## DO NOT REMOVE PRIOR TO SALE!

### OWNERS MANUAL FOR MODELS 2042AC, 2042AC-H, 2042AC-Z, 2042AC-WHZ (MANUAL/AUTO) INFLATABLE PFD

**USCG Approvals:** 

RECREATIONAL: TYPE V AND TYPE V WHEN HARNESS INCLUDED UNINSPECTED COMMERCIAL VESSELS: TYPE V

(2042AC, 2042AC-Z only)



### SPECIFICATIONS

Chest Size: Weight Range:	30 - 65 inches (76 - 165 cm) 80 lbs. (36.3 kg) and over
Age Range:	16 years and over
Buoyancy (min.):	35 lbs. (150 N)
Inflation System:	Convertible Manual/Automatic Inflation Mechanism (located on wearer's right side) Oral Tube (located on wearer's left side of bladder)
Indicators:	For the PFD to be fully armed, a cylinder must be inserted into the mechanism and the service indicator must show GREEN
CO <sub>2</sub> Cylinder:	33 gram, with 1/2" thread

NOTE: The "Jerk to Inflate" tab for manual inflation should protrude out from the right side of the cover when the PFD is packed.

WARNING! This PFD will not float you without inflation! Each CO<sub>2</sub> cylinder will only inflate the PFD once. You must rearm this PFD after each use of the CO<sub>2</sub>. DO NOT ALTER YOUR PFD.

### RECREATIONAL APPROVAL CONDITIONS AND CARRIAGE REGULATIONS

This inflatable PFD is approved by the U.S. Coast Guard for use as a Recreational Personal Flotation Device (PFD): Type II when armed in automatic mode; Type III when armed in manual ONLY mode. *It is not approved for water skiing or other high impact, high speed activities.* This inflatable PFD is designed to be more comfortable and less restrictive to wear than inherently buoyant PFDs.

When worn, used and serviced according to the Owner's Manual, this inflatable 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.

### MANDATORY CARRIAGE REQUIREMENTS

Federal regulations in 33 CFR 175-1993 require you to carry U.S. Coast Guard Approved personal flotation devices (PFDs) legibly marked with the U.S. Coast Guard approval number which are in good and serviceable condition and are the correct size for each person onboard. To be considered serviceable, this PFD should not exhibit deterioration that could diminish its performance such as broken or deformed hardware, detached webbing, rotted structural components, air leaks, or non-functional oral inflation tube. Unless worn inflated, this PFD must also be properly armed with a full CO<sub>2</sub> cylinder, inflation system status indicator and an accessible manual inflation lanyard. A PFD which is "Approved only when worn" or "Required to be worn" must be worn under the specified conditions.

### WHAT IS AN INFLATABLE PFD?

Whilst traditional PFDs are inherently buoyant devices, inflatable PFDs rely entirely on inflation to achieve buoyancy. Uninflated, the inflatable PFD is a comfortable device that can be inflated at anytime with a 33 gram filled cylinder of CO<sub>2</sub>. The inflatable PFD is designed to offer the wearer maximum comfort and mobility with minimum bulk. The Manual/ Automatic Models 2042AC, 2042AC-H, 2042AC-Z, 2042AC-WHZ inflatable PFD can be inflated either automatically upon immersion in water, manually by jerking the pull-handle, or orally (by mouth) via the oral tube. It is recommended that you familiarize yourself with the procedures outlined within this Owner's Manual, especially the Instructions for Use section.

### - QUICK START GUIDE -

Manual/Automatic Models 2042AC, 2042AC-H, 2042AC-Z, 2042AC-WHZ Type V with Type II performance when armed in automatic mode, and Type III performance when armed in manual only mode. Required to be worn when harness is included.

- This inflatable PFD uses compressed CO<sub>2</sub> gas to inflate the chamber and provide buoyancy for the wearer.
- This Manual/Automatic inflatable PFD will inflate when submerged in water, (*Automatic Inflation*) or when the "Jerk to Inflate" handle is pulled (*Manual Inflation*) (Page 4).
- A Manual inflatable PFD will inflate when the "Jerk to Inflate" handle is pulled or when inflated orally (Page 4).
- This inflatable PFD is not approved for water skiing, tubing, or similar activities.
- You must be at least 16 years of age and able to swim to use this inflatable PFD.
- This inflatable PFD can be rearmed using one of the rearming kits listed on Page 12 of this manual.
- This inflatable PFD should be tested before use (Page 15).

### **INSTRUCTIONS FOR USE**

Your PFD is universally sized for adult swimmers over 80 pounds (36 kg) in weight with a chest size between 30 and 65 inches (76 and 165 cm).

Not for use by non-swimmers, weak swimmers or children under the age of 16 years, or by persons weighing less than 80 pounds.

This inflatable PFD is not approved for "hot work" and care must be taken to avoid damage from abrasion and sharp objects.

Your PFD is not suitable for use in white water, with personal watercraft, while water skiing, knee boarding, or other high speed impact activities.

This PFD is designed to be worn on the outside of other clothing. Do not wear an inflatable PFD under any clothing because inflation could restrict breathing, injure you or damage the clothing and/or PFD.

If entering the water with the PFD inflated, arms should be crossed over the inflated PFD.

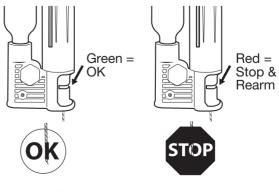
Ensure your clothing is compatible with this inflatable and that the "Jerk to Inflate" pull handle/tab is accessible in case you fall in the water. Clothing that develops air pockets and/or has inherent buoyancy can alter the in water performance of this PFD.

### PRE DONNING INSTRUCTIONS

BEFORE USING THIS PFD, INSPECT THE PFD FOR DAMAGE AND BE SURE A CO₂ CYLINDER IS INSERTED INTO THE MECHANISM AND THE SERVICE INDICATOR IS GREEN!

### CHECK FOR GREEN "OK" SERVICE INDICATOR

Look through the clear plastic window on the front of the device to view the service indicator on the inflator. The indicator must be GREEN to show a properly armed mechanism. If the service indicator is RED, rearm the mechanism per the instructions on page 9.



### **INSPECTING THE PFD**

Make sure that the PFD cover 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 are noticed, discontinue use of the PFD and discard. The *Inflatable Chamber* should be checked for leaks at the beginning of each season and periodically throughout the boating season.

### **USER INSPECTIONS**

These tests should be performed at the start of each season and a minimum of every two months during the season:

### Leak Test -

- a.) Remove the CO<sub>2</sub> cylinder.
- b.) Inflate the vest using the oral inflator tube.
- c.) Allow the inflated PFD to sit for 16 hours. The buoyancy chamber should remain firm and filled with air to be in operational condition. If the chamber deflates, discard the PFD and replace it with a new PFD.
- d.) Deflate, reinstall the CO<sub>2</sub> cylinder, inspect to ensure the PFD is properly armed and follow the repacking instructions for the PFD.

### Oral Valve Test -

- a.) Remove the protective cap from the top of the oral tube.
- b.) Orally inflate the PFD by blowing into the tube.
- c.) Test the valve by depressing the valve core using the tab provided on the cap. The valve core should depress easily. (See "Deflation Instructions" on pg. 21)
- d.) Release the valve core and it should automatically return to the closed sealed position. Follow the repacking instructions on pg. 12-13.

### Inspecting the Cover and Webbing -

- a.) Examine the outer shell fabric, webbing attachments, buckles and slides for signs of damage.
- b.) Examine the outer shell for signs of fading. Fabric fading can indicate loss of strength.
- c.) Check for fabric strength by pulling on seams and attachments snugly. If signs of damage are found, replace the PFD.

# INSPECTING THE INFLATION MECHANISM AND CO<sub>2</sub> CYLINDER

The mechanism and cylinder are located on the wearer's right side under the protective cover.

Before inspecting the inflation mechanism, remove the CO<sub>2</sub> cylinder to prevent unintended discharge.

The CO<sub>2</sub> cylinder contains the gas charge that will inflate your PFD when the inflation mechanism is fired. You must verify that the CO<sub>2</sub> cylinder is of the correct size and has not been previously fired. See the SPECIFICATIONS section on the front cover of this owner's manual to determine the proper CO<sub>2</sub> cylinder size.

### ADDITIONAL NOTES ON CO<sub>2</sub> CYLINDERS:

- 1. Failure to properly rearm the inflation mechanism prior to installing the CO<sub>2</sub> cylinder will result in premature activation of the cylinder.
- 2. CO<sub>2</sub> cylinders are good for one (1) inflation only and cannot be recharged.
- CO<sub>2</sub> 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 CO<sub>2</sub> cylinder may begin to show signs of rusting. If this occurs, replace the CO<sub>2</sub> 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.

### **REARMING AND INDICATOR CHECK INSTRUCTIONS**

Refer to Pages 9-11 of this manual for the REARMING / STATUS INSTRUCTIONS for the mechanism on your PFD.

For Donning Instructions refer to Page 20.

### INFLATION INSTRUCTIONS

- 1. **AUTOMATIC INFLATION** This PFD has an automatic water-activated inflation system which will inflate the PFD after immersion in water.
- MANUAL INFLATION When armed correctly, to inflate the PFD with the manual CO₂ Inflator, simply grasp the "Jerk to Inflate" handle at the bottom of the vest and firmly pull it downward.

3. **ORAL INFLATION** – The Oral Tube is located on the wearer's LEFT side, inside the cover. Grasp the Oral Tube and bring it to the mouth. Blow air through the Oral Tube until the Inflatable Chamber is firm.

When the device is inflated with carbon dioxide (CO<sub>2</sub>), permeation loss (gas escaping through the inflation chamber walls) will be greater than if the PFD were filled with air. **This will require replenishment by means of the oral inflation system to maintain full buoyancy** earlier than if the PFD was originally inflated using the oral inflation system. Whenever you orally inflate the PFD, it would be a good practice to remove the (CO<sub>2</sub>) cylinder prior to inflating.

4. **COLD INFLATION** – Oral inflation may be required in addition to manual inflation if chamber is not firm due to cold temperatures at or below 40°F (4°C). Inflation time using CO<sub>2</sub> will be longer at these temperatures.

Never use in below freezing temperatures unless worn partially inflated. At or below 40°F (4°C) inflation time with CO<sub>2</sub> gas will be longer. Wearing a partially inflated PFD under these conditions will provide some initial buoyancy while the PFD fully inflates.

**CAUTION:** Do not fully inflate the PFD orally and then inflate with the  $CO_2$  cylinder. Repeated  $CO_2$  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.

Refer to Pages 12-13 for **REPACKING INSTRUCTIONS**.

### **OTHER GUIDELINES FOR USE**

- 1. Always wear your PFD when underway unless you are below deck or in a confined space.
- 2. If you must jump to enter the water, fold your arms over your chest to hold the PFD in place when entering the water.
- 3. Avoid unnecessary activities that will be abrasive to the device.
- 4. Use extreme caution around sharp objects.
- 5. Avoid unnecessary exposure to sunlight.
- 6. 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 watercraft, etc.
- 7. Do not use in temperatures at or below 40°F (4°C) unless worn partially inflated. At or below 40°F (4°C) the inflation time with CO<sub>2</sub> gas will be longer. Wearing a partially inflated PFD under these conditions will provide some initial buoyancy while the PFD fully inflates.

**CAUTION:** Do not fully inflate the PFD orally and then inflate with the  $CO_2$  cylinder. Repeated  $CO_2$  inflation after oral inflation will damage the PFD to the point that it will not hold air or float.

### 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 according to the instructions on Pages 2 and 3.

Federal Regulations require U.S. Coast Guard approved personal flotation devices (PFDs) that are legibly marked with the Coast Guard approval number, be in good serviceable condition, and are of the correct size for each person onboard. It is the responsibility of the operator to be sure this PFD is in serviceable condition. To be considered "serviceable", the PFD shall not exhibit deterioration that could diminish its performance such as broken or deformed hardware, worn, or detached webbing, rotted structural components, or leaks, or non functioning inflators.

Unless worn inflated, this PFD must also be properly armed with a full unused cylinder/cartridge installed in the inflator, and the service indicator(s) showing green. Failure to follow these instructions rigorously could result in a non-functioning PFD causing death or injury.

### CARE AND MAINTENANCE INSTRUCTIONS

### PFD LIFE EXPECTANCY

The reliability and service life of this PFD depends greatly on the use and care it receives.

- 1. Avoid storing the PFD in direct sunlight. Sunlight contains ultraviolet radiation that weakens synthetic materials.
- 2. Avoid prolonged exposure to high temperatures and high humidity as this exposure may shorten the 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. You must follow the Care and Cleaning Instructions and perform the maintenance and service checks at regular intervals as specified to maximize the useful life of this PFD. Failure to follow these instructions could result in a non-functioning PFD causing injury or death.

### CARE AND CLEANING

- 1. 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 a heat source or place on a radiator.
- 2. Cleaning Damp wipe only with a mild detergent recommended for synthetic fabrics. Remove grease and oil immediately. 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 BLEACH
- DO NOT USE SOLVENT BASED CLEANERS

### STORAGE

- 1. STORE IN CLEAN, COOL DRY AREA.
- 2. DO NOT STORE IN DIRECT SUNLIGHT.

### **IMPORTANT SAFETY HARNESS INFORMATION:**

PERMISSIBLE SAFE BODY SIZES FOR MODELS 2042AC-H, 2042AC-WHZ INFLATABLE PFD WITH INTEGRAL SAFETY HARNESS

- 1. Minimum height = 5 ft. 5 in.
- 2. Permissible chest range: 30-65 inches (76 165 cm)

**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 must always be worn at least 2" ABOVE the lowest rib measured from the top of the belt. Failure to correctly wear the safety harness may result in serious injury, or even death.

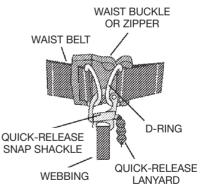
**NOTE:** The harness must be worn snugly about the body to insure proper fit under all conditions. Failure to do so, materially increases the possibility of injury to the user.

**ALERT!** 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.

Use of a safety harness to prevent falls overboard presents additional risks in case of capsizing or sinking. Do not attach the harness to the boat with a tether greater than 6 ft. 6 in. (200 cm). Use only quick-releaseunder-load hardware. To release the tether from the harness, pull the quick-release pin out and away from the tether buckle.

U.S. Coast Guard Approval does not apply to this harness!

SAFETY HARNESS MAINTENANCE: Check harness parts and attachment stitching carefully before each use. Do not use harness if there is indication of damage or deterioration.



### Halkey-Roberts Pro 1F® V95000 Service Instructions

### **DISASSEMBLY** (see figure)

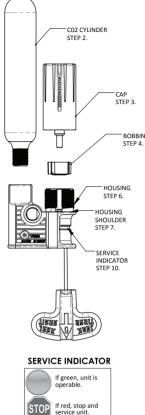
- Step 1. Unpack or open the life vest so that the manual/automatic inflator is visible.
- Step 2. Remove gas CO<sub>2</sub> cylinder by rotating cylinder counterclockwise, then pull out. **Discard cylinder**.
- Step 3. Remove cap by turning counterclockwise.
- Step 4. Remove bobbin from cap or housing unit. **Discard bobbin** (yellow). Check the housing to be sure it is clean 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 rearming.

### REARMING

### Note: Rearming must follow the sequence below.

- Step 5. A new bobbin must be used. New bobbin must not exceed five (5) years from manufacture date or date must not exceed expiration date printed on bobbin. Replace bobbin within a maximum of five (5) years from manufacture date or if date exceeds expiration date printed on bobbin (if supplied on bobbin).
- Step 6. IMPORTANT! Bobbin (yellow) must be installed into the HOUSING (\*\*see figure), white side up, aligning the slots on the bobbin with the ridges inside the threaded hou



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 between the cap and the housing shoulder.
- Step 8. Check the new cylinder to be sure it has not been punctured. **IMPORTANT!**

Install the bobbin and cap before installing a new cylinder.

Step 9. Install new cylinder by engaging the cylinder threads with the inflator threads. Turn cylinder clockwise until a firm seal is achieved.

### WARNING: PFD WILL ONLY INFLATE IF CYLINDER IS TURNED TO FULL STOP.

Step 10. Check to be sure service indicator is GREEN.

### STEP BY STEP REARMING INSTRUCTIONS

You must rearm your PFD per the rearming instructions included in this manual.

# Remove the used Cylinder and Bobbin:

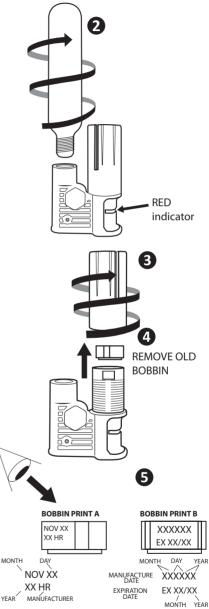
- 1. Make sure your PFD is clean, dry, and laid out flat on a clean surface. Open the protective cover so you can access the manual/automatic inflator.
- Remove the used gas CO<sub>2</sub> cylinder by rotating the cylinder counterclockwise, then pull out.
   Discard the used cylinder.
- 3. Remove the cap by turning counterclockwise.
- 4. Remove the yellow bobbin from the cap or housing unit. **Discard the old bobbin.** Check the housing unit to be sure it is clear and dry.

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

### REARMING:

# Note: Rearming must follow the sequence below.

5. A new bobbin must be used. New bobbin must not exceed five (5) years from manufacture date or date must not exceed expiration date printed on bobbin. Replace bobbin within a maximum of five (5) years from manufacture date or if date exceeds expiration date printed on bobbin (if supplied on bobbin).



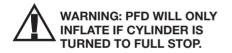
- 6. Bobbin (yellow) must be installed into the housing unit. With the white side of the bobbin up, align the grooves with the ridges on the inside of the threaded housing. The bobbin will slide in easily if installed correctly.
- 7. Install the cap by screwing clockwise until it meets the housing shoulder.

Note: No gap between the cap and the housing shoulder.

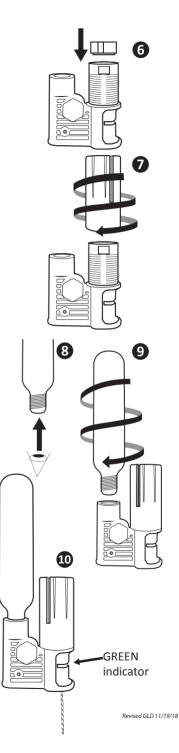
8. Check the new CO<sub>2</sub> cylinder to be sure it has not been punctured.

**Important!** Install the bobbin and cap before installing a new cylinder.

 Install new CO<sub>2</sub> cylinder by engaging the CO<sub>2</sub> cylinder threads with the inflator threads. Turn the CO<sub>2</sub> cylinder clockwise until a firm seal is achieved.



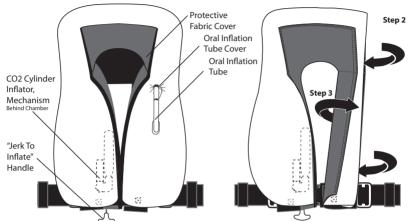
10. Check to be sure service indicator is GREEN.



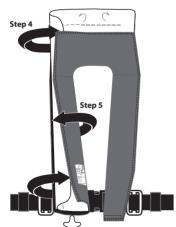
### **USE REARMING KIT:**

### Onyx/Kent brand style number: #1363 Maximum Inflation brand part number: V95000-85202Z

### **REPACKING INSTRUCTIONS - MODELS 2042AC, 2042AC-H**



**Step 1**: Deflate all the air from the yellow inflatable chamber. Rearm the inflator mechanism (See instructions located on sewn in label).

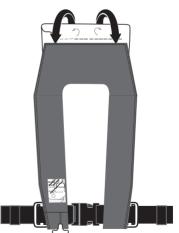


Step 4: Fold the other side of the bladder using the fold lines.

**Step 5**: Bring the top cover over and close by securing the hook and loop.

**Step 2**: Fold the edge of the yellow inflatable chamber using the fold line.

**Step 3**: Bring the top cover over. Close the protective cover by securing the hook and loop on this side.



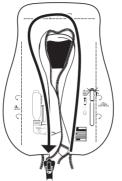
**Step 6**: Fold the top edge of the bladder under so it is inside the cover. Match and secure the hook and loop.

**Step 7**: Make sure the "Jerk To Inflate" handle is readily accessible outside the cover of the life jacket. The service indicator should be green and visible through the clear window of the protective cover.

### REPACKING INSTRUCTIONS -MODELS 2042AC-Z, 2042A-WHZ



Step 1 Fully open the protective cover by detaching the yellow teeth under the velcro tab. Completly seperate the burst zipper, detaching both ends. Deflate the chamber. Confirm that the indicator shows green. If red, arm the Inflatable PFD.



Step 2 Move the slider from zipper end on the oral tube side to the zipper end on the side with the inflator mechanism.



**Step 3** Fold under the edge of the chamber. Start the zipper. Place the bladder into the protective cover while closing the zipper.



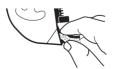
Step 4 Move zipper past the yellow teeth. Connect the hook and loop tab then continue zipping. Fold the top of the chamber under and place the chamber into the protective cover while closing the zipper.



**Step 5** Double check that all the air is out of the yellow inflatable chamber.



Step 6 Move zipper past yellow teeth on the oral tube side. Connect hook and loop tab before continuing zipper. Zip to end. Ensure the "Jerk to Inflate Handle" is accessible



**Step 7** Tuck zipper ends into the opening at the bottom of the PFD



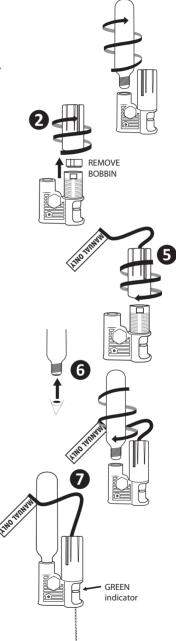
**Step 8** Push in all of the extra zipper chain and fabric corner.

### STEP BY STEP CONVERSION INSTRUCTIONS

### Automatic/Manual Inflation to Manual Only Inflation

- 1: Remove CO<sub>2</sub> Cylinder by turning counterclockwise and pull out of the inflator.
- 2: Remove the Grey Cap and (Yellow) bobbin. Store the (Yellow) bobbin in a dry location.
- 3: Remove the Yellow Manual Only Cap from inside the protective cover of the PFD. It will be located on the side without the inflator.
- 4: Store the Grey Cap in the pocket inside the protective cover.
- 5: Install the Yellow "Manual Only" Cap by screwing it on clockwise. Make sure there isn't a gap between the cap and the shoulder of the housing.
- 6: Check the CO<sub>2</sub> cylinder to be sure it has not been punctured.
- 7: Install the CO<sub>2</sub> cylinder by engaging he cylinder threads with the inflator threads. Turn clockwise until a firm seal is achieved. Confirm that the service indicator is GREEN.
- 8: Place the "MANUAL ONLY" label outside of the protective cover. It will pass through the same opening as the Jerk to Inflate handle. Close the protective cover according to the repacking instructions. Make sure the Jerk to Inflate handle is accessible outside of the cover.

With the Yellow "MANUAL ONLY" Cap installed the Jerk to Inflate handle must be pulled for buoyancy.



### WHY ARE PFDs REQUIRED SAFETY EQUIPMENT?

Drowning is 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 of flotation to keep their heads above water. The proper sized PFD will properly support the weight of the wearer.

Since this 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:

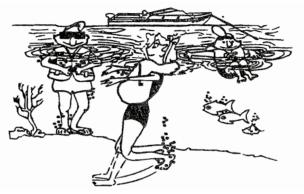
- 1. Make sure it floats you:
  - Comfortably (When worn properly) Adequately for expected wave conditions (Body shapes/densities affect performance)
- 2. Make sure it works: *A flow of bubbles should not appear* (See Page 3 for leak test) *It should inflate quickly and easily*
- Learn how it works by: 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 rearming kits. One is to be used immediately in testing the inflation system and the other to carry onboard as a spare.

# 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
- 2. Put on the PFD.
- 3. Actuate the inflation system by jerking firmly downward on the "Jerk to Inflate" handle. 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 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 CO<sub>2</sub> cylinder from the PFD inflator. Completely deflate the PFD using the oral inflator as shown on Page 21.
- 7. Let the PFD dry thoroughly. REARM AND REPACK the PFD in accordance with this owner's manual.



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

- 1. To test your inflatable PFD using the oral inflator, you will not need any spare parts or rearming kits.
- 2. Remove the CO<sub>2</sub> cylinder and the water sensing element to prevent inadvertent activation of the inflation system that could potentially damage the PFD.
- 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. 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 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 as shown on Page 21.
- 9. Let the PFD dry thoroughly. REARM AND REPACK the PFD in accordance with this owner's manual (Pages 9-13).

### 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 inflator is under the 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 CO<sub>2</sub> cylinder and the used bobbin from the PFD inflator. Completely deflate the PFD using the oral inflator as shown on page 21.
- 6. 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 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.

### **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 °F (°C)	Exhaustion or Unconsciousness	Expected Time of Survival		
32.5° (0.3°)	under 15 min.	under 15 to 45 min.		
32.5° to 40° (0.3° to 4°)	15 to 30 min.	30 to 90 min.		
40° to 50° (4° to 10°)	30 to 60 min.	1 to 3 hrs.		
50° to 60° (10° to 16°)	1 to 2 hrs.	1 to 6 hrs.		
60° to 70° (16° to 21°)	2 to 7 hrs.	2 to 40 hrs.		
70° to 80° (21° to 27°)	2 to 12 hrs.	3 hrs. to indefinite		
over 80° (over 27°)	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, 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 willto-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.



### THIS DEVICE 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 inflation mechanism status 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 does not fit properly, get one that does. An altered device is no longer U.S. 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 direct sunlight, in front of a radiator or other source of direct heat.

### 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 D-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.

\*Safety harness D-rings on models 2042AC-H and 2042AC-WHZ are designed to be attached or to be fastened to the boat. See instructions on page 8 of the Manual.

### 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.

### **DONNING INSTRUCTIONS - BUCKLE CLOSURE**



Place the head through the neck opening. Your arms should be between the front lobes and back strap, above the body belt.



Secure the buckle in front.



Use the ladder locs on either side to adjust the body belt. Excess webbing should be tucked into the body belt secured with fabric loop found on the belt, or secured to the body belt with the hook and loop strap on the end of the belt.

### **DONNING INSTRUCTIONS - ZIPPER CLOSURE**



Place the head through the neck opening. Your arms should be between the front lobes and back strap, above the body belt.



Zip the center zipper.



Use the ladder locs on either side to adjust the body belt. Excess webbing should be tucked into the body belt secured with fabric loop found on the belt, or secured to the body belt with the hook and loop strap on the end of the belt.

- 1. After donning, locate the "Jerk to Inflate" handle for the mechanism. It should protrude from the PFD as shown in the picture on the front cover. Make sure that you are comfortable locating the "Jerk to Inflate" handle with either hand. Should an emergency develop, be prepared to use it!
- 2. 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.

### INFLATED DONNING INSTRUCTIONS

Inflatable PFDs can be very difficult to don when fully inflated. Deflate the vest using the oral tube until enough gas has escaped to don. See Oral Valve Test procedure on Page 3. Don as described above and inflate PFD orally (Page 5).

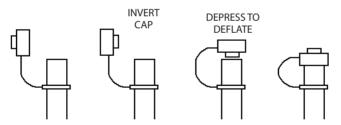
### **CO2 PERMEATION LOSS**

# $CO_2$ gas from the cylinder will permeate 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.

When the device is inflated with carbon dioxide ( $CO_2$ ), permeation loss (gas escaping through the inflation chamber walls) will be greater than if the PFD were filled with air. This will require replenishment by means of the oral inflation system to maintain full buoyancy earlier than if the PFD was originally inflated using the oral inflation system. Whenever you orally inflate the PFD, it would be a good practice to remove the ( $CO_2$ ) cylinder prior to inflating.

### **DEFLATION INSTRUCTIONS**

Depress the **Oral Valve**, located inside the top of the **Oral Tube**, using the protective cap by inverting the cap and inserting into the top of the **Oral Tube** (See drawing below). Gently compress the air out of the chamber while depressing the **Oral Valve**. DO NOT TWIST OR WRING THE INFLATABLE CHAMBER TO DEFLATE. If the Oral Valve remains open, depress it several times. If it does not release, discontinue use and replace the PFD. In an emergency, you can place your thumb over the valve if it will not close.



### **BUDDY LINE INFORMATION**

Buddy lines, when provided, are to be used by people adrift in the water, to attach themselves to one another and aid in staying together. Buddy lines are not designed for lifting.

IF YOU HAVE ANY QUESTIONS ABOUT THE INITIAL ARMING, REARMING, OR REPACKING CONTACT:

Absolute Outdoor, LLC Sauk Rapids, MN • 320.252.2056 <u>absolute@absoluteoutdoor.com</u> <u>www.absoluteoutdoor.com</u>

### PRODUCT REGISTRATION

### PLEASE MAIL COMPLETED REGISTRATION CARD ON BACK COVER IN ORDER TO RECEIVE IMPORTANT UPDATES ON THIS PRODUCT.

### VISUALLY INSPECT AND LEAK TEST YOUR PFD

- 1. Before each use:
  - a.) Examine the service indicator ensuring it is green. If showing red, the inflation mechanism requires servicing/rearming.
  - b.) Ensure the manual "Jerk to Inflate" tab is visible and accessible protruding outside the packed cover.
  - c.) Visually examine your PFD for any signs of damage, wear and tear or contamination.

If in any doubt, return/take your PFD to an approved dealer for evaluation/servicing (see contact information above).

- 2. Every two (2) months:
  - a.) Leak Test: (Page 3) the inflatable PFD should be tested for general leakage by orally inflating your PFD until firm and let it stand for 16 hours. A leaking PFD will not hold its firmness and should be replaced. If your PFD does hold its firmness, then repack the PFD following the Repacking Instructions on Pages 12-13.
  - b.) Perform a thorough visual inspection as mentioned in "1c" above.
- 3. After each inflation:
  - a) Rearm your PFD using an approved Rearming Kit (Page 12).
- 4. Annually Service:
  - a) Perform a leak test as outlined on Page 3.
  - b) Visually inspect your PFD as outlined above in 1c.

### INFLATABLE PFD CHECKLIST

When preparing for an outing, ask yourself:

- 1. Have I performed the Pre-Wear Checks and the status of the inflator and made sure that the CO<sub>2</sub> cylinder is not punctured? Check both before each outing. REMEMBER, the CO<sub>2</sub> cylinder may only be used once and then needs to be discarded and replaced.
- 2. Have I checked my PFD for leaks in the last two months?
- 3. There are no rips, tears or holes; all seams are securely sewn: and the fabric, straps and hardware are all still strong.
- 4. Do I have the right PFD for this activity?
- 5. How does my PFD work in the water? Have I tested it this season?
- 6. Do I have the right size PFD for each person (according to the marking on the product) and do they fit snugly?
- 7. Have I checked my other PFDs in the same manner in which I checked my own?

WARNING - If you are not confident in the self inspection and maintenance of your inflatable PFD in accordance with the instructions throughout this Owner's Manual, take your PFD to an approved dealer.

### UNINSPECTED COMMERCIAL VESSEL

### Approval Conditions and Carriage Requirements -

- 1. **Commercial** Models 2042AC, 2042AC-Z are U.S. Coast Guard approved Type V inflatable PFD's, approved **ONLY WHEN WORN** for use on uninspected commercial vessels less than 40 feet in length not carrying passengers for hire as a substitute for a Type II PFD in Automatic mode and as a Type III PFD when armed in Manual Only mode when used in accordance with this owner's manual.
- 2. Conditions for Type V Approval in Commercial Applications:
  - a.) This PFD must be worn before getting underway and whenever above deck and not within an enclosed space to meet the carriage requirements.
  - b.) The operator of an uninspected commercial vessel is responsible for servicing and maintaining this PFD in good serviceable condition [see 33 CFR 175.23 for description of serviceable condition] in accordance with this owner's manual. For servicing information, see pages 6 to 15.
  - c.) The operator of an uninspected commercial vessel is responsible for providing each person onboard with the safety information required for use of this PFD. See pages 2 to 7 for information.

### NOTE TO UNINSPECTED COMMERCIAL VESSEL OPERATORS

The operator of the vessel is required to provide the following User Information to each person on board during a passenger safety orientation (*reference 46 CFR 122.506*).

Inflatable PFD's will not provide any buoyancy without being inflated. Follow these instructions to be sure your PFD is armed and donned correctly, and that you understand how to inflate the device.

Basic Visual Examination – see pages 3 to 7 of this manual.

Inflation System and  $CO_2$  Cylinder Check – see pages 2 to 16 of this manual. NOTE: Check the green/red inflation system status indicator at the beginning of the voyage.

Donning Instructions – see page 20 of this manual.

Inflation Instructions – see pages 4 and 5 of this manual.

### **OTHER USE GUIDELINES –**

- 1. Always wear your PFD when underway unless you are inside a cabin. This is a requirement for commercial approval and is strongly advised for all users.
- 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.
- CO<sub>2</sub> gas from cylinder will permeate through the chamber fabric overtime. If you are in the water for a long time, it may be necessary to orally inflate the inflatable PFD until firm, by blowing air into 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 watercraft, etc.
- 8. Inflatable PFDs are not designed for white water activities.
- 9. Dropping this PFD into the water, or exposing the inflation system to unnecessary water spray, will result in an inadvertent inflation.

### UNINSPECTED COMMERCIAL VESSEL USE

This inflatable PFD is not approved for "hot work" and care must be taken to avoid damage from abrasion and sharp objects.

### SERVICING INSTRUCTIONS FOR UCV OPERATORS

Federal Regulations require Coast Guard approved personal flotation devices (PFDs) that are legibly marked with the U.S. Coast Guard approval number, are in good and serviceable condition, and are the correct size for each person on board. It is the responsibility of the operator to be sure this PFD is in serviceable condition. 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 inflation tube. Unless worn inflated, this PFD must also be properly armed with a cylinder installed in the mechanism, a bobbin (water sensing element) installed, and service indicator showing Green. [See pages 9 to 14 for rearming instructions.]

### INSPECTION AND MAINTENANCE SCHEDULE FOR UCV OPERATORS.

MAINTEN	ANCE SCH	HEDULE		
Each Outing (see item 1)	Every 2 Months * (see item 2)	After Each CO <sub>2</sub> Inflation (see item 3)	Annually* (see item 4)	
x				Check for Green status indicator
х				Check Manual Pull Tab Access
х				Basic Visual Dam- age Examination
			х	Recommended Test Auto-Inflation
		х	х	Inspect Auto-Infla- tion Mechanism
	х		х	Test Oral Inflation
	х		х	Leak Check - 16 hours
			х	Clean
		х	х	Rearm - Replace CO2 and Bobbin
	х		х	Thorough Visual Examination
			x	Record and date Inspection Log on PFD

\*Perform more often if exposed to potential damage or used in extreme conditions.

### 1. BEFORE EACH USE:

- a.) Examine the service indicator through the window panel, ensuring it is green. If the indicator is red, the mechanism requires service. See rearming instructions pages 9 to 14 of this manual.
- b.) Ensure the manual pull-tab is accessible.
- c.) Ensure the oral-inflation dust cap is in the stowed position.

d.) Visually examine the Inflatable PFD for damage or excessive abrasion, fading, wear, tear, or contamination. Particular attention must be paid to the seams, stitching, straps and webbing attachments, hardware (buckles and slides), etc. Check for strength by pulling seams and attachments snugly. Make sure that the PFD and inflation chamber is not twisted and is free from rips, tears, or punctures. If the PFD shows any signs of damage, perform a Leak Test, or send it to a certified repair facility or replace the entire device.

### 2. EVERY TWO (2) MONTHS:

- a.) Leak Test: The inflatable PFD should be tested for general leakage by orally inflating the PFD until firm and let stand for 16 hours. A leaking inflatable PFD will not hold its firmness and should be replaced. If the chamber deflates during the leak test, replace device.
- b.) Oral Inflation Valve Test: With the PFD inflated, remove the dust cap, and test the valve by pushing it down using the tab provided on the cap. The valve should depress easily, and when released it should automatically return to the closed position and reseal. Fully inflate the inflatable PFD using the oral inflator and hold the valve under water. If bubbles appear, deflate and re-inflate to test again. Should the leak persist, replace device.
  [CAUTION: To avoid accidental inflation, don't allow the water to contact the automatic inflator.]
- c.) Perform a thorough visual examination. See pages 3 to 7 of this manual.

Perform these tests more often if exposed to potential damage or used in extreme conditions.

### 3. AFTER EACH CO<sub>2</sub> INFLATION:

a.) Inspect CO<sub>2</sub> Auto-Inflation Mechanism. Before inspecting the mechanism, remove the CO<sub>2</sub> cylinder to prevent unnecessary discharge. The CO<sub>2</sub> cylinder contains the gas charge that will inflate the PFD when the inflation mechanism is operated either automatically or manually. Verify that the CO<sub>2</sub> cylinder installed is the correct size (gram charge) and has not been previously used.

Check the water sensing element (bobbin) to be sure that it is not cracked or otherwise damaged. To do this, first remove the  $CO_2$  cylinder, and remove the bobbin from the housing. If the bobbin is cracked or damaged, replace with a new bobbin [see pages 9 to 11 of this manual.]

b.) Rearm the Inflatable PFD. [see pages 9 to 14 of this manual.]

### 4. ANNUALLY –

Perform the following at the beginning of each boating season, after inflation, or whenever the integrity of the inflatable PFD is in doubt:

- a.) Visually examine the Inflatable PFD.
- b.) Perform the Oral Inflation Valve Test
- c.) Perform the Leak Test.
- d.) Inspect CO<sub>2</sub> Auto-Inflation Mechanism.
- e.) Rearm the Inflatable PFD Replace CO<sub>2</sub> Cylinder and Bobbin. Ensure the bobbin is valid. Bobbin must not exceed five (5) years from manufacture date or date must not exceed expiration date printed on bobbin. Replace bobbin within a maximum of five (5) years from manufacture date or if date exceeds expiration date printed on bobbin (if supplied on bobbin).
- f.) Clean: see page 7 of this manual.
- g.) Record as an "Annual" inspection in permanent ink on the Service Record Label. Repack the Inflatable PFD.

### SERVICE RECORD AND INSPECTION LOG

#### USER NAME: \_\_\_\_\_

#### SERVICE RECORD

TEST THIS DEVICE AT THE BEGINNING OF EACH SEASON AND SERVICE ANNUALLY. REFER TO INSPECTION AND MAINTENANCE SCHEDULE PAGES 24 TO 28 OF THIS MANUAL.

1

DATE SERVICED	Person who Serviced

### - WARRANTY REGISTRATION CARD -

1

1

1

To ensure product registration, please complete and mail this warranty card.

FIRST NAME	M.I.	LAST NAME	
STREET ADDRESS		I.	APT#
CITY	STATE/PROV.	POSTAL CODE	COUNTRY
EMAIL ADDRESS			
Number of times you	use your PFD each year:		
	eason you purchased this	DED.	
•	ce $\bigcirc$ Safety Rating $\bigcirc A$		Reputation
	ther	-	
Intended use(s) of this			
( )	iling OCanoeing/Kayakin	g ORafting OBo	ating
O Work-Related			
Do you participate in (	(check all that apply):		
O Backpacking	O Camping O Canoeing	/Kayaking ORafting	<b>O</b> Biking
O Boating O Fly	/ Fishing O Hunting O N	Nater Sports	
Where did you hear at	oout inflatable PFDs:		
O Friend O Sale	esperson O Catalog O	Advertisement OSe	minar O
Expert	_		
- 0	tion O Other		
Age of intended wear			
	34 O 35-44 O 45-59 C	<b>)</b> 60+	
Gender:			
O Male O Fema	1-		

