

**MUSTANG SURVIVAL**



# **MANUFACTURER'S MANUAL**

## **MD3188**

**United States Coast Guard Approvals:**

- Type V Work Vest
- Type V Uninspected Commercial Vessels
- Type II Recreational PFD



**INFLATABLE PERSONAL FLOTATION DEVICE**

**WE SAVE LIVES FOR A LIVING**  
**DO NOT REMOVE PRIOR TO SALE**

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## INTRODUCTION

This manual provides instructions and guidelines for safely using and maintaining the Mustang Survival MD3188 Inflatable Personal Flotation Device (PFD). It is strongly recommended that users familiarize themselves with all the procedures presented in this manual.

Full gear in-water testing is recommended to validate performance and to become familiar with the use and feel of the PFD.

The MD3188 PFD provides flotation, helping to keep the head above water, to stay face up, and to increase chances for survival and rescue. The PFD inflates automatically on submersion using a hydrostatic inflator that significantly reduces the potential for accidental inflation due to humidity, sea spray, or wet storage. The inflator must be submerged to activate.

The MD3188 PFD may also be inflated manually, prior to submersion, by pulling the manual inflation handle.

The MD3188 PFD is designed to offer maximum mobility with minimum bulk. The MD3188 PFD is worn as a comfortable, slim collar that can be inflated at any time either automatically (water immersion), manually (manual inflation handle), or orally (oral inflation tube).

Drowning is the leading cause of fatalities involving recreational and commercial vessels. Most fatal accidents happen on calm sunny days, and in approximately 80 percent of all boating fatalities, the victims were not wearing a PFD.

When worn, used, and serviced according to the instructions in this manual, Mustang Survival MD3188 PFDs can greatly increase a user's chance of survival in the water.

### United States Coast Guard Approvals

- Type V work vest
- Type V uninspected commercial vessels
- Type II recreational PFD

## APPROVAL CONDITIONS AND CARRIAGE REGULATIONS

**Commercial Vessels** – Model MD3188 is approved by the U.S. Coast Guard (USCG) as a Work Vest ONLY WHEN WORN under 46 CFR 160.053 for use on all inspected and uninspected commercial vessels of any length. **Not approved for “Hot Work”.**

**Uninspected Commercial Vessels** – Model MD3188 is USCG-approved for use in lieu of a Type II PFD under 46 CFR 160.064 on uninspected commercial vessels less than 40 feet in length not carrying passengers for hire as a substitute for a Type II PFD when used and serviced in accordance with this manufacturer’s manual.

### Conditions for Commercial Type V and/or Work Vest Approval in Commercial Applications

1. The MD3188 must be worn before getting underway and whenever above deck and not within an enclosed space to meet the carriage requirement.
2. The operator of a commercial vessel is responsible for servicing and maintaining the MD3188 in good serviceable condition in accordance with this manufacturer’s manual. See Care and Maintenance Instructions (page 13) for servicing information.
3. The operator of a commercial vessel is responsible for providing each person onboard with the safety information required for use of the MD3188. See Note to Commercial Vessel Operators, page 3, for information.
4. All inflatable PFDs in use aboard a commercial vessel must be the same manufacturer and model or have the same method of operation. Hydrostatic inflation and pill or bobbin type inflation do not qualify as the same method of operation.

**Recreational Boats** – Model MD3188 is approved by the USCG for use as a Type II 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 manufacturer’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.

**General** – When fully inflated, this Inflatable PFD will provide Type II in-water performance. This Inflatable PFD will turn most wearers from a face down to a face up position and provide support suitable for offshore conditions. This PFD must be in good and serviceable condition including properly armed with a full CO<sub>2</sub> cylinder, inflation system status indicator, and an accessible manual inflation lanyard.

## **Mandatory Carriage Requirements**

Federal regulations in 33 CFR 175-1993 require you to carry USCG-approved personal flotation devices (PFDs) legibly marked with the USCG-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. 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.

## **Note to Commercial Vessel Operators**

The operator of the vessel must note that this PFD is NOT approved for use by passengers and is advised to tell passengers which PFDs are and are not suitable for their use during any passenger safety orientation (reference 46 CFR 26.03-1 and 46 CFR 122.506).

## **WHAT IS AN INFLATABLE PFD?**

While traditional PFDs are inherently buoyant, inflatable PFDs rely entirely on inflation for buoyancy. Uninflated, this Inflatable PFD is a comfortable slim collar that can be inflated at any time with a 33-gram CO<sub>2</sub> gas cylinder. The Inflatable PFD is designed to offer maximum mobility with minimum bulk. The Inflatable PFD can be inflated either automatically by water immersion, 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 (page 3).

## **INSTRUCTIONS FOR USE**

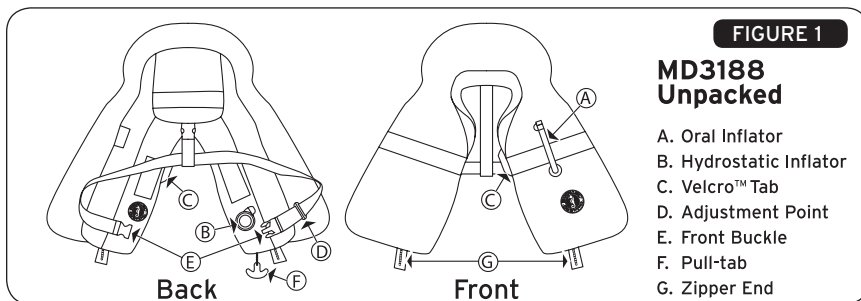
This manual supplies instructional, maintenance and safety information for model MD3188. The PFD model number is listed on the underside label.

### **Commercial Vessel Use**

This Inflatable PFD is not approved for "hot work". Although the outer cover in the packed condition is resistant to abrasion and puncture, care must be taken to avoid damage from heat, abrasion, and sharp objects.

## Visual Inspection Instructions and Readiness Checklist

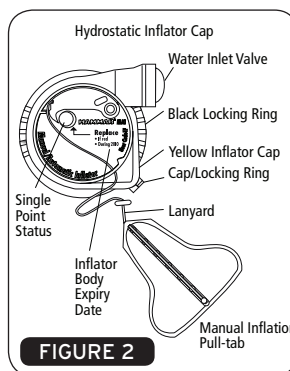
Before each use, perform a visual inspection and ensure each check box is checked.



- Check that the single point status indicator is green.
  - Examine the single point status indicator through the window panel of the hydrostatic inflator (Figure 1 and 2). Ensure the indicator is green. If the indicator is red, the mechanism has been fired or is incorrectly fitted (see Re-arming Your PFD, page 8).

**NOTE: The single point status indicator must be green before proceeding.**

- Check that the current date is not past the date on the inflator.
  - If the current date is past the date on the inflator, replace the inflator (see Re-arming Your PFD, page 8).
- Check that the oral tube dust cap is in the stowed position (Figure 7).
  - To access the oral tube, use the Velcro™ tab (Figure 1) to undo the zipper on the wearer's left side and unfold the inflatable cell.
- Check for damage to the device.
  - Check for rips, tears, excessive abrasion, fading, or holes.
  - Check the seams for secure attachment.
  - Check the cell cover, straps, and hardware for strength.
  - Ensure the hardware is not deformed.
  - If the device shows damage, it may need servicing or replacement.





- Check that the inflation pull-tab is hanging on the outside (Figure 32).
  - If the pull-tab is not hanging on the outside, see Repacking Your PFD, page 11.
- Check that all zippers, Velcro™ and waist buckle are securely fastened.
  - If zippers are opened, repack the device according to Repacking Your PFD, page 11.
  - Put on the inflatable PFD (see Donning Instructions, page 5).
- Check that the inflatable PFD is not twisted.
  - Feel the device around your neck to ensure it is not twisted.

Your Inflatable PFD is ready for use if all boxes are checked.

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**NOTE: Contact your Mustang dealer if you have any concerns about the readiness of your Inflatable PFD.**

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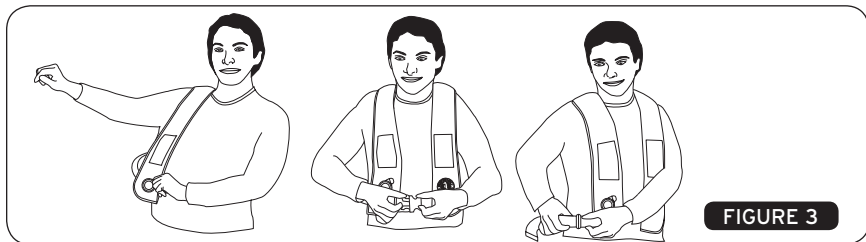
## Sizing and Fit

This PFD provides a minimum of 33.7 lbs (150 N) of buoyancy when inflated and is designed for wearers over 16 years of age, with a chest range of 30-52 inches (76-132 cm) weighing over 80 pounds (36 kg).

## Donning Instructions

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

1. All belts and straps are already threaded correctly and only need to be adjusted for fit. The belt should fit below your rib cage, adjusted to a tight personal fit.
2. Put the Inflatable PFD on just like a jacket (Figure 3) and fasten the front buckle.



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**WARNING: LOOSE VEST OR LOOSE ENDS CAN KILL OR MAIM YOU.**

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To secure loose ends:

3. Adjust the waist belt for a snug fit using the side buckle on the belt.
4. Reposition the plastic sliding loop as far back as possible to keep the free end from hanging loose.
5. Wrap and tuck any remaining loose strap around belt.
6. Recheck loose ends and readjust as needed.

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**WARNING: Do not wear Inflatable PFDs under clothing as the inflation could be restricted or you could be injured.**

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## Removal Instructions

In some instances, quick removal of the PFD may be necessary for your safety.

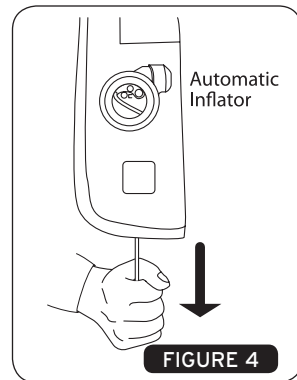
Simply unfasten the front buckle, and remove the vest like a jacket.

In-water removal of your PFD may require deflation through the oral tube to access and open the front buckle (see Deflating the Inflatable PFD, page 8).

## Inflating Your Inflatable PFD

It is recommended that the following procedures be followed to inflate your Inflatable PFD:

1. **Manual Inflation** – Activate the inflation system by jerking firmly downward on the pull-tab (Figure 4). The Inflatable PFD should fully inflate within 5 seconds.
2. **Automatic Backup Inflation** – When the inflator is lowered more than about 4 inches in the water, then the hydrostatic valve opens and lets the water meet the water sensitive element that in turn releases a stainless steel coil spring. The spring then drives a needle into the end of the gas cylinder, which is now punctured so that the gas instantly fills the life jacket. Total buoyancy is normally reached within 4-5 seconds.



## Permeation Loss Information

Permeation loss is greater when the PFD is inflated with carbon dioxide (CO<sub>2</sub> gas) than with air. When inflated, the CO<sub>2</sub> gas used to inflate the PFD will slowly escape through the fabric 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 prolonged immersion.

- 3. Oral Inflation** – Properly armed and inspected Inflatable PFDs will inflate when manually or automatically activated. However, you can fully inflate the Inflatable PFD by mouth (Figure 5) should inflation not occur, or if you are in a non-emergency situation.

To orally inflate the Inflatable PFD in a non-emergency situation:

- i. Ensure the cylinder body and inflator cap are properly installed.
- ii. Open both of the zippers (2) starting from the Velcro™ Tab (Figure 1).
- iii. Locate the oral inflation tube by opening the wearer's left front panel of the Inflatable PFD.
- iv. Remove the dust cap from the end of the oral tube and blow into the tube until the Inflatable PFD is fully inflated.



To orally inflate the Inflatable PFD in an emergency situation:

- i. Locate the oral inflation tube by opening the zipper flap on the wearer's left front panel of the inflatable PFD.
- ii. Remove the dust cap from the oral tube and blow into the tube. If the PFD does not break out of the zippers entirely, separate the cover zipper by hand. Continue blowing into the oral tube until the PFD is fully inflated.

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**WARNING: Avoid double inflation (CO<sub>2</sub> cylinder inflation after full oral inflation) as it could damage the PFD.**

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### Special Considerations for Inflatable Devices

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

1. Double inflation (CO<sub>2</sub> cylinder inflation after full oral inflation) could damage the Inflatable PFD.
2. Inflation when stowed in a tight space could damage the Inflatable PFD.
3. If you need to jump from any height, always fold your arms over your chest to keep the PFD in place when entering the water.
4. The Inflatable PFD could inflate when you are in an awkward place or position. If this Inflatable PFD should inflate inadvertently, a re-arm kit (MA7214) is required to re-arm the device.

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**IMPORTANT: The Inflatable PFD should be re-armed according to the instructions (Re-arming Your PFD, page 8).**

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## Usage Below Freezing

When the temperature is below freezing, the Inflatable PFD should be worn partially inflated because a fully discharged cylinder may not quickly or adequately inflate your Inflatable PFD. If this happens, use the oral inflator to adequately top-up the PFD, after CO<sub>2</sub> inflation.

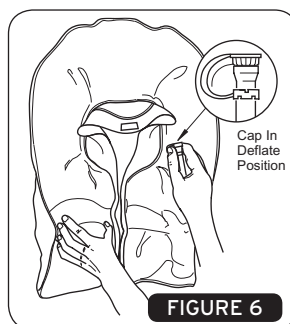
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**WARNING: CO<sub>2</sub> inflation could over-pressurize and damage your Inflatable PFD if already fully inflated.**

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## Deflating the Inflatable PFD

1. To deflate the Inflatable PFD, 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 (Figure 6).
2. Gently squeeze the Inflatable PFD until all air or gas has been expelled. To avoid damage, do not wring or twist the Inflatable PFD. Put the inflation tube dust cap back in its stowed position on the oral inflation tube (Figure 7).



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**IMPORTANT: Ensure all air has been removed from the PFD.**

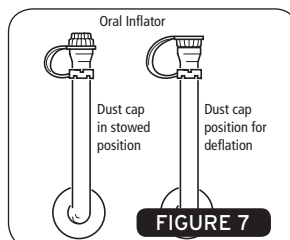
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3. Examine the single point status indicator (Figure 2). If the indicator is red, the mechanism has been fired and the inflator requires service (see Re-arming your PFD, page 8).

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**IMPORTANT: The single point status indicator must be green before proceeding.**

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4. Your device is ready to be repacked (see Repacking Your PFD, page 11).

## Re-arming Your PFD

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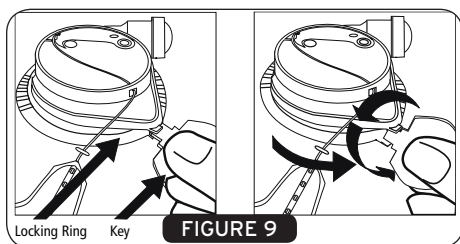
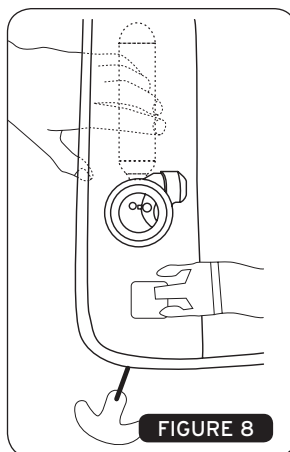
**NOTE: A valid re-arm kit (MA7214) is required for this procedure.**

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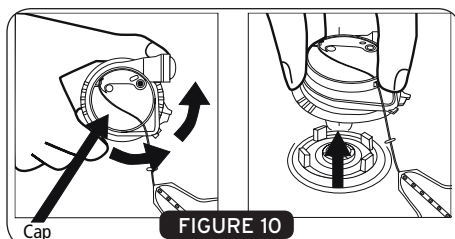
### Warning

- This gas cylinder is under pressure, therefore misuse can be dangerous.
- Do not incinerate, expose to sunlight or store above 120°F (50°C).
- Do not throw into open fire or dump at sea.
- Keep away from children.
- Dispose of gas cylinders only when empty.
- Discharge and dispose of corroded or rusty cylinders.

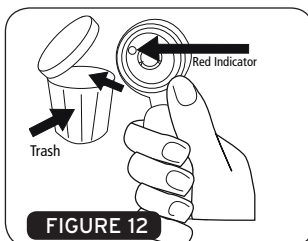
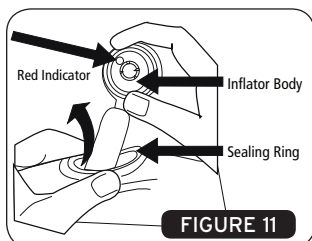
1. Place the Inflatable PFD (Personal Flotation Device) on a smooth, flat surface and wipe off any water. If needed, unpack the PFD starting at the zipper flap. Access the inflator by reaching between the cover and cell and pull it toward you, turning the cell and cover inside-out to fully expose the inflator for re-arming. Hold the CO<sub>2</sub> cylinder through the fabric, using one hand (Figure 8).
2. Insert the metal key between the black locking ring and labeled yellow cap. Turn the key counter-clockwise (Figure 9).



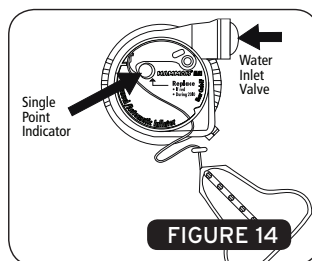
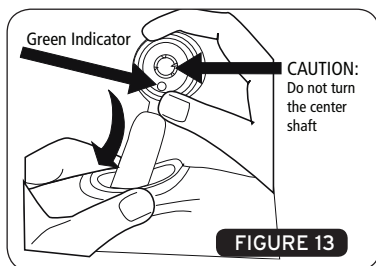
3. Turn the black locking ring counter-clockwise and lift off the cap (yellow inflator operating head Figure 10). Dispose of the used cap.



4. Squeeze the sealing ring to elongate and remove the inflator body through the sealing ring (Figure 11).
5. Dispose of the used inflator body (Figure 12).

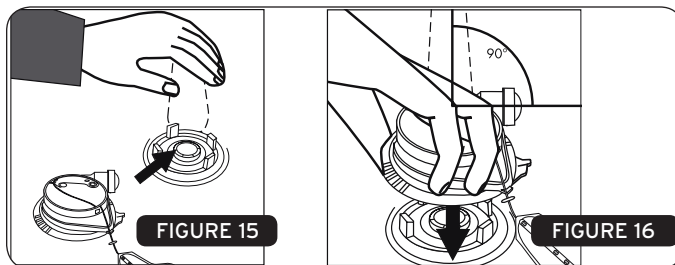


6. Check that the new inflator body indicator is green. Insert the new inflator body with CO<sub>2</sub> cylinder pointing upward inside the Inflatable PFD (Figure 13). Let the sealing ring rest on the adapter around the four lugs.
7. Now check the new manual/automatic cap as follows (Figure 14):
  - i. Is the single point status indicator showing green?
  - ii. Is the expiry day OK?



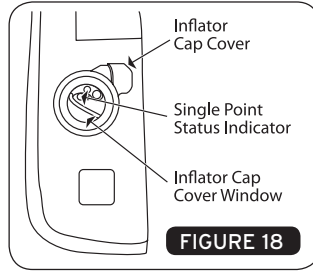
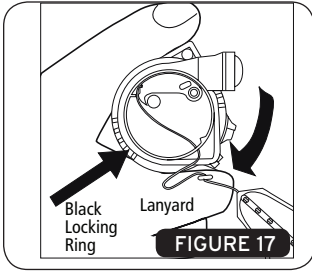
If YES is the answer to both questions, then proceed as follows. If the answer is NO to either question, get a new cap.

8. Hold the CO<sub>2</sub> cylinder through the fabric of the Inflatable PFD (Figure 15). Position the replacement cap with the water inlet valve pointing to the right and press firmly onto the inflator body and sealing ring (Figure 16).



9. While pressing **FIRMLY** onto the inflator body, turn the **BLACK** locking ring clockwise into the locked position (Figure 17). Pull on the cap to make sure it has locked onto the inflator body.
10. Check: To see that the single point status indicator on the cap is green; the pull-to-inflate lanyard is present and that the locking ring is locked.

- Turn cell and cover right-side out, returning to normal state. Position the protective inflator cap cover over the inflator body so that the single point status indicator is visible through the inflator cap cover window (Figure 18).



- If your Inflatable PFD has been used and/or the inflator replaced, always inflate through the oral tube and check that it stays inflated at least overnight. Empty the Inflatable PFD again by reversing the oral-inflation tube dust cap and inserting it into the valve or by depressing the valve with fingertip. Gently squeeze the inflatable PFD until all air or gas has been expelled. Let the Inflatable PFD dry before packing.

**IMPORTANT: Ensure all air is removed before repacking.**

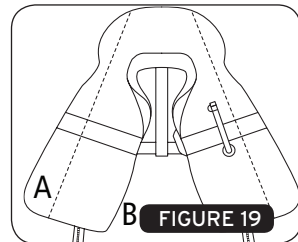
- Refold the Inflatable PFD in accordance with the Repacking section (page 11).

## Repacking Your PFD

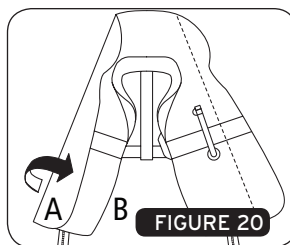
If your Inflatable PFD has been used and/or the hydrostatic inflator replaced, always inflate through the oral tube and check that it stays inflated at least overnight. With the dust cap in the top of the oral tube, gently squeeze the Inflatable PFD until all air or gas has been expelled (Figure 6). Do not wring or twist the Inflatable PFD. Put the oral tube dust cap back in its stowed position on the oral tube (Figure 7). Let the life jacket dry before packing.

**IMPORTANT: Ensure all air is removed before repacking. Before following the repacking sequence, be sure to properly re-arm your Inflatable PFD, page 8.**

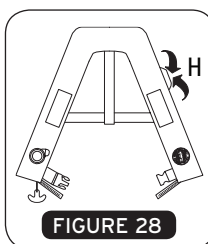
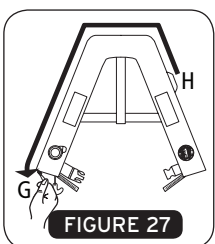
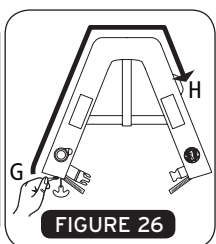
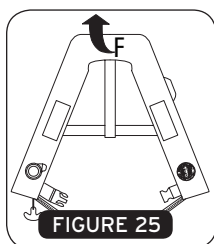
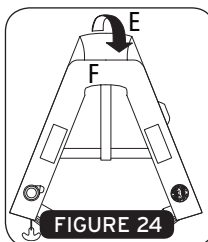
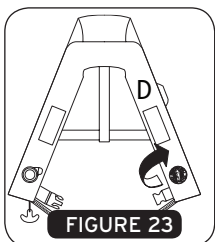
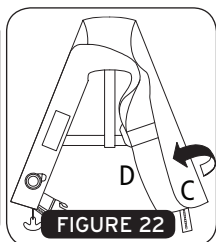
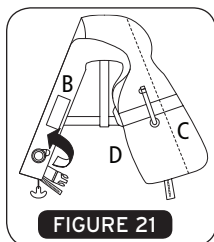
- Lay out the Inflatable PFD flat on a clean surface (Figure 19).
- Fold side (A) inward along the full length of the dotted line (Figure 20). Fold cover (B) over; covering side (A) (Figure 21).
- Repeat step 2 with side (C) (Figure 22), cover (D) (Figure 23).
- Ensure the inflator body is still located within its protective cap cover and that the single point status indicator is visible through the inflator cap cover's window (Figure 18).



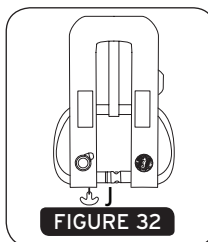
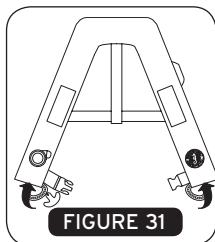
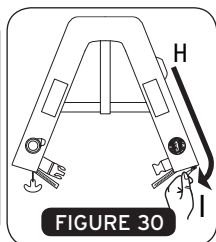
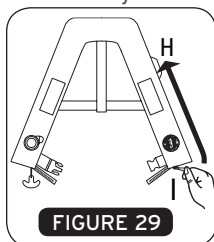
5. Fold over the top side (E) (Figure 24) and cover (F) (Figure 25).
6. Mustang Survival uses advanced 2-step zippers. **ZIP 1 -Reset** the long zipper by pulling the slider (G) around the top to the Velcro™ tab (H). **ZIP 2 -Close** by pulling the slider (G) in the opposite direction to the end of the zipper (Figure 27). Ensure that the Inflatable cell does not get caught by the zipper when closing.



7. Fasten the Velcro™ tab (H) (Figure 28) to keep zipper closed.



8. ZIP 1 – Reset the short 2-step zipper by pulling the slider (I) to the Velcro™ tab (H). ZIP 2 – Close by pulling slider (I) in the opposite direction to the end of the zipper (Figure 30). Ensure that the inflatable cell does not get caught by the zipper when closing.
9. Use a finger to push the zipper ends into the openings at the bottom of the packed Inflatable PFD (Figure 31).
10. Ensure the pull-tab (J) is on the outside of the folded Inflatable PFD. Figure 32 depicts a correctly folded Inflatable PFD.





## Is Your PFD in Good and Serviceable Condition?

Check your Inflatable PFD between uses 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 (See Visual Inspection Instructions and Readiness Checklist, page 4). Inspect the Inflatable PFD in accordance with the Care and Maintenance instructions.

### Servicing Instructions for Commercial Operators

**Federal Regulations require Coast Guard-approved personal flotation devices (PFDs) that are legibly marked with the 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 oral inflation tube. This PFD must also be properly armed with a cylinder installed in the inflator, a single point status indicator showing green, and an accessible manual inflation lanyard. See page 3 for Instructions for Use.

Failure to follow these instructions rigorously could result in a non-functioning PFD causing injury or death.

### Care and Maintenance Instructions

These instructions apply to recreational users, commercial vessel operators, and designated maintenance personnel. Check the following at the intervals listed below. Descriptions for each test are given below the table:

INSPECTION AND MAINTENANCE SCHEDULE					
Before Each Use (see item 1)	After Each CO2 Inflation (see item 2)	Every 3 Months (see item 3)	Annually* (see item 4)	Every 5 Years (see item 5)	
X					Visual Inspection and Readiness Checklist
		X	X	X	Thorough Inspection
	X				Inspect date of Auto-Inflation Mechanism
				X	Recommended Test Auto-Inflation
	X			X	Rearm – Replace CO2 cylinder and inflator
		X	X	X	Test Oral-Inflation
		X	X	X	Leak Check – 16 hours
			X	X	Clean
			X	X	Record and date Service Record label on PFD

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

### **1. Before each use:**

- i. Refer to the Visual Inspection and Readiness Checklist (page 4).

### **2. After each CO<sub>2</sub> inflation:**

- i. Re-arm the Inflatable PFD. See Re-arming Your PFD, page 8. If a rearm kit is not available, the inflatable PFD can only be activated by oral inflation with a used cylinder and inflator cap installed.
- ii. If a rearm kit is available, ensure the current date is not past the date on the inflator. If it is, replace the inflator (see Re-arming Your PFD, page 8).

### **3. Every three (3) months:**

- i. Perform a thorough inspection:
  - Examine the single point status indicator through the window panel. Ensure the indicator is green. If the indicator is red, the mechanism requires service (see Re-arming Your PFD, page 8).
  - Ensure the current date is not past the date on the inflator. If the current date is past the date on the inflator, replace the inflator (see Re-arming Your PFD, page 8).
  - The inflator's water inlet channel is clear of obstruction.
  - Visually check for rips, tears, excessive abrasion, fading, or holes. Check the seams for secure attachment. Ensure the hardware is not deformed. If the device shows damage, it may need servicing or replacement.
  - Tug on seams, straps, and attachments to ensure they are still strong.
- ii. Oral Inflation Valve Test: To check the oral inflation valve, first ensure that the cylinder body and inflator cap are properly installed, and remove the dust cap and fully inflate the Inflatable PFD using the oral inflator. 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 PFD and hold the valve under water. If bubbles appear, deflate and re-inflate to test again. Should the leak persist, take your Inflatable PFD to your Mustang dealer for evaluation and/or servicing.
- iii. Leak Test: The Inflatable PFD should be tested for general leakage by orally inflating your Inflatable PFD until firm and let stand for 16 hours. A leaking Inflatable PFD will not hold its firmness and should be replaced, or take it to your Mustang dealer for evaluation and/or servicing. Repack the Inflatable PFD as outlined in the Repacking section (page 11).

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**CAUTION: To avoid inflation, don't submerge the hydrostatic inflator.**

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**NOTE: Conduct these tests more often if exposed to potential damage or used in extreme conditions.**

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#### **4. Annually:**

Perform the following annually, or whenever the integrity of the Inflatable PFD is in doubt:

- i. Perform a thorough inspection. Refer to the Thorough Inspection instructions in Every Three (3) Months Care and Maintenance Instructions section.
- ii. Perform the Oral Inflation Valve Test: See the Oral Inflation Valve Test in the Every Three (3) Months Care and Maintenance Instructions section.
- iii. Perform the Leak Test. See the Leak Test in the Every Three (3) Months Care and Maintenance Instructions section.
- iv. Clean the inflatable PFD. Check for dirt and corrosion and replace all corroded parts. See Cleaning and Stowage of Your Inflatable PFD, page 16.
- v. Record as an "Annual" inspection in permanent ink in the Service Record label on the PFD. Repack the Inflatable PFD as outlined in the Repacking section (page 11).

#### **5. Every five (5) years:**

- i. Perform a thorough inspection. Refer to the Thorough Inspection instructions in Every Three (3) Months Care and Maintenance Instructions section.
- ii. Test the Auto-Inflation Mechanism (see Inflating your Inflatable PFD, page 6) by submerging the device in at least four (4) inches of water depth. The device should inflate within 5 seconds.
- iii. Perform the Oral Inflation Valve Test: See the Oral Inflation Valve Test in the Every Three (3) Months Care and Maintenance Instructions section.
- iv. Perform the Leak Test. See the Leak Test in the Every Three (3) Months Care and Maintenance Instructions section.
- v. Clean the inflatable PFD. Check for dirt and corrosion and replace all corroded parts. See Cleaning and Stowage of Your Inflatable PFD, page 11.
- vi. Record as an "Annual" inspection in permanent ink in the Service Record label on the PFD. Write an asterisk (\*) next to the date to mark each five (5) year inspection.

Re-arm and repack the Inflatable PFD as outlined in the Re-arming (page 8) and Repacking sections (page 11).

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

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## **Cleaning and Stowage of Your Inflatable PFD**

To avoid inflation, do not submerge the Inflatable PFD or directly spray the inflator.

- Hand wash or sponge down the Inflatable PFD in warm, soapy water.
- Rinse the PFD and inflator with clean water, using a clean rinse cloth. Do not get inflator wet.
- Hang the Inflatable PFD to dry on a plastic coat hanger.
- Do not dry clean.
- Do not use chlorine bleach.
- Do not iron or dry with direct heat.

Always store your Inflatable PFD in a warm, dry place out of direct sunlight.

## **Determine if Your PFD Needs Servicing**

Your PFD is required to be serviceable to be considered approved. To be considered serviceable, your PFD must not exhibit:

- Excessive abrasion
- Fading
- Tearing of any of the fabrics or straps
- Excessively worn components
- Contaminated components
- Punctures
- Rotted or cut straps
- Separated seams and webbing attachments – tug on the seams and ensure the components do not separate
- Broken or deformed hardware
- A nonfunctioning oral tube – perform the Oral Inflation Valve Test in the “Care and Maintenance Instructions” section under “Every Three (3) Months”, and check for punctures in the tube itself
- A leaking cell – perform the Leak Test as specified in the “Care and Maintenance Instructions” section under “Every Three (3) Months”

If your PFD exhibits any of the above, contact your Mustang dealer for professional servicing or Mustang Survival (see contact information on the back of this manual).

# COMMERCIAL TRAINING CONTENT AND PROCEDURE

This training section is provided, for the use of operational crews, to relay important information on the safe use and care of an inflatable work vest. A user of this device must be over 16 years of age, with a chest range of 30-52 inches (76-132 cm) weighing over 80 pounds (36 kg).

This section will detail what a user needs to know to use this inflatable work vest (and maintain it if designated to do so). The following information should be read by each user to ensure understanding of how this inflatable PFD works. (Operators may wish to designate certain individuals to maintain the PFDs.)

## Use

- How to inspect the device prior to use
- Inflation methods
- How to don the device
- How to remove the device
- Deflation
- Stowage
- User warnings and cautions

## Maintenance

- Re-arming
- Repacking
- Maintenance and Care

Depending on the application, it is each user's and each operator's responsibility to ensure the inflatable work vest is fit for use and is serviceable. This vest is designed to be more comfortable and less restrictive to wear than a foam vest, but **it will not float you unless inflated.**

The MD3188 features Hydrostatic Inflator Technology (HIT)<sup>™</sup>, which reduces instances of inadvertent inflation due to moisture or spray. The inflator must be submerged in at least four (4) inches of water before it automatically inflates. See "How to Inspect the Device Prior to Use" to ensure it will inflate as anticipated in an emergency situation.

## How to inspect the Device Prior to Use

Read the Visual Inspection Instructions and Readiness Checklist on page 4.

## **Inflation Methods**

Read Inflating your Inflatable PFD on page 6. This section details the three recommended methods to inflate the device to provide buoyancy to the user. Additionally, read the section entitled How and Why to Test your PFD, page 20.

## **How to Don the Device**

Read Donning Instructions on page 5 to learn how to don the device without hanging loose ends, which are a snag hazard.

## **How to Remove the Device**

Read Removal Instructions on page 6. to learn how to remove the Inflatable Work Vest quickly.

## **Deflation**

Read Deflating the Inflatable PFD on page 8. to learn how to remove the gas or air from the PFD once it has been inflated.

## **Stowage**

Read Cleaning and Stowage of Your Inflatable PFD, page 16.

## **User Warnings and Cautions**

- 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.
- This inflatable PFD must be worn and be serviceable to satisfy work vest requirements.
- Weak or non-swimmers should not use this device. In the case when oral inflation is the only means to obtain flotation, a user must be able to keep their head above water long enough to orally inflate the device.
- Do not use below freezing unless partially inflated. When the temperature is below freezing, a fully discharged cylinder may not quickly or adequately inflate your Inflatable PFD. Under these conditions use the oral inflator to adequately top-up the PFD, after CO<sub>2</sub> inflation.
- Do not fasten device to boat unless the attachment is capable of being pulled free, such as a kill switch.
- Do not wear this device under clothing, as inflation under clothing will restrict breathing or may otherwise injure you.
- Always have re-arm kits (MA7214) available to service your inflatable work vest.
- Check the date of the Inflator cap to ensure it has not expired.
- If you need to jump from any height, always fold your arms over your chest to keep the PFD in place when entering the water.

- Avoid unnecessary exposure to sunlight. Sunlight will degrade the performance of the textile components.
- Use extreme caution around sharp objects.
- Avoid all unnecessary activities that will be abrasive to the device.
- When inflated by CO<sub>2</sub> gas, it will permeate through the fabric over long periods of time. Topping up the inflatable cell by oral tube may be necessary.
- Inflatable PFDs are not designed for use in white water, or other high-speed activities.
- A PFD will not protect you from impact.
- Dropping this PFD in water may result in an inadvertent inflation.
- Inadvertent inflation in a tight space may damage the PFD.

## **Re-arming**

Read Re-arming Your PFD on page 8.

## **Repacking**

Read Repacking Your PFD on page 11.

## **Care and Maintenance**

A recommended maintenance schedule is provided in the Care and Maintenance Instructions section on page 13.

## **Service Record and Inspection Log Procedure**

Test this device at the beginning of each season and service annually. Refer to Care and Maintenance schedule page 13. Record annual inspections in the Service Record label on the PFD. Every five (5) years, write an asterisk (\*) next to the date to denote five (5)-year maintenance (example log is shown below). Space is provided on the label to record the User's Name, Date Maintained, and Name of person who inspected and serviced the PFD. This record must be maintained and made available at all times for inspection to meet carriage requirements.

## Example Log

Date	Service / Initials
Jan 2005	Ann. inspec. / CS
Jan 2006	Ann. inspec. / CS
Jan 2007	Ann. inspec. / DB
Jan 2008	Ann. inspec. / DB
Jan 2009*	Ann. inspec. / SG
Jan 2010	Ann. inspec. / SG
Jan 2011	Ann. Inspec. / SG

## WHY ARE PFDS REQUIRED SAFETY EQUIPMENT?

Drowning is the leading cause of fatalities involving recreational and commercial vessels. 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 lbs (3.2 to 5.5 kg 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 Inflatable PFD so you know what to do in an emergency.

### How and Why to Test Your PFD

Inflate your Inflatable 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, page 14). It should inflate quick and easily.

Learn how it works by:

- Activating the CO<sub>2</sub> inflation system
- Re-arming the CO<sub>2</sub> inflation system
- Using the Oral inflator tube



## How Do You Test Your PFD Using the Automatic Inflator?

The US Coast Guard recommends that you purchase at least two spare re-arming kits (MA7214).

1. To test your Inflatable PFD, you will need your fully armed Inflatable PFD, and re-arming kit (MA7214) approved for your Inflatable PFD.
2. Put on the Inflatable PFD.
3. Get into shallow water, just deep enough that you can stand with your head above the surface. Once the inflator is underwater, 4 inches or so, the Inflatable PFD should fully inflate automatically within 5 seconds.
4. See if the Inflatable 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 Inflatable PFD.
6. Deflate the Inflatable PFD by depressing the oral inflator valve (see Deflating the Inflatable PFD page 8). Remove the used inflator.
7. Let the Inflatable PFD dry thoroughly. Re-arm (page 8) and Repack the PFD (page 11).

## How Do You Test Your PFD Using the Manual Inflator?

The U.S. Coast Guard recommends that you purchase at least two spare re-arming kits (MA7214).

1. To test your Inflatable PFD, you will need your fully armed Inflatable PFD, and re-arming kit approved for your Inflatable PFD: MA7214.
2. Put on the Inflatable PFD.
3. Actuate the inflation system by jerking firmly downward on the pull-tab. The Inflatable 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 Inflatable 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 and how you float.
6. Get out of the water and remove the Inflatable PFD. Completely deflate the Inflatable PFD using the oral inflator (see Deflating the Inflatable PFD page 8).
7. Let the Inflatable PFD dry thoroughly. Re-arm (page 8) and Repack the PFD (page 11).

## How Do You Test Your PFD Using the Oral Inflator?

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**WARNING: Use only a previously used hydrostatic inflator, with the single point status indicator showing red, to perform this test. DO NOT test with a fully armed hydrostatic inflator as double inflation will occur, possibly resulting in damage to the PFD.**

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1. No spare parts or re-arming kits are needed to test your Inflatable PFD.
2. Review the oral inflation instructions (page 7) regarding break-out zippers.
3. Put on the Inflatable 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 Inflatable 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 Inflatable PFD using the oral inflator.
7. See if the Inflatable 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 and how you float.
8. Get out of the water and remove the Inflatable PFD. Completely deflate the Inflatable PFD using the oral inflator (see Deflating the Inflatable PFD page 8).
9. Let the Inflatable PFD dry thoroughly. Re-arm (page 8) and Repack the PFD (page 11).

### 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 Inflatable 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)	Time to Exhaustion or Unconsciousness	Estimated Survival Time
0.3 (32.5)	<15 min	<15-45 min
0.3-4 (32.5-40)	15-30 min	30-90 min
4-10 (40-50)	30-60 min	1-3 hrs
10-16 (50-60)	1-2 hrs	1-6 hrs
16-21 (60-70)	2-7 hrs	2-40 hrs
21-27 (70-80)	2-12 hrs	3 hrs to indefinite
>27 (80)	indefinite	indefinite

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

Some points to remember about hypothermia protection:

1. Always wear your Inflatable PFD. Even if you become incapacitated due to hypothermia, the Inflatable 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 (Figure 33).
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 Life

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

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

### Inflatable PFD Safety Accessories

MA7214 Re-arm Kit contains 33-gram replacement CO<sub>2</sub> cylinder with inflator body, a new manual/automatic inflator cap with black locking ring and manual pull-tab, metal key, and Re-arming instructions.

## ADDITIONAL INFORMATION

If you need more information about PFDs and safe 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 free boating course number 1-800-336-BOAT (in Virginia, call 1-800-245-BOAT).

### 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.

### Airline Operator Policy on Carriage of Inflatable PFDs and CO<sub>2</sub> Cartridges

Please be aware that the following regulations apply to the air transport of this product. According to U.S. Research and Special Programs Administration Regulations Title 49 CFR 75.10(a)(25): With the approval of the aircraft operator, one small carbon dioxide cylinder fitted into a self-inflating jacket, plus one spare cartridge, may be carried by a passenger or crew in checked or carry-on baggage.

Please refer to the governing body's documentation, found online at <http://hazmat.dot.gov>.

## GLOSSARY

<b>Term</b>	<b>Definition</b>
CO <sub>2</sub>	carbon dioxide
Hot Work	burning, welding, riveting, grinding, etc.
Permeation	passage or diffusion of a gas through a barrier
PFD	Personal Flotation Device
USCG	United States Coast Guard





**DO NOT REMOVE  
PRIOR TO SALE**



## research & Design

For 40 years Mustang Survival has been committed to providing life support solutions. Through constant innovation and the application of new technologies, Mustang is the leading supplier of quality flotation and hypothermia protection products to the most demanding users – from fishermen, sailors and power boaters to the Coast Guard, jet fighter pilots and even NASA astronauts.

**[www.mustangsurvival.com](http://www.mustangsurvival.com)**

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