

Assembly Date:

Cleaned for Oxygen Service per MH ESR-008D

# 00XCR-1042-00

## OXYGEN-CONSERVING PENDANT CANNULA FOR FLIGHT OPERATIONS UP TO 18,000 FT. MSL

The Oxymizer nasal cannula is a disposable oxygen-conserving device that enables you to use less oxygen compared to a standard cannula. It connects directly to the outlet of an MH3 flowmeter (or MH4, by using the left hand "conserving" scale), and is the only part of your system needing routine replacement. Replacement cannulas can be purchased directly from Mountain High E&S Company.

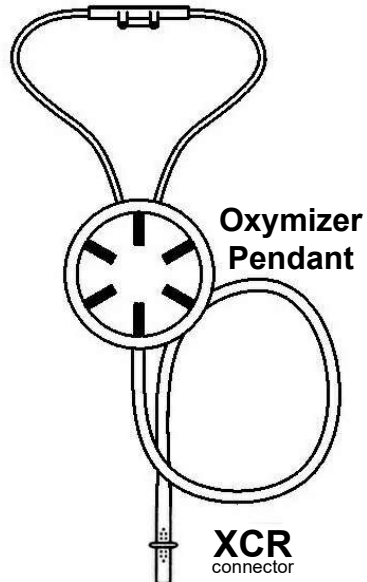
### ADVANTAGES OF THE OXYMIZER CANNULA FOR AIRCRAFT USAGE

**ECONOMY.** Increases the efficiency and duration of your existing system.

**CONVENIENCE.** Standard microphone and headphones can be used. Easy to converse, eat or drink while on oxygen. Gives you the option of downsizing to a cylinder that might be more manageable in your aircraft.

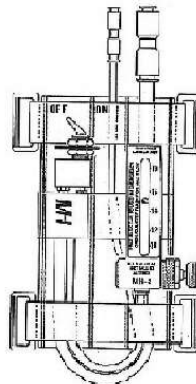
**COMFORT.** Lower oxygen flow rates reduce nasal irritation and dryness of your nasal passages. Fewer headaches, less eye irritation.

A "Mustache" style cannula is also available. Contact MH Customer Service for help in selecting a cannula for your particular needs.



### XCR Systems

This 00XCR-1042-00 "Pendant" style cannula is functionally interchangeable with the 00XCR-1040-00 Oxymizer "Mustache" style cannula. XCR cannula assemblies are intended specifically for use with XCR systems and are unlikely to be compatible with other systems.



# OXYMIZER® PENDANT

DISPOSABLE OXYGEN-CONSERVING DEVICES

By Chad Therapeutics

## USER INSTRUCTIONS

### INSPECTION

Your Oxymizer cannula should be inspected for damage or leakage before each flight. To do so, use your fingers to plug each nasal prong tightly, then create a slight positive pressure on the cannula inlet tube with your mouth. Place the exterior (slotted) side of the pendant next to your ear to check for any sounds indicating leakage of the internal membrane. It should be airtight. Any leaks warrant complete replacement of the cannula.

### HYGIENE

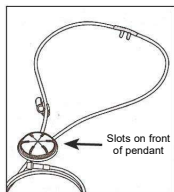
Each person should have their own Oxymizer cannula.

After each use, wipe the nasal prongs and surrounding area with a **Clean4Sure** wipe (MH p/n 00VEN-0077-00) or standard alcohol wipe.

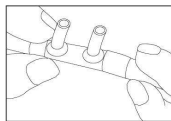
Discard and replace your cannula when it becomes excessively soiled.

### HOW TO PUT ON THE OXYMIZER PENDANT

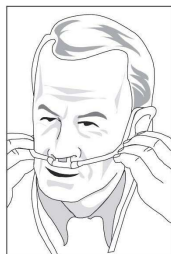
**1** Uncoil the tubing completely. Hold the device so that the slots in the Pendant face **away** from your chest.



**2** Position the nasal prongs so that they fit comfortably into your nostrils. The prongs should extend well into and be pointing toward the back of your nose.

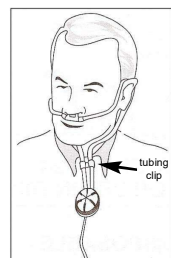


**3** After positioning the nasal prongs, guide the tubing across your cheekbones and loop the tubing over your ears. Adjust each side so that you have a snug, comfortable fit.



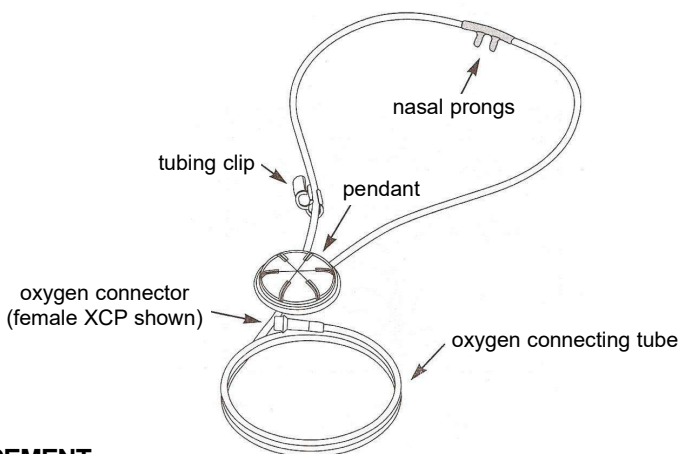
**4** Attach the tubing clip to join both sides of the cannula tubing. Slide the clip upward beneath your chin to hold the tubing in place (you may choose not to use the clip simply by removing it).

**5** The Pendant portion should rest against your chest below your throat. Covering the pendant with a **light** jacket or sweater is acceptable.



**6** Connect the cannula tubing to your flowmeter (or other flow-metering device as part of your oxygen system).

**7** Turn on the oxygen and set the proper flow rate based on your altitude and personal needs.



## REPLACEMENT

Discard and replace your cannula whenever the conserving reservoir develops a leak (see "INSPECTION", opposite) or the cannula or cannula assembly is otherwise damaged. This helps to ensure maximum effectiveness and optimal oxygen conservation.

Likewise discard and replace your cannula whenever it becomes discolored or excessively soiled. While the exterior of the cannula can be kept relatively clean by the routine use of sanitizing wipes (see "HYGIENE", opposite), the interior portions can still harbor bacteria between uses. For hygienic reasons, you should replace your cannula "regularly".

The membrane that is part of the conserving reservoir can deteriorate with time and use, and when employed constantly for oxygen therapy, it is recommended that cannulas be replaced every 3 weeks. However, considering the intermittent use in an aircraft oxygen system, you will be far more likely to reach a state of unsatisfactory hygiene long before the cannula itself starts to degrade. Replace your cannula "regularly".

## OXYGEN CONSERVATION

A conserving cannula reduces your oxygen usage to approximately 1/2 to 1/3 of what you would otherwise use with a conventional cannula (which means that your oxygen supply can last 2 to 3 times longer!). This range of values reflects different flow profiles at different altitudes. You may also need to adjust for your personal needs.

If you use a portable oxygen system, it will effectively have a longer duration when using the Oxyimizer cannula. This allows you to make longer duration flights or fly longer between refills with your present cylinder. It may also give you the option of downsizing to a smaller, lighter, more manageable cylinder.

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## PRINCIPLES OF OPERATION

*(Extracted from manufacturer's reference material)*

The Chad Oxymizer oxygen-conserving device is a type of nasal cannula breathing device that incorporates an oxygen-conserving reservoir. The Oxymizer Moustache style cannula incorporates the conserving reservoir into a soft and lightweight facepiece that conforms easily and comfortably to the user's face, while the Pendant style cannula contains the conserving reservoir in a "pendant" that rests on the user's chest. 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 while 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.

**NO SMOKING while using oxygen**



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