

WE SAVE LIVES FOR A LIVING



AirForce® Owner's Manual

MD3031 Manual with Automatic Backup Inflation Model

MD3032 Manual with Automatic Backup Inflation Model with Harness

USCG Approved Type V, Approved Only When Worn, Special Use Device

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DO NOT REMOVE PRIOR TO SALE.

APPROVAL CONDITIONS AND CARRIAGE REGULATIONS

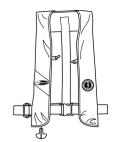
This inflatable PFD is approved by the U.S. Coast Guard for use as a Type V Personal Flotation Device (PFD). It is not approved for water skiing or other high impact, high speed activities. This inflatable PFD was designed to be more comfortable and less restrictive to wear than inherently buoyant PFDs. When worn, used, and serviced according to this owner's manual, this PFD can greatly increase your chances of survival in the water. Not recommended for non-swimmers or weak swimmers. Users of inflatable PFDs must be at least 16 years old.

A Type V PFD must be worn to count as an approved PFD.

Model MD3032 has a built-in sailing harness that can cause injury if not properly used. A separate section titled "SAILING HARNESS" discusses requirements and features on the MD3032 only. USCG approval does not apply to the sailing harness because some of the risks associated with its use have not been evaluated.

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, this PFD must also be properly armed with a full CO2 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 AirForce® Air-only PFD?

While traditional PFDs are inherently buoyant, air-only PFDs, like the AirForce®, rely entirely upon inflation for buoyancy. Uninflated, the AirForce® is a comfortable, slim collar that can be inflated at any time with a 33 gram CO2 gas cylinder. The AirForce® is designed to meet the demands of a full protection PFD offering maximum mobility with minimum bulk. The AirForce® can be inflated either automatically during water immerson, manually by jerking a pull tab, or orally by mouth. It is recommended that you familiarize yourself with the procedures outlined in INSTRUCTIONS FOR USE.

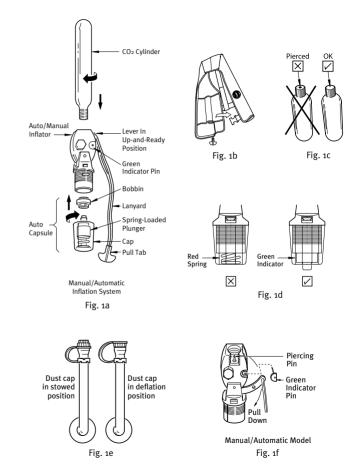
INSTRUCTIONS FOR USE

Check Your AirForce® PFD Before Using It

After purchasing your AirForce®, make sure it has an unused 33 gram CO2 cylinder attached to the inflator mechanism (Fig. 1a) and a spare CO2 cylinder and yellow manual cap stowed in the accessory pocket (Fig. 4c).

Check the components and how to assemble the inflator by following these steps:

- Undo the Velcro[™] tabs on the wearer's right-hand side of the collar to expose the inflator (Fig. 1b).
- 2) Unscrew and remove the CO2 gas cylinder from the inflator and inspect its small end. If it is pierced, replace it (Fig. 1c)! Examine the auto cap. Ensure that the cap is screwed hand tight onto the inflator. If a day-glow red spring has been exposed the auto capsule mechanism has been fired or is incorrectly screwed on (Fig. 1d). If required, replace the bobbin before proceeding (Fig. 1a). If either of these conditions exist, the auto cap must be re-screwed or the bobbin replaced!
- Make sure the manual lever is in the up-and-ready position and insert the green indicator pin if not already in place. Make sure the CO2 cylinder is screwed hand tight into the inflator (Fig. 1a).
- Check that the oral-inflation dust cap is properly in the stowed position (Fig. 1e).
- 5) Inspect the accessory pocket found under the wearer's left lobe of the bladder. Ensure that there is one unused CO2 cylinder and a yellow manual cap (Fig. 4c). Reposition the inflator's protective cover and refasten the chest flap. If everything checks out according to the preceding instructions, your AirForce® PFD is ready for use.



Sizing and Fit

The PFD provides 33.7 lbs of buoyancy and is designed for wearers with a chest range of 30-52 inches weighing over 80 pounds.

Donning Instructions

It is important that the PFD is properly adjusted to fit the person wearing it. An incorrect fit or improper fastening of attachments could impede its effectiveness.

- All belts and straps are already threaded correctly and only need to be adjusted for fit. For model MD3031 the waist belt should fit securely. For model MD3032 (harness model) the chest belt should fit securely at least 2 inches (5 cm) above the lowest rib.
- 2) Put the AirForce® PFD on just like a jacket (Fig. 2) and fasten the front buckle. Adjust the waist belt using the side buckle on the belt and secure the belt 's loose end in the belt loop. Do not wear AirForce® PFDs under clothing as the inflation could be restricted or you could be injured.
- 3) AirForce® has two toggles (one on either side) each designed to be secured to similarly positioned loops sewn on leading brands of sailing jackets. If the loops are used be sure to check the fit with garments in an in-water test (see How and Why to Test Your PFD). This allows you to combine AirForce® and your jacket into an easy-to-use piece of equipment.



Inflating Your AirForce® PFD

It is recommended that the following procedures are followed to inflate your AirForce®:

1) Manual inflation

Actuate the inflation system by jerking firmly downward on the pull tab. The PFD should fully inflate within 5 seconds (Fig. 3a).

2) Oral inflation

Properly armed and inspected, manual AirForce® PFD models will inflate. However, should inflation not occur, or in a non-emergency situation, you can fully inflate the PFD by mouth (Fig. 3b). To orally inflate the PFD, first locate the oral inflation tube by opening the wearer 's left front panel of the PFD. Then remove the dust cap from the end of the oral tube and blow into the tube until the PFD is fully inflated.

3) Automatic backup inflation

Inflation will occur automatically within seconds after the inflator is immersed in water. The water sensing bobbin will disintegrate, triggering a spring-loaded plunger which punctures the CO2 cylinder to inflate the cell (Fig. 1d).



Fig. 3a



Fig. 3b

Information: The carbon dioxide used to inflate PFDs will slowly permeate through the fabric cell over time. A slight reduction of pressure will be observed after several hours of inflation. Topping up by oral inflation may be required in the event of very prolonged immersion.

Special Consideration for Automatic Devices

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

- 1) Double inflation (CO2 cylinder inflation after full oral 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.

Premature inflation may occur in certain conditions, including when the device is:

- · Subjected to splashing
- · In high humidity
- · In heavy fog
- · In the rain

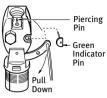
Care and attention should be taken to ensure that when the device is used in these types of conditions, auto-inflation does not occur prematurely.

If this PFD should inflate prematurely replacement components and instructions are included so that the device may be re-armed as a manual-only PFD. Once conditions permit, the PFD should be re-armed as a manual with automatic back-up PFD according to the instructions found on the PFD and in this manual.

The automatic inflator bobbin should be replaced at least once every twelve months.

Rearming Your PFD as Manual

- 1) Unscrew and inspect the CO2 cylinder. If used or damaged, discard the CO2 cylinder (Fig. 1c).
- 2) If the PFD was previously armed for MANUAL USE and now only requires rearming, skip to step 8.
- 3) Unscrew and remove the auto cap (see step 5 for storage) (Fig. 1a).
- 4) Remove and inspect the bobbin. If the bobbin is used, damaged, or 12 or more months old, discard it. Store the bobbin in a cool dry area when not in use.
- 5) Remove the vellow Manual Cap and spare CO₂ cylinder from the pocket located under the left cover of the inflatable cell. Place the auto cap in the pocket for future use. (Fig. 4c).
- 6) Install the yellow Manual Cap on the base of the inflator and hand-tighten.
- 7) Place the hang-tag (connected by a webbing tape to the bottom of the Manual Cap) to the inside of the right cover of the PFD so it will hang exposed on the outside of the PFD (Fig. 4b). EXACTLY in the position as shown.
- 8) Check the manual lever to ensure it is in the up and ready position with the green indicator pin properly installed. If the green indicator pin is missing or damaged, replace it (Fig. 4a).



Manual/Automatic Model Fig. 4a



Fig. 4b

- Install an unused CO2 cylinder by screwing it into the top of the inflator and hand-tighten. Do not over-tighten as this can damage the internal gasket.
- 10) Refold the PFD in accordance with the repacking instructions in the Owner's Manual.

Your PFD is now ready for manual use only.

Rearming Your PFD as Manual with Automatic Backup

- 1) Unscrew and inspect the CO2 cylinder. If used or damaged, discard the CO2 cylinder (Fig. 1c).
- If the PFD was previously armed with Automatic backup, skip to step 5.
- 3) Remove the yellow Manual Cap from the base of the inflator and unsnap the hang-tag from the right side cover.
- 4) Unscrew the Auto Cap from pocket located under the left cover of the inflatable cell. Stow the Manual Cap (with hang-tag along with an unused CO2 cylinder in the pocket and skip to step 7. (Fig. 4c).
- 5) Unscrew and remove the Auto Cap (Fig. 1a).
- Remove and discard the fired or damaged bobbin. If necessary, rinse with fresh water to remove dirt and salt. Let dry before going to step 7.
- Install an unfired bobbin into the base of the inflator.



- 8) Install the Auto Cap on the base of the inflator and handtighten. If the day-glow red spring (indicator) is exposed the bobbin has been fired or damaged, or the Auto Cap is incorrectly threaded (correct before going to step 9) (Fig. 1d).
- 9) Check the manual lever to ensure it is in the up and ready position with the green indicator pin properly installed. If the green indicator pin is missing or damaged, replace it (Fig. 4a).
- 10) Install an unused CO2 cylinder by screwing it into the top of the inflator and hand-tighten. Do not over-tighten as this can damage the internal gasket.
- 11) Refold the PFD in accordance with the repacking instructions in the Owner's Manual.

YOUR PFD IS NOW READY FOR MANUAL USE WITH AUTOMATIC BACKUP

Deflating the Buoyancy Cell

To deflate the buoyancy cell, reverse the oral-inflation tube dust cap and insert it into the valve or depress valve with fingertip. The dust cap will not lock in the deflate position so it is necessary to hold it in place (Fig. 5). Gently squeeze the cell until all air or gas has been expelled. Put the inflation tube dust cap back in its stowed position on the oral inflation tube (Fig. 1e).

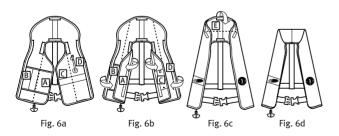


Repacking Your AirForce® PFD

Before repacking, completely deflate the inflation cell. Force excess air out through the inflation tube (Fig. 5). Do not wring cell. Put the inflation tube cap back in the stowed position (Fig. 1e).

Note: Before following the repacking sequence, be sure to properly rearm your ${\sf AirForce}^\circ\,{\sf PFD}$.

- Fold lapels (A) across the front along the dotted line (Figs. 6a & b).
- 2) Fold side (B) inward along dotted lines. Secure with Velcro™.
- Repeat steps 1 and 2 with lapel (C) and side (D). Your AirForce[®] will look as illustrated in Fig. 6c.
- 4) Fold down the collar (E) along the dotted line and secure with Velcro™ tabs.
- 5) Make sure the pull tab is on the outside of the folded PFD. Fig. 6d depicts a correctly folded PFD.



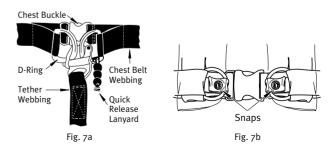
Usage Below Freezing

When the temperature is below freezing, a fully discharged cylinder may not adequately inflate your AirForce® PFD. Do not use your PFD under these conditions unless it is already partly inflated. Warning: CO2 inflation could over-pressurize and damage your PFD if already fully orally inflated.

Sailing Harness

Models with a sailing harness are designed to prevent the user from falling overboard when used with a tether with a quick-release under-load release hook and have been designed and tested in accordance with Offshore Racing Council (ORC) requirements. Care and attention must be taken to ensure that the harness is used and maintained correctly.

The harness is designed to be worn by wearers at least 5 feet 5 inches (165 cm) tall. The harness should be worn as high on the chest as possible, but in all cases, at least 2 inches (5 cm) above the lowest rib measured from the bottom of the belt and should not be used if it does not fit in this manner. Adjust the harness



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using the sliders so that the harness is as snug as tolerable. Failure to adjust the harness properly could result in injury.

When attached to the boat use a tether of less than 6 feet (182 cm) in length with quick-release under-load hardware (Fig.7a). Ensure that a tether is secured to both D-rings. When not in use, the D-rings can be secured by the two snaps on either side of the buckle (Fig. 7b).

Use of a sailing harness to prevent falls overboard presents several risks. In case of capsizing or sinking, **you may be taken down by the boat**. As such, ensure that any tether used has quick-release under-load hardware. This harness has not been designed for fall arrest, lifting or climbing and should not be relied upon in any of these instances.

US Coast Guard approval does not apply to this harness and the potential for injury has not been assessed.

IS YOUR PFD IN GOOD AND SERVICEABLE CONDITION?

Check your PFD between outings to be sure that it is properly armed; that it is free of rips, tears or holes; that all seams are securely sewn; and that the fabric, straps and hardware are still strong. Inspect the inflatable portion of the PFD in accordance with the CARE AND MAINTENANCE INSTRUCTIONS.

CARE AND MAINTENANCE INSTRUCTIONS

The buoyancy cell and inflation system should be checked at least every three months. In addition, the following maintenance should be performed after each time you wear or inflate the PFD.

1) Remove and inspect the CO2 cylinder, auto cap, and bobbin from the inflator.

- 2) Check all components for dirt or corrosion. Clean or replace.
- Check that the CO2 cylinder has not been pierced. Replace with AirForce® 33 gram CO2 cylinder if necessary (contained in AirForce® accessory pack MA7172).
- 4) Check the manual lever to ensure it is in the up and ready position with the green indicator pin properly installed.
- 5) To check the oral inflation valve, fully inflate PFD and hold valve under water. If bubbles appear, deflate and reinflate to test again. Should the leak persist, take your AirForce® to your dealer for proper servicing.
- 6) Visually examine your PFD for damage or excessive abrasion, wear, tear or contamination. Particular attention must be paid to the stitching. If in doubt, send it to your Mustang dealer for evaluation and/or servicing.
- Reassemble inflation system parts and repack PFD as outlined in previous instructions and illustrations.

Leak test: Every three months the PFD should be tested for general leakage by orally inflating your AirForce® until firm and let stand overnight. A leaking PFD will not hold its firmness and should be replaced.

Warning: If you are not confident in the self inspection and servicing of your PFD, in accordance with these instructions, take your AirForce® PFD to a Mustang dealer for professional servicing or contact Mustang Survival (see contact information on back of manual).

AirForce® by Mustang Safety Accessories

MA-7172 33 gram CO2 replacement cylinder, auto inflator bobbin, and green indicator pin.

Cleaning and Storing Your AirForce® PFD

To clean your inflatable PFD, remove the CO2 gas cylinder, auto cap, and bobbin. Hand wash or sponge down in warm, soapy water and rinse with clean water.

Hang to dry on a plastic coat hanger. Be sure to replace CO2 cylinder, auto cap and bobbin. See **Rearming your PFD as Manual with Automatic Backup or Manual Only**

Always store your AirForce® product in a warm, dry place out of direct sunlight.

The automatic inflator bobbin should be replaced at least once every twelve months.

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

Since this inflatable PFD does not have inherent buoyancy, it provides flotation only when inflated. Familiarize yourself with the use of this PFD so you know what to do in an emergency.

How and Why to Test your PFD

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

- Make sure it floats you: Comfortably (when worn properly)
 Adequately for expected wave conditions (Body shapes/densities affect performance)
- · Make sure it works:

A flow of bubbles should not appear (see **CARE AND MAINTENANCE INSTRUCTIONS** 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 pin removed) would be to determine that the lever arm and piercing pin move freely when moving the lever (attached to the pull tab) several times down and up.

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How do you Test your PFD using the Automatic Inflator?

- 1) To test you inflatable PFD, you will need:
 - · Your fully armed PFD, and
 - · Rearming kit approved for your PFD
- 2) Put on the PFD.
- Get into shallow water, just deep enough that you can stand with your head above the surface. Once the 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.
- 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 you 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 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.
- 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?

- 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 unused. Unscrew and remove the Auto Cap along with the bobbin. Otherwise the bobbin will disintegrate during water immersion.
- 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!

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 ∘C (∘F)	Exhaustion or Unconsciousness	Expected Time of Survival
0.3 (32.5)	Under 15 min.	Under 15 to 45 min.
o.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:

- 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.
- 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

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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

- Use the standard H.E.L.P. position when wearing an inflatable PFD, drawing the legs up to a seated position, because doing so will help you conserve body heat.
- 4) Keep a positive attitude about your survival and rescue. This will improve your chances of extending your survival time until rescued. Your will-to-live does make a difference!
- 5) If there is more than one person in the water, huddling is recommended while waiting to be rescued. This action tends to reduce the rate of heat loss and thus increase the survival time.

EACH OF THESE DEVICES IS INTENDED TO HELP YOU SAVE YOUR OWN LIFE

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

- Check the inflation mechanism status indicators before each use.
- Get in the habit of rearming the inflation mechanism right after each inflation.
- 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.
- Do not alter your PFD. If it doesn't fit properly, get one that does. An altered device is no longer Coast Guard approved.
- 6) Your PFD is not intended for use as a fender or kneeling pad.
- If your PFD is wet, allow it to dry thoroughly before storing it.
 Store it in a well-ventilated area.
- 8) Do not dry your PFD in front of a radiator or other source of direct heat.

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 CG Customer InfoLine at 1-800-368-5647 or the free boating course number 1-800-336-BOAT (in VA, 1-800-245-BOAT).

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.

Note: Model MD3032 has a built-in sailing harness intended for attaching to a boat with a quick-release under-load tether secured to both D-rings. Do not attach the MD3032 to the boat using any other means.