

## Harbour Air Individual Flotation Device (IFD)

### User Manual

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## INTRODUCTION

### Description

This manual provides instructions and guidelines for safely using and maintaining Harbour Air's MD3080 Individual Flotation Device (IFD). The MD3080 has been designed specifically to be used within an overwater aviation environment (Figure 1).



**Figure 1 – MD3080- Harbour Air Individual Flotation Device**

The MD3080 is comprised of the MA3078 outer pouch (Figure 2) and MA3079 bladder (Figure 3). There is also an optional waist belt extender (MA3077) that can be ordered and stowed separately when not in use (Figure 4).

**>>WARNING<< Do NOT inflate the IFD while inside an enclosed cabin/space as that will prevent or severely inhibit emergency egress.**

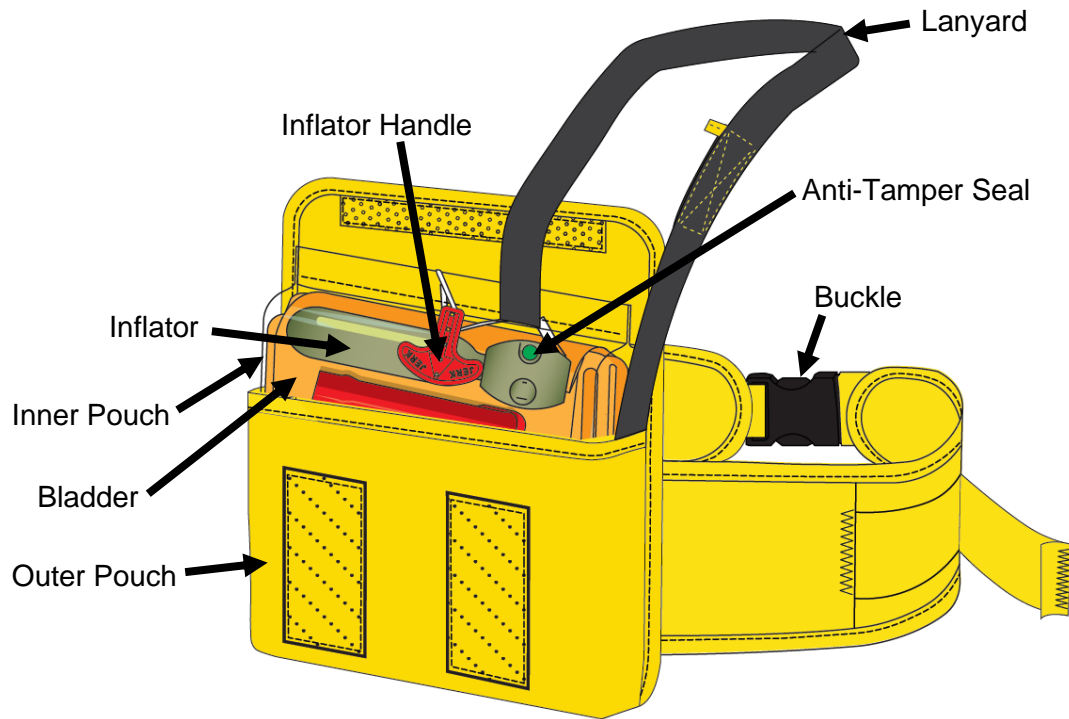


Figure 2 – MD3080 Comprising of outer pouch (MA3078), and sealed inner pouch with bladder (MA3079)



Figure 3 – Inflated Bladder (MA3079)



**Figure 4 – Waist Belt Extender (MA3077)**

List of Parts:

<b>MD3080 – Individual Flotation Device (IFD)</b>
MA3077 – Waist Belt Inflatable IFD Belt Extender for MA3078
MA3078 – TSO-C72C WAIST BELT INFLATABLE IFD OUTER POUCH
MA3079 - TSO-C72C WAIST BELT INFLATABLE IFD BLADDER

The MD3080 is intended to be worn around the waist of the user. The MD3080 can be inflated manually by pulling upwards on the red manual inflation handle or by oral inflation. Once inflated, the IFD bladder's handles are held by the user and they can insert their arms through the arm bands. The bladder is attached to the outer pouch by a lanyard.

When worn, used, and serviced according to the instructions in this manual, the Harbour Air MD3080 Individual Flotation Device (IFD) can greatly increase a user's chance of survival in the water.

### Installation Instructions/Considerations

There are no installation instructions for the Harbour Air IFD. Instructions for donning and usage are given in the following sections. The IFD is intended to be worn around the user's waist and thus it is not necessary to install into an aircraft or vessel. That does not preclude the possibility of creating provisions for installation, but it is not covered under this approval. The IFD has a label as shown below, which indicates the Date of Manufacture and SN for tracking maintenance. Additionally, there is an optional Radio Frequency Identification chip (RFID) inside the inner pouch for users who wish to use one.



**Figure 5 – IFD Label**

### Approval

MD3080 Individual Flotation Device (IFD) is approved to TSO-C72c. The approval is issued by Transport Canada Aviation.

## WEARING THE IFD

1. Open the waist belt buckle.
2. Loosen the waist belt on both left and right sides.
3. Wrap belt around waist and close quick release buckle to secure the IFD pouch waist belt.
4. Adjust waist belt on both the left and right sides to ensure a snug comfortable fit.
5. Slide the webbing keepers on the waist belt towards the loose ends to reduce the length of the webbing's free end.
6. The IFD can be worn in front or around the back.
7. In case of emergency, follow all safety instructions. **DO NOT** undo the IFD waist buckle.
8. Once outside of any enclosed cabin/space, the IFD can be inflated manually.

*CAUTION - To avoid injury to the user or damage to the IFD, the IFD should never be worn under clothing or anything else that might restrict inflation.*

## INFLATING THE IFD

### Manual Inflation

To manually activate the inflator, jerk the red manual inflation handle upwards, ensuring the lanyard extends fully. Note: If the IFD is worn on the back of the waist during normal procedures move it around to the front of the waist for ease of inflation. Manually activating the inflator releases CO<sub>2</sub> gas into the inflation cell, rapidly inflating the IFD. The IFD should inflate within five seconds.

If the IFD does not completely exit its innermost plastic pouch, this pouch can be torn by hand along the edge of the pouch's seal to aid removal of the IFD bladder.

**>>WARNING<< Do NOT inflate the IFD while inside an enclosed cabin/space as that will prevent or severely inhibit emergency egress.**

*CAUTION: If the MD3080 has already been orally inflated, subsequent CO<sub>2</sub> inflation could over-pressurize and damage it.*

### Oral Inflation

Although a properly armed IFD will correctly inflate manually, the inflation CO<sub>2</sub> can diffuse slowly through the bladder fabric and a slight reduction in pressure in the bladder is apparent several hours after inflation. Therefore, oral top-up inflation may be required during prolonged immersion or in a non-emergency or extreme cold situation.

To orally inflate the IFD:

1. If necessary, open the top flap on the IFD outer pouch and remove the inner sealed pouch containing the IFD. Tear open the innermost pouch, unfold the bladder.
2. Locate the oral inflator tube.
3. Remove the cap on the oral inflator tube.
4. Using your mouth, blow into the tube until the IFD is fully inflated.
5. To deflate, reverse the cap on the oral tube and use it to depress the valve in the oral tube.

### Special Considerations

Inflation of the IFD may create a risk of damage under the following circumstances:

- Double inflation—CO<sub>2</sub> cylinder inflation after full oral inflation.
- Inflation while stored in a tight space.
- Inflation while on the user in an enclosed or confined space.
- Inflation while in an awkward place or position.

*NOTE: When using the MD3080 in temperatures below freezing, fully discharging the CO<sub>2</sub> cylinder may not provide complete inflation. To compensate, use the oral inflator tube to top-up the IFD.*

*NOTE: When temperatures are extremely cold (below -30°C) the IFD must be inflated while in the water, not in the open air.*

**>>WARNING<< Do NOT inflate the IFD while inside an enclosed cabin/space as that will prevent or severely inhibit emergency egress.**

Should there be a need to separate the bladder from the outer pouch due to snag, entrapment or premature inflation inside an enclosed cabin, the user can pull on a yellow finger loop located along the black webbing, peeling the hook and loop fasteners apart (Figure 6). This will separate the bladder from the waist pouch.



Figure 6 – Pull finger loop to separate IFD bladder from outer pouch



## OPERATING THE IFD IN THE WATER

Once the IFD has been inflated by manual or oral inflation, orient the IFD so its lobes face towards you. Insert your arms through the arm straps on either the top or bottom of the bladder and firmly hold it by the handles located on the edges of the IFD bladder.

While the IFD bladder is reversible with arm straps located on both the top and bottom, the oral inflation tube is located only on the top of the bladder. Ideally, once in the water you are facing towards the oral inflation tube and the safety whistle should they be needed (Figure 7).

It may be necessary to jump into the water with the device either stowed, deflated or inflated (maximum height of 3 meters inflated). The MD3080 provides approximately 35 lbs of flotation when inflated.



Figure 7 – Using IFD in the water

## MAINTENANCE

### Cleaning of the IFD

Do not dry clean your IFD.

To clean the outer pouch of the IFD:

- Open flap of outer pouch.
- Remove inner pouch.
- Disconnect inner and outer pouch at snap and D-ring (shown in Figure 8 below) along webbing inside outer pouch.
- Hand wash or sponge down the outer pouch in warm, soapy water.
- Rinse the outer pouch with clean water.
- Hang the outer pouch to dry on a plastic coat hanger.

To clean the inner pouch:

- Sponge down the inner pouch exterior with a wet soapy cloth. Do not saturate the edge of the inner pouch above the heat seal line as this can allow unwanted moisture to penetrate the IFD bladder packaging.
- Hand wash or sponge down the exposed lanyard with warm, soapy water.
- Hang the inner pouch to dry on a plastic coat hanger.



Figure 8 – Snap and D-Ring

### Storage

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

## INSPECTION

### Daily Inspection

1. Visually inspect the outer pouch for obvious damage (e.g. puncture, tear, swelling, etc.). If the outer pouch is obviously damaged, it will be necessary to open the outer pouch and conduct further inspection of the inner packaged contents (See *Inspection* below).
2. Ensure the red inflator lanyard extends out of the top flap of the pouch.

### After Any Inflation Event

1. After each field-use inflation event, the MD3080s are to be returned to Harbour Air for inspection and recertification.

### Annually

In addition to the inspection specified before each use, perform the following at least every year or more often, if exposed to potential damage or used in extreme temperature conditions.

1. Open the top flap of the pouch, remove the inner package from the pouch.
2. Visually confirm that the anti-tamper seal that crosses the inflator lever arm is present and secure. It is not necessary to open the inner package. The presence of the anti-tamper seal indicates that the inflator's lever arm has not moved since the device was last armed and that it is ready for use.
3. If the anti-tamper seal is dislodged or missing, return the IFD to Harbour Air for inspection and recertification prior to further use.
4. Inspect the inner pouch to ensure it is not torn or punctured. If the inner pouch is damaged, return the IFD to Harbour Air for inspection and recertification prior to further flight.
5. If there is no obvious damage to the inner pouch and the anti-tamper seal is secured across the lever arm, the device is ready for service.
6. Visually inspect the outer pouch for obvious damage (e.g. puncture or tear). If outer pouch is damaged, replace with new outer pouch. The sealed inner pouch and the outer pouch can be separated for replacement by detaching the snap from the d-ring shown in Figure 8.
7. Prior to replacing the inner pouch into the outer pouch ensure that the snap assembly secures the lanyard through the d-ring.
8. Ensure that the lanyards are secured by the hook and loop at the finger pull loop (Figure 6).
9. Insert the inspected inner pouch in the outer pouch such that the inflator handle extends outside the flap, as shown below:



Figure 9 – Inflator Handle Position

## 5 Year Inspection

After every 5 years or after an inflation event the IFD is to be returned to Harbour Air for inspection and recertification.

## WARRANTY

Warranty Period: One year: Inflatable flotation (Industrial/Commercial Use)

### What our warranty covers:

Products with defects in materials or workmanship will be replaced or repaired at the discretion of Harbour Air for the defined warranty period of the product.

The warranty excludes products damaged due to normal wear and tear, unauthorized modifications or alterations, improper use, improper maintenance, accident, misuse, negligence, damage, or if the product is used for a purpose for which it was not designed, or used not in accordance with the product instruction. Unauthorized product modification automatically voids the Harbour Air warranty. Damage due to wear and tear may be repaired at a reasonable charge.

Harbour Air will use reasonable discretion to determine the validity of warranty claims. Each situation is different and is up to the discretion of Harbour Air to determine whether a product has a manufacturing defect or if it is suffering wear and tear. In the case that a product does have a manufacturing defect deemed by Harbour Air and is repairable, Harbour Air may choose to not replace but to repair the product free of charge. The decision on whether to repair or replace a product is solely up to the discretion of Harbour Air.

The warranty applies to the original purchaser only and proof of purchase is required. Harbour Air products purchased from unauthorized retailers, online auction sites, or as second-hand items are not covered under warranty.

The only obligation or liability of Harbour Air under this limited warranty is to repair or replace the product and Harbour Air shall not, under any circumstances be liable for loss of use or any consequential damages sustained by the Customer. All other warranties expressed or implied, and remedies with respect to the condition or use of the product, which might otherwise be provided by law in any jurisdiction, are specifically excluded.

This warranty applies to commercial products. The warranty for products supplied under government contracts depends solely on the warranty agreed to as part of that contract.

## CONTACT

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