

FOR MODEL NUMBERS MD3181 / MD3183 / MD3184

# **OWNER'S MANUAL** Inflatable PFD

MD3181 MANUAL INFLATION MODEL
USCG APPROVALS: RECREATIONAL: TYPE III
UNINSPECTED COMMERCIAL VESSELS: TYPE V

WARNING: THE MD3181 WILL NOT INFLATE AUTOMATICALLY UPON IMMERSION. TAB MUST BE PULLED TO ACTIVATE INFLATION MECHANISM.

MD3183 HYDROSTATIC INFLATION MODEL MANUAL WITH AUTOMATIC BACKUP USCG APPROVALS: RECREATIONAL: TYPE II UNINSPECTED COMMERCIAL VESSELS: TYPE V

MD3184 HYDROSTATIC INFLATION MODEL WITH HARNESS MANUAL WITH AUTOMATIC BACKUP USCG APPROVALS: TYPE V

DO NOT REMOVE PRIOR TO SALE

## TABLE OF CONTENTS

APPROVAL CONDITIONS AND CARRIAGE REQUIREMENTS1
AIRLINE OPERATOR POLICY ON CARRIAGE OF INFLATABLE PFDs AND CO <sub>2</sub> CARTRIDGES2
NOTE TO UNINSPECTED COMMERCIAL VESSEL OPERATORS 2
MANDATORY CARRIAGE REQUIREMENTS2
WHAT IS AN INFLATABLE PFD?3
INSTRUCTIONS FOR USE4
UNINSPECTED COMMERCIAL VESSEL USE4
INSPECTING COMPONENTS4
READINESS CHECKLIST5
SIZING AND FIT5
PUTTING ON (DONNING) YOUR PFD5
INFLATING YOUR PFD6
SPECIAL CONSIDERATIONS FOR INFLATABLE DEVICES7
DEFLATING YOUR PFD8
USAGE BELOW FREEZING8
RE-ARMING YOUR PFD9
REPACKING YOUR PFD13
SAILING HARNESS16
IS YOUR PFD IN GOOD AND SERVICABLE CONDITION?17

CARE AND MAINTENANCE INSTRUCTIONS	17
INSPECTING YOUR PFD	17
SERVICING INSTRUCTIONS FOR UCV OPERATORS	18
CLEANING AND STORING YOUR PFD	18
WHY ARE PFDS REQUIRED SAFETY EQUIPMENT?	19
HOW AND WHY TO TEST YOUR PFD	19
HOW DO YOU TEST YOUR PFD USING THE AUTOMATIC INFLATOR?  (FOR MODELS MD3183 AND MD3184)	20
HOW DO YOU TEST YOUR PFD USING THE  MANUAL INFLATOR?	
HOW DO YOU TEST YOUR PFD USING THE ORAL INFLATOR?	22
WEAR YOUR PFD	23
HYPOTHERMIA	23
HOW HYPOTHERMIA AFFECTS MOST ADULTS	23
SOME POINTS TO REMEMBER ABOUT HYPOTHERMIA PROTECTION	23
EACH OF THESE DEVICES IS INTENDED TO HELP YOU SAVE YOUR OWN LIFE	25
INFLATABLE PFD SAFETY ACCESSORIES	25
ADDITIONAL INFORMATION	26
DO NOT ATTACH PFDs TO YOUR BOAT	26

## APPROVAL CONDITIONS AND CARRIAGE REQUIREMENTS

Recreational – This inflatable personal flotation device (PFD) is approved by the U.S. Coast Guard (USCG) as a Type III (Model MD3181), Type II (Model MD3183), or Type V (Model MD3184) 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.

Model MD3184 has Type II performance but is approved as a Type V Recreational PFD because it has a built-in sailing harness that can cause injury if not properly used. A separate section titled "Sailing Harness," p. 16, discusses requirements and features on the MD3184 only. USCG approval does not apply to the sailing harness because some of the risks associated with its use have not been evaluated.

Commercial – Models MD3181 and MD3183 are USCG-approved Type V inflatable PFDs, approved ONLY WHEN WORN for use on uninspected commercial vessels less than 40 feet in length not carrying passengers for hire as a substitute for a Type III PFD (MD3181) or Type II PFD (MD3183) when used in accordance with this owner's manual.

MD3184 IS NOT USCG APPROVED FOR UNINSPECTED COMMERCIAL VESSELS.

## Conditions for Type V Approval in commercial applications:

- The MD3181 or MD3183 must be worn before getting underway and whenever above deck and not within an enclosed space to meet the carriage requirement.
- The operator of an uninspected commercial vessel is responsible for servicing and maintaining the MD3181 or MD3183 in good serviceable condition in accordance with this owner's manual. See Care and Maintenance Instructions, p. 17, for servicing information.
- The operator of an uninspected commercial vessel is responsible for providing each person onboard with the safety information required for use of the MD3181 or MD3183. See p. 2 for information.

General – When fully inflated, this PFD will provide Type III (MD3181) or Type II (MD3183) in-water performance. This PFD will turn most wearers from a face down to a face up position and provide support suitable for offshore conditions. See Re-arming Your PFD, p. 9.

# AIRLINE OPERATOR POLICY ON CARRIAGE OF INFLATABLE PFDS AND CO, CYLINDERS

Regulations may apply to the air transport of inflatable PFDs. 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 PFD and its  $\mathrm{CO}_2$  cylinder separately to your destination or purchasing a re-arm kit once you arrive (check availability before you go).

### NOTE TO UNINSPECTED COMMERCIAL VESSEL OPERATORS

The operator of the vessel is required to provide the following user information to each person on board.

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

- Basic visual inspection, see Readiness Checklist, p. 5
- Inflation system check, see Inspecting Components, p. 4
- Putting on (Donning) Your PFD, see p. 5
- Inflating Your PFD, see p. 6

### MANDATORY CARRIAGE REQUIREMENTS

Federal regulations in 33 CFR 175-1993 require you to carry Coast Guard approved personal flotation devices (PFDs) legibly marked with the Coast Guard approval number which are in good and serviceable condition and are the correct size for each person on board. To be considered serviceable, this PFD shall not exhibit deterioration that could diminish its performance such as broken or deformed hardware, detached webbing, rotted structural components, air leaks, or nonfunctional oral inflation tube. Unless worn inflated, this PFD must also be properly armed with a full  ${\rm CO}_2$  cylinder, inflation system status indicator, and an accessible manual inflation lanyard. A PFD which is "approved only when worn" or "required to be worn" must be worn under the specified conditions.

#### WHAT IS AN INFLATABLE PED?

While traditional PFDs are inherently buoyant, inflatable PFDs rely entirely on inflation for buoyancy. Uninflated, the Inflatable PFD is a comfortable slim collar that can be inflated at any time with a 33-gram  $\rm CO_2$  gas cylinder. The inflatable PFD is designed to offer maximum mobility with minimum bulk. The models MD3183 and MD3184 can be inflated either automatically by water immersion, manually by jerking a pull-tab, or orally by mouth. The model MD3181 can be inflated manually by jerking the pull-tab or orally by mouth. It is recommended that you familiarize yourself with the procedures outlined in Instructions For Use, p. 4.

## INSTRUCTIONS FOR USE

This manual supplies instructional, maintenance, and safety information for models MD3181, MD3183, and MD3184. The model number is listed on the underside label.

#### UNINSPECTED COMMERCIAL VESSEL USE

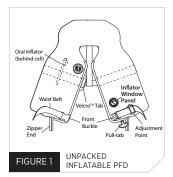
This inflatable PFD is not approved for "hot work," and care must be taken to avoid damage from abrasion and sharp objects.

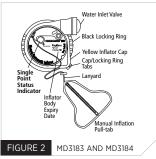
#### INSPECTING COMPONENTS

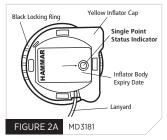
 Examine the single point status indicator through the window panel (Fig. 1). Ensure the indicator is green. If the indicator (Fig. 2 for MD3183 and MD3184, or 2a for MD3181) is red, the mechanism has been fired or is incorrectly fitted (see Re-arming Your PFD, p. 9).

## THE SINGLE POINT STATUS INDICATOR MUST BE GREEN BEFORE PROCEEDING.

- Undo the zipper on the wearer's left side, exposing the oral inflator.
- 3. Ensure the oral inflation cap is in the stowed position (Fig. 7).
- Ensure the single point status indicator is green and the pull-tab lanyard is hanging on the outside; secure the zippers on the PFD (see Repacking Your PFD, p. 13).
- Ensure the current date is not past the date on the inflator.
   If it is, replace the inflator (see Re-arming Your PFD, p. 9).







#### READINESS CHECKLIST

CONTACT YOUR MUSTANG SURVIVAL DEALER IF YOU HAVE ANY CONCERNS ABOUT THE READINESS OF YOUR INFLATABLE PFD.
$\square$ No rips, tears, excessive abrasion, or holes; all seams are securely sewn; and the cover, straps, and hardware are still strong.
$\hfill\square$ Ensure the inflation pull-tab is hanging on the outside (Fig. 31).
☐ Inflatable PFD is not twisted.
$\square$ Oral inflation cap is in the stowed position (Fig. 7).
☐ Ensure both zipper stops are in place under Velcro™ Tab (Fig. 25)
$\hfill \Box$ All zippers, Velcro $\hfill^{\!$
$\square$ Ensure the current date is not past the date on the inflator. If it is, replace the inflator (see Re-arming Your PFD, p. 9).
$\square$ Single point status indicator is green (Fig. 2 or 2a).
Check your PFD and ensure all of the checkpoints listed below are true before use.

#### SIZING AND FIT

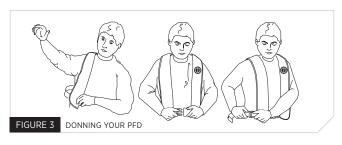
This PFD provides a minimum of 33.7 pounds of buoyancy when inflated and is designed for wearers over 16 years of age, with a chest range of 30-52 inches (76-132 cm) and weighing over 80 pounds (36 kg).

## PUTTING ON (DONNING) YOUR PFD

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.

- All belts and straps are already threaded correctly and only need to be adjusted for fit.
  - For the non-harness models MD3181 and MD3183, the belt should fit below your rib cage adjusted to a tight personal fit.
  - For the harness model MD3184, the bottom of the belt must always be worn at least two inches (5 cm) above the lowest rib and adjusted to a tight personal fit.
- Put the PFD on just like a jacket (Fig. 3) 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.

WARNING: DO NOT WEAR INFLATABLE PFDS UNDER CLOTHING AS THE INFLATION COULD BE RESTRICTED OR YOU COULD BE INJURED.



#### INFLATING YOUR PFD

Follow the below procedures to inflate your PFD:

#### 1. MANUAL INFLATION

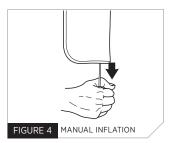
Activate the inflation system by jerking firmly downward on the pull-tab (Fig. 4). The PFD should fully inflate within five seconds.

## 2. AUTOMATIC BACKUP INFLATION (FOR MODELS MD3183 AND MD3184 ONLY)

When the inflator is lowered more than about four inches in the water, 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 carbon dioxide ( $\rm CO_2$ ) cylinder, which is now punctured so that the  $\rm CO_2$  instantly fills the PFD. Total buoyancy is normally reached within four to five seconds.

Once the PFD is inflated, the  ${\rm CO_2}$  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 very prolonged immersion.

SEE SPECIAL CONSIDERATIONS FOR INFLATABLE DEVICES.





## INFLATING YOUR PFD (CONT'D)

#### 3. ORAL INFLATION

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

- To orally inflate the PFD, first ensure that both of the two zippers are completely opened.
- ii. Locate the oral inflation tube by opening the wearer's left front panel. Remove the cap from the end of the oral tube and blow into the tube until the PFD is fully inflated.

WARNING: DOUBLE INFLATION – DO NOT MANUALLY ACTIVATE THE INFLATOR WHEN YOUR PFD IS FILLED WITH AIR. DOING SO WILL RESULT IN EXCESSIVELY HIGH PRESSURE WITHIN THE INFLATION CHAMBER, WHICH MAY CAUSE PERMANENT DAMAGE. WHEN YOUR PFD IS COMPLETELY FILLED WITH AIR, THE INFLATOR MAY NOT AUTOMATICALLY INFLATE WHEN EXPOSED TO WATER.

### SPECIAL CONSIDERATIONS FOR INFLATABLE DEVICES

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

- Double inflation (CO<sub>2</sub> cylinder inflation after full oral inflation) could damage the PFD.
- 2. Inflation when stored in a tight space could damage the PFD.
- The PFD could inflate when you are in an awkward place or position.

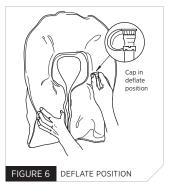
If this PFD should inflate inadvertently, a re-arm kit is required to re-arm the device (MA7214 for models MD3183 and MD3184, and MA3181 for model MD3181).

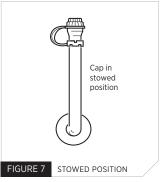
THE INFLATABLE PFD SHOULD ALWAYS BE RE-ARMED ACCORDING TO THE INSTRUCTIONS (SEE RE-ARMING YOUR PFD, P. 9).

#### **DEFLATING YOUR PED**

- To deflate the PFD, reverse the oral inflation tube cap and insert it into the valve or depress the valve with your fingertip. The cap will not lock in the deflate position so it is necessary to hold it in place (Fig. 6).
- Gently squeeze the PFD until all air or gas has been expelled. To avoid damage, do not wring or twist the PFD. Put the inflation tube cap back in its stowed position on the oral inflation tube (Fig. 7).

#### ENSURE ALL AIR HAS BEEN REMOVED FROM THE PED.





3. Examine the single point status indicator (Fig. 2 or 2a on p. 4). If the indicator is red, the mechanism has been fired and the inflator requires service (see Re-arming Your PFD, p. 9).

#### THE SINGLE POINT STATUS INDICATOR MUST BE GREEN BEFORE PROCEEDING.

4. Your device is ready to be repacked (see Repacking Your PFD, p. 13).

#### **IISAGE RELOW FREEZING**

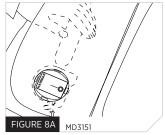
Do not use inflatable PFDs in below freezing temperatures because a fully discharged cylinder may not quickly or adequately inflate your PFD.

### **RE-ARMING YOUR PFD**

USE A VALID MUSTANG SURVIVAL RE-ARM KIT FOR THIS PROCEDURE (MA7214 FOR MODELS MD3183 AND MD3184 AND MA3181 FOR MODEL MD3181). USE OF OTHER RE-ARM KITS MAY RESULT IN FAILED OR IMPROPER OPERATION AND WILL VOID THE PRODUCT'S WARRANTY.

 Place the PFD on a smooth, flat surface and wipe off any water. Access the inflator by reaching under the cover and pulling 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 (Fig. 8 for models MD3183 and MD3184; and Fig. 8a for model MD3181).





Insert the metal key between the black locking ring and the labeled yellow cap. Turn the key counterclockwise (Fig. 9 for models MD3183 and MD3184, and Fig. 9a for model MD3181).

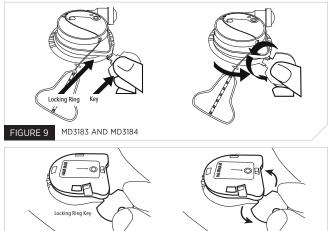
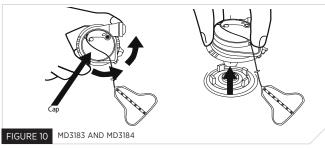
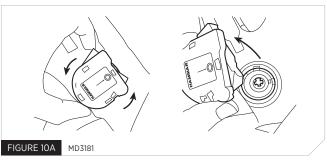


FIGURE 9A

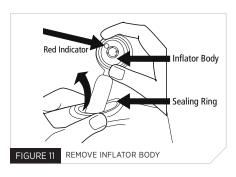
MD3181

 Turn the black locking ring counterclockwise and lift off the cap (yellow inflator operating head Fig. 10 for models MD3183 and MD3184 and Fig. 10a for model MD3181). Dispose of the used cap.





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



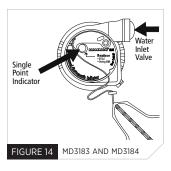
6. Check that the new inflator body indicator is green. Insert the new inflator body with  ${\rm CO_2}$  cylinder pointing upward inside the PFD (Fig. 13). Let the sealing ring rest on the adapter around the four lugs.

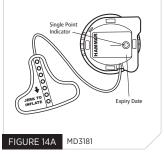




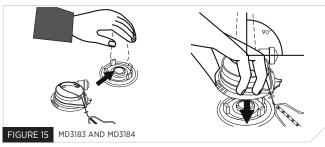
- Now check the new manual/automatic cap as follows (Fig. 14 for models MD3183 and MD3184, and Fig. 14a for model MD3181):
  - · Is the single point status indicator showing green?
  - · Is the expiry date OK?

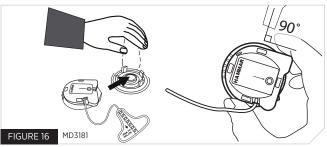
If YES is the answer to both questions, then proceed as follows. If the answer is NO to either question, get a new cap.



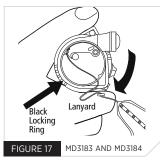


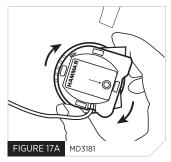
 Hold the CO<sub>2</sub> cylinder through the fabric of the PFD. Position the replacement cap with the water inlet valve pointing to the right and press firmly onto the inflator body and sealing ring (Fig. 15 for models MD3183 and MD3184, and Fig. 16 for model MD3181).





 While pressing FIRMLY onto the inflator body, turn the BLACK locking ring clockwise into the locked position (Fig. 17 for models MD3183 and MD3184, and Fig. 17a for model MD3181). Pull on the cap to make sure it has locked onto the inflator body.





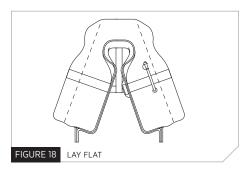
- 10. Check that the single point status indicator on the cap is green; that the pull to inflate lanyard is present; and that the locking ring is locked. Turn the cell and cover right-side out, returning to normal state.
- 11. Refold the PFD in accordance with the Repacking section, p. 13.

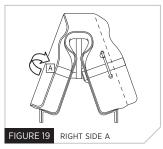
#### REPACKING YOUR PFD

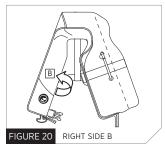
If your PFD has been used and/or the inflator replaced, always inflate through the oral tube and check that it stays inflated at least overnight. With the cap in the top of the oral tube, gently squeeze the PFD until all air or gas has been expelled, (Fig. 6, p. 8). Do not wring or twist the PFD. Put the oral tube cap back in its stowed position on the oral tube (Fig. 7, p. 8). Let the PFD dry before packing.

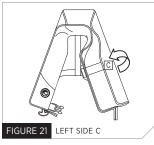
BEFORE FOLLOWING THE REPACKING SEQUENCE, BE SURE TO PROPERLY RE-ARM YOUR INFLATABLE PFD, (SEE RE-ARMING YOUR PFD, P. 9). ENSURE ALL AIR IS REMOVED BEFORE REPACKING.

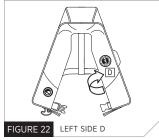
- 1. Lay the PFD on a flat, clean surface (Fig. 18).
- Fold side (A) inward along the full length of the dotted line (Fig. 19). Fold cover (B) over, covering side (A) (Fig. 20).
- 3. Repeat step 2 with side (C) (Fig. 21), cover (D) (Fig.22).
- 4. Fold over the top side (E) (Fig. 23) into thirds, and fold cover (F) back (Fig. 24).

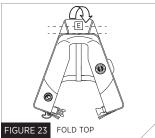


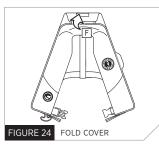


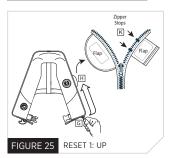


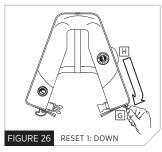






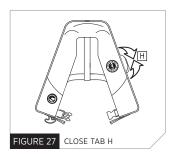


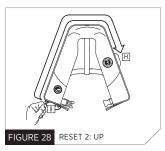


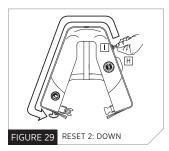


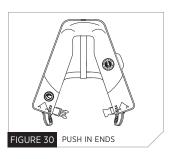
- 5. Mustang Survival uses advanced two-step zippers that can be reset. Reset 1: Pull the slider (G) to the zipper stop (K) and under the Velcro™ tab (H) (Fig. 25). Ensure both zipper stops (K) are in place. Close by pulling the slider (G) in the opposite direction to the end of the zipper (Fig. 26). Ensure that the inflatable cell does not get caught by the zipper when closing.
- 6. Fasten the Velcro<sup>™</sup> tab (H) to keep zipper closed. (Fig. 27)
- Reset 2: Pull the slider (I) to the zipper stop (K), and under Velcro™ tab (H) (Fig. 28). Close by pulling slider (I) in the opposite direction to the end of the zipper (Fig. 29). Ensure that the inflatable cell does not get caught by the zipper when closing.

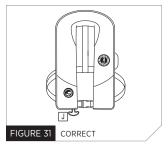
- 8. Use a finger to push the zipper ends into the openings at the bottom of the packed PFD (Fig. 30).
- 9. Ensure the pull-tab (J) is on the outside of the folded PFD. Fig. 31 depicts a correctly folded PFD.











#### SAILING HARNESS

#### WARNING: USE ONLY AS A SAILING HARNESS.

Models with a sailing harness (MD3184) are designed to prevent the user from falling overboard when used with a tether with a quick-release under-load 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 persons at least 5 feet 5 inches tall (165 cm). The harness should be worn as high on the chest as possible, but in all cases, at least two inches (5 cm) above the lowest rib measured from the bottom of the belt. The harness should not be used if it does not fit in this manner. Adjust the harness using the strap adjuster so that the harness is as snug as tolerable.

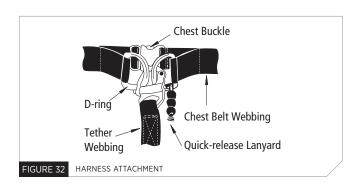
Failure to adjust the harness properly could result in injury.

When attached to the boat use a tether of less than 6 feet 6 inches (2 m) in length with quick-release under-load hardware (Fig. 32).

Ensure that a tether is secured to both D-rings. When not in use, the D-rings can be pushed under the lapels.

WARNING: USE OF A SAILING HARNESS TO PREVENT FALLS OVERBOARD PRESENTS SEVERAL RISKS. IN CASE OF CAPSIZING OR SINKING, THE BOAT MAY TAKE YOU DOWN. 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.

U.S. 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 inflatable 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 (See Readiness Checklist, p. 5). Inspect the inflatable portion of the PFD in accordance with the Care and Maintenance Instructions.

## CARE AND MAINTENANCE INSTRUCTIONS

It is important to care for and maintain your inflatable PFD in order to ensure it will perform as designed when you need it. Keep a record of the inspections performed on your PFD for reference. If you are not confident in the self-inspection and servicing of your inflatable PFD in accordance with these instructions, contact Mustang Survival customer service.

#### INSPECTING YOUR INFLATABLE PED

#### Before Each Use:

Ш	Examine the single point status indicator ensuring it is green. If the indicator is red, your PFD needs to be re-armed (see Re-Arming your PFD, p. 9).
	Ensure the manual pull-tab is accessible.
	Visually examine your PFD for damage or excessive abrasion, wear, tear, or contamination. Particular attention must be paid to the stitching, straps, and hardware. If in doubt, send it to your Mustang dealer for evaluation and/or servicing.

### **Every Six Months:**

In addition to the inspections specified for before each use, perform the following at least every six months, or more often if exposed to potential damage or used in extreme conditions.

□ Leak Test: Your PFD should be tested for leakage by inflating with air until firm and leaving it to stand for at least two hours in a temperature controlled environment. A leaking PFD will not remain firm and should be replaced. If your PFD leaks, contact Mustang Survival customer service.

#### Annually:

In addition to the inspections specified for every six months, perform the following at the beginning of each boating season or whenever the integrity of your inflatable PFD is in doubt:

- ☐ Thoroughly check all components for dirt and/or corrosion. Clean or replace, as necessary. If any item shows signs of damage, perform inspections listed under "Every Six Months." If in doubt, contact Mustang Survival customer service.
- ☐ Ensure the current date is not past the date on the inflator. If it is, replace the inflator (see Re-Arming your PFD, p. 9).

Record as an "Annual" inspection in permanent ink on the Care and Storage label, in the Date Maintained column. Repack the PFD as outlined in the Repacking section, p. 13.

#### SERVICING INSTRUCTIONS FOR UCV OPERATORS

It is the responsibility of the operator to be sure this PFD is in serviceable condition. Refer to Mandatory Carriage Requirements, p. 2. This PFD must also be properly armed with status indicator showing Green on both the inflator cap and body (see Re-Arming Your PFD, p. 9).

### CLEANING AND STORING YOUR PFD

To clean your PFD, hand wash or sponge down in warm, soapy water, taking care not to submerge the inflator. Rinse your PFD with clean water and hang to dry on a plastic coat hanger. Do not dry-clean, use chlorine bleach, or apply direct heat. Always store your fully dried PFD in a warm, dry, well ventilated place out of direct sunlight.

## WHY ARE PFDs REQUIRED SAFETY EQUIPMENT?

Drownings are 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 pounds (3.2 to 5.5 kg) 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, p. 17, for Leak Test).
- · 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**? (MODELS MD3183 and MD3184)

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

- A1. To test your PFD, you will need:
  - · your fully armed PFD.
  - · re-arming kit (MA7214) approved for your PFD.
- A2. Put on the PFD.
- A3. Get into shallow water, just deep enough that you can stand with your head above the surface. Once the inflator is underwater, four inches or so, the Inflatable PFD should fully inflate automatically within 10 seconds.
- A4. 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.
- A5. Get out of the water and remove the PFD.
- A6. Deflate the PFD by depressing the oral inflator valve (see Deflating Your PFD, p. 8). Remove the used inflator.
- A7. Let the PFD dry thoroughly. Re-arm (p. 9) and repack the PFD (p. 13).

#### 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 for models MD3183 and MD3184, MA3181 for model MD3181).

- M1. To test your PFD, you will need:
  - · your fully armed PFD.
  - · re-arming kit approved for your PFD.
- M2. Put on the PFD.
- M3. Actuate the inflation system by jerking firmly downward on the pull-tab. The PFD should fully inflate within five seconds.
- M4. Get into shallow water, just deep enough that you can stand with your head above the surface.
- M5. 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.
- **M6**. Get out of the water and remove the PFD. Completely deflate the PFD using the oral inflator (see Deflating Your PFD, p. 8).
- M7. Let the PFD dry thoroughly. Re-arm (p. 9) and repack the PFD (p. 13).

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

This test is not mandatory, however may be conducted using the following procedure.

WARNING: USE ONLY A PREVIOUSLY FIRED INFLATOR TO PERFORM THIS TEST. DO NOT TEST WITH A FULLY ARMED INFLATOR AS DOUBLE INFLATION MAY OCCUR, POSSIBLY RESULTING IN CELL DAMAGE

- O1. No spare parts are needed to test your PFD.
- O2. Put on the PFD.
- **O3**. Get into shallow water, just deep enough that you can stand with your head above the surface.
- O4. 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 PFD.
- O5. Fully inflate the PFD using the oral inflator.
- O6. 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.
- **O7**. Get out of the water and remove the PFD. Completely deflate the PFD using the oral inflator (see Deflating Your PFD, p. 8).
- **08**. Let the PFD dry thoroughly. Re-arm (p. 9) and repack the PFD (p. 13).

## WFAR 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 noninflatable 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 15-45 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
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 AROUT 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.
- 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.
- Use the standard H.E.L.P. position when wearing a PFD, drawing the legs up to a seated position, because doing so will help you conserve body heat (Fig. 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!
- 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 LIFF

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.
- Get in the habit of re-arming 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.
- 5. 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.
- Do not dry your PFD in front of a radiator or other source of direct heat.

## INFLATABLE PFD SAFETY ACCESSORIES

MA7214 Re-arm Kit contains 33-gram replacement  ${\rm CO_2}$  cylinder inflator for models MD3183 and MD3184.

MA3181 Re-arm Kit contains 33-gram replacement  ${\rm CO_2}$  cylinder inflator for model MD3181.

## 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. To find out about free boating courses in your area call **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.

MODEL MD3184 HAS A BUILT-IN SAILING HARNESS INTENDED FOR ATTACHING TO BOATS WITH QUICK-RELEASE UNDER-LOAD TETHERS SECURED TO BOTH D-RINGS (SEE SAILING HARNESS, P. 16). DO NOT ATTACH THE MD3184 TO BOATS USING ANY OTHER MEANS.

## MUSTANG ENGINEERED

For 50 years Mustang Survival has been engineering highperformance marine gear for military, coast guard, and rescue personnel. With a focus on applied research and field-testing, we're committed to the protection and enhancement of those who push themselves to extremes. We build gear that saves lives and fuels exploration.

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