

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

Attachment 25 - UPS B747-400 Oxygen Systems

**OPERATIONS/HUMAN PERFORMANCE SUPPORT TO
THE U.S. ACCREDITED REPRESENTATIVE**

DCA10RA092



Oxygen Systems

N570UP - N579UP

Two independent oxygen systems are provided, one for the flight crew and one for the supernumeraries. Portable oxygen cylinders are located in the supernumerary cabin for emergency use.

N580UP, N581UP

Two independent oxygen systems are provided, one for the flight crew and one for the supernumeraries. Portable oxygen cylinders are located in the flight deck and supernumerary cabin for emergency use.

Oxygen pressure displays on the EICAS STATUS page.

Flight Crew Oxygen System

N570UP - N577UP

The flight crew oxygen system uses quick-donning diluter-demand masks located at each crew station. Oxygen flow is controlled by a regulator mounted on each mask. The Captain and First Officer's masks have automatic pressure breathing regulators.

N580UP, N581UP

The flight crew oxygen system uses quick-donning diluter-demand full-face masks located at each crew station. Oxygen flow is controlled by an automatic pressure breathing regulator mounted on each mask.

N578UP, N579UP

The flight crew oxygen system uses quick-donning diluter-demand masks located at each crew station. Oxygen flow is controlled by a regulator mounted on each mask. The Captain and First Officer have full face masks with automatic pressure breathing regulators.

During the preflight check of the crew oxygen mask, a pressure decrease may indicate the crew oxygen cylinder shutoff valve is closed, and oxygen is unavailable.

Squeezing the red release levers with the thumb and forefinger allows the mask to be removed from stowage, inflates the mask harness and momentarily displays the yellow cross in the flow indicator. Releasing the levers after placing the mask over the head deflates the mask harness, fitting it securely to the head and face.

When the left-hand door to the mask stowage box is opened, the mask microphone activates in the removed mask.

An OXYGEN ON flag appears in the mask compartment near the left-hand door of the stowage box, indicating the oxygen supply valve is open. The oxygen system is shut off by closing the left-hand door of the stowage box and pushing and releasing the RESET/TEST switch. This action shuts off oxygen to the mask, stows the flag, deactivates the mask microphone, and activates the boom microphone. The oxygen system can be reactivated by opening the left-hand door of the stowage box.

Supernumerary Oxygen System

N578UP - N581UP

The supernumerary oxygen system is supplied by bottled gaseous oxygen. The oxygen bottles provide oxygen to the passenger and lavatory service units. The supernumerary oxygen masks are located above the supernumerary seats in passenger service units (PSUs). The masks automatically drop from the PSUs if cabin altitude exceeds approximately 14,000 feet. Supernumerary masks can be manually deployed from the flight deck by pushing the overhead panel Supernumerary Oxygen switch to ON position.

Oxygen flow to a mask begins when the mask is pulled down.

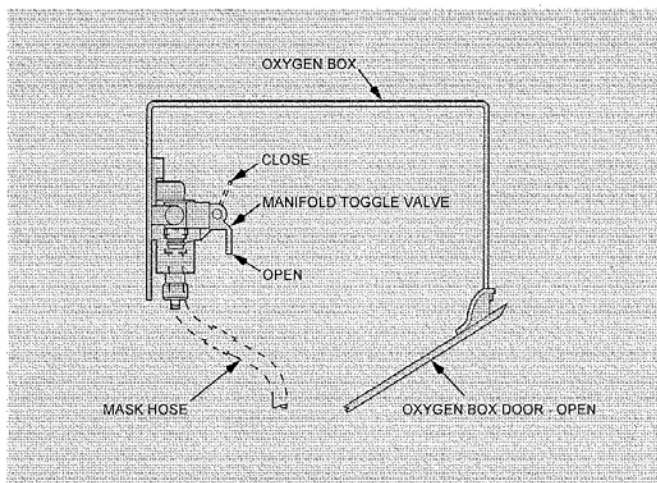
The supernumerary oxygen system provides 195 minutes of oxygen at a cabin altitude of 25,000 feet. When an oxygen mask is not in use, the manifold toggle valve in the PSU(s) should be in CLOSE position.

Oxygen flow can be reset by selecting the Supernumerary Oxygen switch to RESET position.

Supernumerary oxygen pressure displays on the EICAS STATUS page.



Passenger Service Unit



Supernumerary Oxygen System

N570UP - N577UP

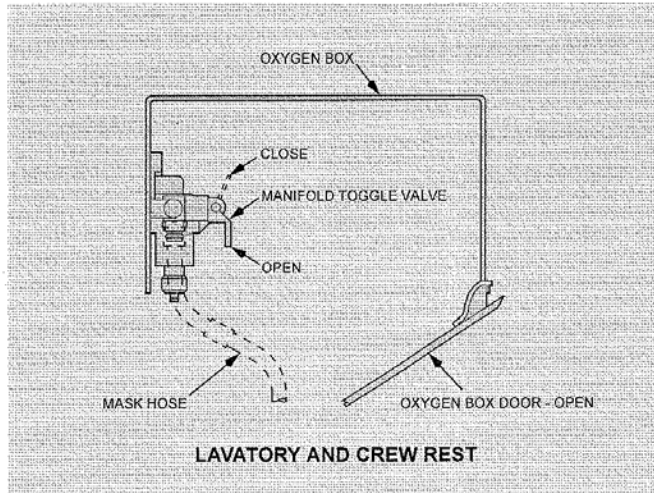
The supernumerary oxygen system is supplied by bottled gaseous oxygen. The oxygen bottles provide oxygen to the passenger and lavatory service units. The supernumerary oxygen masks are installed in these units and automatically deploy if cabin altitude exceeds approximately 14,000 feet. Supernumerary masks can be manually deployed from the flight deck by pushing the overhead panel Supernumerary Oxygen switch to ON position.

The supernumerary oxygen masks installed above the passenger seats in passenger service units are quick-donning diluter-demand masks. Oxygen flow is controlled by a regulator mounted on each mask. Squeezing the red release levers with the thumb and forefinger inflates the mask harness. Releasing the levers after placing the mask over the head deflates the mask harness, fitting it securely to the head and face.

Oxygen flow to a supernumerary oxygen mask in the lavatory or crew rest area begins when the mask is pulled down. Oxygen flow to these masks can be reset by selecting the Supernumerary Oxygen switch to RESET position.

Supernumerary oxygen pressure displays on the EICAS STATUS page.

Passenger Service Unit



Portable Oxygen Bottles

Portable oxygen bottles are stowed in various locations in the passenger cabin. The bottles are fitted with disposable masks and are used for first aid purposes or as walk-around units. All bottles are identical in size and capacity.