



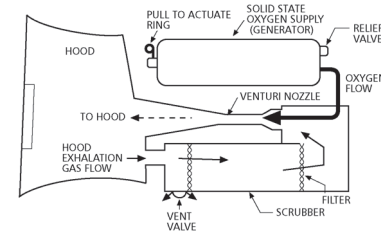
Oxygen and life support

Oxygen and life support



## OUTSTANDING FEATURES

- A 15-minute self-contained, completely disposable breathing unit, operable to 40,000 ft.
- A solid-state chemical oxygen generator supply source with no oxygen loss during storage, as may occur with compressed gas supplies.
- Hood permits oral communication without compromising protection.
- Lightweight – 3.75 lb. as worn, 5.15 lb. with protective stowage case.
- Compact design – 9.75" x 8.75" x 4.30" Max. overall for installation in a minimum space.
- 10-year life if retained in the sealed, evacuated barrier envelope.
- Minimum maintenance – periodic inspection of the device for a damaged or expended unit, tampering, or loss of seal and exposure to moisture.



## SYSTEM SCHEMATIC

The following sequential series of events takes place when the "Pull To Actuate" ring is disengaged from the unit. Low-pressure oxygen is produced from chemical decomposition within the generator. This oxygen is fed to the primary flow nozzle of the venturi, and mixes with the scrubbed hood gases while inducing flow through the scrubber. The scrubber removes CO<sub>2</sub>, excess moisture and particulates, allowing scrubbed hood gases with added oxygen to flow back to the hood.

Specifications	
Type:	Semi-Closed Circuit
Rated Duration:	15 Minutes (Minimum)
Oxygen Source:	Low-Pressure Chemical Oxygen Generator
Weight:	P/N 802300-14 As Worn: 3.75 lb. (1.70 kg) With Storage Case: 5.15 lb. (2.34 kg)
Certifications:	P/N 802300-14; NSN 4240-01-217-0046, Meets FAA TSO-C116, TSO-C99 Requirements and FAA Action Notice A8150.2 of 9/1/87
Maximum Overall Case Dimensions:	9.75" x 8.75" x 4.30" (248 mm x 222 mm x 109 mm)
Materials:	<ul style="list-style-type: none"> <li>• Hood (one of the following):                             <ul style="list-style-type: none"> <li>- Teflon<sup>®</sup>-Coated Fiberglass Cloth, with Overhood of Kynol<sup>®</sup> Fabric</li> <li>- Freestyle 600 Orange Nomex<sup>®</sup> IIIA</li> </ul> </li> <li>• Housing Assembly: Polysulfone</li> <li>• Scrubber: LiOH and Molecular Sieve</li> <li>• Storage Case: Fire-Retardant Polyethylene (Green)</li> <li>• Generator Relief Valve: 40 psig (Nominal)</li> <li>• Life: 10 Years in Sealed, Evacuated Barrier Envelope</li> <li>• Maximum Operating Altitude: 40,000 ft. (12,192 m)</li> </ul>
<small>** Teflon is a registered trademark of E.I. duPont de Nemours &amp; Co., Wilmington, DE. *** Kynol is a registered trademark of American Kynol Inc., New York, NY.</small>	

## WALL MOUNT UNIT OR STOWAGE ASSEMBLY

- Stowage compartment assembly capable of meeting the requirements of 14 CFR para. 25.787 when properly approved for installation in a specific aircraft or aircraft type.
- P/N 803436-22



## WARNING

THE AVOX SYSTEMS PBE IS INTENDED TO BE USED ONLY FOR AVIATION APPLICATIONS. IT IS TO BE USED ONLY BY, OR UNDER THE SUPERVISION OF, A PILOT OR CREW MEMBER TRAINED AND QUALIFIED IN ITS USE.

THE AVOX SYSTEMS PBE INCLUDES A CHEMICAL OXYGEN GENERATOR WHICH PRODUCES OXYGEN AND HEAT WHEN ACTIVATED.

IMPROPER USE OF THIS EQUIPMENT MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH. IMPROPER USE INCLUDES, BUT IS NOT LIMITED TO, USE OTHER THAN IN STRICT ACCORDANCE WITH THE INSTRUCTIONS AND LABELS PROVIDED WITH IT.

## IMPORTANT SHIPPING NOTICE

CHEMICAL OXYGEN GENERATORS AND DEVICES INCORPORATING CHEMICAL OXYGEN GENERATORS ARE CONSIDERED HAZARDOUS MATERIALS FOR SHIPMENT. THE AVOX SYSTEMS PBE HAS BEEN ASSIGNED THE SHIPPING NAME "OXYGEN GENERATOR, CHEMICAL" AND THE IDENTIFICATION NUMBER UN 3356.

SHIPMENTS OF AVOX SYSTEMS PBE UNITS IN THE UNITED STATES MUST BE MADE IN COMPLIANCE WITH THE US HAZARDOUS MATERIAL REGULATIONS AND REQUIRE AN APPROVAL ISSUED BY US DOT. OTHER RESTRICTIONS ON SHIPMENT MAY APPLY IN OTHER COUNTRIES.



AVOX Systems

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## Protective Breathing Equipment (PBE) P/N 802300-14



PBE is shown above in Orange Nomex<sup>®</sup> IIIA

The AVOX Systems PBE is designed to provide breathing protection for a minimum duration of 15 minutes to aircraft crew members trained in its use.

The unit is readily available for use in its sealed storage container. It features a double-layered hood that encloses the entire head. When properly worn, the device can accommodate beards, long hair, and glasses. An integral life support unit, which uses a solid-state oxygen supply, is located at the back of the hood. This device will be shipped with an inner hood made of Teflon<sup>®</sup>-coated fiberglass and one of two approved overhood materials: Kynol<sup>®</sup> Fabric or Orange Nomex<sup>®</sup> IIIA. This device meets the requirements of TSO-C116 and TSO-C99 with an operating altitude of up to 40,000 feet.



AVOX Systems



N°180508





## The AVOX Systems PBE System – Self-Contained, One-Time Use Unit

There are four major operating subsystems:

1. A solid-state chemical oxygen supply
2. A chemical scrubber for carbon dioxide and water vapor
3. A loose-fitting double-layered hood with a supporting head harness and neck seal to enclose the head and provide the respirable environment
4. A venturi "pumping" arrangement, powered by the chemical oxygen generator, which recirculates the breathing gas from the hood through the scrubber automatically while adding oxygen

The hood serves as a counter-lung to the user's respiratory system and surplus gas is vented overboard through a protected relief valve. The PBE is supplied with its own case for safe storage, easy mounting, and accessibility.

## The PBE Device in Flame Retardant Case Part Number 802300-14



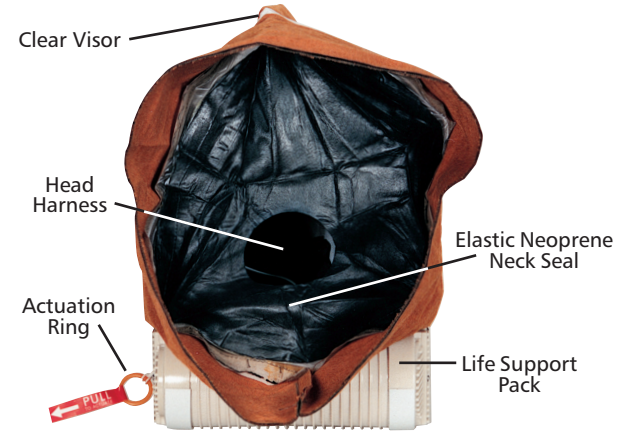
PBE is shown above in Orange Nomex® IIIA

## Replacement Flame Retardant Case (Green) Part Number 803753-02



FOR INFORMATION ON INSPECTION, STORAGE, AND OPERATION OF PBE, SEE AVOX SYSTEMS INSTRUCTION SHEET NUMBER 89253-01. FOR INFORMATION ON INSPECTION, STORAGE, AND OPERATION OF PBE NON-FUNCTIONAL TRAINER, SEE AVOX SYSTEMS INSTRUCTION SHEET NUMBER 89468-01.

## View Shown: Looking into double-layered hood



## The PBE Trainer Part Number 802390-03

This non-functioning device is intended for training of personnel in the use of the functional PBE (P/N 802300-14). It features a clear urethane replaceable neck seal (P/N 803150-01) and re-arming device for repeated donning and doffing exercises. For a neoprene replacement neck seal similar to the seal in the PBE, order replacement neck seal (P/N 803767-01). A PBE training DVD is available.



PBE is shown here with Overhood of Kynol\*\*\*\* Fabric

## Trainer Spare Parts

- Storage Bag P/N 10124-00
- Neck Seal, Neoprene P/N 803767-01
- Neck Seal, Urethane P/N 803150-01
- Actuation Ring Assembly P/N 802829-01
- Head Harness P/N 802350-03
- Reset Tool P/N 10005595

## Donning the AVOX Systems PBE – 6 Simple Steps

Abbreviated instructions – Training required before use, per instructions supplied with unit.



1. Remove device from storage case.



2. Tear off pull-strip and remove device from plastic protective wrapper.



3. Pull actuation ring in direction indicated to start oxygen flow. Hear the flow noise of oxygen.



4. With the sound of oxygen flowing, hold device with life support pack away from user.



5. Bend forward from waist. Insert chin into hole and pull hood across face and over head.



6. While standing upright, pull hood down until headband firmly engages forehead. Clear neck seal of obstructions and check neck seal for secure fit. Note: Remove when flow noise stops.