



LIFESHIRT

OWNERS MANUAL LIFESHIRT
CLASSIC
LEVEL 70 BUOYANCY AID



DO NOT REMOVE PRIOR TO SALE

APPROVAL CONDITIONS AND CARRIAGE REGULATIONS

This inflatable flotation device is approved by Transport Canada and the U.S. Coast Guard. It is not approved for water skiing or other high impact, high speed activities. This inflatable flotation device was designed to be more comfortable and less restrictive to wear than inherently buoyant flotation devices. When worn, used, and serviced according to this owner's manual, this flotation device can greatly increase your chances of survival in the water. Not recommended for non-swimmers or weak swimmers. Users of this inflatable flotation device must be at least 16 years old.

MANDATORY CARRIAGE REQUIREMENTS

The U.S. Coast Guard and Transport Canada require you to carry approved flotation devices of the correct size for each person on board that are legibly marked with an approval number and are in good and serviceable condition. To be considered serviceable, this flotation device 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 flotation device must also be properly armed with a full CO₂ cylinder, inflation system status indicator, and an accessible manual inflation lanyard. A flotation device which is "approved only when worn" or "required to be worn" must be worn under the specified conditions.



WHY ARE FLOTATION DEVICES REQUIRED SAFETY EQUIPMENT?

Drowning is the leading cause of fatalities involving recreational boating. In over 80 percent of fatal incidents the person was not wearing flotation and most of these occurred after falls overboard or capsizing of small boats. An approved flotation device, when worn, helps raise your head above water in the first critical moments of immersion. Some devices are designed to keep you to face up in the water, and increase your chances for survival and rescue. Different body types float differently and some boating activities require special features in a flotation device.

INSTRUCTIONS FOR USE

GETTING TO KNOW YOUR FLOTATION DEVICE

Because your flotation device is designed to save your life, you need to be comfortable using it and thoroughly familiar with how it works. If you just purchased or have not yet used your flotation device, Transport Canada and United States Coast Guard recommend that you immediately test it as described in *How and Why to Test your Flotation Device*, (p. 15). This will not only ensure your device is in good condition, it will give you experience using both methods of inflation.

After initial testing, get in the habit of inspecting your flotation device before each use, re-arming it after each use and, of course, wearing it every time you go out on the water. This section provides instructions, using terms from the diagram below.

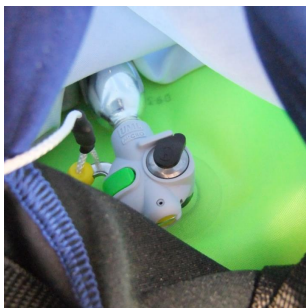
WARNING: Check the status of the gas cylinder before each use. Ensure the cylinder is not pierced and is screwed in tight. Failure to do this may result in the PFD failing to inflate correctly



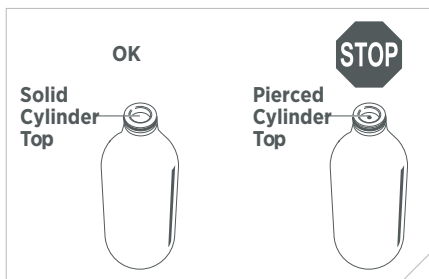
INSPECTING COMPONENTS

Before each use, check your flotation device for readiness:

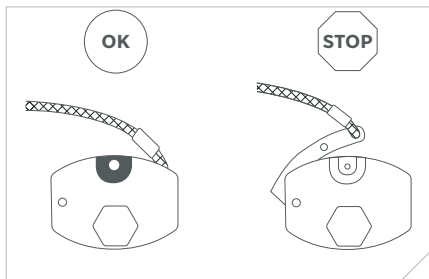
1. On the inner left seam (as shirt is on flat surface), locate the inflation mechanism through the zipper pocket.



2. Unscrew and remove the 18g CO₂ gas cylinder from the inflator and inspect its small sealed end. Is the cylinder pierced?

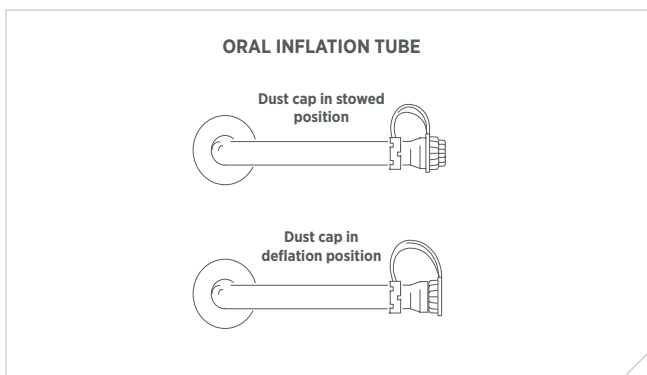


3. Inspect the inflator's metallic lever. Is the lever in the up-and-ready position with the green indicator pin in place over the lever?



If your cylinder is pierced or your lever is not in the up-and-ready position with the green indicator pin in place, you will need to re-arm your flotation device (see Re-arming, p. 11) before continuing.

4. reposition the inflator in inflator pocket and refasten the zipper pocket.
5. On the outer upper right chest area (as shirt is on table) ensure oral-inflation dust cap is properly in the stowed position.



7. Check for damage or excessive abrasion, wear, tear and/or any visible foreign matter, such as mildew or oil stains. Check that all seams are secure, and all straps and hardware are sound. If you see any signs of damage, perform the "Every 2 months tests, described in the Care and Maintenance section (p. 12).

USE AT COLD TEMPERATURES

As temperatures approach freezing the flotation device will provide less buoyancy and will inflate more slowly. The oral inflator can then be used to adequately top up the flotation device after CO₂ inflation.

CAUTION: DO NOT FULLY INFLATE THE DEVICE ORALLY AND THEN ACTIVATE THE CO₂ CYLINDER. THE RESULTING OVERPRESSURE COULD SERIOUSLY DAMAGE THE DEVICE RESULTING IN LOSS OF FLOTATION.

Flotation devices including inflation are not recommended for use in temperatures below freezing.

PUTTING IT ON (DONNING)

The flotation device is designed for wearers with a chest range of 76-130 cm (30-51 inches) and weighing over 40 kg (88 lb).

It's important that the flotation device is properly adjusted to fit the person wearing it. It must be worn outside all other clothing as restricted inflation could injure you or damage the flotation device. To put the device on,

WARNING: THIS PFD CAN ONLY BE PUT ON ONE WAY

1. Put on as a shirt.
2. Close front buckle
3. Make sure belt and buckles are tightened and fastened securely.
4. Adjust Belt to secure comfortable fit.



TAKING IT OFF (DOFFING)

To make doffing easier, partially deflate the flotation device (See Deflating, p. 9).

1. Unbuckle the front buckles and lift the shirt above your head.

INFLATING

Your flotation device inflates in two ways: manually or orally. No matter how your flotation device inflates, it can always be topped up orally – extending its ability to keep you afloat. The inflation instructions below use 'left' and 'right' assuming you are wearing the flotation device during inflation – so your left or right is also the flotation device's.

MANUALLY

You trigger inflation by jerking the Yellow handle on the right side of your flotation device. Grab the handle with your right hand (thumb up) and pull outwards, away from your body. Your flotation device inflates within 5 seconds.

CO₂ ESCAPES THROUGH THE MATERIAL OVER TIME

Manual inflation uses carbon dioxide (CO₂ gas) to fill your flotation device. Over time, the CO₂ gas will slowly escape through the fabric, and you may feel that the flotation device is losing pressure. If you're in the water for a prolonged period, you may need to top up your device using oral inflation.

ORALLY

The oral inflation tube is located on the left chest area.

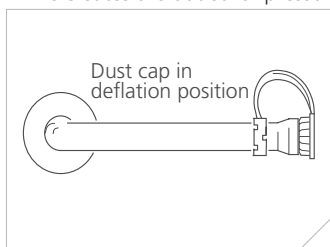
1. Lift the end of the oral inflation tube up towards your mouth.
2. Remove the dust cap and blow air into the tube.

The oral inflation dust cap is to hold dirt out, not keep air in. The oral tube has a one-way valve opened by air pressure, which means the cap is designed to keep dirt and debris out of the tube and valve, not to hold in pressure. (When you flip the cap over and press it into the tube, however, it will let out pressure for deflation). So while it is good practice to keep the cap on the tube, it is not necessary for maintaining your flotation device's pressure.

DEFLATING

Complete deflation is easiest when you are not wearing the flotation device.

1. Place flotation device front facing up on a flat surface free of clutter.
2. Locate the oral tube and remove its cap.
3. Turn the cap over, using the pointed end to press into the valve. This creates the outlet for pressure release.



4. Continue to press the cap end into the valve (which keeps your outlet open), and use your other hand and forearms to gently flatten the flotation device as much as you can. Release the oral tube cap and replace the cap into its proper stowed position.

RE-ARMING

To re-arm your flotation device, you will need Lifeshirt Re-Arm Kit 18grmHRMAN. The spent inflation parts will first be removed, and replacement parts will be installed. The re-arm kit includes:

- 18g CO₂ cylinder
- Green Indicator Pin

Step 1: **Unscrew used CO₂ cylinder** in a counter-clockwise direction and immediately discard. **Do not insert new cylinder at this time.** To avoid confusion later in the rearming process, we suggest you throw away the old CO₂ cylinder now.

Step 2: **Close manual inflator arm** within inflator body and carefully insert a new green indicator tab so that it fully covers the red semi-circle on the body.

Step 3: **Look into threaded cylinder receiver and view the gasket.** If worn, replace with Halkey-Roberts 849AM gasket for $\frac{3}{8}$ " receiver or 849AML for $\frac{1}{2}$ " receiver.

Step 4: **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 5: Screw new cylinder in a clockwise direction firmly into the inflator. **Do not over-tighten**, but ensure the fit is tight.

Step 6: **Check the inflator arming indicator every boating trip.** It will tell you if there is a need for service. Check the cylinder face regularly to ensure it is not punctured.

Halkey-Roberts 840 Series Manual Inflator Rearm Instructions

CO₂ Cylinder
Step 1
Step 5

Cylinder Face
Step 4

Threaded Cylinder Receiver
Step 3
Step 5

Red Semicircle
Step 2

Green Indicator Tab
Step 2

Lever
Step 2

Service Indicator — Step 6

If green, unit is operable.

If red, stop and service unit.

C840REARM_Rev.A

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IS YOUR FLOTATION DEVICE IN GOOD AND SERVICEABLE CONDITION?

Check your flotation device between outings to be sure that it is:

- properly armed
- free of rips, tears or holes
- all seams are securely sewn
- the fabric, straps and hardware are still strong.

Inspect the inflatable portion of the flotation device in accordance with the "CARE AND MAINTENANCE INSTRUCTIONS".

CARE AND MAINTENANCE INSTRUCTIONS

To ensure your flotation device performs when you need it, you must care for and maintain it in serviceable condition (see "Mandatory carriage requirements," p. 4). Failure to follow these instructions rigorously could result in a non-functioning flotation device causing injury or death. We suggest you keep a record of the inspections performed on your flotation device – using permanent ink on the Care and Storage label over the inflation assembly. If you are not confident that you can care for and maintain your flotation device in accordance with these instructions, contact Lifeshirt customer service.

You are required to check this flotation device:

- Before each wear (component inspection)
- Every 2 months (leak test, and thorough visual examination)
- After each inflation (perform re-arm)
- Annually (suggested at beginning of each boating season)

MAINTENANCE SCHEDULE

Check the following at the intervals listed below. If in doubt, contact Lifeshirt customer service.

BEFORE EACH WEAR

See Inspecting Components, (p. 6) for instructions. If you see any signs of damage, perform the Every 2 months tests below.

EVERY 2 MONTHS

The following tests are suggested every 2 months at minimum or whenever you see signs of damage to your flotation device. Perform these tests more often if the flotation device is exposed to potential damage or used in extreme conditions.

LEAK TEST

Orally inflate your flotation device until firm and let stand 6 hours minimum. As long as your flotation device has been inflated orally (not by CO₂ cylinder) it should hold its firmness for this length of time. If this is not the case, your flotation device is leaking and should be replaced. If your Inflatable flotation device leaks, contact Lifeshirt customer service. Deflate (see Deflating, p. 9).

THOROUGH VISUAL EXAMINATION:

See Inspecting Components (p. 6).

AFTER EACH INFLATION

Deflate and re-arm, as described in Re-arming (p. 9).

ANNUALLY

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

1. Check all components for dirt or corrosion. Clean or replace, as necessary. See Inspecting components (p. 6).
2. Visually examine your flotation device for damage or excessive abrasion, wear, tear, or contamination. Particular attention must be paid to the stitching, straps and hardware. If in doubt, contact Lifeshirt customer service for evaluation and/or servicing.

3. Perform the Leak test as described in Every 2 months care and maintenance instructions (p. 13).
4. Deflate as outlined in Deflating, (p. 9).
5. Ensure green status indicator pin is in place.
6. Record as an "Annual" inspection in permanent ink on the Care and Storage label, located in the inflator assembly area.

CLEANING AND STORING To clean your flotation device:

- Hand wash flotation device or sponge it down in warm, soapy water
- Rinse with clean water
- Hang to dry on a plastic coat hanger
- Store the dry flotation device in a warm, dry, and well ventilated place out of direct sunlight.

DO NOT DRY-CLEAN, USE CHLORINE BLEACH, OR APPLY DIRECT HEAT.

HOW AND WHY TO TEST YOUR FLOTATION DEVICE

This inflatable flotation device does not have inherent buoyancy, meaning that it must be inflated to provide flotation, it has 100% inflatable buoyancy. You must understand how to arm, inflate, and maintain your inflatable flotation device.

Familiarize yourself with the use of your inflatable flotation device so you know what to do in an emergency.

Always test your flotation device in a safe manner, under controlled conditions, and where help is readily available.

Inflate your flotation device and try it out in a pool, or some other calm protected water, with proper supervision:

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 Care and Maintenance, 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 inflation tube

To properly test your flotation device and to ensure you have a replacement rearming kit, you should purchase two rearming kits. One to be used immediately in testing the inflation system and the other to carry on board as a spare. Remember you must rearm your inflatable after discharging the CO₂ cartridge.

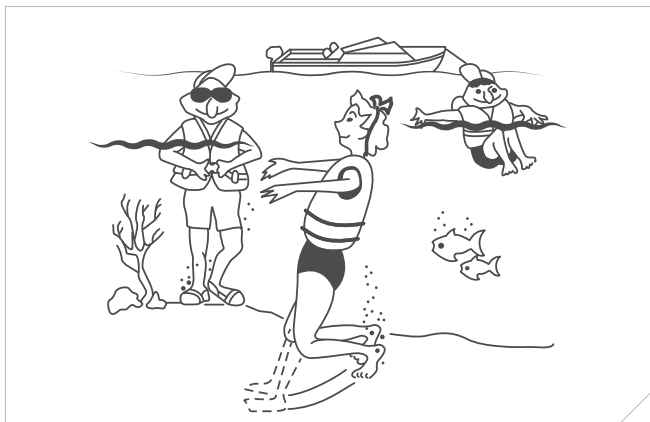
TRYING YOUR PFD

Try on your PFD to see if it fits comfortably snug. Then test it in shallow water to see how it handles. To check the buoyancy of your PFD in the water, relax your body and let your head tilt back. Make sure your PFD keeps your chin above water and you can breathe easily.

BE AWARE: your PFD may not act the same in swift or rough water as in calm water. The clothes you wear and the items in your pockets may also change the way your PFD works.

If your mouth is not well above the water, get a new PFD or one with more buoyancy.

A PFD is designed not to ride-up on the body when in the water. But when the wearer's stomach is larger than the chest, ride-up may occur. Before use, test this PFD in the water to establish that excessive ride-up does not impair PFD performance.



In order to understand how your inflatable operates you should inflate it. Depending on the type of inflatable you have you can inflate it automatically, manually, or by the oral inflator. The following steps will guide you through each process:

HOW DO YOU TEST YOUR FLOTATION DEVICE USING THE MANUAL INFLATOR?

Always test your flotation device in a safe manner, under controlled conditions, and where help is readily available.

1. To test your inflatable flotation device, you will need:
 - Your fully armed flotation device, and
 - Rearming kit approved for your flotation device.
2. Put on the flotation device.
3. Actuate the inflation system by jerking firmly on the pull tab. The flotation device 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 flotation device 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 flotation device. Remove the used CO₂ cylinder from the flotation device inflator. Completely deflate the flotation device using the oral inflator.
7. Let the flotation device dry thoroughly. REARM the flotation device in accordance with the manufacturer's instructions!

HOW DO YOU TEST YOUR FLOTATION DEVICE USING THE ORAL INFLATOR?

Always test your flotation device in a safe manner, under controlled conditions, and where help is readily available.

1. You will not need any spare parts, or rearming kits, to test your inflatable flotation device with oral inflation, and it gives you the opportunity to learn about how much inflation is needed to float you.
2. For devices where the CO₂ cylinder is accessible, remove the CO₂ cylinder, to prevent inadvertent activation of the manual inflation system which could potentially damage the flotation device. Inspect the threaded end to confirm that it has not been pierced and is unused.
3. Put on the flotation device. Locate and release the oral tube from its cover.
4. Get into shallow water, just deep enough that you can stand with your head above the surface.
5. To learn how much inflation is needed to float you, blow a full breath into the oral tube and then try lifting your feet from the bottom to see if your airway stays clear of the water. If not, try adding another breath and lifting your feet, and then another if needed and so forth so that you are supported well enough to be able to complete inflation without touching bottom or treading water. There may be situations where you wish to wear your device partially inflated such as activities or conditions in which accidental inflation would present a significant risk. The device must be fully inflated to function as designed and approved.
6. Remember as your breath air cools down it contracts in volume. You may require more topping up breaths to maintain this level. This level of inflation may also be useful in cold conditions where inflation could be delayed.
7. Then see if the turning characteristics of the flotation device are different with this level of flotation, as it most likely will be.
8. Fully inflate the flotation device using the oral inflator.
9. See if the flotation device 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.

10. Get out of the water and remove the flotation device. Completely deflate the flotation device using the oral inflator.
11. Let the flotation device dry thoroughly. REARM the flotation device in accordance with the manufacturer's instructions!

CHOOSE A FLOTATION DEVICE THAT YOU WILL WANT TO WEAR

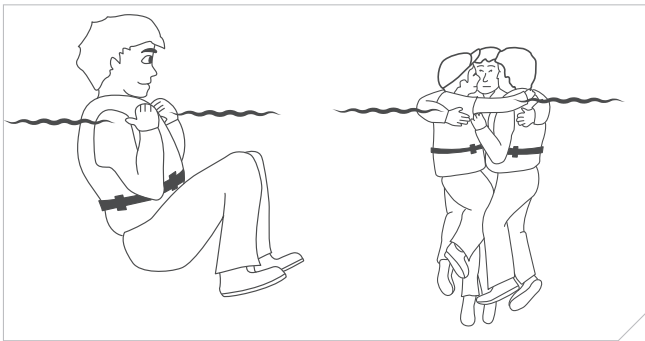
A good choice for a flotation device is one that will offer sufficient buoyancy for your size and body type to raise your airway (mouth and nose) above water. Also important is comfort and mobility out of the water so that it can be worn at all times during your boating activity. An increased performance level (more flotation and turning) should be considered when in rougher waters or when further offshore where rescue assistance may be a long time coming. Some activities require special features or accessories for better visibility, for a more secure fit in wave conditions and for thermal protection.

COLD SHOCK

Unexpected immersion (even in moderately cold water) can cause involuntary gasping and loss of muscle control. It can take one minute or more for these reactions to subside and there is a risk of inhaling water. You really need the support of a flotation device in this situation. In colder water, swim failure can occur even for strong and experienced swimmers. Trying to put on and fasten a flotation device after immersion can be impossible. Remember that on a hot sunny day the water can still be cool and the effect of sudden immersion shocking to the nervous and breathing systems. Choosing a comfortable device and being diligent about wearing it can save you in these critical first moments.

HYPOTHERMIA

Prolonged immersion in cold water (after one hour or more) leads to a loss of body heat. Over time (depending on water temperature, body type and thermal protection) the core temperature of the body decreases. This produces a condition called hypothermia which is very serious and can lead to unconsciousness and circulatory failure. Swimming and treading water accelerates heat loss. Wearing a flotation device is essential to help you conserve body energy and increase your survival time. It enables you to float quietly and curl up arms and legs in a Heat Escape Lessening Posture (HELP), see Figure below, with the head out of water, also reducing heat loss from the head, under the arms, and the groin area. If there is more than one person in the water, gathering together in a huddle is recommended while waiting to be rescued. See "HELP and Huddle", See Figure below.



Preparation, good safety practices and strong spirit are the keys to survival. Stay Calm and Don't Give Up.

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

1. Check the inflation mechanism status indicators before each use.
2. Get in the habit of rearming the inflation mechanism right after each inflation.
3. Try your wearable flotation device on and adjust it until it fits comfortably in and out of the water.
4. Mark your flotation device with your name if you are the only wearer.

5. Do not alter your flotation device. If it doesn't fit properly, get one that does. An altered device is no longer approved.
6. Your flotation device is not intended for use as a fender or kneeling pad.
7. If your flotation device is wet, allow it to dry thoroughly before storing it. Store it in a well-ventilated area.
8. Do not dry your flotation device in front of a radiator or other source of direct heat.

ADDITIONAL INFORMATION

For information about lifejackets and boating safety consult:

www.wearitlifejacket.org;

US Coast Guard www.uscgboating.org;

Transport Canada <http://www.tc.gc.ca/>;

Canadian Red Cross <http://canadian.redcross.ca/canadian-red-crosssociety/>;

American Red Cross <http://www.redcross.org/>;

Canadian Safe Boating Council www.csbc.ca;

National Safe Boating Council www.safeboatingcouncil.org;

US Power Squadrons <http://usps.org/>;

Canadian Power and Sail Squadrons www.cps-ecp.ca

DO NOT ATTACH FLOTATION DEVICES TO YOUR BOAT

Each flotation device has straps, hooks, buckles, or other means for securing the device in place on the wearer. Some flotation devices 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.

ABOUT THIS PRODUCT

Your Lifeshirt personal flotation device (PFD) is designed for comfort and optimal mobility during watersports activities. Offering more than just protection, this vest elevates performance both in and out of the water.

Here are some of the features that set this product apart, and make it particularly well suited :

This buoyancy aid is a lycra shirt with an integrated Level 70 manually inflating personal flotation device according to (UL12402-5) Level 70 Buoyancy Aids – with 100% Inflatable buoyancy. It provides in excess of 80N of buoyancy for superior in water performance. The comfortable relaxed fit is ideal for any kinds of active paddle, kite and all water-based activities or just a day at the beach. It offers a worry-free safety solution for all water enthusiasts. The classic is built for adventure, it has a manual inflator but you can also top up via the oral tube for instant buoyancy. It offers maximum freedom of movement in the water. The shirt also has UPF 50 + sun protection. The classic shirt uses today's most advanced marine grade materials and technologies.

WHAT IS AN INFLATABLE FLOTATION DEVICE?

While traditional flotation devices are inherently buoyant, this inflatable flotation device relies on 100% inflation for buoyancy needed for proper product performance. Uninflated, your device is a comfortable low-profile sun shirt, and can be inflated at any time with a 18-gram CO₂ gas cylinder. You can inflate your flotation device manually by jerking a pull-handle, or orally by mouth. It is recommended that you familiarize yourself with your device as described in "Instructions for use".

AIRLINE POLICY ON CARRIAGE OF INFLATABLE FLOTATION DEVICES AND CO₂ CYLINDERS

Regulations may apply to the air transport of inflatable flotation devices. Only with the approval of the aircraft operator may carbon dioxide cylinder(s) be transported in checked or carry-on baggage. Please consult airline operator policy. If your airline does not allow transport, you may consider shipping your flotation device or its CO₂ cylinder separately to your destination or purchasing a re-arm kit once you arrive (check availability before you go).

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