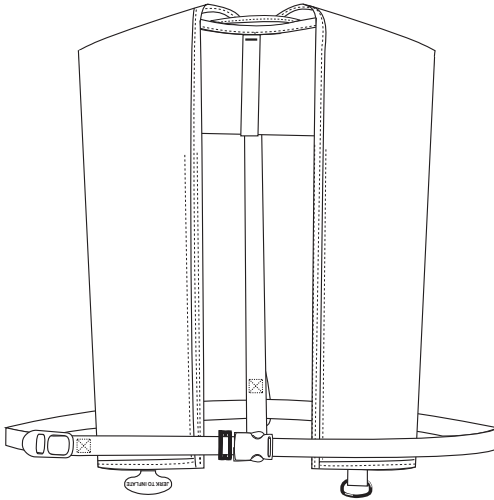


DO NOT REMOVE PRIOR TO SALE!

**OWNER'S MANUAL for
Model No. 24A13-S21**



I. APPROVAL CONDITIONS and CARRIAGE REGULATIONS

This inflatable PFD is approved by the U.S. Coast Guard for use as a Type V Convertible Personal Flotation Device (PFD) with Type III performance when armed either as a Manual Only Mode or Automatic/Manual Mode. **IT IS APPROVED ONLY WHEN WORN.** It is not approved for water skiing or other high impact, high speed activities. This inflatable PFD was designed to be more comfortable and less restrictive to wear than inherently buoyant PFD's. 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 PFD's must be at least 16 years old.

When armed in the "Manual Only" mode the PFD will have a full CO₂ cylinder, inflation system status indicator, a yellow "Manual Only" cap (with a Manual warning tag), and an accessible *Jerk to Inflate* Tab. When armed in the "Automatic Backup" mode the PFD will have a full CO₂ cylinder, inflation system status indicators, a Bobbin and a clear Auto Cap. **Have a spare CO₂ cylinder available for rearming.** See INSTRUCTIONS FOR USE, page 5.



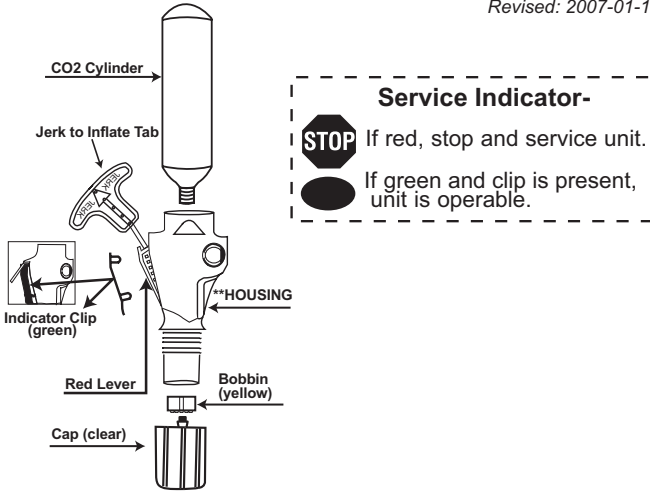


**WARNING -
INITIAL ARMING INSTRUCTIONS -
DEVICE IS NOT ARMED.**

see parts list below

- Step 1 - Locate CO2 Cylinder attached to the PFD.**
Step 2 - Install new Cylinder. Follow Step 8 of the Rearming Instructions located on Page 10.
Step 3 - Check to be sure that the Indicator Clip is GREEN.
See Page 11 for Instructions to Convert to Manual Only Inflation.

Revised: 2007-01-10



CONDITIONS FOR THIS TYPE V APPROVAL

This manual/automatic inflatable PFD is approved for use as a substitute for a Type III PFD **ONLY WHEN WORN**.

Conditional approvals are granted by the Coast Guard for PFDs that:

1. Do not meet all the requirements for approval under the Type I through IV categories but offer other significant safety features, or
2. Have features or uses not found in Type I through IV PFDs that require special user knowledge.

The conditions let the user overcome design traits that would otherwise prevent approval.

“Approved Only When Worn”:

This PFD has the, “Approved Only When Worn”, condition on its approval because if it is not worn whenever above deck and underway, it is less likely to be in working order and cannot be counted as a PFD to meet the carriage requirements on your boat.

This manual/automatic inflatable PFD requires more frequent checks than ones that are inherently buoyant or have manual inflation. Wearing this PFD will:

1. Provide it the extra attention associated with use,
2. Help you address its disadvantages, and
3. Increase safety enormously because you have it when needed.

Read the discussion under SPECIAL CONSIDERATION FOR THE MANUAL/AUTOMATIC INFLATOR ON THIS PFD and understand its implications on your safety.

SPECIAL CONSIDERATION FOR THE MANUAL/AUTOMATIC INFLATOR ON THE PFD

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 are in an awkward place or position.

Owners of inflatable PFDs must understand the unique characteristics of these products so that they can use them safely.

You must learn how to properly arm the PFD.

Why: An improperly armed mechanism may not inflate the chamber.

This PFD will not float you without being inflated. *You must check the status of the mechanism and the CO₂ cylinder before each outing. If the cylinder cap is punctured there will be no gas to inflate the PFD. Also, if the cylinder is deformed in any way, there may not be gas to inflate the PFD.*

Why: This PFD will not float you unless it can be inflated.

Why: Are you sure that no one else inflated the PFD recently and did not replace the cylinder?

Why: Premature inflations that occur on a stored product may go unnoticed since the CO₂ gas will permeate the chamber fabric within a few days, leaving a deflated chamber.

Why: U.S. Coast Guard studies have shown high percentages of unserviceable inflatable PFDs with used cylinders in them when used by recreational boaters.

In addition to inspecting the mechanism and cylinder before each outing you must periodically check the other components of the PFD. This would include the chamber, webbing, buckles and thread.

Why: The chamber may get punctured, or abraded to the point where it will not stay inflated.

Why: Over time these components can wear out and not be strong enough to perform their intended function when needed.

Premature or unexpected inflation of automatic devices may occur in high heat and humidity storage conditions or when exposed to severe conditions such as being inundated by water from waves breaking on deck. Premature inflation creates risks you must address.

Why: Inflation when stored in a tight space could damage the PFD.

Why: The PFD could inflate when you are in an awkward place or position.

Why: Automatic inflation after oral inflation could damage the PFD.

*Do not try to alter or modify the mechanism. If you are dissatisfied with the humidity resistance or other performance of this product, contact **Stearns, Inc.***

Why: Altering the mechanism may result in the failure of the device to inflate and provide the necessary buoyancy to float you.

Why: Altering the PFD will void the U.S. Coast Guard approval for meeting recreational boating carriage requirements.

You must carry rearming kits to meet the needs of expected conditions of your boating trip. Stearns, Inc. recommends a minimum of two cylinders, clips, and bobbins.

Why: If the mechanism is actuated, it must be properly rearmed prior to using it again.

Why: To meet the carriage requirements the device must be properly armed, unless worn inflated.

Please read the entire owner's manual for more details about the use and care of this Inflatable PFD.

II. MANDATORY CARRIAGE REQUIREMENTS

Federal regulations in 33 CFR 175-1993 require you to carry Coast Guard approved personal flotation devices (PFDs) legibly marked with the Coast Guard approval number which are in good and serviceable condition and are the correct size for each person on board. 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 with a full CO₂ cylinder, inflation system status indicator, and an accessible manual inflation lanyard in either the "Manual Only" or "Automatic Backup" mode. A PFD which is "approved only when worn" or "required to be worn" must be worn under the specified conditions. See CONDITIONS FOR THIS TYPE V APPROVAL on page 2 for specific approval conditions of this PFD.

III. INSTRUCTIONS FOR USE

SPECIFICATIONS:

Chest Size: 30 – 52 inches (76 - 132 cm)

Weight Range: more than 80 pounds (36 kg)

Age Range: 16 years of age and older

Buoyancy (minimum): 22.5 Pounds (100 Newtons) when fully inflated

Inflation System:

Manual/Automatic Inflation Mechanism (located on your right side)

Oral Tube (located on your left side)

Jerk to Inflate Tab (located on your right side) used to manually activate the inflation mechanism and inflate the PFD.

Manual Only Yellow Cap (located in the pocket of your PFD.

Refer to page 11 for more information.)

CO₂ Cylinder 24 gram, 1/2 inch thread, from spare Rearming Kit.

--USE REARMING KIT NUMBER 24ARC--

PRE-DONNING INSTRUCTIONS

CHECK THE FOLLOWING BEFORE EACH USE OR OUTING:

1. INSPECT PFD FOR DAMAGE
2. INSPECT THE INFLATOR MECHANISM
3. EXAMINE CO₂ CYLINDER CAP FOR PUNCTURE HOLE.
IF PUNCTURED OR DEFORMED, REPLACE THE CYLINDER.

READ PAGE 6 FOR MORE DETAILED INFORMATION!

1. Inspecting Your PFD For Damage

Make sure that the PFD is free from rips, tears or punctures. This type of damage on the outside covering indicates that the **Inflatable Chamber** may have been exposed to potentially damaging elements. If these defects expose the yellow inflatable chamber material, discontinue use of the PFD until you have the PFD inspected by an authorized repair facility. If these defects are noticed but the yellow inflatable chamber material is *not exposed*, the **Inflatable Chamber** should be checked for leaks. The **Inflatable Chamber** should also be checked for leaks at the beginning of each season and at least every two months during the boating season. The leak test procedure is described under **USER'S INSPECTION**. (Refer to page 13.)

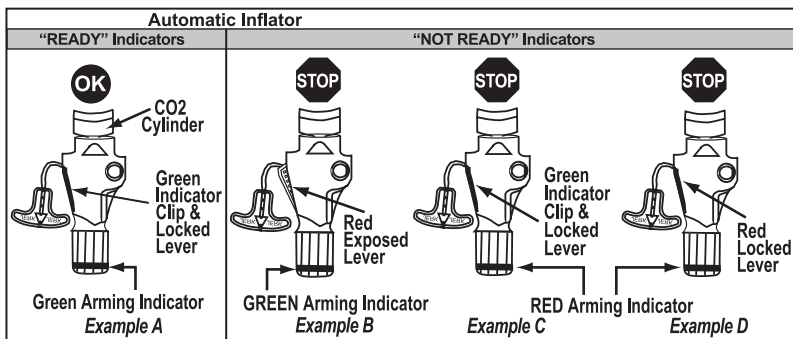
2. Inspect the Inflator Mechanism

Examine the inflation mechanism status indicators. The Inflation Mechanism Status Indicators will tell you if the inflation mechanism is properly **ARMED/REARMED** and ready for activation. See diagram below for a description of the inflator status indicators.

- A. An unbroken Green Indicator Clip, 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 Lever indicate the CO₂ cylinder may be empty.
- C. Exposed Red Arming Indicator means bobbin is missing and/or the clear cap is not hand tightened.
- D. Exposed Red Locked Lever indicates that the CO₂ cylinder may be empty.



2A. Inspecting The Inflator When Armed In The MANUAL-ONLY Mode With Yellow Cap

A green indicator clip and yellow cap shows that the unit is "ready". Also inspect the CO₂ cylinder to ensure that it has not been used. If green clip 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.

3. Examine Your CO₂ Cylinder

The CO₂ cylinder contains the gas charge that will inflate your PFD when the inflation mechanism is fired either automatically or manually. You must verify that the CO₂ cylinder installed is of the correct size and has not been previously fired. To examine the cylinder, you must Unscrew it and visually examine the cap (the flat surface on the threaded end). There are no indicators to show that the CO₂ cylinder is full. The cylinder needs to be replaced if there is any visible damage on the flat surface. See the product SPECIFICATIONS section on page 5 of this manual to determine the proper size cylinder. Proper cylinder size includes both thread size and CO₂ gram weight. If the cylinder is OK, you must properly screw it back into the mechanism. If the cylinder is damaged, discard and install a new, undamaged cylinder into the mechanism.

Additional Notes on CO₂ Cylinders:

- FAILURE to properly rearm the inflation mechanism prior to installing the CO₂ Cylinder will result in premature activation of the cylinder.
- CO₂ Cylinders are only good for one inflation and cannot be recharged.
- CO₂ Cylinders are made with a protective coating that may wear off after a period of use or exposure to the environment. When this coating is worn off, the CO₂ Cylinder may start to show some signs of rusting. If this occurs, replace the CO₂ Cylinder.
- If a gram scale (such as a postal scale) is available, it is recommended to weigh the cylinder to verify that it meets the minimum weight imprinted on the cylinder.



DONNING INSTRUCTIONS - Practice closing hardware and adjusting before use or prior to in-water testing.



STEP 1 - Wear like a jacket, inserting arms between straps and fabric.

STEP 2 - Close front buckle, manual pull lanyard should be visible on your lower right side.



STEP 3 - Adjust **Waist Strap** through slide located on right side until comfortably snug fit is obtained. Tuck free end of belt under waist strap.

After donning, locate the **Jerk To Inflate** tab for the mechanism. It should protrude from the PFD as shown on the pictogram. Make sure that you are comfortable locating the **Jerk To Inflate** tab with either hand. Should an emergency develop, be prepared to use it! Always wear your PFD over, *not under* clothing.

Caution: bulky clothing may affect the ability of this PFD to turn the wearer to a face-up position in the water.

Practice closing hardware and adjusting straps before use or prior to in-water testing (page 16).

INFLATED DONNING INSTRUCTIONS

Inflatable PFDs can be very difficult to don when fully inflated. Deflate through the *Oral Tube* until enough gas has escaped to don. See DEFLATION INSTRUCTIONS on page 9. Don as described above and re-inflate orally as described below.

INFLATION INSTRUCTIONS

1. **Manual Inflation** - To inflate, grasp the **Jerk to Inflate** tab and pull sharply downwards.
2. **Automatic Inflation** – The automatic **Inflation Mechanism** will activate when the device is totally immersed in water. Depending upon temperature, the device will obtain full buoyancy within 5 to 10 seconds. It is recommended that the user regard the automatic system as a backup and always be prepared to pull the **Jerk to Inflate** tab upon immersion.
3. **Oral Inflation** - The **Oral Tube** is located on the wearer's left side. Grasp the **Oral Tube** and bring to mouth. Blow air through the **Oral Tube** until the **Inflatable Chamber** is firm. **If the chamber becomes soft due to CO₂ permeance, Oral Inflation will be necessary to maintain full buoyancy.**
4. **Cold Inflation** - Oral Inflation may be required in addition to manual or automatic inflation if chamber is not firm due to cold temperatures at or below 40° F (4° C). Inflation time using CO₂ gas will be longer at these temperatures. Activation of automatic system may also be slower. **Always be prepared to use the manual inflation system!** See FREEZING TEMPERATURES on page 9.
5. **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 CO₂ by pulling the Jerk to Inflate Tab sharply downward. Use of the yellow “Manual Only” cap is explained on page 11.

6. Other Inflation Precautions

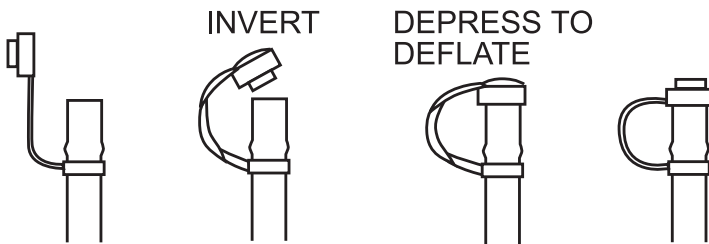
- **Caution:** Do not fully inflate orally then manually or automatically inflate with the CO₂ cylinder. Repeated CO₂ inflation after oral inflation will damage the PFD to the point that it will not hold air or float.
- Never inflate this PFD with a Pump or Air-Compressor.
- Permeation loss is greater when the device is inflated with CO₂ than with air, and earlier replenishment by means of the oral inflation system will therefore be necessary.

REARMING AND INDICATOR CHECK INSTRUCTIONS

REARMING and INDICATOR CHECK INSTRUCTIONS for the mechanism on your PFD located on pages 10 and 11.

DEFLATION INSTRUCTIONS

Depress **Oral Valve** (located inside end of **Oral Tube**) using either the protective cap or tab provided by inserting into the end of **Oral Tube**, see drawing. Gently compress air out of the inflatable chamber while depressing the **Oral Valve**.



DO NOT TWIST OR WRING INFLATABLE CHAMBER TO DEFLATE.

If for any reason the Oral Valve remains open, depress it several times. If it does not release, discontinue use of this PFD and take it to a certified repair station. In an emergency situation, hold thumb over the valve if it will not close.

Refer to the back cover for REPACKING INSTRUCTIONS.

FREEZING TEMPERATURES

At or below 40° F (4° C) automatic activation and inflation time with CO₂ 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 CO₂ cylinder. Repeated CO₂ inflation after oral inflation will damage the PFD to the point that it will not hold air or float.

Halkey-Roberts Alpha V90000 Manual/Automatic Rearming Instructions

Disassembly (see figure)

Step 1: Unpack or open the life vest so that the manual/automatic inflator is visible.

Step 2: Remove gas CO2 cylinder by firmly rotating cylinder counterclockwise. Discard cylinder.

Step 3: Remove clear cap by turning counterclockwise.

Step 4: Remove bobbin from cap or housing unit. Discard bobbin (yellow). Check the housing to be sure it is clear and dry.

Note: The bobbin (yellow) body may remain in the housing or in the cap assembly when you remove the cap. The bobbin body must be removed prior to assembly.

REARMING

Note: Rearming must follow the sequence below.

Step 5: Check the date on the bobbin in the rearm kit. The date should not be over three (3) years from today's date.

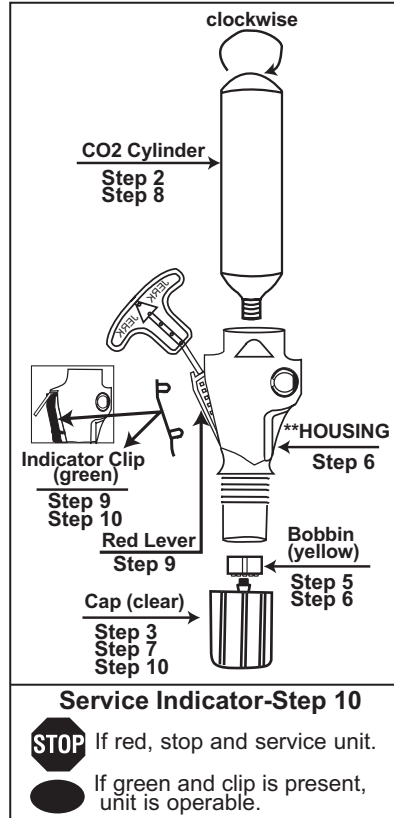
Step 6: **IMPORTANT!**
Bobbin (yellow) must be installed into the HOUSING (**see figure), white side down facing away from the inflator towards the cap (clear), aligning the slots on the bobbin with the ridges inside the threaded housing. The bobbin will slide in easily if installed correctly.

Step 7: Install cap by screwing clockwise until it meets the housing shoulder.
Note: No Gap.

Step 8: Install cylinder by rotating clockwise into inflator until cylinder is secured firmly in inflator.

Step 9: Place indicator clip over red lever by aligning the arms on the clip with the slots in the inflator. Push firmly in the middle of the clip to snap in place.

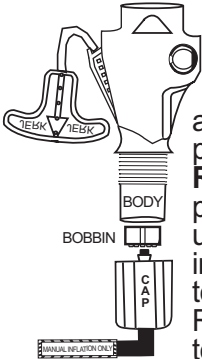
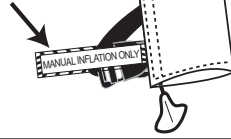
Step 10: Check to be sure service indicator is green and green indicator clip is firmly attached.



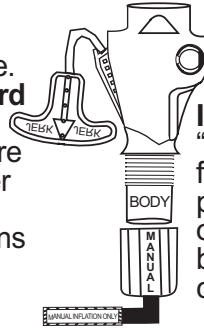
Revised: 2007-01-10

Halkey-Roberts Alpha V90000 Manual Rearing Instructions

TAG MUST HANG
OUTSIDE OF COVER



Step 1 -
Remove clear cap
and store in PFD
pocket for future use.
Remove and discard
plastic bobbin, if
used. If unused, store
in a dry place. Refer
to Manual/ Auto
Rearing Instructions
to convert
back to automatic
backup.



Step 2 -
Install yellow
“Manual” cap,
from PFD
pocket, snugly
on the inflator
by turning
clockwise.



Step 3 - Remove cylinder, inspect cylinder
face. If cylinder face has no holes or
scratches, replace firmly in inflator.
Do not overtighten. Make sure
green indicator clip is in place.

See steps 8 and 9 of V90000 Inflator Service
Instructions for complete cylinder instructions.

**When Yellow Manual Cap is not in use,
store in the PFD pocket for future use.**

Warning:
**Do not use the V90000 inflator
without a cap in place.**
Sharp edges may damage the life vest.

For a **YELLOW MANUAL CAP** contact
STEARNS® @ 1-800-697-5801.

Revised: 2007-01-10

OTHER USE GUIDELINES

1. Always wear your PFD when underway unless you are inside a cabin.
2. If you need to jump from any height always fold arms over your chest to keep the PFD in place when entering the water.
3. Avoid all unnecessary activities that will be abrasive to the device.
4. Use extreme caution around sharp objects.
5. Avoid unnecessary exposure to the sunlight. See GENERAL PRODUCT LIFE EXPECTANCY on page 13.
6. CO₂ gas from the cylinder will permeate through the chamber fabric over time. If you are in the water for a long time, it may be necessary to top off the inflatable orally, by blowing air in through the oral tube.
7. Inflatable PFDs are not designed for activities in which the wearer expects to encounter impact with the water at a high speed such as water skiing, riding personal water craft, etc.
8. Inflatable PFDs are not designed for white water activities.
9. For Inflatable PFDs that have a manual-auto inflator, dropping the PFD into the water or exposing the inflation system to unnecessary water spray, will result in an inadvertent inflation.

IV. 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 Care and Maintenance Instructions.

V. CARE AND MAINTENANCE INSTRUCTIONS

GENERAL PRODUCT LIFE EXPECTANCY

The reliability and service life of this PFD depends greatly upon how it is used and cared for. Avoid storing PFD in direct sunlight. Sunlight contains ultraviolet radiation that weakens synthetic materials. Prolonged exposures to high temperatures and high humidity may shorten service life of this PFD. While it is known that these elements degrade the materials, every use environment is unique so there is no sure way to estimate how long the PFD will last. It is for this reason that you must follow the care and cleaning instructions and perform the maintenance and service checks. This will assure that the PFD remains functional and will maximize the useful life of this PFD. Failure to follow these instructions rigorously could result in a non-functioning PFD causing **injury or death**.

INSPECTION

User's Inspection - The user should perform the following checks before each season, or before a long journey, or before each outing, as recommended below:

- 1. Physical Inspection of Cover and Straps** - Examine outer shell fabric, seams, webbing attachments, buckles, slides, etc. Fabric fading can indicate a loss of strength. Check for strength by pulling seams and attachments snugly. If device shows any signs of damage, return to a certified Repair Facility or replace the entire device. This inspection should be performed each outing.
- 2. Leak Test** - This test should be performed every two months and at the start of each season. Inflate buoyancy chamber using the oral inflation valve and leave to rest for 16 hours. When buoyancy chamber remains firm and full of air there is no leakage and chamber is in operational condition. If the chamber deflates, immediately bring to a certified Repair Facility for repair. The device is no longer in operational condition.
- 3. Automatic Inflation System** – This test should be performed during years when the PFD is not inspected by a certified repair facility. With device packed as normal, immerse the device into a tub of water and see if it inflates. DRY, REARM (page 10) and REPACK (back cover), as shown.
- 4. Function Test of Oral Valve** - Remove the dust protection cap. With the PFD inflated, test the valve by pushing it down using the tab provided on the cap (refer to page 9). The valve should depress easily, and when released it should automatically return to the closed position and reseal.

REARMING OF INFLATOR MECHANISM

Use Rearming Kit No. 24ARC. See Rearming Instructions on pages 10 and 11.

CARE AND CLEANING INSTRUCTIONS

Drying – If the device is wet, place on a coat hanger to allow thorough drying. Do not place in direct sunlight to dry. Do not use any heat source or place on radiator.

Cleaning – Damp wipe only with mild detergent recommended for synthetic fabrics. Remove grease and oil immediately. After every use, remove bobbin (prior to rinsing) and rinse well with fresh water. Read instructions provided on the device.

- DO NOT MACHINE WASH
- DO NOT MACHINE DRY
- DO NOT DRY CLEAN
- DO NOT USE SOLVENT BASED CLEANERS
- DO NOT BLEACH

STORAGE

- **STORE** your bobbins (water sensing elements) in a ventilated package, DO NOT store in a sealed container.
- **STORE** in a Clean, Cool, Dry area.
- **DO NOT** store bobbins in High Humidity or High Temperatures (over 100°F) for an extended time.
- **DO NOT** store bobbins for more than 18 months before use.
- **STORE** yellow manual cap, when not in use, with PFD for future use.

REPAIR

If you have any question about the condition or integrity of this product call 1-800-783-2767. **A damaged device must be discarded.**

SERVICING

Stearns, Inc. strongly recommends that this device be inspected at least every 24 months by a certified Repair Facility. Call 1-800-783-2767 for your nearest authorized Repair Facility.

REARMING COMPONENTS

Unused components for the inflation mechanism should be inspected and/or replaced annually.

VI. WHY ARE PFDS REQUIRED SAFETY EQUIPMENT?

Drownings are the leading cause of fatalities involving recreational boating. A PFD provides flotation to help keep your head above water, help you to 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 that you will know what to do in an emergency.

VII. HOW AND WHY TO TEST YOUR PFD?

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

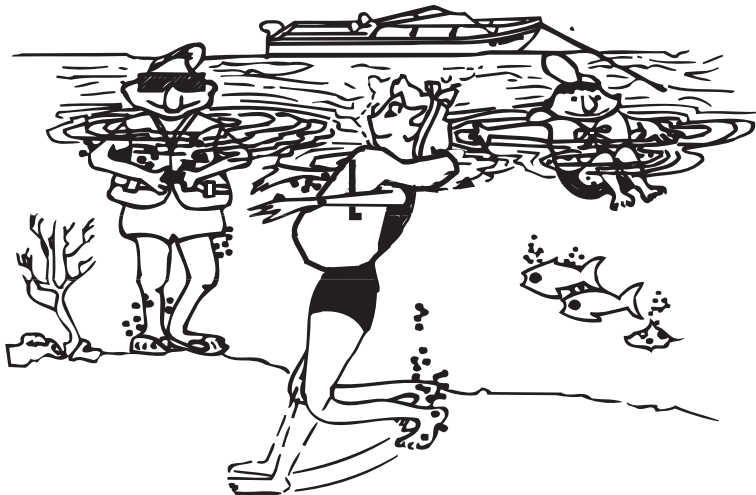
- Make sure it floats you:
 - Comfortably*
(When worn properly)
 - Adequately for expected wave conditions*
(Body shapes/densities affect performance)
- Make sure it works:
 - A flow of bubbles should not appear*
(See Section V for leak tests)
 - It should inflate quick and easily*
- Learn how it works by:
 - Activating the CO₂ inflation system*
 - Rearming the CO₂ inflation system*
 - Using the Oral inflator tube*

The U.S. Coast Guard recommends that you purchase two automatic rearming kits; one 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 on board 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 CO₂ 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 *Jerk to Inflate* 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
 - **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 automatic inflator 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's 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 CO₂ cylinder and the used bobbin 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
 - **Rearming kit** approved for your PFD. (This kit contains a water sensing bobbin that you will need to use following 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's 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 CO₂ 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 CO₂ cylinder, to prevent inadvertent activation of the manual inflation system which could potentially damage the PFD. Inspect the threaded end to confirm it is un-used. Also turn the clear cap counterclockwise and remove bobbin.
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 water's 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!

VIII. 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 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.

IX. 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 following chart shows the effects of hypothermia:

HOW HYPOTHERMIA AFFECTS MOST ADULTS			
Water Temperature ° C ° (F)		Exhaustion or Unconsciousness	Expected Time of Survival
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 chances 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. Wrap your arms around your torso, under the PFD, and draw your legs up to a seated position. 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.



X. 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 cylinder cap to be sure it has not been punctured, before each use.
2. Check the inflation mechanism status indicators before each use.
3. Get in the habit of rearming the inflation mechanism right after each inflation.
4. This PFD requires rearming with a new cylinder, bobbin and indicators after each inflation. Always have rearming kits to service your inflatable PFDs.
5. Try your wearable PFD on and adjust it until it fits comfortably in and out of the water.
6. Mark your PFD with your name if you are the only wearer.
7. Do not alter your PFD. If it doesn't fit properly, get one that does. An altered device is no longer Coast Guard approved.
8. Your PFD is not intended for use as a fender or kneeling pad.
9. If your PFD is wet, allow it to dry thoroughly before storing it. Store it in a well-ventilated area.
10. Do not dry your PFD in front of a radiator or other source of direct heat.

XI. 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, or your nearest unit of the U.S. Coast Guard; or call the Coast Guard Customer InfoLine at 1-800-368-5647 or 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.

DO NOT ATTACH PFD'S 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 dee 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.

CO₂ PERMEATION LOSS

CO₂ gas will permeate the chamber fabric over time. *Oral Inflation* will be necessary to maintain full buoyancy.

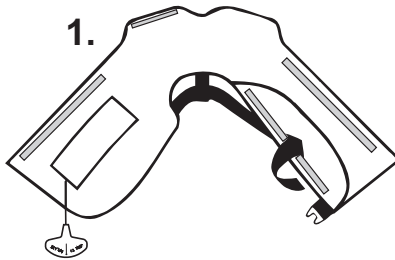
IF YOU HAVE ANY QUESTIONS ABOUT THE INITIAL ARMING, REARMING, REPACKING, OR NEAREST AUTHORIZED REPAIR FACILITY CALL 1-800-783-2767.

PRODUCT REGISTRATION:

PLEASE MAIL REGISTRATION CARD OR CALL 1-800-783-2767 IN ORDER TO RECEIVE IMPORTANT UPDATES ON THIS PFD.

NOTES

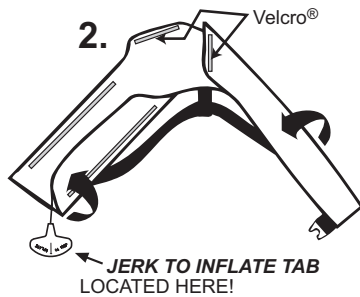
REPACKING INSTRUCTIONS - Always **deflate** the PFD and **rearm** the **Inflation Mechanism** - follow REARMING Instructions prior to REPACKING!



STEP 1 -

Lay device out flat with the yellow **Inflatable Chamber** up.

Fold right inside edge over as shown, exposing **Velcro® Strip**.

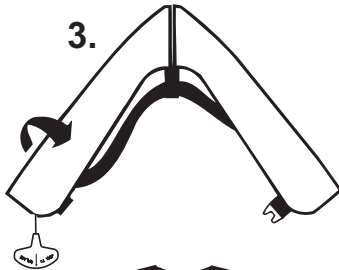


STEP 2 -

Fold right outside edge over, securing **Velcro® Strips**.

Position **Jerk to Inflate Tab** below bottom edge of PFD, as shown.

Fold left inside edge over, exposing **Velcro® Strip**.

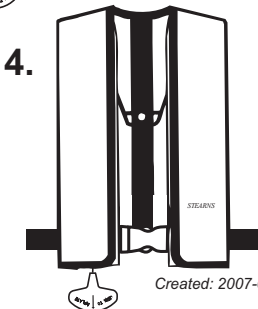


STEP 3 -

Fold left outside edge over, securing **Velcro® Strips**.

Fold right topside over, exposing **Velcro® Strips**.

Fold left topside over securing **Velcro® Strips**.



STEP 4 -

Snap back strap to shell. **Secure Velcro® Strap Extensions** on models w/o a harness. Examine **all straps, Belt Keepers, Adjustment Slides** and **Buckles** to assure that they are free from twists.

Check to see that the **Jerk to Inflate tab** is hanging free!