

**USER MANUAL  
ESSEX TRAINING PBE  
P/N: 6485-001  
6485-006**

TULMAR SAFETY SYSTEMS Inc.  
1123 Cameron Street  
Hawkesbury, Ontario  
Canada K6A 2B8  
Tel: 1-613-632-1282  
Fax: 1-613-632-2030  
[www.tulmar.com](http://www.tulmar.com)

## Table of Contents

1. Equipment Overview .....	3
1.1. Product Description .....	3
1.2. Parts and Features .....	3
2. Safety Precautions .....	4
3. Operation.....	4
3.1. Training Procedure.....	4
3.2. Disinfection .....	5
3.3. Rearming.....	5
4. Care and Basic Maintenance .....	6
4.1. Storage .....	6
4.2. Cleaning.....	6
4.2.1. Disassembly .....	6
4.2.2. Cleaning and Drying .....	7
4.2.3. Reassembly .....	7
4.2.4. Repairs .....	8
5. Components.....	9
6. Warranty .....	10
6.1. Warranty Policy.....	10
6.2. Limitations.....	10
6.3. Remedy .....	10

## 1. EQUIPMENT OVERVIEW

### 1.1. Product Description

The Essex training protective breathing equipment (PBE) is designed to look and feel like the real device in order to train for emergencies. The training PBE includes actuation clips, simulated O<sub>2</sub> cylinders, and a removable neck seal. 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 clips 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 two models differ only by their activation method; 6485-001 uses a pull ball activation, whereas 6485-006 uses the Essex standard configuration.

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

### 1.2. Parts and Features



Figure 1: Front view of Essex training PBE

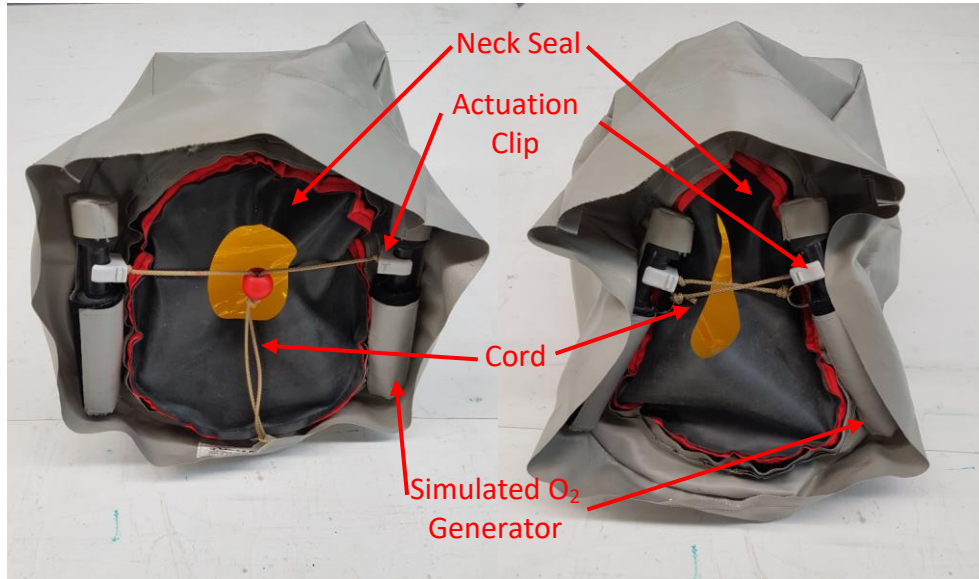


Figure 2: Bottom views of pull ball (Left) and standard Essex (Right) training PBEs

## 2. SAFETY PRECAUTIONS

This device is intended only for training and simulation purposes under the supervision of a trainer knowledgeable in its use, 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. Training Procedure

1. Open the re-useable pouch by tearing off the hook and loop strip at the top. If you do not have the re-useable pouch, you can skip this step.
2. Remove the hood from its packaging and unfold.
3. Simulate the activation of the oxygen cylinders.
  - a. For the pull ball configuration (6485-001), hold the hood in one hand and pull sharply on the red ball with the other. This will cause the activation clips to come free from the simulated oxygen cylinders.
  - b. For the Essex standard configuration (6485-006), hold the two simulated oxygen cylinders in separate hands and pull them apart sharply. This will cause the activation clips to come free.

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



Figure 3: Neck seal stretched open (Essex standard configuration shown)

5. Pull the smoke hood over your head, adjusting in place for comfort.
6. Once you are wearing the hood, follow your standard training procedure.
7. After your training exercise is complete, bend down and remove the device by grabbing the back of the hood and pulling forwards off your head.

### 3.2. Disinfection

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

### 3.3. Rearming

The PBE should be rearmed in order to prepare for the next use.

For the pull ball configuration, attach one clip to each simulated oxygen generator (Figure 2).

For the Essex standard configuration, attach the clips to the simulated oxygen generator on the opposite side of the PBE (Figure 2).

Attach the clips as shown below (Figure 4).



Figure 4: Rearming simulated oxygen cylinder

### 3.4. Repacking

The PBE should be folded in half and placed inside the re-usable pouch with the hook and loop strip sealed along the top of the pouch to prepare for the next use. If you do not have the re-usable pouch, you can skip this step.

## 4. CARE AND BASIC MAINTENANCE

### 4.1. Storage

The PBE should be stored in the re-usable pouch to protect it from damage, as described above. If you do not have the re-usable pouch, the folded PBE can be placed in a 16" by 20" re-sealable plastic bag.

### 4.2. Cleaning

#### 4.2.1. Disassembly

1. Detach the cord from the hood by first removing the actuation clips from the simulated oxygen simulators.
  - a. For the pull ball configuration, undo the hitch attaching the cord to the front of the hood.
  - b. For the Essex standard configuration, undo the two split rings attaching the cord to the sides of the hood.
2. Undo the hook and loop fastener and remove the two simulated O<sub>2</sub> cylinders.
3. Remove the neck seal by undoing the hook and loop fastener strip used to fasten it in place.

### 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. Insert the neck seal into the opening and fasten the hook and loop fastener strip along its perimeter. Be sure the hole in the neck seal is closest to the rear of the hood. Also ensure the neck seal is positioned with the rubber or latex seal closest to the bottom of the hood (Figure 5). Installing the neck seal in the wrong direction will cause it to detach when attempting to don the hood.

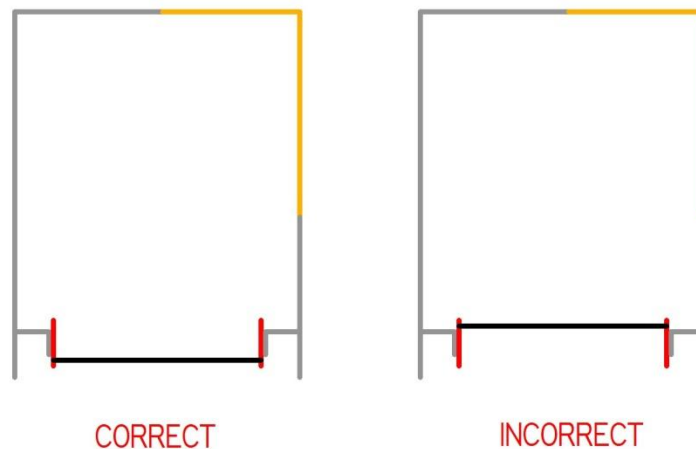


Figure 5: Proper orientation of neck seal

2. Insert the ends of the two simulated O<sub>2</sub> generators with the shorter length of foam into the cylindrical receptacles and close the hook and loop fastener tabs around the ends with the longer length of foam in order to secure them to the bottom of the hood (Figure 6).



**Figure 6: Insertion of simulated O<sub>2</sub> generator**

3. Attach the cord and activation clips to the hood.
  - a. For the pull ball configuration, attach the cord to the front of the hood using a lanyard hitch knot.
  - b. For the Essex standard configuration, attach the cord to the two small fabric loops at either side of the hood using the split rings.
4. Rearm the simulated oxygen cylinders as described in 3.3.

#### **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. See page 10 for contact information.



## 5. COMPONENTS

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

Number (Figure 7)	Part No.	Description
1	6412-001	Non-latex neck piece
Not shown	6412-NP	Latex neck piece (by special order only)
Not shown	6445-001	Re-useable pouch
3	6485-003	Cord assembly with clips, pull ball
2	6485-004	Simulated O <sub>2</sub> assembly
4	6485-007	Cord assembly with clip, standard configuration (2 needed per PBE)

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

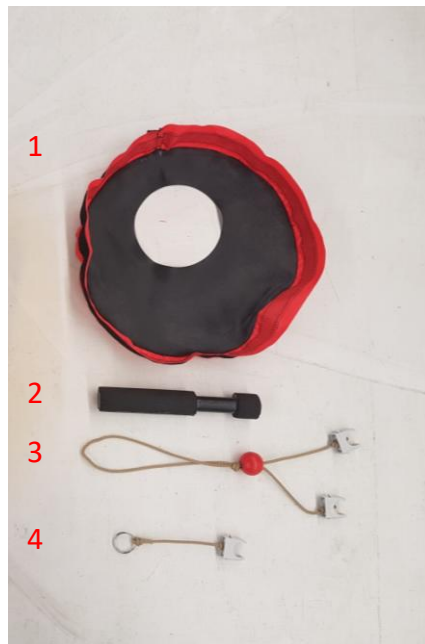


Figure 7: Numbered components

## 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 [aviation@tulmar.com](mailto:aviation@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.