

**TYPE 2 PBE USER MANUAL
FOR P/N: 6483-001**

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1. EQUIPMENT OVERVIEW

1.1. Product Description

The Type 2 protective breathing equipment (PBE) is designed to feel and operate like the real device in order to train for emergencies in a safe, controlled environment. The training PBE includes a rear actuation pin, and a simulated weighted O₂ generator for realism. The hood is similar in shape, colour, and weight to the OEM PBE.

This PBE is designed with durable materials in order to withstand the wear and tear it will experience during repeated use in a training environment. The actuation pin can be reset without the need for tools, and the device can be completely dismantled for easy cleaning between uses. Tulmar Safety Systems is also able to provide repairs to the textile portion of the PBE and replace parts that experience wear through repeated use.

The neck seal for this unit is available in latex free EPDM material or latex based variants.

1.2. Parts and Features

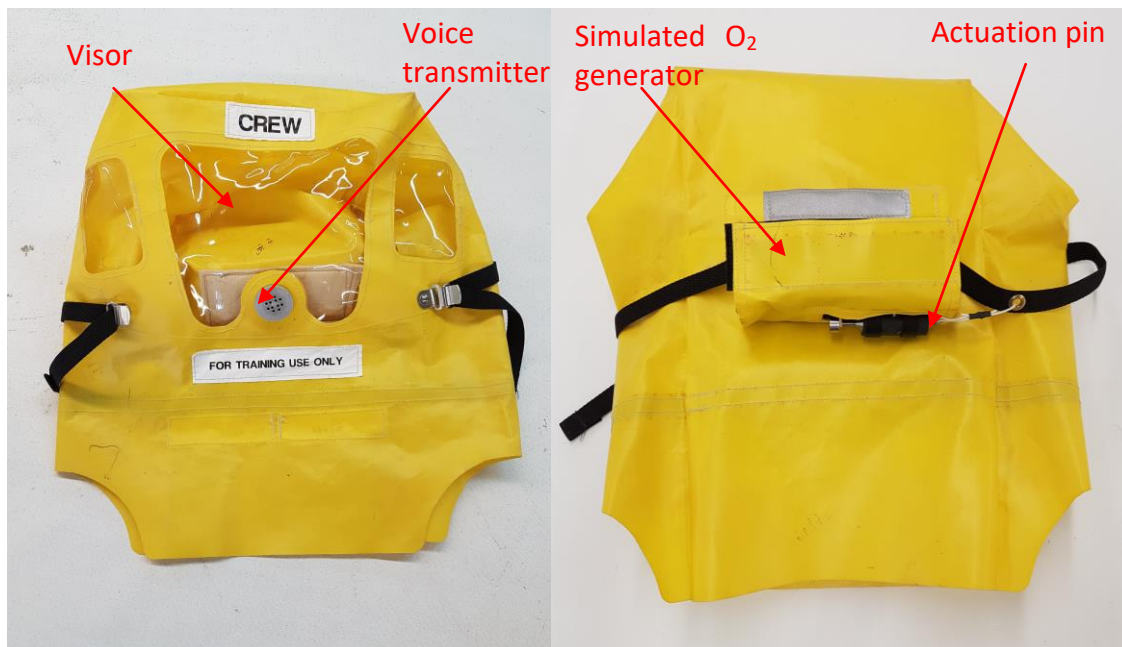


Figure 1: Type 2 PBE front and back views

2. SAFETY PRECAUTIONS

This device is intended for training and simulation purposes under the supervision of a trainer knowledgeable in its use only, and will not provide protection from smoke inhalation or toxic gases in the event of a real emergency. Do not block or cover ventilation holes during training exercises.

3. OPERATION

3.1. Removal from Storage and Donning

1. If the PBE is stored in the box assembly, open the box by pulling outwards on the red strap attached to the Lexan cover (Figure 2). Then, open the flap by pulling down on the red tab (Figure 3).

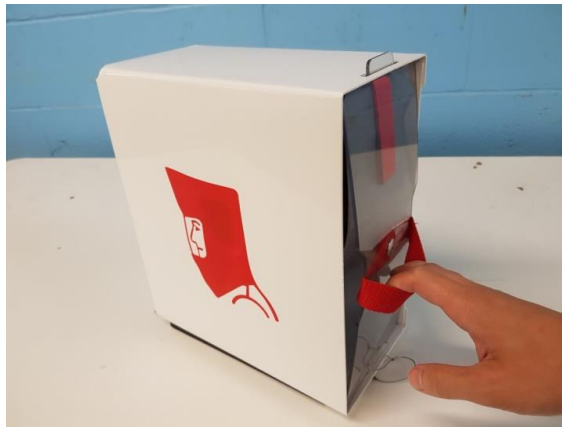


Figure 2: Removal of Lexan cover from box assembly, 6438-301 shown



Figure 3: Opening of flap in box assembly, 6438-301 shown

2. If the PBE is in the re-useable pouch, open the pouch by pulling on the white 'PULL' label on the Velcro strip along the top of it, then remove the hood (Figure 4).



Figure 4: Removing PBE from re-useable pouch

3. Hold the smoke hood in front of you, stretching the neck seal open with both hands (Figure 5).



Figure 5: Neck seal stretched open

4. Pull the hood over your head, making sure to align the nose cone with your nose and mouth.
5. Grab the ends of the two adjustment straps and pull outwards sharply, parallel to the ground. This will pull out the actuation pin, simulating activation of a functional PBE.

3.2. Operation

1. Once the user is wearing the hood, you can follow your standard training procedure.
2. After your training exercise is complete, loosen the adjustment straps and remove the device by grabbing the back of the hood and pulling forwards off your head.

4. CARE AND BASIC MAINTENANCE

4.1. Care after Use

4.1.1. Disinfection

The nose cone, neck seal, and facial contact area in the front of the hood should be disinfected with alcohol between uses to ensure the health of the trainees.

4.1.2. Storage

The PBE should be stored in a protective container to prevent damage when not in use. If you have the re-useable pouch and/or the box assembly, the device can be stored within by following the instructions below. If your kit does not include the re-useable packaging, the PBE can be folded in half and stored in a 16" by 20" re-sealable plastic bag.

The activation mechanism should be reset by pressing in on the plunger (Figure 6) and reinserting the actuation pin in order to store the device in a ready to use configuration.



Figure 6: Activation mechanism plunger depressed to reveal hole for actuation pin reset

1. Place the device face down on a flat surface.
2. Fold the bottom edge of the device upwards to meet the bottom of the simulated O₂ generator (Figure 7).



Figure 7: Folding bottom of PBE upwards

3. Fold the top edge of the device downwards to meet the top of the O₂ generator (Figure 8).



Figure 8: Folding top of PBE downwards

4. Fold the sides of the hood inwards around the simulated O₂ generator (Figure 9).



Figure 9: Fully folded PBE

5. Place the folded hood into the re-useable pouch and seal the Velcro strip (Figure 10: PBE inside re-useable pouch).



Figure 10: PBE inside re-useable pouch

6. Insert the hood and pouch into the box assembly with the opening of the pouch facing upwards, and close the flap by attaching the Velcro strip above the red tab to the mating strip at the top of the box assembly (Figure 11).



Figure 11: PBE and pouch in box assembly

7. Close the Lexan cover for the box by resting the bottom edge in the matching slot and bending the cover inwards until the upper edge can also be inserted (Figure 12).

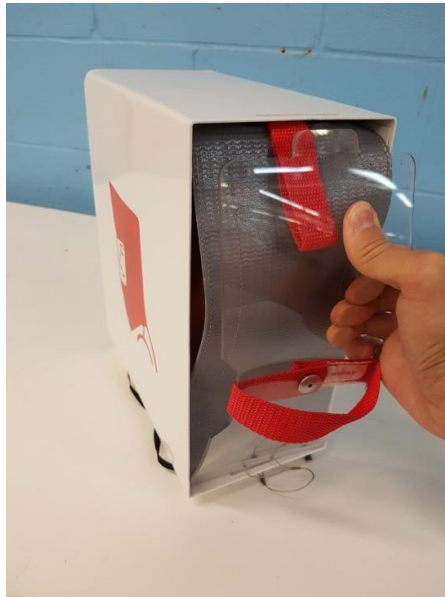


Figure 12: Inserting Lexan cover into box assembly 6438-301

4.2. Cleaning

4.2.1. Disassembly

1. Remove the simulated O₂ generator by unfastening the two large Velcro straps at the rear of the hood.
2. Remove the neck seal by undoing the Velcro strip used to fasten it in place.
3. Undo the 4 latches attaching the straps and unscrew the retaining ring in order to remove the nose cone (Figure 13).



Figure 13: Nose cone attachment mechanisms

4.2.2. Cleaning and Drying

1. If any stains, oil, or grease are present, treat the affected area with a concentrated solution of wash detergent to remove the stain. Thoroughly rinse with water before cleaning the entire unit.
2. All components can be cleaned by hand with a solution of mild soap and water, rinsing thoroughly with water. If necessary, the main body of the hood can be washed in a standard washing machine on delicate cycle.
3. Allow components to air dry fully. The main body of the hood can be dried in a dryer on delicate cycle.

4.2.3. Reassembly

Once completely dry, the unit can be reassembled.

1. In order to reattach the nose cone, insert the voice transmitter through the hole in the front of the hood. Place the washer on the inside, followed by the nose piece, and screw the retaining ring back into place. The correct order of the components is shown below (Figure 14). Finally, fasten the latch for each of the four straps.



Figure 14: Nose cone assembly sorted from outermost to innermost components

2. Insert the neck seal into the opening and fasten with the Velcro strip along its perimeter. Be sure that the hole in the neck seal is closest to the rear of the hood. Also ensure that the neck seal is positioned with the rubber or latex seal facing upwards and the Velcro strip downwards when installed. Installing the neck seal in the wrong direction may cause it to detach during operation (Figure 15).



Figure 15: Neck seal oriented with opening closest to rear of hood and Velcro strip facing downwards

3. Attach the simulated O₂ generator to the rear of the hood with the activation mechanism facing downwards, being sure to line it up with the opening on the Velcro flap (Figure 16). Close both Velcro flaps.



Figure 16: Activation mechanism aligned with opening in flap

4. Reset the activation mechanism by pressing down on the plunger and reinserting the actuation pin as shown above (Figure 6).

4.2.4. Repairs

More thorough cleaning and/or repairs of the PBE are handled by Tulmar Safety Systems. Please contact our customer service department for more information. Contact details can be found on the first page of this manual.

5. COMPONENTS

The following table lists components available for the Type 2 PBE. If you are looking to replace a part that is not listed below, please contact Tulmar Safety Systems.

Part No.	Description	Image
6412-001	Non-latex neck piece	Figure 17, item 4
6412-NP	Latex neck piece	Not pictured, similar to 6412-001
6438-001	Grey flap with red pull tab	Figure 18
6438-301	Box assembly – right	Figure 17, item 1
6438-302	Box assembly – left	Not pictured, reverse of 6438-301
6438-304	Re-useable pouch	Figure 17, item 3
6483-201	Simulated generator	Figure 17, item 2
6483-203	Nose piece	Figure 17, item 5

Table provided for reference only, information may change without notice.



Figure 17: Numbered components

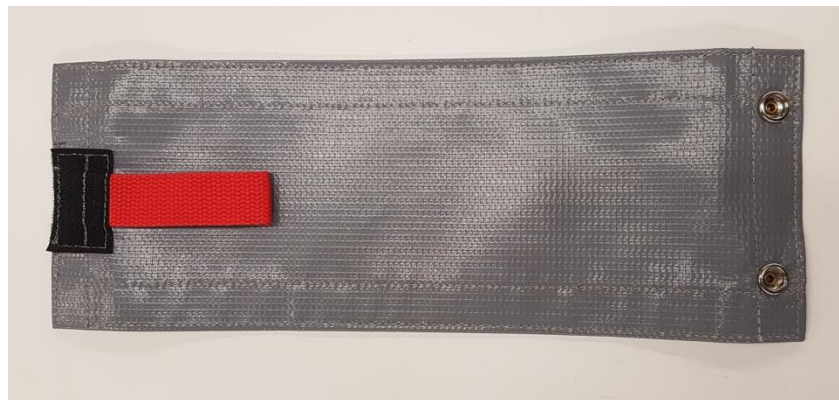


Figure 18: Flap with pull tab

6. WARRANTY

6.1. Warranty Policy

Tulmar training PBEs are guaranteed for 90 days from the date of shipment to the customer against defects in materials or workmanship. If a product is found to be defective within the warranty period, the product will be repaired or replaced without charge for parts or labour.

6.2. Limitations

The warranty is limited to the original purchaser of a new product, and is valid only if the product was purchased from Tulmar or an authorized distributor. This warranty does not cover routine maintenance or damage resulting from the failure to maintain the product in accordance with instructions provided in the User Manual. This warranty also does not cover damage during transport of the product, ordinary wear and tear arising from use of the product, or damage that may arise from accidental or intentional misuse or abuse, alteration or customization, or repair by unauthorized persons.

6.3. Remedy

If a defect arises within the warranty period, contact Tulmar customer service at +1 (613) 632-1282 or by email to inflight@tulmar.com with the details of the issue and a copy of the original purchase order. Product may only be returned after a Return Material Authorization (RMA) number is issued.

The cost and liability of delivering the damaged product to Tulmar or an authorized Tulmar repair facility are the responsibility of the customer. The documentation, packaging and the enclosed item must be clearly identified with the RMA number. Tulmar, at its sole discretion, will either repair or replace the product with one of functional equivalence. Repaired or replacement products will be returned to the customer's original order destination on a carrier and service of Tulmar's choice.