p/n: AMSK0-0130-00

MBU-20 Mask Conversion Kit for EDS

Date:

Cleaned for Oxygen Service per MH ESR-008

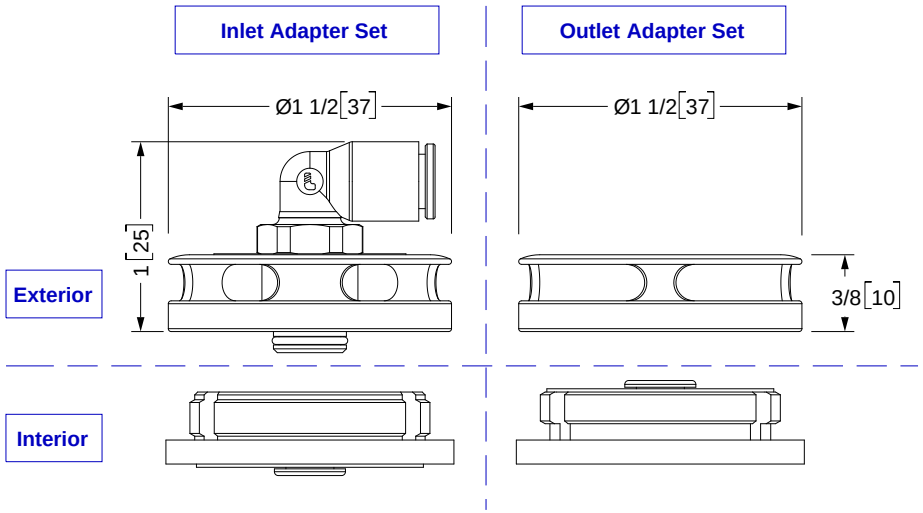
Aviation Oxygen Systems
MOUNTAIN HIGH
Equipment & Supply Company

REV	ECO	Release	Drawn	REVISION HISTORY
-0	2019-056	2020-01-06	SGO	Customer Drawing

Overview

The ***MBU-20 Mask Conversion Kit*** enables an MBU-20 Mask to be used with MH oxygen systems. The included ALPS EDS Feedtube Assembly (AMSK0-0103-00) connects the MBU-20 Mask to an MH EDS device, but a variety of other Feedtube Assemblies are available for connection to MH Constant Flow or Emergency Oxygen systems. Contact MH Customer Service for help with your particular configuration.

The ***Conversion Kit*** consists of an Inlet Adapter Set and an Outlet (or Exhaust) Adapter Set. Each Inlet/Outlet Adapter Set in turn consists of an Interior and Exterior portion that are together fitted into the side-ports of the MBU-20 Mask. The Inlet Adapter Set includes a push-to-connect tube fitting for connection to an MH EDS device (or other oxygen source), and a flapper-type one-way Check-Valve Membrane which allows ambient air to be drawn in to be mixed with the inlet oxygen. The Outlet Adapter Set is merely an exhaust port that includes another Check-Valve Membrane which opens on exhalation and closes on inhalation.



GENERAL SPECIFICATIONS

Material: UNS A96061 (6061-T6) Aluminum (Items 1,4,7,8)
Silicone Rubber (Items 2,3)

Weight: 1.4 oz [40 g]

Inlet: 6mm Push-To-Connect Tube Fitting

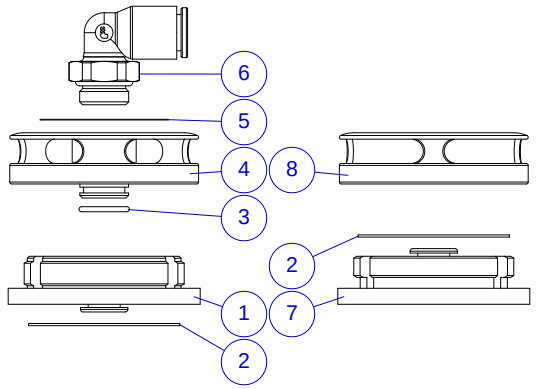
Temperature: 25°F to +105°F [-4°C to +40°C] Nominal Operating Range
Pressure: 75 PSI [5.2 Bar] MAX Operating Pressure

Spares:

	MH p/n
O-ring	09001-1108-70
Membrane	09046-0001-00

Oxygen Compatible Components
Cleaned for Oxygen Service per MH ESR-008

Item	Description
1	Inlet Adapter (Interior)
2	Membrane
3	O-Ring
4	Inlet Adapter (Exterior)
5	Label
6	Inlet Fitting, 6mm tube
7	Outlet Adapter (Interior)
8	Outlet Adapter (Exterior)



UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE:
0.X ±0.015
0.XX ±0.010
0.XXX ±0.005
ANGLES ± 3°
FRACTIONS ± 1/64
63
INTERPRET GD&T PER ASME 14.5

THIRD ANGLE PROJECTION

DO NOT SCALE DRAWING

MOUNTAIN HIGH E&S CO.
REDMOND, OR. USA

DRAWN SGO 2019-12-27	DWG TITLE: MBU-20 Mask Conversion Kit for EDS		
CHECKED EAM 2020-01-06	DWG NUMBER: **5SMSK-0130-00**		DWG REV. **-0**
ENGINEER TD 2020-01-06	CAD FILE: AMSK0-0130-00$-0	INV. PART NUMBER: AMSK0-0130-00	PROD. NAME
APPROVED HBS 2020-01-06	DWG FORMAT: ESR-002 Rev H [20]	DWG SCALE	DWG SHEET 1 OF 2 — DWG SIZE A 11x8½

Insert #: 5IMSK-0130-00

Testing the Check-Valve Function

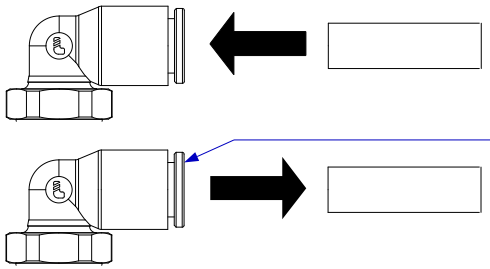
Hold the mask in position on your face and block the inlet tube fitting by placing a finger over the end. As you inhale you should notice that air is drawn-in through the Inlet Adapter side (with the tube fitting). As you exhale, air should be exhausted through the Outlet Adapter side. If there is constriction or blockage in either path, examine the Check-Valve Membranes to make sure that they are properly installed. See below for information on replacing the Check-Valve Membranes.

This test should be performed prior to each flight, and may be done with your oxygen source connected.

Connecting Your Oxygen Source

Your oxygen source is easily connected to the MBU-20 Mask with 6mm OD (blue) PolyUrethane Tubing. A variety of Feedtube Assemblies are available. Contact MH Customer Service for help with your particular configuration.

INLET TUBING CONNECTION - 6mm Push-To-Connect Fitting



INSERTING
Push in the tubing

REMOVING
1. Push in the connector collar
2. Pull the tube straight back while holding the collar in

To INSERT TUBING: Push the tubing into the connector until resistance is felt, **then push a little further, about 1/8 inch [3 mm].** Gently tug on the tubing to make sure it is captured.

To REMOVE TUBING: Push the tubing in slightly, then push in the connector collar while pulling gently on the tubing.

When removing tubing, ***DO NOT pull on the tubing without pushing in the collar,*** as this will likely damage the connector.

Inspection and Maintenance

Your MBU-20 Mask should be periodically inspected and cleaned in order to maintain hygiene as well as ensure that the mask continues to function properly. Keep your mask free of dirt and debris and store it properly when not being used. Rudimentary cleaning can be accomplished with the mask fully assembled, but for more thorough cleaning, or to replace the Check-Valve Membranes, the mask may need to be disassembled (see below).

Note that cleaning or replacement of the Inlet Check-Valve Membrane may be able to be accomplished without disassembly.

Replacing the Check-Valve Membranes

Disassembling the Adapters

Turn the External portion of the Adapter counter-clockwise to unthread it from the Internal portion (conventional right-hand thread). You will need to grasp the Internal portion of the *Outlet* Adapter in order to unthread the External portion. The Internal portion of the *Inlet* Adapter should be held by tabs around the mask side-port opening and shouldn't need to be held in the same manner. Once the External portion has been unthreaded, withdraw the Internal portion from the mask. The Internal and External portions can now be inspected and cleaned separately. The Check-Valve Membranes may either be replaced at this point, or removed, cleaned and re-installed.

Removing/Cleaning the Check-Valve Membranes

Pull on one edge of the Check-Valve Membrane to stretch it and pull it off over the retaining button. Clean the Membrane with mild (dish) soap and warm water and allow to dry.

Installing the Check-Valve Membranes

Hold the center hole of the Membrane over the retaining button while pulling on the opposite edge of the Membrane in order to stretch it over the button. Make sure that the Membrane is centered and does not have any puckers or wrinkles.

Assembling the Adapters

The Inlet/Outlet Adapters may be installed (as a set) into either the left or right side of the mask as preferred, but the Internal/External portions of each Adapter set must be kept together!

Align the Internal portion of the Adapter with the tabs around the mask side-ports and install it into the mask so that the threads protrude on the front side of the mask. Thread the External portion of the Adapter onto the threads of the Internal portion. Tighten sufficiently so that the Adapter will not come loose or move while in use.

Outlet Adapter: the Internal portion must be grasped in order to tighten the External portion. Also, the 2 exhaust-ports should be positioned downwards in order to avoid exhaling directly onto your glasses or visor. Re-position and re-tighten as required.