

FOR MODEL NUMBER MD2020

# OWNER'S MANUAL

MD2020 INFLATABLE PFD CONVERTIBLE INFLATION MODEL

APPROVED BY USCG

WARNING: WHEN ARMED IN MANUAL ONLY MODE, THE MD2020 WILL NOT INFLATE AUTOMATICALLY UPON IMMERSION. TAB MUST BE PULLED TO ACTIVATE INFLATION MECHANISM.

DO NOT REMOVE PRIOR TO SALE HT2020 REV 03SEP2021

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# INFLATABLE FLOTATION DEVICES

Inflatable flotation devices are special devices in that the flotation of the wearer is not derived from inherently buoyant materials. In order for them to do their job, you, the wearer, must do yours! This means you have the responsibility to ensure you are familiar with the operation and maintenance requirements of your flotation device! You must also be aware of the limitations of the device and know that it is not approved under federal regulations for certain boating activities.

READ YOUR OWNER'S MANUAL AND THE INFORMATION LABELS ON YOUR DEVICE! IT COULD SAVE YOUR LIFE!

### WHAT IS AN INFLATABLE FLOTATION DEVICE?

While traditional flotation devices are inherently buoyant, this flotation device relies entirely on inflation for buoyancy. Uninflated, the MD2020 is a comfortable slim collar that can be inflated at any time with a carbon dioxide ( $CO_2$ ) gas cylinder. It is designed to offer maximum mobility with minimum bulk. The MD2020 uses a convertible inflator. Depending on the installed inflator cap, operation and instructions will differ: grey is Automatic Mode, and yellow is Manual Mode. When the grey, automatic cap is installed, the PFD will inflate either automatically during immersion, manually by jerking a pull-tab, or orally (by mouth). When the yellow, manual inflator cap is installed, the PFD will only inflate manually by jerking a pull-tab or orally (by mouth).

# APPROVAL CONDITIONS

This inflatable flotation device is approved by the U.S. Coast Guard for use as a Type II or Type III Personal Flotation Device (PFD) depending on whether the convertible inflator is in Automatic Mode or Manual Mode. It is not approved for water skiing or other high impact, high speed activities. This 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.

## 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
- Which 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 a nonfunctional oral inflation tube.

This PFD must also be properly armed with:

- A full CO2 cylinder
- · An inflation system status indicator
- · 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.

# AIRLINE OPERATOR POLICY ON CARRIAGE OF INFLATABLE PFDS AND CO<sub>2</sub> Cartridges

Please be aware that regulations may apply to the air transport of this product. With the approval of the aircraft operator,  $CO_2$  cylinder(s) may be carried by a passenger or crew in checked or carry-on baggage. Please consult airline operator policy.

# WHY ARE PFDs REQUIRED SAFETY EQUIPMENT?

Drownings are the leading cause of fatalities involving recreational boating. A PFD provides flotation to help keep your head above water, help you to stay face up in the water, and increase your chances for survival and rescue. Most adults only need an extra 7 to 12 pounds (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 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.

# INSTRUCTIONS FOR USE

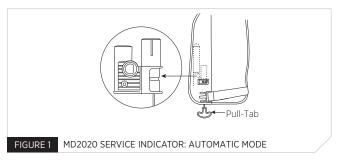
This manual supplies instructional, maintenance, and safety information for model MD2020. The model number is listed on the underside label.

# COMPONENT INSPECTION

Examine the service indicator through the window panel (Fig. 1).
 Ensure the service indicator is green. If the service indicator is red, the mechanism has been fired or is incorrectly fitted (See "Re-arming your PFD in Automatic Mode," page 9, or "Re-arming your PFD in Manual Mode," page 12).

#### THE SERVICE INDICATOR MUST BE GREEN BEFORE PROCEEDING.

- 2. Undo the Velcro™ strips along both sides of the PFD.
- 3. Ensure the oral inflator cap is in the stowed position (Fig. 6).
- 4. Ensure the bobbin is valid. The PFD, or bobbin, must have been purchased within the last three years. If the purchase date is unknown, check the expiration date printed on the bobbin: if the current date is past the printed expiration, replace the bobbin (see "Re-arming Your PFD in Automatic Mode," page 9).
- Ensure the service indicator is green and the pull-tab lanyard is hanging on the outside (Fig. 1); secure the Velcro™ strips on both sides of the PFD.



# READINESS CHECKLIST

check your PFD and ensure all of the checkpoints listed below are true before use:
☐ Service indicator is green.
☐ No rips, tears, or holes; all seams are securely sewn; and the fabric, straps, and hardware are still strong.
$\square$ All Velcro $^{\text{\tiny{M}}}$ are securely fastened.
☐ PFD is not twisted.
$\square$ Oral inflator cap is in the stowed position.
$\square$ Ensure the inflation pull-tab is hanging on the outside (Fig. 1)
☐ Ensure the bobbin is valid. The PFD, or bobbin, must have been purchased within the last three years. If the purchase date is unknown, check the expiration date printed on the bobbin: if the current date is past the printed expiration, replace the bobbin.

CONTACT YOUR MUSTANG SURVIVAL DEALER IF YOU HAVE ANY CONCERNS ABOUT THE READINESS OF YOUR PFD.

(see "Re-arming Your PFD in Automatic Mode," page 9).

# SIZING AND FIT

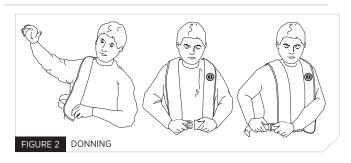
This PFD provides a minimum of 33.7 pounds/15.3 kg (150 Newtons) of buoyancy when inflated and is designed for wearers over 16 years of age, with a chest range of 30-52 inches (76-132 cm) weighing over 80 pounds (36 kg).

# PUTTING ON (DONNING) YOUR PFD

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

- All belts and straps are already threaded correctly and only need to be adjusted for fit. The belt should sit below your rib cage adjusted to a tight personal fit.
- Put the PFD on just like a jacket (Fig. 2) and fasten the front buckle. Adjust the waist belt using the side buckle on the belt, and secure the belt's loose end in the belt loop.

ALWAYS WEAR INFLATABLE PFDs OVER CLOTHING (AS THE OUTERMOST LAYER) TO AVOID RESTRICTED INFLATION, WHICH COULD CAUSE PERSONAL INJURY TO YOU AND/OR DAMAGE TO YOUR PFD.

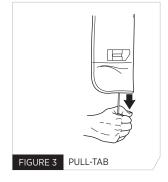


# INFLATING YOUR PFD

Follow the below procedures to inflate your PFD:

#### 1. Manual Inflation

Activate the inflation system by jerking firmly downward on the pull-tab (Fig. 3). The PFD should fully inflate within five seconds.



### Automatic Backup Inflation (only when the grey automatic inflator cap is installed)

Inflation will occur automatically within ten seconds after the inflator is immersed in water. The water-sensing bobbin will disintegrate, triggering a spring-loaded plunger, which punctures the  ${\rm CO_2}$  cylinder (Fig. 8) to inflate the PFD.

Once the PFD is inflated,  ${\rm CO_2}$  will slowly escape through the fabric over time. You will notice a slight reduction of pressure after several hours of inflation. In the event of very prolonged immersion, you may have to top up by oral inflation.

SEE SPECIAL CONSIDERATIONS FOR CONVERTIBLE (AUTOMATIC/MANUAL) INFLATORS

#### 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. 4) should inflation not occur, or if you are in a non-emergency situation.

To orally inflate the PFD, first locate the oral inflation tube by opening your left front panel. Remove the cap from the end of the oral tube and blow into the tube until the PFD is fully inflated. Place the oral tube cap back in the stowed position (Fig. 6).



#### AVOID DOUBLE INFLATION!

DO NOT MANUALLY OR AUTOMATICALLY ACTIVATE THE INFLATOR WHEN YOUR FLOTATION DEVICE IS FILLED WITH AIR. DOING SO WILL RESULT IN EXCESSIVELY HIGH PRESSURE WITHIN THE INFLATION CHAMBER, WHICH MAY CAUSE PERMANENT DAMAGE TO YOUR DEVICE AND/OR EXTREME DISCOMFORT TO YOU.

# SPECIAL CONSIDERATIONS FOR CONVERTIBLE (AUTOMATIC/MANUAL) INFLATORS

The PFD might not be armed when needed, either knowingly by the user or unknowingly. It is important to know in which inflation mode your PFD is configured each time you use it. When the PFD is in Automatic Mode, premature inflation may occur in certain conditions, including when the device is subjected to heavy splashing, high humidity, heavy fog, and heavy rain. Care and attention should be taken to ensure that when the device is used in these types of conditions, auto-inflation does not occur prematurely.

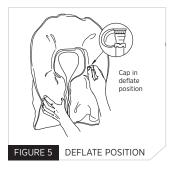
Much less common but also important are: inadvertent inflation when stored in a tight space, which could damage the PFD; and inadvertent inflation when you are in an awkward place or position.

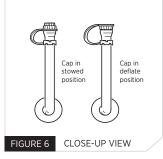
If this PFD should inflate prematurely or inadvertently, a re-arm kit (MA7113) is required to re-arm the device.

ALWAYS RE-ARM YOUR PFD ACCORDING TO THE INSTRUCTIONS (SEE "RE-ARMING YOUR PFD IN AUTOMATIC MODE," PAGE 9).

### **DEFLATING YOUR PED**

- 1. To deflate the PFD, reverse the oral inflator cap and insert it into the valve. The cap will not lock in the deflate position so you must hold it in place (Fig. 5).
- Gently squeeze the PFD until all air or gas has been expelled.To avoid damage do not wring or twist the PFD. Put the oral inflator cap back in its stowed position on the oral inflator (Fig. 6).





 Examine the service indicator (Fig. 1). If the service indicator is red, the mechanism has been fired or is incorrectly fitted and the inflator requires service (see "Re-arming your PFD in Automatic Mode," page 9, or "Re-arming your PFD in Manual Mode," page 12).

#### THE SERVICE INDICATOR MUST BE GREEN BEFORE PROCEEDING.

4. Your device is ready to be repacked (see "Repacking Your PFD," page 14).

### CONVERTING YOUR PFD

To convert your PFD, you will need:

- Grey inflator cap (Automatic Mode)
- Yellow inflator cap (Manual Mode)
- Yellow bobbin supplied with your device

#### CONVERTING TO AUTOMATIC MODE (GREY INFLATOR CAP)

1. Open inflator cover flap to expose the inflator.

#### IF THE GREY CAP IS INSTALLED, THE PFD IS ALREADY IN AUTOMATIC MODE.

- If the yellow inflator cap is installed, remove cap by turning it counterclockwise.
- Check housing to be sure it is clear and dry. If necessary, rinse the inflator housing with fresh water to remove dirt and salt. Let dry before proceeding to step 4.
- 4. Inspect the yellow bobbin. If the bobbin has been fired or damaged, replace it! Ensure the bobbin is valid: check the expiration date printed on the bobbin: if the current date is past the printed expiration, replace the bobbin.
- 5. IMPORTANT! The yellow bobbin must be installed into the housing (Fig. 7), white side up, aligning the slots on the bobbin with the ridges inside the threaded housing. The bobbin will slide in.
- 6. Install the grey cap by screwing it into the housing: turn it clockwise until it meets the housing shoulder.
- 7. Check that the cylinder is in place and secure by turning it clockwise.
- 8. Store the unused yellow manual inflator cap in the PFD waist pocket.

#### CONVERTING TO MANUAL MODE (YELLOW INFLATOR CAP)

1. Open inflator cover flap to expose the the inflator.

#### IF THE YELLOW CAP IS INSTALLED, THE PFD IS ALREADY IN MANUAL MODE.

- If the grey inflator cap is installed, remove cap by turning it counterclockwise.
- Remove yellow bobbin from cap or housing unit. If bobbin is unused, store in a dry location. If bobbin is used, discard.
- 4. Check housing to be sure it is clear and dry. If necessary, rinse the inflator housing with fresh water to remove dirt and salt. Let dry before proceeding to step 5.
- Install yellow inflator cap by screwing it into the housing: turn it clockwise until it meets the housing shoulder.
- 6. Check that the cylinder is in place and secure by turning it clockwise.
- 7. Store the unused grey automatic inflator cap in the PFD waist pocket.

## RE-ARMING YOUR PFD IN AUTOMATIC MODE

A re-arm kit (MA7113) with a valid (unexpired) bobbin (check re-arm kit packaging) is required for this procedure. These re-arm instructions are only valid when grey automatic inflator cap is installed.

Follow instructions in the exact sequence below:

- 1. Open the inflator cover flap to expose the inflator (Fig. 7).
- 2. Unthread the cylinder by turning it counterclockwise.
- 3. Remove cap by turning it counterclockwise.
- 4. Remove bobbin from cap or housing unit. Discard bobbin.

THE YELLOW BOBBIN MAY REMAIN IN THE HOUSING OR IN THE CAP ASSEMBLY WHEN YOU REMOVE THE CAP. ENSURE BOBBIN HAS BEEN REMOVED PRIOR TO RE-ARMING.

5. Check the housing to be sure it is clear and dry. If necessary, rinse the inflator with fresh water to remove dirt and salt. Let dry before going to step 6.

- Ensure the new bobbin is valid. Check the expiration date printed on the bobbin: If the current date is past the printed expiration, replace the bobbin.
- IMPORTANT! Bobbin (yellow) must be installed into the housing (Fig. 7), white side up, aligning the slots on the bobbin with the ridges inside the threaded housing. The bobbin will slide in.
- 8. Install the grey cap by screwing it into the housing: turn it clockwise until it meets the housing shoulder.
- Check the new cylinder. Ensure that the CO<sub>2</sub> cylinder has not been pierced (Fig. 8).
- Push, and hold, the lever into the inflator housing.
   Install a new cylinder by turning clockwise to a full stop.

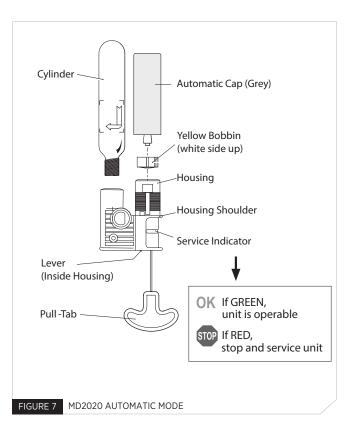
#### CYLINDER MUST BE TURNED TO A FULL STOP OR THE DEVICE WILL NOT INFLATE.

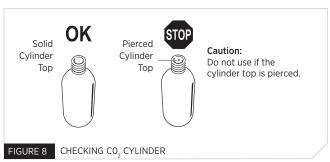
 Examine the service indicator (Fig. 7) and ensure it is GREEN. If the service indicator is red, the mechanism has been fired or is incorrectly fitted and the inflator requires service.

#### THE SERVICE INDICATOR MUST BE GREEN BEFORE PROCEEDING.

12. Refold the PFD in accordance with the Repacking section (see "Repacking Your PFD," page 14).

Your MD2020 inflatable PFD is now ready for manual use with automatic back up.





## RF-ARMING YOUR PED IN MANUAL MODE

A re-arm kit (MA7113) is required for this procedure. These re-arm instructions are only valid when yellow manual inflator cap is installed.

Follow instructions in the exact sequence below:

- 1. Unpack or open the PFD to expose the inflator (Fig. 9).
- 2. Unthread the used cylinder by turning it counterclockwise.
- 3. Check the new cylinder to ensure that it has not been pierced (Fig. 8).
- 4. Push, and hold, the lever into the inflator housing. Install a new cylinder by turning clockwise to a full stop.

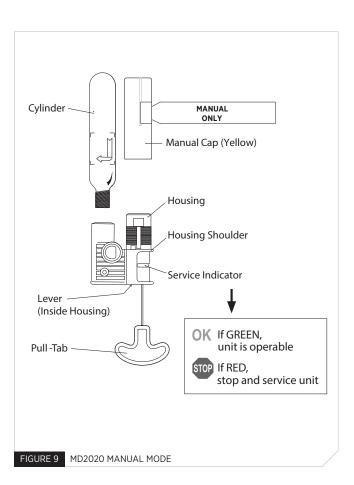
#### CYLINDER MUST BE TURNED TO A FULL STOP OR THE DEVICE WILL NOT INFLATE.

Examine the service indicator (Fig. 9) and ensure it is GREEN. If the service indicator is red, the mechanism has been fired or is incorrectly fitted and the inflator requires service.

#### THE SERVICE INDICATOR MUST BE GREEN BEFORE PROCEEDING.

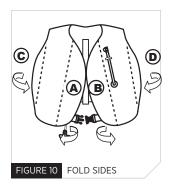
6. Refold the PFD in accordance with the Repacking section (see "Repacking Your PFD," page 14).

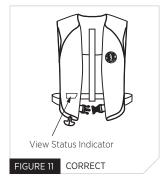
Your MD2020 inflatable PFD is now ready for manual use.



### REPACKING YOUR PED

Repack only after deflating and re-arming the PFD.





- Fold sides (A) and (B) outward and (C) and (D) inward along dotted lines. Secure with Velcro™ (Fig. 10).
- 2. Make sure inflator status indicator is viewable through window.
- 3. Make sure the inflator pull-tab is on the outside of the folded PFD. Fig. 11 depicts a correctly folded PFD.
- If the device is armed in Manual Only mode, make sure to extend the inflator cap "Manual only" flag to the outside of the device through the Velcro™.

# IS YOUR PFD IN GOOD AND SERVICEABLE CONDITION?

Check your PFD between outings to be sure that it is properly armed; that it is free of rips, tears, or holes; that all seams are securely sewn; and that the fabric, straps, and hardware are still strong (see "Readiness Checklist," page 4). Inspect the inflatable portion of the PFD in accordance with "Care and Maintenance," page 15.

### LISING VOLIR DEVICE IN COLD TEMPERATURES

As temperatures approach freezing, your flotation device will provide less buoyancy and will inflate more slowly. At temperatures near freezing, the device should be worn partially inflated with the  $\rm CO_2$  cylinder to ensure that some buoyancy is immediately available to you if you fall overboard. The oral inflator can then be used to adequately top up the flotation device after  $\rm CO_2$  inflation.

IN COLD, ONLY PARTIALLY INFLATE! DO NOT FULLY INFLATE THE DEVICE ORALLY AND THEN ACTIVATE THE CO<sub>2</sub> CYLINDER. THE RESULTING OVERPRESSURE COULD SERIOUSLY DAMAGE THE DEVICE, RESULTING IN LOSS OF FLOTATION.

In temperatures below freezing, flotation devices that inflate are not recommended.

# CARF AND MAINTENANCE

It is important to care for and maintain your flotation device in order to ensure it will perform as designed when you need it. We suggest you keep a record of the inspections performed on your flotation device – using permanent ink on the Care and Storage label below the oral inflation tube. If you are not confident in the self-inspection and servicing of your flotation device in accordance with these instructions, contact Mustang Survival Customer Service.

You are required to check this flotation device:

- Before each use (component inspection)
- At the beginning of each boating season, and then every six months after (leak test and thorough visual examination)
- After each inflation (perform re-arm)

# **BEFORE EACH USE**

- 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 in Automatic Mode," page 9, or see "Re-arming Your PFD
  in Manual Mode," page 12).
- Ensure the manual pull-tab is accessible.
- Visually examine your PFD for damage or excessive abrasion, wear, tear, and/or contamination. If any item shows signs of damage, perform tasks listed in "Beginning of Boating Season and Every Six Months," page 16.

## BEGINNING OF BOATING SEASON AND EVERY SIX MONTHS

In addition to the inspections specified for before each use, perform the following at least at the beginning of each boating season and/or every six months. (or more often if exposed to potential damage or used in extreme conditions.)

When completing this check at the beginning of the season, record as an "Annual Inspection," noting the date in permanent ink on the Care and Storage label, in the Date Maintained column. Repack the PFD as outlined in the Repacking section, page 14.

#### · Component Inspection

Thoroughly check all components for dirt and/or corrosion. Clean or replace, as necessary. If in doubt, contact Mustang Survival Customer Service

#### Leak Test

Orally inflate your PFD until firm and let stand for at least two hours, ideally overnight (16 hours), in a temperature stable environment. A leaking PFD will not hold its firmness and should be replaced. If your PFD leaks, contact Mustang Survival Customer Service.

AFTER THE LEAK TEST, DEFLATE THE PFD TO CHECK THE COMPONENTS BEFORE REPACKING.

#### · Cylinder Inspection

Unthread the  $CO_2$  cylinder by turning it counterclockwise, then remove and inspect the small end to ensure it is not pierced. Re-install the unused  $CO_2$  cylinder by pressing the manual inflator arm up into the housing, and screwing the cylinder in clockwise so it is hand-tight.

#### Bobbin Inspection

Remove the automatic inflator cap (grey) by turning it counterclockwise, and remove the bobbin from the inflator housing. Check that the white "pill" in the bobbin is still intact; replace if damaged. Ensure the current date is not past the expiration date printed on the bobbin. Place the valid bobbin back in the housing (it will slide in easily in the correct orientation) and screw the cap back on clockwise, until it is stopped by the housing shoulder.

Verify the service indicator is green, and repack the device.

# CLEANING AND STORING YOUR PED

To clean your PFD, hand wash or sponge down with warm, soapy water, taking care not to expose the inflator to water. Rinse your PFD with clean water, taking care to avoid the inflator (in particular the bobbin), 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.

# HOW AND WHY TO TEST YOUR PFD

An inflatable device does not have inherent buoyancy, meaning that it must be inflated to provide flotation. You must understand how to arm, inflate, and maintain your inflatable device. Familiarize yourself with the use of your flotation device so you know what to do in an emergency.

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

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

#### Make sure it floats you

- Comfortably (when worn properly)
- Adequately for expected wave conditions (body shapes/densities affect performance)

#### Make sure it works

- A flow of bubbles should not appear (See "Care and Maintenance/ Beginning of Boating Season and Every Six Months," page 16, for Leak Test)
- · It should inflate quickly and easily

#### Learn how it works

- Activate the CO<sub>2</sub> inflation system
- Re-arm the  ${\rm CO_2}$  inflation system
- · Use the oral inflation tube

To properly test your flotation device and to ensure you have a replacement re-arming kit, it is recommended that you should purchase two re-arming kits: one to be used immediately in testing the inflator in Automatic Mode or Manual Mode, and the other to carry on board as a spare. Remember you must re-arm your flotation device after discharging the CO<sub>2</sub> cartridge.

# HOW TO TEST YOUR FLOTATION DEVICE WITH THE INFLATOR IN AUTOMATIC MODE

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

To test your flotation device, you will need:

- your fully armed device
- the re-arming kit approved for your device (MA7113)
- A1. Put on the flotation device.
- **A2.** Get into shallow water, just deep enough that you can stand with your head above the surface. Once the inflator is underwater, the flotation device should fully inflate automatically within ten seconds.
- A3. See if the flotation device will float you on your back or just slightly back of vertical. In a relaxed floating position, verify that your mouth is well above the water's surface. Note the effect of where you hold your legs on how you float.
- **A**4. Get out of the water and remove the flotation device. Remove the used CO<sub>2</sub> cylinder/bayonet assembly and the used bobbin from the flotation device.
- **A5**. Deflate the flotation device by depressing the oral inflation tube (see "Deflating Your PFD," page 7).
- A6. Let the flotation device dry thoroughly. Re-arm and repack the flotation device (see "Re-arming Your PFD in Automatic Mode," page 9; see "Repacking Your PFD." page 14).

# HOW TO TEST YOUR FLOTATION DEVICE WITH THE INFLATOR IN MANIAL MADE

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

To test your flotation device, you will need:

- · your fully armed device
- the re-arming kit approved for your device (MA7113)
- M1. Put on the flotation device.
- M2. Activate the inflation system by jerking firmly downward on the pull-tab. The flotation device should fully inflate within five seconds.
- **M3**. Get into shallow water, just deep enough that you can stand with your head above the surface.
- M4. See if the flotation device will float you on your back or just slightly back of vertical. In a relaxed floating position, verify that your mouth is well above the water's surface. Note the effect of where you hold your legs on how you float.
- M5. Get out of the water and remove the flotation device. Remove the CO<sub>2</sub> cylinder/bayonet assembly from the inflator. Completely deflate the flotation device using the oral inflation tube (see "Deflating Your PFD," page 7).
- **M6.** Let the flotation device dry thoroughly. Re-arm and repack the flotation device (see "Re-arming Your PFD in Automatic Mode," page 9, or see "Re-arming Your PFD in Manual Mode," page 12; see "Repacking Your PFD." page 14).

## HOW TO TEST YOUR FLOTATION DEVICE WITH THE ORAL INFLATOR

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

You will not need any spare parts, or re-arming kits, to test your flotation device with oral inflation, and it gives you the opportunity to learn about how much inflation is needed to float you.

- O1. Remove the CO<sub>2</sub> cylinder/bayonet assembly to prevent inadvertent inflation, which could potentially damage the PFD. Inspect the cylinder to confirm it is unused (Fig. 8). Unscrew and remove the cap and the bobbin. Otherwise the bobbin will disintegrate during water immersion.
- O2. Put on the PFD.
- **O**3. 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 orally without touching bottom. Note this level of inflation because it is the minimum needed for you to safely use this PFD.
- **O**5. 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.
- **07**. Get out of the water and remove the PFD. Completely deflate the PFD using the oral inflator. Let the PFD dry thoroughly. Re-arm and repack the PFD.

# CHOOSE A FLOTATION DEVICE THAT YOU WILL WANT TO WEAR

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

# COLD SHOCK

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

# HYPOTHERMIA

Prolonged immersion in cold water (after one hour or more) leads to a loss of body heat. Over time (depending on water temperature, body type, and thermal protection) the core temperature of the body decreases. This produces a condition called hypothermia, which is very serious and can lead to unconsciousness and circulatory failure.

Swimming and treading water accelerates heat loss. Wearing a flotation device is essential to help you conserve body energy and increase your survival time. It enables you to float quietly and curl up arms and legs in a Heat Escape Lessening Posture (HELP) with the head out of water, reducing heat loss from the head, under the arms, and the groin area (see "HELP," Fig. 12). If there is more than one person in the water, gathering together in a huddle is recommended while waiting to be rescued (see "Huddle," Fig. 12).

Preparation, good safety practices, and strong spirit are the keys to survival. Stay calm and don't give up.



# THIS DEVICE IS DESIGNED TO HELP YOU SAVE YOUR OWN LIFE

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

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

# SAFETY ACCESSORIES

MA7113 Re-arm kit: contains 33-gram replacement  $CO_2$  cylinder and bobbin.

# ADDITIONAL INFORMATION

If you need more information about PFDs and safe recreational boating, contact your state boating authority, U.S. Coast Guard Auxiliary, U.S. Power Squadron, Red Cross, or your nearest unit of the U.S. Coast Guard; or call the free boating course number 1-800-336-BOAT (in VA, 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.

# MUSTANG ENGINEERED

For 50 years Mustang Survival has been engineering high-performance 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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