

Aviation Oxygen Systems $m{M}$ ountain $m{H}$ igh $m{E}$ quipment & $m{S}$ upply $m{C}$ ompany 625 S.E. Salmon Ave. Suite 2

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Oxygen conserving cannula for FAA / FAR flight operations up to 17,999 ft. MS

The Oxymizer nasal cannula connects directly to the outlet of a flow control system with an A3 (or A4, left hand scale) flowmeter/regulator, The Oxymizer nasal cannula it the only part that will need routine replacement. It should be inspected for holes and leakage before each flight. To do this test, plug each nasal prong tightly with two of your fingers and lightly produce a small amount of pressure with your mouth to the cannula inlet tube. While doing so, place the cannula (face piece side) to your ear to observe any sounds that may indicate leakage of the small membrane bladder. It should be air tight and not leak. Any leaks or excessive soiling warrants complete replacement of the entire cannula. For health reasons, each person using the XCR or XCP system should have their own Oxymizer cannula. Replacement Oxymizer cannulas can be purchase directly from Mt. High E&S Co.

NO SMOKING! while using oxygen. FAR 23.1147

PRINCIPLE OF OPERATION:

(Obtained from reference material supplied by manufacturer)

The CHAD Oxymizer Oxygen-Conserving device is a type of nasal cannula breathing device that has an oxygen-conserving reservoir in the face piece. The soft and light-weight Oxymizer conforms easily and comfortably to the user's face. The pliable nasal prongs are comfortable and pressure on the septum (dividing wall between the nostrils) is reduced.

The Oxymizer's unique oxygen conserving reservoir design accumulates (saves) the continuous flow of oxygen normally wasted during exhalation. The saved oxygen is available as a bolus at the very beginning of each inhalation cycle where oxygen is taken deeper into the lungs, allowing a much greater absorption efficiency. Thus, a smaller flow rate is required over conventional cannulas. This permits drastic reductions in the oxygen flow rates while maintaining proper oxygenation of the blood. As a result the contents of a portable oxygen system last much longer, increasing the oxygen availability as much as 75%.

In extensive studies, the blood saturation levels of pilots were measured receiving oxygen via a standard cannula and the Oxymizer conserving device over a range of 10,000 to 22,000 feet. In all cases the Oxymizer device provided equivalent saturations at much lower flow rates than the standard cannula. Investigations in more than twenty clinical studies have confirmed similar findings, both at rest and during exercise.

The Oxymizer can be used to satisfy the FAA requirements for providing supplemental oxygen for pilots and passengers up to 18,000 ft. The FAA requires that there be a standby facemask available for each occupant in the event that the user should develop a cold with nasal obstruction or congestion while breathing supplemental oxygen with a cannula device. Pilots should refer to FAA regulations (FAR 23.1447) to see if any restrictions apply for their use of cannula type breathing devices in the operation of their aircraft.

