this, you demonstrate that the automatic inflation system is still working properly and reduce the likelihood of premature inflation and its associated dangers. The only check of the manual inflation system (with CO<sub>2</sub> cylinder and green indicator tab removed) would be to determine that the lever arm and piercing pin move freely when moving the lever (attached to the pull tab) several times down and up.



## HOW DO YOU TEST YOUR PFD USING THE AUTOMATIC INFLATOR?

1. To test your inflatable PFD, you will need:
  - Your fully armed PFD, and
  - A rearming kit approved for your PFD.
2. Put on the PFD.
3. Get into shallow water, just deep enough that you can stand with your head above the surface. Once the inflator device is under water the PFD should automatically, fully inflate within 10 seconds.
4. See if the PFD will float you on your back or just slightly back of vertical. In a relaxed floating position, verify that your mouth is well above the water surface. Note the effect of where you hold your legs on how you float.
5. Get out of the water and remove the PFD. Remove the used CO<sub>2</sub> cylinder and the used bobbin (automatic inflator element) from the PFD inflator. Deflate the PFD using the oral inflator.
6. Let the PFD dry thoroughly. REARM AND REPACK the PFD in accordance with the manufacturer's instructions!

## HOW DO YOU TEST YOUR PFD USING THE MANUAL INFLATOR?

1. To test your inflatable PFD, you will need:
  - Your fully armed PFD, and
  - A rearming kit approved for your PFD. This kit contains a bobbin (water sensing element) that you will not need for this test.
2. Put on the PFD.
3. Actuate the inflation system by jerking firmly downward on the pull tab. The PFD should fully inflate within 5 seconds.
4. Get into shallow water, just deep enough that you can stand with your head above the surface.
5. See if the PFD will float you on your back or just slightly back of vertical. In a relaxed floating position, verify that your mouth is well above the water surface. Note the effect of where you hold your legs on how you float.

6. Get out of the water and remove the PFD. Remove the used CO<sub>2</sub> cylinder from the PFD inflator. Completely deflate the PFD using the oral inflator.
7. Let the PFD dry thoroughly. REARM AND REPACK the PFD in accordance with the manufacturer's instructions!

## HOW DO YOU TEST YOUR PFD USING THE ORAL INFLATOR?

1. To test your inflatable PFD, you will not need any spare parts, or rearming kits.
2. Remove the CO<sub>2</sub> cylinder to prevent inadvertent activation of the manual inflation system which could potentially damage the PFD. Inspect the threaded end to ensure it is un-used. Remove the auto cap, and bobbin from the bottom of the PFD inflator.
3. Put on the PFD.
4. Get into shallow water, just deep enough that you can stand with your head above the surface.
5. If you are a weak swimmer or non-swimmer, inflate the PFD partially so that you are supported well enough to be able to complete inflation without touching bottom, either orally or manually. Note this level of inflation because it is the minimum needed for you to safely use this inflatable PFD.
6. Fully inflate the PFD using the oral inflator.
7. See if the PFD will float you on your back or just slightly back of vertical. In a relaxed floating position, verify that your mouth is well above the waters surface. Note the effect of where you hold your legs on how you float.
8. Get out of the water and remove the PFD. Completely deflate the PFD using the oral inflator.
9. Let the PFD dry thoroughly. REARM AND REPACK the PFD in accordance with the manufacturer's instructions!

## Wear Your PFD

In approximately 80 percent of all boating fatalities, the victims were not wearing a PFD. Most fatal accidents happen on calm sunny days. This inflatable PFD is much more comfortable to wear than the other PFD types. Get into the habit of wearing this PFD. Non-swimmers and children especially should wear a hybrid or non-inflatable PFD at all times when on or near the water. This PFD will not meet your carriage requirement unless it is worn.

## Hypothermia

Prolonged exposure to cold water causes a condition known as hypothermia—a substantial loss of body heat which leads to exhaustion and unconsciousness. Most drowning victims first suffer from Hypothermia. The table below shows the effects of Hypothermia.

<b>HOW HYPOTHERMIA AFFECTS MOST ADULTS</b>			
<b>Water Temperature</b> °C                      °(F)		<b>Exhaustion or Unconsciousness</b>	<b>Expected Time of Survival</b>
0.3	(32.5)	UNDER 15 MIN	UNDER 15 TO 45 MIN
0.3 TO 4	(32.5 to 40)	15 TO 30 MIN	30 TO 90 MIN
4 TO 10	(40 to 50)	30 TO 60 MIN	1 TO 3 HOURS
10 TO 16	(50 to 60)	1 TO 2 HOURS	1 TO 6 HOURS
16 TO 21	(60 to 70)	2 TO 7 HOURS	2 TO 40 HOURS
21 TO 27	(70 to 80)	2 TO 12 HOURS	3 HOURS TO INDEFINITE
Over 27	(Over 80)	INDEFINITE	INDEFINITE

PFDs can increase survival time because they allow you to float without using energy treading water and because of their insulating properties. Naturally, the warmer the water, the less insulation you will require. When operating in cold waters below 60 °F (15.6 °C) you should consider using a coat or jacket style PFD or a Type V Thermal Protective PFD as they cover more of the body than the vest or belt-style PFDs.

## SOME POINTS TO REMEMBER ABOUT HYPOTHERMIA PROTECTION:

1. Always wear your PFD. Even if you become incapacitated due to Hypothermia, the PFD will keep you afloat and greatly improve your chance of rescue.
2. Do not attempt to swim unless it is to reach a nearby craft, fellow survivor, or a floating object on which you can lean or climb. Swimming increases the rate of body heat loss. In cold water, drown-proofing methods that require putting your head in the water are not recommended. Keep your head out of the water. This will greatly lessen heat loss and increase your survival time.
3. Use the standard H.E.L.P. position when wearing an inflatable PFD, drawing the legs up to a seated position, because doing so will help you conserve body heat.
4. Keep a positive attitude about your survival and rescue. This will improve your chances of extending your survival time until rescued. Your will-to-live does make a difference!
5. If there is more than one person in the water, huddling is recommended while waiting to be rescued. This action tends to reduce the rate of heat loss and thus increase the survival time.



## Each of These Devices is Intended to Help You Save Your Own Life

For your PFD to function properly, follow these suggestions to verify that it fits, floats, and remains in good condition.

1. Check the CO<sub>2</sub> inflation mechanism status indicators and cylinder face before each use.
2. Get in the habit of rearming the inflation mechanism right after each inflation.
3. Try your wearable PFD on, and adjust it until it fits comfortably in and out of the water.
4. Mark your PFD with your name if you are the only wearer.
5. Do not alter your PFD. If it doesn't fit properly, get one that does. An altered device is no longer Coast Guard approved.
6. Your PFD is not intended for use as a fender or kneeling pad.
7. If your PFD is wet, allow it to dry thoroughly before storing it. Store it in a well-ventilated area.
8. Do not dry your PFD in front of a radiator or other source of direct heat.
9. Do not wash your inflatable in a washing machine or dry clean.

## Additional Information

If you need more information about PFDs and safe recreational boating, contact your state boating authority, U.S. Coast Guard Auxiliary, U.S. Power Squadron, Red Cross, your nearest unit of the U.S. Coast Guard, or call the free boating course number 1-800-336-BOAT (in VA, 1-800-245-BOAT), or see the USCG Boating Web Page at [www.uscgboating.org](http://www.uscgboating.org).

## DO NOT ATTACH PFDs TO YOUR BOAT

Each PFD has straps, hooks, buckles, or other means for securing the device in place on the wearer. Some PFDs also incorporate decorative rings or tabs. Such items are not to be used to attach the device to the boat. Attaching the device to the boat will not permit it to perform as intended. The exception is when a safety harness model is worn with a tether of less than 6 feet (182 cm) having quick-release under load hardware.

## GAS PERMEATION

Gas permeation loss is greater when the device is inflated with carbon dioxide (CO<sub>2</sub>) than with air. Therefore, if you inflated the PFD with the CO<sub>2</sub> and are in the water for an extended period of time, it may be necessary to use the oral inflator to top off the inflatable with air.

## WARRANTY

Upon mailing your SOSPENDERS® PFD Registration Card within fifteen (15) days of purchase, SOSPENDERS® warrants to the Original Registered Buyer that the SOSPENDERS® purchased are free from defects in materials and workmanship under normal conditions of use and service for one year from the date of purchase.

If SOSPENDERS® do become defective during the Warranty Period, SOSPENDERS® will repair or replace the product and return it to the original Registered Buyer free of charge, provided the product has been returned to SOSPENDERS® postpaid and insured, along with a letter describing the problem and a return address. Defects caused by misuse, accident or fire, and products that have been altered are excluded from the Warranty.

SOSPENDERS® makes no Warranty of fitness for a particular purpose and no other representations or warranties of any kind, expressed or implied, with respect to this product. SOSPENDERS® reserves the right to change this manual or products at any time without notice.



## PFD REGISTRATION CARD

SOSPENDERS® is required by Federal Law to maintain information on first purchases of inflatable PFDs intended for use on recreational boats. Please **completely** fill out, **including the lot number stamped on the back of the PFD**, and mail the PFD registration card so that we can notify you of any important safety information concerning the device. The card is designed so that the purchaser of more than one device of the same model only needs to fill out one card. Please notify SOSPENDERS® if you have a name or address change.

## Disclaimer

**SOSPENDERS® should only be used as described in this manual. No liability is either expressed or implied. Safety is the by-word on water.**

**The manufacturer does not guarantee the safety of the user or that the use of the products removes all risk of drowning.**





# NOTES

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