User Guide For
M-48 MOD-1

Document P/N 100-801

WARRANTY

https://www.kirbymorgan.com/support/warranty

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Definitions of Signal Words and Terms Used in this Guide

The original language of the Kirby Morgan Manuals is English. Translation into other languages will be provided upon request. KMDSI may charge a fee for these services.

Throughout this user guide we will use certain words to call your attention to conditions, practices or techniques that may directly affect your safety. Pay particular attention to information introduced by the following signal words:

⚠ DANGER

This word indicates an imminently hazardous situation, which if not avoided, could result in death or serious injury.

⚠ WARNING

This word indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

⚠ CAUTION

This word indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This word is used to address practices not related to personal injury.

This user guide contains important safety information and should always be available to those personnel operating this equipment. Read, understand, and retain all instructions before operating this equipment to prevent injury or equipment damage.

If you sell or loan this equipment to another person, be sure that this user guide accompanies the gear when you transfer possession to them.

Terms used in this Guide

IAW: In Accordance With

BOV: Bail Out Valve

DSV: Dive Surface Valve

EGS: Emergency Gas System

Nose Dam: Located on the inside of the mask, is an extended barrier that separates the upper (visual) portion of the mask from the lower (oral) part of the mask.

PPE: Personal Protective Equipment

UBA: Underwater Breathing Apparatus

Introduction

Congratulations for choosing the Kirby Morgan M-48 MOD-1. The M-48 MOD-1 represents years of development and testing. Development of this mask could not have been possible without the help of the diving community as a whole.

The original goal was to develop a modular full face mask that could offer greater comfort and safety to divers using self-contained breathing apparatus.

The M-48 MOD-1 has been tested and certified by Dive Lab Inc. Configuration in both open and closed circuit modes have been tested and approved for use by the U.S. Military. The mask, when used with CE approved components, conforms to the requirements of EN-250:2014

The two part modular full face mask is completely serviceable and manufactured with the finest materials using the highest quality control process. KMDSI will continue to develop the mask as well as additional pods and accessories. Users should routinely check www.kirbymorgan.com for additional information.

We welcome and encourage all input from our customers. Our goal is to provide the highest quality diving equipment and service possible. If you have any questions or comments, please feel free to contact us. Questions on the use and care of this mask should be addressed to Kirby Morgan Dive Systems Inc. Telephone 805-928-7772 or e-mail found at www.kirbymorgan.com or Dive Lab Inc., Telephone 850-235-2715; contact e-mail divelab@divelab.com found at www.divelab.com.

The M-48 MOD-1 has been designed for use with open circuit scuba, closed, semi-closed circuit scuba, and demand mode surface supplied diving. Regardless of the diving mode, the mask must be configured for the type of system employed.

Because this mask system incorporates several unique design features not found in any other full face mask, it is recommended that persons with previous full face mask experience make at least one thirty minute indoctrination dive prior to open water diving and be completely familiar with this user guide. Newly trained divers and divers not experienced in full face mask diving should complete a training course in full face mask diving combined with a complete understanding of this user guide. Using the M-48 MOD-1 is very easy, but as with all new equipment, training and practice is the key to enjoyable diving.

At the surface or while underwater, the pod (lower part) can be effortlessly unfastened and resealed to allow:

- Clear communication to support personnel
- Superior gas conservation before the dive (by breathing ambient air)
- Alternate gas switching from any demand regulator or additional Kirby Morgan® podS
- Gas sharing and buddy breathing between divers

All of these actions are accomplished without removing the mask from the face and this ultimately reduces task loading and increases diver safety. It is as though the diver is simply removing their regulator from their mouth, the same as when diving with a traditional scuba mask and demand regulator. This makes using the M-48 MOD-1 instinctive to operate even in the most complex diving situations. However this said, the user must train with the equipment to gain experience in using the mask.

NOTE

The exploded view for the P/N 200-120 Balanced Scuba Regulator can be found on the Kirby Morgan website.

⚠ WARNING

Cold Water Diving (water Temperatures below 50 °F 10 °C) requires specialized training and equipment. Do not attempt diving in cold water unless you are properly trained and equipped for this type of specialized diving. Attempting to dive cold waters without proper training & equipment can cause fatal accidents stemming from poor coordination, gear freeze-ups, hypothermia, etc.

⚠ DANGER

BIOHAZARD

CORROSIVE

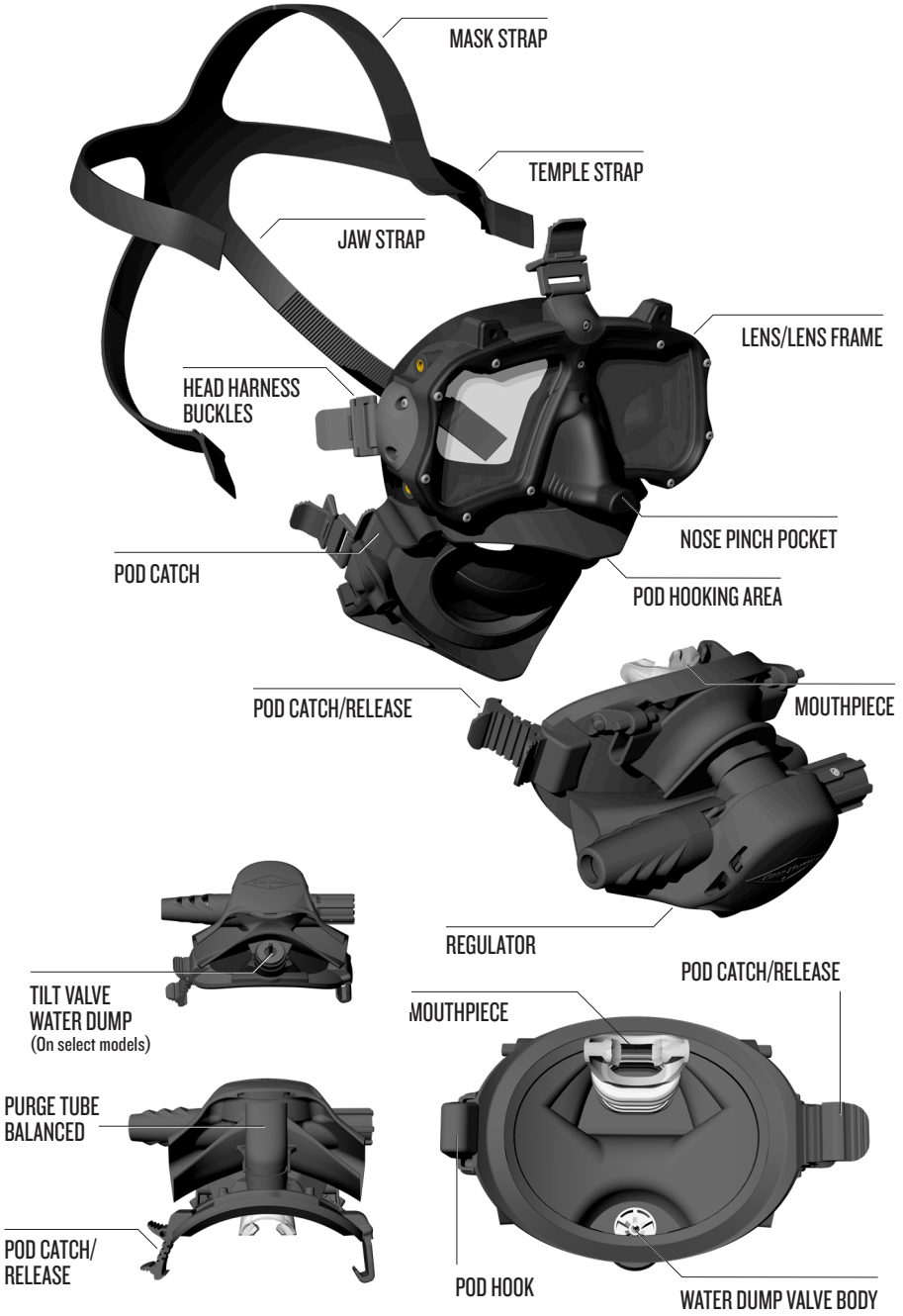
RADIOACTIVE

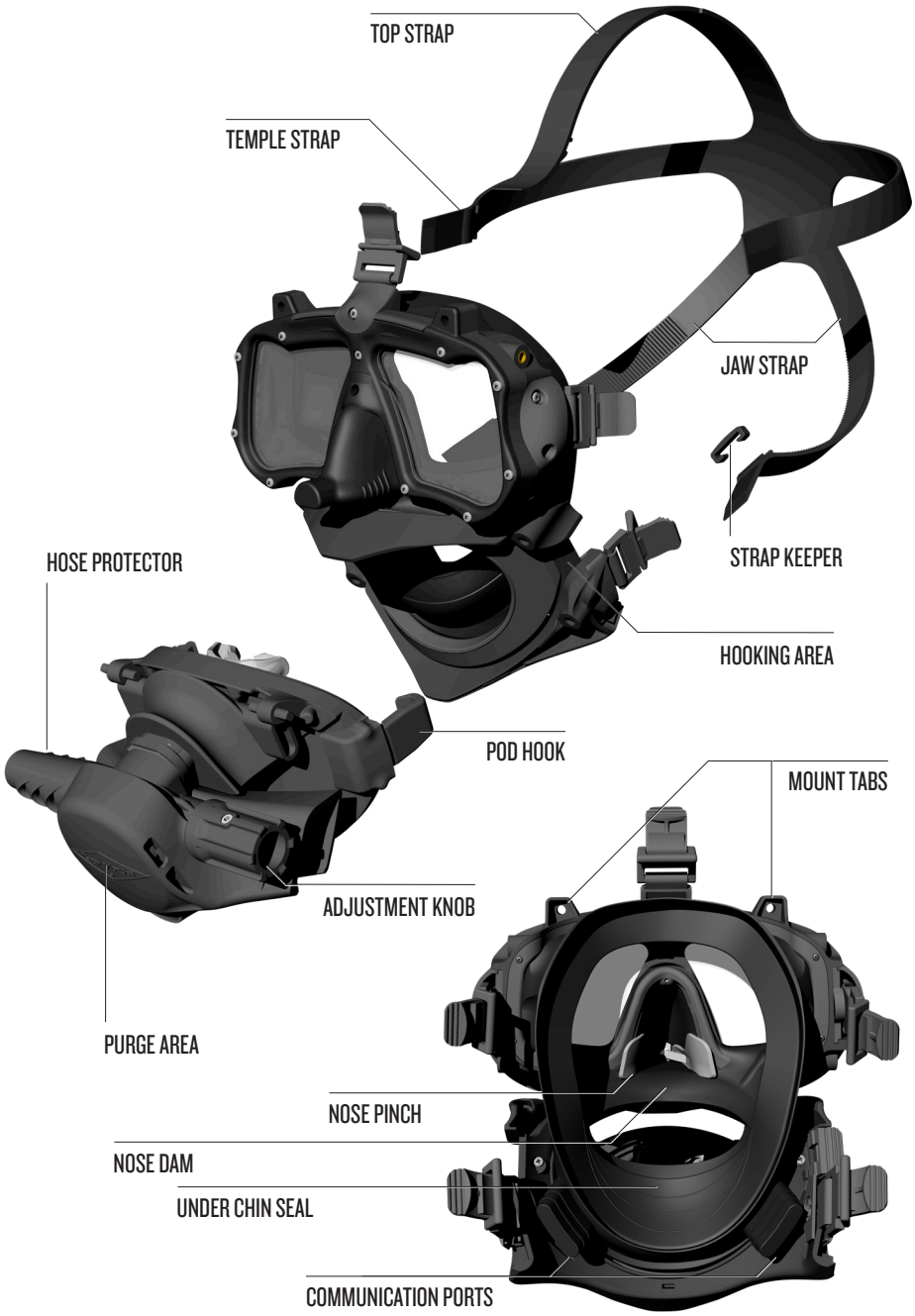
Kirby Morgan Dive Systems, Inc., cannot guarantee the diver protection from contaminants when using the M-48 SuperMask® and MOD-1 in waters that are biologically, chemically or radioactively polluted. Radioactive, chemical, and biological contaminants can cause serious, permanent bodily harm or death to the user.

While the M-48 SuperMask® and MOD-1 can minimize and help reduce the risks associated with the exposure to certain waterborne chemical and biological contamination, it cannot protect the user in all situations or against all contaminants and KMDSI makes NO claim that the mask will protect the diver while diving in contaminated water.

Diving this mask in water containing concentrations of petroleum based chemicals could cause degradation of the components of the mask. Clean the mask using only a solution of one tablespoon of mild hand dish washing soap, such as Joy or Palmolive, to one gallon of water.

Components of the M-48 MOD-1





CE Marking

CE Marking

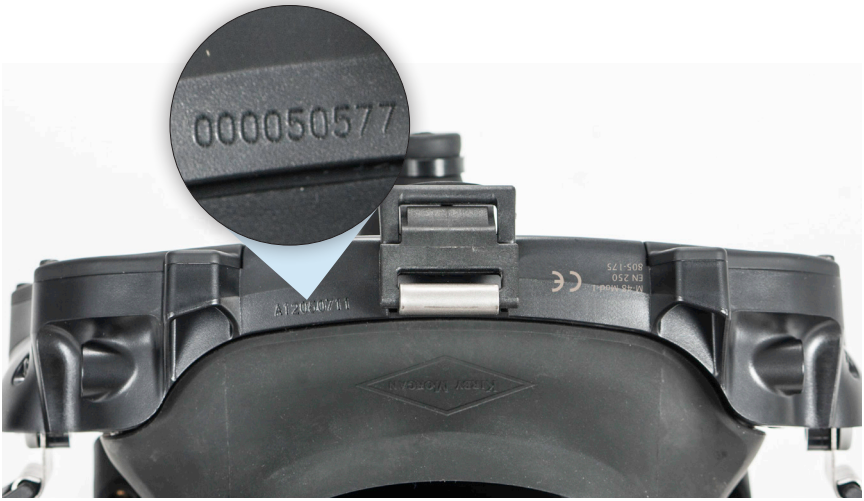
On the right side of the upper leading edge of the mask frame the CE mark is printed.
On the right lens the data reported is the following:

1. The name of the manufacturer

On the mask frame the data reported are the following

2. CE marking CE
3. The Full Face Mask Model (M-48 MOD-1)
4. Harmonized reference standard EN 250
5. Part number of the mask

The M-48 MOD-1 serial number is printed on the left side of the upper leading edge of the mask frame.



NOTICE

The user cannot:
- **remove the mark from the lens of the full face mask;**
- **modify or counterfeit the data reported on the mark.**

NOTICE

The mark must be visible and legible throughout the life of the PPE. If the mark deteriorates or is not legible the user should contact the manufacturer.

Depth Limit

The Depth limit for the M-48 MOD-1 P/N 805-175 and M-48 SuperMask® P/N 805-010 is limited only by the Underwater Breathing Apparatus (UBA) installed into the system.

When operating under CE guidelines, the maximum allowable recreational diving depth for the M-48 MOD-1 and SuperMask® with open circuit scuba is 130 FSW (39 MSW).

Lab testing at Dive Lab, Inc. to the EN 250 standard of 50 meters as well as additional testing beyond EN 250 limits, 100 m have completed successfully, but it is the UBA chosen that affirms the depth limit.

Diving Modes

⚠ WARNING

Testing conditions of the M-48 SuperMask® and MOD-1 masks using pilot assisted, or servo regulators, were found to exhibit higher levels of internal mask pressures when applying the purge button feature. These levels were above the allowable limit. This should be taken into consideration when choosing a second stage regulator for use with either mask.

Using the M-48 MOD-1 with Open Circuit Scuba

For open circuit scuba, the M-48 MOD-1 is used in much the same way as a half mask and standard second stage regulator. If you have purchased the scuba pod P/N 805-015, the Mouthpiece, Long P/N 810-022L is inserted into the pod. Also note that if the KMDSI balanced scuba second stage is purchased with, and mounted to the pod, the pod will be equipped with the automatic water purge system and NOT the tilt to purge valve assembly.

If your M-48 MOD-1 and scuba pod P/N 805-015 are not already equipped with a Kirby Morgan second stage regulator, it is important that the regulator installed use only the Kirby Morgan P/N 810-022L mouthpiece. The instructions for mounting open circuit demand regulators in this user guide

must be read and understood before attempting to mount a second stage. When using this mask in countries that conform to CE standards the mask must only be used with components that have been CE certified. The maximum recommended recreational diving depth for the M-48 MOD-1 with open circuit scuba is 130 FSW (39 msw) when operating under CE guidelines.

⚠ WARNING

If the mask is used for surface supplied diving, do not connect the umbilical directly to the M-48 scuba pod regulator. This can create a direct pull on the mask and pod and does not allow for use of a one-way valve and EGS supply. Always connect the umbilical to a one-way valve on a manifold block assembly, which then can be properly secured to the diving harness. KMDSI Manifold Block P/N 300-145, 300-150, or 300-155 is appropriate for this purpose. Use of the manifold block requires surface supplied training.

Without the proper equipment for surface supply, the risks are many and can include: severe face squeeze, loss of mask, separation from air hose/umbilical, all of which can result in severe injury or death by drowning.

The minimum temperature for using the Balanced Scuba & SuperFlow regulators and M-48 MOD-1 with a surface supply umbilical and KMDSI manifold block is 32 °F (0.5 °C).

⚠ WARNING

When diving surface supply using a high pressure source, use only a high pressure source that has been filtered through a system that removes moisture down to at least -50 °F (-45 °C) to reduce the possibility of forming ice in the supply system. Ice has the potential to dangerously restrict or cut off a diver's air supply, resulting in serious injury or death.

Surface Supplied Open Circuit Diving Mode

The M-48 MOD-1 can be used for surface supplied diving when used with a surface supplied diving system and recommended interface components. The Balanced Scuba Regulator and regulators with a bias adjustment device will provide the best overall performance because they allow the user to make adjustments for variations of supply pressure and diver orientation.

When using the mask for recreational scuba regardless of the regulator being used, the maximum recommended recreational diving depth is 130 FSW (39 msw).

The mask should only be used for surface supplied diving by divers trained and qualified in surface supplied techniques and procedures. A fully functional emergency gas supply system and body harness must always be used when diving the M-48 MOD-1 or any of the KMDSI Full Face Masks models in the surface supplied mode.

The mask has not been CE approved for surface supplied diving and should not be used for surface supplied diving in countries conforming to CE standards. For further information on this topic call or e-mail KMDSI.

Minimum Equipment for Surface Supplied Diving

The minimum equipment for surface supplied diving with this mask includes the following:

- Topside air supply (either low pressure compressor or high-pressure cylinders)
- Air control manifold
- Diver's Manifold Block with One Way Valve (Non-Return)
- Diver worn bail-out bottle with diving harness
- Bail-out regulator with over-pressure relief valve
- Umbilical with breathing gas supply hose, communications wire, and pneumofathometer hose
- Communications box
- M-48 MOD-1 equipped with communications

⚠ WARNING

The M-48 masks and associated parts are NOT equipped with a one-way valve (non-return) for surface supplied diving. When using the mask for surface supplied diving it must be used with the KMDSI Manifold Block P/N 300-145, 300-150, or 300-155, a suitable diving harness and emergency gas supply system. Without the one-way valve (non-return), the diver could be subject to a "squeeze" if the umbilical supply is severed. This can be fatal.

Demand Regulator Adjustment / Surface Supplied

When using the mask for surface supplied diving, the KMDSI Balanced Scuba Regulator will offer the best overall performance due to the broad adjustment range of the regulator bias adjustment and the ability to make adjustments for variations in supply pressure.

Pre-Dive

⚠ WARNING

Not all scuba regulators/BOV'S/DSV's will fit the M-48 standard scuba pod. The size of the mouthpiece mounting tube as well as the placement and size of the exhaust tee can affect the mounting and proper functioning of the mouthpiece and folding action on the pod bellows.

Mounting Open Circuit Regulators

VIDEO

How To Mount Open Circuit Regulators to a Kirby Morgan scuba pod

https://www.youtube.com/watch?v=cPXJ-VueVy0

⚠ CAUTION

Regarding Second Stages Used with M-48 SuperMask and M-48 MOD 1:

Testing conditions of the M-48 SuperMask® and MOD-1 masks using pilot assisted, or servo regulators, were found to exhibit higher levels of internal mask pressures when applying the purge button feature. These levels were above the allowable limit. This should be taken into consideration when choosing a second stage regulator for use with either mask.

If your mask was not supplied with a KMDSI regulator installed by the factory, you will need to have an acceptable regulator installed in the pod on your M-48.

Prior to installation check to see if your regulator will work properly with the scuba pod, P/N 805-015 by referencing the images that follow and see that it conforms to the following parameters:

1. The regulator mounting tube must have a single lip at the end that will be closest to the diver's mouth.

2. Demand regulator mouthpiece mount tubes should be at least a length of 0.5 inches at the shortest measurement.

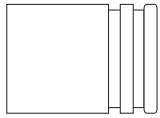
3. The KMDSI mouthpiece P/N 810-022L must fit snug completely around the mounting tube regardless of its shape.

The final test prior to installation should be that the KMDSI mouthpiece should remain on the mounting tube after a simple test of a slight pull when secured without a tie wrap.

Do not stretch the pod mouthpiece opening greater than 50%.

Failure to use the correct type of demand regulator will result in flooding of the pod, which can lead to drowning. If in doubt do not install the regulator until first consulting with KMDSI or Dive Lab Inc.

Some manufacturers have specially-shaped mouthpiece mounting tubes that have mating mouthpieces. These types of regulators cannot be used. There must be a retaining lip at the end of the mouthpiece mounting tube of your regulator in order to retain the mouthpiece. Use the included mouthpiece to check the mount tube compatibility.



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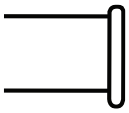

This type **OK**

The mouthpiece mount tube must have sufficient surface area to retain the mouthpiece to the tube.

Mouthpiece mounting tube (shown in magnified view).

The KMDSI mouthpiece and pod opening can be safely stretched to 50%.

Do not use regulators that have a mouthpiece tube that have a double lip at the end of the tube closest to your mouth, as illustrated at the left.

A pull test (see page 23) should be performed to confirm proper attachment of the regulator to the POD and mouthpiece.

⚠ WARNING

Not all second stage regulators can be properly mounted in the M-48 pod. The size of the mouthpiece mounting tube and the placement and size of the exhaust tee can affect the mounting and proper functioning of the mouthpiece and folding action on the pod bellow. Use of a regulator that does not conform to the above stated requirements can result in drowning.

NOTE

Some divers may find the mouthpiece as supplied, to be too long. It is possible to trim the mouthpiece to a shorter length. Using scissors carefully shorten the mouthpiece at the trim edge notch as illustrated in Figure 1.

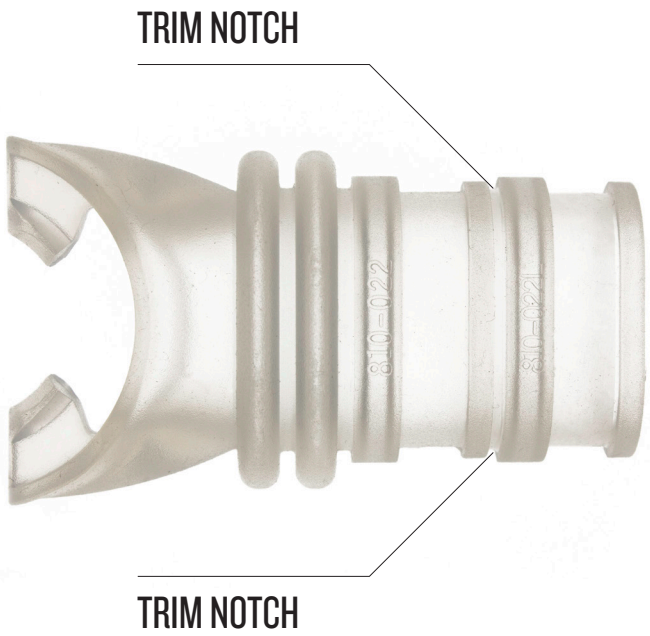

Figure 1 the M-48 mouthpiece

⚠ WARNING

Only the KMDSI mouthpiece P/N 810-022L will function correctly in your KMDSI scuba pod. Do not attempt to use any other manufacturer's mouthpiece. Doing so could result in death by drowning

⚠ WARNING

Never dive without a mouthpiece installed in the pod. A mouthpiece allows use of the pod even if the pod is not sealed to the mask. Buddy breathing cannot be readily accomplished without a mouthpiece installed. Use of the mask without the mouthpiece could result in death by drowning.

⚠ WARNING

Diving the KMDSI modular full face mask system without a mouthpiece will make dewatering the demand regulator/BOV/DSV more difficult. This could lead to death by drowning.

NOTICE

This procedure requires proper tools and a complete understanding of the installation procedure. Read the procedure carefully and entirely before attempting to install the regulator. If you are not confident you can perform this installation correctly, have the work performed by a trained technician at an authorized Kirby Morgan dealer.

Tools and Components Needed for Installation of Regulator to Scuba Pod

- Needle Nose Pliers
- Side Cutter Pliers
- Pliers
- Tie Wrap P/N 520-039 (rated for minimum 50 lb. pull)

1. Using the side cutters, cut and remove the tie wrap that secures the mouthpiece to your demand regulator/BOV/DSV.
2. Carefully inspect the regulator/BOV/DSV for sharp edges, and ensure the length and dimensions of the mouthpiece attachment point meet the requirements as shown previously. Test fit the KMDSI mouthpiece P/N 810-022 L to what is being mounted to be certain it will work as necessary.
3. Insert the KMDSI mouthpiece P/N 810-022L from inside the pod; into the opening so that the bite end extends into the cavity and the other end is flush with the pod opening.
4. Make certain that both the mouthpiece and regulator mount tube are clean and free of ANY lubricants. Insert the demand regulator/BOV/DSV into the mouthpiece opening and fit so that the mouthpiece and pod opening are fully seated on the demand regulator/BOV/DSV. Be certain everything is properly aligned, (straight).

Correct

INCORRECT

Insert the mouthpiece into the pod first.

The end of the mouthpiece must align evenly with the end of the mouthpiece tube on the pod.

When the regulator/BOV/DSV is inserted into the pod, the mount tube of the regulator/BOV/DSV ***must be inserted as far as it will go into the pod****. In addition, the regulator /BOV/DSV must be oriented correctly, i.e., right side up & free of lubricants too.*

⚠ WARNING

Use only a KMDSI tie wrap P/N 520-039 rated for a minimum pull of 50 lbs. Use of a weaker tie wrap, or one that is "LOW PROFILE" could become loose and allow the regulator to pull out of the pod. This could lead to flooding of the pod and death by drowning.

Use only a KMDSI tie wrap with a minimum pull rating of 50 lbs.

Tighten the tie wrap properly using a tie wrap gun to achieve the correct tension. If a tie-wrap gun is not available, use needle nose pliers to twist and tighten.

5. Fit the tie wrap P/N 520-039 into position, ensure the joint of the tie wrap ends up in the center of the side of the mouth opening as shown. Pull as tight as possible by hand or use a tie wrap installation tool. Cut

off excess tie wrap material flush with the joint lock of the tie wrap. There should be no sharp edges.

6. Pull the mouthpiece and the demand regulator/BOV/DSV in opposite directions with enough force to ensure that they are both securely mounted to the pod.

7. If the mouthpiece or demand regulator/BOV/DSV pulls off the pod, even partially, it must be remounted!

It is recommended that any time a user is in doubt as to the integrity of the component to pod fit in question, a simple pull test is performed by the end user or installer by simply attaching a 25 lb. weight to the demand regulator/BOV/DSV using string or tie wraps in the manner shown on this page. Suspend the weight for 3–5 seconds from the pod with the pod mounted on a stable device, if available and allowing the full weight to pull on the demand regulator/BOV/DSV.

If there is any doubt regarding the mounting of the regulator, perform a pull test as illustrated here, by using a 25 lb. weight.

⚠ WARNING

After assembling, ensure the demand regulator/BOV/DSV functions properly without interference to or from any part of the pod or mask. If in doubt, do not use until first consulting with KMDSI or Dive Lab Inc. If ignored, signs of improper function may lead to compromised air delivery which could lead to accidents that can cause injury or death.

Regulator Hose

The supply hose that attaches the 1st and 2nd stage regulators together should be of sufficient length to allow full movement of the head when the pod is secured to the mask. Ensure the hose is secured to the demand regulator inlet and the 1st stage. A special swivel attachment P/N 305-017 (included) may be attached to the demand regulator or BOV. This swivel allows a better fairlead of the intermediate hose and less restriction in head movement.

⚠ CAUTION

Do not dive with a low pressure regulator hose connected to the regulator that is too short. Using a hose that is too short will put unnecessary stress on pod and regulator/ BOV, resulting in restricted head movement and could increase difficulty of latching the pod to the mask. These factors can decrease the comfort of the diver which could lead to an accident and injury.

Under Chin Seal

The MOD-1 can be ordered with a standard mask skirt (trimmed) or one that has an extended (untrimmed), UNDER chin seal. The UNDER chin seal is extended to allow for a proper seal for divers with a particularly small face. The extended seal has raised trim lines running on the inside of the seal and can remain in place or trimmed for a custom fit.

Untrimmed mask skirt, left and standard (trimmed) mask skirt, right.

A simple test can be performed to check to see if trimming is necessary. Don the mask that has a standard trimmed under chin seal, as instructed in this guide, and check under the chin to see if there is a gap between the short outer edge seal, and the underneath area of the divers chin. If

no gap can be seen, then a standard MOD-1 face seal can be used. If there is a large gap, then the process described next should be followed, using a MOD-1 with a extended, (untrimmed), under chin seal.

A sharp pair of scissors is needed to make smooth cuts and should be done one line at a time, testing the fit after each cut. The UNDER chin seal's leading edge should form a comfortable seal under the chin, without causing any hard pressure points.

Vent Holes

The mask skirt has two vent holes located in each eye cavity of the mask. **These vent holes are intended to be used in a future MOD-1 configuration.** They will not affect the function of the mask in open circuit or closed circuit diving modes.

Installation/Removal of Mask Strap

The standard mask strap is a five-point semi-stretch head harnesses, P/N 810-007.

The mask strap has five straps branching out from a junction at the bottom OUTER surface of the strap, where "Kirby Morgan" and the diamond logo can be seen. Each strap leg has many buckle adjustment "teeth". Keep in mind that these teeth should be against the divers head before being threaded into the buckle assembly and the smooth surface should face outward once it has gone through the buckle assembly.

Strap Keepers

Each of the five straps has a strap keeper. The strap keeper is secured in a groove found at the end of the strap before the tapered end. The strap keeper should be installed on the strap, with the small gap in the keeper, oriented with the smooth side of the strap. The mask strap cannot be removed from the mask without removing the Strap Keeper. Installing the strap keeper should be installed after the strap has been threaded through the buckle assembly.

Removal of the Mask Strap

The strap keepers must be removed first. Note the position of the strap keepers in relation to the mask strap before removing. We recommend replacing the strap keeper back onto the strap groove once it has been pulled through the buckle assembly and clear of the mask. This will lower the chance of losing the strap keeper and ensure correct orientation into the strap groove. Remember to remove the keepers before attempting to re-install the straps onto the mask.

Lift up on the tab found at the edge of the buckle assembly while simultaneously pulling the strap leg until it is completely fed through the assembly and clear of the mask.

Repeat process for the remaining four straps.

Installation of the Mask Strap on Mask Frame

Orient the mask strap so that the junction of the mask strap will be positioned at the back of the diver's head, with the smooth side of the harness facing out and the ribs on the strap legs against the head.

Begin with the Top Strap and feed the strap through the adjustment buckle by lifting up on the tab of the buckle assembly. The strap keeper groove will appear after the tapered leading edge followed by the resistance ribs. The resistance ribs will face the head or hood and the smooth side facing away from the head or hood. This will prove correct threading through the assembly.

Reinstall the strap keepers into strap groove.

Repeat process for the remaining four straps.

NOTE

The strap keepers prevent the straps from coming free from the buckles and must be in place prior to diving.

Cleaning the Face Port and Interior Surfaces

The M-48 MOD-1 frame and pod components are made of high impact plastic. The flexible face seal and pod skirts are molded of high grade injection molded liquid silicone.

Twin lens are made of tempered glass. Ensure that the viewing lenses are clear and clean. Fogging can be eliminated or reduced by thoroughly cleaning the interior of the lens and applying a good quality anti-fog solution. Follow the manufacturer's recommendations for use.

If commercial anti-fog solution is unavailable, ½ a drop per lens of liquid dish washing soap or liquid hand soap can be used. Apply the small dab, smearing a thin film on the inside of the lens and let dry. Follow with a light buff with a soft cloth allowing a slight residue of soap film to remain on the face port to inhibit fogging.

Communications with the M-48 MOD-1

VIDEO

How to install Communications in your M-48 MOD-1 / SuperMask® | Full Face Mask | 815-060

https://www.youtube.com/watch?v=9jjf52OlHa8

Communications are available for the M-48 MOD-1; either hard wire or wireless. The communications mounting instructions will vary, depending on what type of system you purchase.

To mount a microphone into the mask, follow the manufacturer's recommended mounting instructions. In almost all cases, you will need to open up one of the communications ports, which are located below the bottom edge of the mask frame. Secure using tie wrap, KMDSI P/N 520-038.

Installing a Communications Port Plug

If the mask has a communications system installed, but you wish to use it without, remove the communications system from the mask. You will now need to plug the communications port. Install the communication port plug as shown, curved side towards the diver's face.

Dewatering and Tilt to Purge Valve Assemblies

It is important to always clean and flush the purge tube, balanced or tilt to purge valve assembly after every dive; followed by an inspection for damage, tears or deterioration of assembly.

Inspection

Regardless if your pod is fitted with a tilt to purge valve or with a purge tube, balanced there are two main points of inspection.

- The tie wrap securing the water dump body to the pod.
- The water dump valve body and valve and its fit into the recess of the inside of the pod skirt.

Outside of the pod

Visually inspect the tie wrap for signs of failure then use your hand to apply slight pressure to the assembly to guarantee it is secured to the pod.

If your pod is equipped with a tilt to purge valve assembly move the stem in all directions to ensure the spring is working and that the stem returns to its original position.

Inside of the pod

Begin by visually confirming that the water dump valve body is seating correctly in the lower recess of the pod skirt.

Follow up by moving the tip of your finger around the leading edge of the Water Dump Valve Body to verify uniform seating into the pod skirt.

⚠ CAUTION

Prior to diving, a complete inspection of the mask and all related gear should be made in accordance with the pre dive set up procedures and pre dive checklists to ensure that everything is in proper working order. Users should become familiar with all components and functions of the mask as well as all support equipment used before donning the mask. Failure to inspect the mask prior to diving or being unfamiliar with the gear may lead to an accident resulting in injury or death.

PRE-DIVE with Open Circuit Regulator

Use PRE-Dive Inspection, in this user guide or print one out from www.kirbymorgan.com/support/checklists to ensure that a methodical inspection of the M-48 MOD-1 and all related gear is completed before each dive. This will ensure all components are in proper working order prior to water entry.

PRE-Dive Inspection

Diver Name: _____ Date: _____

NO.	STEP	INIT.
1.	Visually inspect exterior and interior of mask and pod for any type of obvious damage. Both should be free of debris, cuts, nicks, and deterioration.	
2.	If using a BOV/DSV on the pod, test IAW manufacture's instructions. Ensure the BOV/DSV and mouthpiece are secure in the pod. If using a demand regulator and/or separate pod for secondary gas supply, inspect IAW the manufacturer's recommendations and ensure the regulator and mouthpiece are secure in the pod.	
3.	Inspect the mask and pod sealing surfaces and ensure they are in good condition with no cracks, tears, debris, or punctures.	
4.	Carefully inspect head harness for signs of cracking or tearing. Head harness adjustment buckles should be checked for damage and tested for proper function. Ensure each strap has a keeper.	
5.	Visually inspect viewing lenses. They should be clean and clear. A good practice is to **APPLY ANTI-FOG SOLUTION PRIOR TO USE**.	
6.	Inspect following pod components: ☐ Hook ☐ Regulator ☐ BOV ☐ DSV ☐ Catch/Release Dewater/Purge Valve ☐ Mouthpiece is Secure ☐ Nose Pinch Assembly Pod Catch Release requires routine inspection before and after each dive to ensure part is in optimum working condition. When attaching pod assembly to the mask, pod catch release should make a snapping sound while engaging each ratchet tooth on mask catch. No sound or physical contact while engaging ratchet teeth on mask catch indicates material fatigue, damage or obstruction. Under such circumstances, pod catch release/hook must adjusted or replaced prior to dive.	
7.	Check the mouthpiece of the regulator/BOV/DSV to ensure correct installation, function, and secure fit. (covered in #2)	
8.	Check accessory mounting bracket and installed components (if applicable) for secure fit.	
9.	If installed. Check for proper installation of communication system and/or communication port plug,	
10.	Conduct a surface fit check of mask, harness and buckle assembly prior to diving. Confirm that the skirt in not folded under itself and sits properly on the face.	

Donning

Donning the M-48 MOD-1

Although you can don the mask as one complete unit, Kirby Morgan recommends you don the mask first followed by securing the pod second. Complete donning is best accomplished in a two step process before entering the water.

This will not only conserve your limited gas supply and allow more free movement for proper donning, but will also allow clear communications to any topside support personnel before you enter the water.

1. Hold the M-48 MOD-1 so that it is hanging from the Mask Strap and the five straps are completely loose.

2. Place the M-48 MOD-1 on your head in a face down position so the Mask Strap junction is resting at the lowest part of the head (NOT ON THE NECK) in an even position and not off to one side.

3. Pushing the mask up onto your face, get your chin and the nose dam positioned comfortably into the mask, then lightly tighten the Temple Straps first only enough to position the larger area (junction) of the harness at the back of the head and as low as possible.

4. Remaining in the face down position lightly tighten the lower Jaw Straps, and then lightly tighten the temple straps alternating between the two until the fit is evenly positioned.

The top strap is mainly used to locate the rear mask strap junction. If you feel it is necessary to adjust it, do so after all side straps have been adjusted.

Equalizing

The nose cavity contains a mechanical equalizing device held in place from the outside of the nose cavity with a low profile tie-wrap. This advanced feature has been added to assist in pinching the nose throughout a wide range of nose and face sizes while wearing the bulkiest of gloves. Because the actual nose pocket of the mask is very flexible, it allows the pocket to be moved slightly in towards the face and can also be flexed side to side to get the best possible function of the nose pinch assembly. This device is very effective as installed and can be removed if needed to modify or clean.

⚠ WARNING

It is highly recommended that all donning, doffing, pod removal, and replacement procedures be practiced on the surface in a dry environment, regularly and often, before attempting the same procedures in the water. Lack of familiarity with these procedures, should they become necessary while in the water, can lead to an accident, resulting in severe injury or death.

Connecting the Pod to the Mask

Only when you are ready to enter the water is it necessary to fasten the pod to the mask frame. Whether you are using a demand regulator/BOV or DSV it is essential to practice donning and removing the pod on and off the mask before you enter the water.

1. Engage the hook on the pod onto the left side of the mask frame, just above the Jaw Strap.

2. Swing the pod to the right so that the mating surface on the pod frame properly engages the mating surface on the mask frame.

3. Snap the pod catch, release, located on the pod, to the right side of the mask by positioning your thumb on the back of the pod catch (found on the mask) and forefinger on the pod catch, release. Squeeze the two parts together. Ensure that the pod is snapped onto the second tooth of the pod catch. A click can be heard during the mating procedure.

The pod Catch, Release MUST click and remain on the second and final position on the pod catch (on the mask) to be in dive mode.

4. Insert the mouthpiece and clear the demand regulator or BOV by both closing your mouth and pushing the purge button or by forcefully exhaling into the mouthpiece. If using a DSV exhaling into the mouthpiece to clear the regulator is your only option.

5. Dewater pod - To dewater the pod refer to “Dewatering Basics” on page 37

Alternate Method for connecting the pod at the Surface

1. Place the mouthpiece in your mouth first. Clear the regulator or BOV by both closing your mouth and pushing the purge button or by forcefully exhaling into the mouthpiece. If using a DSV exhaling into the mouthpiece to clear the regulator is your only option.

2. With the mouthpiece in your mouth, slide the pod to the left to properly align the hook onto the mask frame.

3. Using the thumb and forefinger, snap the pod catch, release closed by pinching the front part of the pod catch, release and the back part of the pod catch together. Ensure that the pod is snapped onto the second tooth of the pod Catch (two clicks) and in the dive mode position.

4. Dewater pod - To dewater the pod refer to “Dewatering Basics” on page 37.

With either method, you may use your fingers and the palm of your hand to snap the pod Catch, Release closed by pinching the front part of the Catch, Release and the back part of the pod Catch (mask) together.

With either method, you may use your fingers and the palm of your hand to snap the pod Catch, Release closed

Releasing the Pod from the Mask

Squeeze the front and the back parts of the pod Catch, Release together to release the pod from the mask. Swing the pod forward and to the left in an arcing motion to free the pod Hook from the mask.

Make sure the pod Hook is completely disengaged from mask. Once you have established that the pod is free of the mask suggested handling is by holding the LP supply hose to move the pod to desired location for gas sharing, storage or transport.

Diving with a Hood

A general rule of placing the mask skirt closest to the face with the wet-suit hood over the mask skirt should be typical. Latex dryhoods found on certain drysuits are thin enough to be worn either close to the face with the mask skirt on top of the hood or with the mask skirt close to the face in the configuration when using a neoprene hood.

Kirby Morgan has designed a unique attached hood made specifically for this mask. It gives the optimum positioning and sealing onto the mask and comes in standard and large sizes.

Water Entry

Many methods of water entry are possible due to the secure nature of the mask seal. However, the diver should hold the mask & demand regulator/ BOV/DSV firmly against the face when doing a roll off or drop type entry. Once in the water, the diver should recheck mask fit, check the regulator for ease of breathing, and perform a communications check if so equipped.

Removing the Mask

The mask can be removed by pushing forward on the release tabs of the two Buckle Assemblies at the two lower Jaw Straps while pushing the lower half of the mask away from the chin to reach the maximum extension of the jaw straps. This will allow the mask to be removed by pulling it up and over the face and clear of the head. If you are topside it is usually best to remove the pod first before removing the mask.

It is also possible to push outward on both the Temple and Jaw strap buckle assemblies in a controlled manner, then proceed to push the entire mask away from the face.

Removing/Replacing Pod while Underwater

Users of the M-48 MOD-1 should practice donning, doffing, pod removal, and replacement procedures on the surface, in the dry first. An excellent way to practice this is while sitting in front of a mirror. This will allow you to see exactly how things should align to obtain proper attachment. As you progress with the technique, start attempting this with your eyes closed. Doing this for several minutes will train you as to the natural movements needed to attach the pod. It will become second nature with practice.

Once the basic maneuvers have been practiced and the user is comfortable, for the initial use of the M-48 MOD-1 it is recommended the user move into a calm, shallow, controlled body of water (5–10 feet, 1.5–3 meters, in depth) to repeat the donning and doffing drills that were practiced in the dry.

⚠ WARNING

It is important to periodically practice clearing the pod and mask in open water. When carrying out these drills is it is imperative you train with all of the gear, which you normally dive with. Failure to properly train to use this equipment can lead to serious injuries or death.

Releasing the pod from the Mask While Underwater

Squeeze the front and the back parts of the pod Catch, Release together to release the pod from the mask. Swing the pod forward and to the left in an arcing motion to free the pod Hook from the mask.

Once the right side of the pod is free, swing the pod to the left allowing it to completely unhinge from the mask.

When removing the pod while using a demand regulator or BOV the mouthpiece should be rotated downward to minimize free flowing. If the demand regulator is equipped with a bias adjustment or a venturi spoiler, the regulator should be desensitized and a free hand should also be at the ready to block the mouthpiece opening to stop a possible free flow caused by the venturi effect.

If switching from one pod or alternate air source to another, the pod or air source should be located and ready to use, prior to unhinging the pod to allow for rapid switching. Once the pod is completely free of the mask, another pod can be reattached or the user can use a standard open circuit scuba regulator.

NOTE

Normal breathing can occur with the M-48 MOD-1 without sealing the pod frame to the mask as long as the diver has the mouthpiece in their mouth and it is clear of water. With the mouthpiece secured and demand regulator/BOV/DSV cleared, the system will act in the same manner as a traditional mask and second stage when scuba diving.

Connecting the pod to the Mask while Underwater
refer to "Connecting the Pod to the Mask" on page 31

⚠ WARNING

Never dive the mask without a mouthpiece installed in the pod. A mouthpiece allows use of the pod even if the pod is not sealed to the mask, or if the mask strap fails. Having a bite on the mouthpiece will help maintain a good seal to the mask. Also, buddy breathing cannot be readily accomplished without a mouthpiece installed. The chances of an accident due to a compromised air supply increase greatly without the mouthpiece. This can lead to serious injury or death of the diver and/or the diver's partner.

Mask Clearing and Dewatering

Mask Clearing with KMDSI Balanced Scuba Regulator

To clear water from the Upper (eye) section, one should understand the path to exit. The water will be forced from the Upper (eye) section to the Lower (oral) cavity and out the dewatering/purge valve at the base of the pod frame.

When using a KMDSI Balanced Scuba Regulator with the M-48 MOD-1 it is simply a matter of attaining a face forward position, with the mouthpiece in your mouth, and exhaling through your nose while using one hand to lift the bottom of the lens frame away from the face. Be sure to begin exhalations through the nose **before** lifting the bottom of the mask frame and to **continue exhaling until** the frame returns to the face.

The face forward position, increasing pressure (from exhaling) and purge assembly on the pod all work together to drain the water from both cavities of the mask. When air bubbles are seen escaping from the dewatering/purge valve, the pod has been cleared.

Review: Mask Clearing

1. Exhale through the nose (with mouthpiece in your mouth)

2. In a face forward position lift bottom of lens frame away from face

Mask Clearing with Tilt to Purge Assembly

If using a pod fitted with the Tilt to Purge assembly this process is accomplished in the same manner as mentioned above, but will also require another hand to activate the tilt to purge valve. Pressing on the Valve Stem in any direction will active the valve. When air bubbles are seen escaping from the dewatering/purge valve, the mask has been cleared.

Dewatering Basics

The same concept of clearing the mask applies to dewatering the pod. Increased pressure, by exhaling through the nose, is the force that pushes water through the water dump/ purge valve to clear the pod. When air bubbles are seen escaping from the valve, the mask has been cleared.

Hands Free

When using the M-48 MOD-1 with the KMDSI Balanced Scuba Regulator dewatering the lower cavity is an effortless process that is hands free. The purge tube located at the base of the pod Frame houses a dewater/one-way valve. This valve keeps water out and with an increase of cavity pressure, by exhaling through the nose with the mouthpiece in your mouth, it allows water to be forced out of the lower section of the pod. Additional methods for dewater are also possible. Such as activating the purge on the regulator, not having the mouthpiece in the mouth, but having the mouth closed.

Tilt to Purge

When using a pod with a demand regulator other than the KMDSI Balanced Scuba Regulator your hand will be required to activate the tilt to purge found at the base of the pod frame.

1. With the mouthpiece in your mouth begin exhaling through the nose.

2. While exhaling push on the tilt purge stem in any direction to activate the valve.

3. Repeat process until water is completely out of the pod.

<u>Review: Dewatering pod</u>

1. Exhale through the nose (with mouth closed or the mouthpiece in your mouth).

2. If pod is equipped with tilt to purge activate valve while exhaling.

The lower cavity should be clear of water within two to three exhalations from the nose.

Remember...When air bubbles are seen or heard escaping out of the valve, that is indicating water has been purged.

Post Dive Procedures/Checklist

Completely inspect the M-48 MOD-1, soft pod and all related gear after each dive in accordance with the checklist in the following Post-Dive Cleaning and Inspection to ensure that all components are in proper working order.

NOTE

For the following procedures, the M-48 MOD-1 should already be completely disconnected from the breathing system.

Post-Dive Cleaning and Inspection

Diver Name: _____ Date: _____

NO.	STEP	INIT.
1.	Remove pod from mask.	
2.	Soapy Solution Wash: Prepare solution of warm water (80–100 °F) and mild hand type dish-washing soap. Agitate components in solution for 2–3 minutes; use soft bristle brush or cleaning rag. Allow mask to soak for 10 minutes then rinse thoroughly with clean fresh water.	
3.	Ensure all debris such as sand and dirt is removed from regulator mouthpiece and BOV/DSV inhalation and exhalation ports. Clean the regulator; BOV or DSV IAW manufacturer's instructions. Thoroughly rinse the tilt-to-purge valve.	
4.	Rotate Regulator Adjustment Knob fully out (counter clockwise), if equipped.	
5.	Gently blow dry mask and pod with clean, oil-free low pressure air (less than 30 psig, or 1.8 bar) or hang and let air dry completely. Allow mask to dry completely before storage. Avoid direct sunlight. To avoid spotting, dry view ports with a clean, lint free cloth.	
6.	Inspect mask for damaged, worn, or missing parts.	
7.	Dry and store mask and pod out of sunlight and fluorescent light, preferably in protective bag or pouch.	

⚠ CAUTION

When not in use, component inlet/outlet ports shall be protected with clean, dry dust caps. Otherwise, contaminants or debris can enter and cause malfunction, leading to accidents and/or injury.

Soft Pods and Mouthpiece Replacement Criteria

Prior to any dive visually inspect for any damage. Ensure all debris is cleared from pod before conducting inspection. The pod and/or mouthpiece should be replaced under the following conditions:

Visual inspection of both exterior and interior of pod reveals cuts, nicks,

or general deterioration that could affect, fit, form or function. pod cover is cracked, torn, or punctured.

Connecting parts, such as pod catch, release or pod hook are not securely mounted or are damaged or worn, as described below:

pod catch, release does not make snapping sound while engaging each ratchet tooth on pod Catch.

No sound or physical contact while engaging first ratchet tooth on mask hook (indicative of material fatigue).

Visual inspection of mouthpiece reveals cracks, tears, or general deterioration.

REMEMBER: if any area of the pod, lenses/ mask or mask straps fails, your MOUTHPIECE could be your LIFELINE! Make certain it is properly installed and in good condition.

Cleaning Procedures

After each day of diving, or between use by different users, the mask, and pod, should be carefully cleaned and visually inspected. Cleaning should be accomplished using a mild hand type dish washing soap and cleaning rag.

Mix the soap and water approximately 1 tablespoon per gallon of water. Wet all components of the mask and agitate using a cleaning rag. Keep the soap solution in contact with the mask surfaces for at least three to five minutes then thoroughly rinse with clean fresh water and dry. Clean and sanitize the demand regulator/BOV/DSV in accordance with the manufacturer's recommendations.

The mask should be transported and stored, completely dried, in the storage bag with the pod removed to keep the frame from taking a set. Follow the manufacturer's recommendations on periodic maintenance of your demand regulator/BOV/DSV.

If the mask is equipped with communications, refer to the manufacturer's post-dive procedures for proper corrective maintenance and care.

⚠ CAUTION

Clean and sanitize this mask using only the procedure described in this user's guide. Never use cleaning solvents or petroleum-based chemicals on this mask.

During a standard overhaul, parts should be cleaned in a warm water and

mild soap solution, with a clean rag, and thoroughly rinsed in clean water. Hand dishwashing soap like Joy®, Dawn® or Palmolive® can be used.

With a solution of approximately one tablespoon of mild dish soap per gallon of warm water, a cleaning time of ten to fifteen minutes (parts submerged with some agitation with cleaning rag) is sufficient. Extended time should be avoided. A nylon toothbrush and/or tube brush can be used to remove corrosion. After cleaning, rinse all parts thoroughly with fresh water and allow drying. Always inspect the general condition of the pod and the components for any damage or wear before reassembling.

⚠ WARNING

Always sanitize all diving components an individual will be exposed to prior to use by another person. Failure to do so could result in the transmission of communicable diseases, some of which may cause long term disability or death.

⚠ CAUTION

Carefully dilute germicidal cleansing solutions in accordance with manufacturers' recommendation. If solution is not of the recommended strength, it will not act as an effective disinfectant and the spread of sickness may result.

⚠ CAUTION

Failure to thoroughly rinse germicidal cleansing solution from the diving equipment may result in lung irritation and/or long-term degradation of rubber and silicone components.

Sanitizing of the mask and pod is accomplished using one of the approved germicidal cleansing solutions listed in "Germicidal Solutions Manufacturers" on page 41. Follow the manufacturer's mixing instructions and procedures. It is important to thoroughly rinse with fresh water.

General guidelines are as follows: Wet or immerse all components to be sanitized. Allow to stay in contact with solution for at least ten minutes while lightly scrubbing over components with nylon toothbrush or clean cloth to help remove mucous or saliva build up. If germicidal solution appears to be drying, apply more solution to keep components wet for full ten minutes. After ten minutes, thoroughly rinse components under fresh (potable) running water while brushing or rubbing components.

If equipment is not being used immediately, allow components to air dry or pat dry with clean towel and reassemble.

Germicidal Solutions Manufacturers

1. **SaniZide Plus: P/N:** 34805 (spray) or 34810 (gallon), Ready to use; do not dilute. 1-800-456-7077 http://safetec.com/products/
2. **MSA Confidence Plus:** P/N 10009971 (32 ounces) Mix one ounce of concentrate with one gallon of fresh water.
3. **Steramine™**: Steramine Quaternary Sanitizing Tablets – 150 Sanitizer Tablets per bottle 1 Tablet per gallon of water - Makes 150 gallons of cleaning solution http://steramine.com/

Conservation and Storage

Ensure the mask and pod is thoroughly dry before storing. DO NOT STORE with the pod attached to the mask. It is best for long term storage not to have the pod attached to the mask.

Store the mask and pod at room temperature and out of direct sunlight.

⚠ WARNING

When purchasing spare parts, always insist on Kirby Morgan Genuine Parts. Although other parts may look the same, they may not be manufactured to the same standards of quality. Improperly manufactured parts can cause accidents that can lead to injury or death.

Scheduled Maintenance

This user guide provides properly trained personnel with the guidance and technical information needed to perform normal scheduled maintenance and adjustments as described herein. Repairs and overhauls must be completed by M-48 MOD-1 authorized, trained technicians.

NOTE

Read and understand each section before attempting the procedures in the tables found in the user guide. Refer to the accompanying figures for location of callouts included in these maintenance steps.

NOTE

Before scheduled maintenance is performed, all components should be thoroughly cleaned in accordance with the procedures found in “Cleaning Procedures” on page 39.

Disassembly Guidelines

Routine cleaning and maintenance is the best way to ensure long equipment life and optimum performance. The following outlines scheduled maintenance procedures for the M-48 MOD-1.

Scheduled Maintenance

	ACTION	FREQUENCY	REFERENCE
1.	Pre-Dive Inspection	Before Each Use	"PRE-Dive Inspection" on page 23
2.	Post-Dive Procedures	After Each Use	"Post-Dive Cleaning and Inspection" on page 32
3.	Inspection Of Pod Dewatering/Purge Valve Assembly	Daily	
4.	Inspection of Pod Catch/Release and Pod Hook	Daily	"Post-Dive Cleaning and Inspection" on page 32
5.	Replace tie wraps	At Least Every 12 Months, Inspect Daily	
6.	Inspect mouthpiece	Daily	
7.	Inspect Head Harness, Buckle Assemblies And Strap Keepers.	Daily	
8.	Inspect Nose clearing device	Daily	

NOTICE

Store spare valves, and soft goods in a cool, dark, dry place. Avoid prolonged exposure to temperatures above 90 °F (32 °C) and/or exposure to ultraviolet rays or chemical fumes

Adjustments and Minor Repairs

Auto Purge Assembly

Refer to the exploded view drawing of the Scuba Pod, P/N 805-015.

NOTE

This assembly is ONLY used with the Kirby Morgan Balanced Scuba Regulator.

1. Cut tie wrap, and remove purge sleeve and purge tube as one unit. Separate the two and set aside for inspection and reassembly.

2. Push on the outside of the pod skirt to unseat the water dump valve body and valve. The two components will be removed as one unit

inside the pod skirt. Do not attempt to push the valve body through the pod tube.

3. Clean all components using a soft bristle brush and cleaning solution.

4. Inspect components for damage. Replace if needed.

5. Install the water dump valve body and valve back into the pod skirt as one unit. Verify correct orientation of the valve and seating into skirt tube.

NOTE

Valve orientation allows breathing gas and water to exit the pod when installed correctly.

6. Insert purge sleeve into purge tube, as shown. Make certain the direction of the sleeve is correct and that it is pushed all the way into the purge tube.

7. Insert these two parts together into the tube of the pod skirt until they are against the exhaust valve and water dump valve body. Proper fit will show no signs of bulging or displacement on the tube with alignment of the tube pointing upwards.

NOTE

Step 8 cannot be completed until the Kirby Morgan Balanced Scuba Regulator is installed into the pod. See “Mounting Open Circuit Regulators” on page 16.

8. Using tie wrap tool or equivalent, install new tie wrap to secure Purge Tube in place on pod skirt.

Tilt to Purge Valve P/N 805-047

1. Cut tie wrap, and remove tilt to purge valve assembly.
2. Push on the outside of the pod skirt to unseat the water dump valve body and valve. The two components will be removed as one unit inside the pod skirt. Do not attempt to push the valve body out through the tube of the pod skirt.
3. Clean using a soft bristle brush and cleaning solution on the exterior surfaces of assembly. Place in ultrasonic cleaner using cleaning solution for 10 minutes. Re-clean with soft bristle brush if needed.
4. Inspect component for damage. Replace if needed.
5. Install the water dump valve body and valve back into the pod skirt as one unit. Verify correct orientation of the valve and seating into skirt tube.

NOTE

Valve orientation allows breathing gas and water to exit the pod when installed correctly.

6. Install the tilt to purge valve assembly from the front of the tube end on rubber skirt of pod.
7. Using tie wrap tool or equivalent, install new tie wrap P/N 520-038 to secure the tilt to purge valve assembly in place on pod skirt.

Adjusting Tension on Pod Hook

Over a period of time it might be necessary to increase the tension on the pod hook found on the left hand side of the pod due to material fatigue. If two clicks are not audible when connecting the pod to the mask, it is time to service the pod hook.

Begin by exposing the mounting screws by using your finger to gently and slightly peel back a portion of the pod silicone skirt on the left side to expose the three screws holding the hook to the pod frame. The hook has three possible settings and arrives from our factory positioned at the optimal setting.

If adjustment is needed remove the three screws and washers from inside the pod frame and remove the pod hook cover found on the outside of the assembly. With the hook accessible move the hook one slot closer to the front of the pod (away from the mouth). Once it is secured into the new slot re-install the pod hook cover followed by the three washers & screws to finalize adjustment.

Accessories/Spares

Prescription Lenses

The following website is available to install prescription lenses onto your M-48 mask:

prescriptiondivemasks.com

Inlet Swivel P/N 305-017

The high flow swivel allows the regulator hose to move freely and align with the mask without putting stress on the hose coupling. It uses standard scuba threads for incoming breathing air.

Manifold Block

The M-48 SuperMask® scuba pod can be used with surface supplied umbilical systems by using a manifold block system. The diver must be properly trained and equipped for surface supplied diving. A manifold block with a one way valve (non-return) that is securely fastened to a harness and bailout system must always be used when diving surface supplied.

The M-48 SuperMask® is not equipped with a one-way valve (non-return) which is essential for surface supplied diving. This Manifold Block provides this essential system component. The Manifold Block Assembly shown comes in three configurations, P/N 300-150 with 9/16" Oxygen fitting, P/N 300-155 with #6 JIC fitting or P/N 300-145 with standard scuba fitting. It is equipped with an Emergency Gas Supply valve, four low pressure outlets and a one-way valve (non-return).

Communications Port Plug P/N 820-155

If communications have been removed, the Communications Port Plug allows the mask to be used without communications.

Over-Pressure Relief Valve P/N 200-017

This valve is designed to be mounted on a first stage bail-out regulator for surface-supplied diving. It allows pressure to bleed from the intermediate pressure hose in the event of a "creeping" first stage. Without this valve, the intermediate pressure hose would burst and the diver would lose his entire emergency gas supply. (Torque specification for installing into low pressure port of first stage regulator: 20 inch pounds).

Mask Bag P/N 800-905

A convenient Mask Bag is available for storage and transportation of the mask, Pod, and regulators.

KMDSI Mouthpiece P/N 810-022L

This is the mouthpiece that comes in the pod when equipped with Kirby Morgan's Balanced Scuba Regulator. If you need a replacement, or just a spare on hand, ask for mouthpiece P/N 810-022L.

Scuba Pod Assembly with Balanced Scuba Regulator P/N 200-130

This scuba pod includes the latest and most advanced scuba regulator in our product line, the Balanced Scuba Regulator. The flexible shroud, gives the diver a wider activation area over traditional purge button systems. This shroud also incorporates a wide exhaust body that aids in lowering the exhalation effort and deflects exhaust bubbles away from the diver's field of vision.

The scuba pod with the Balanced Scuba Regulator comes standard with a balanced water purge tube which, unlike the tilt to purge system, enables the diver to clear and dewater the pod hands free.

When using P/N 200-130 as spare regulator, divers using the SuperMask® /MOD-1 modular full face mask will have the benefit of securing their back up, bailout or decompression gas directly to the mask with the continued benefits of the modular full face mask.

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Appendix 1 PRE-Dive Inspection

Diver Name: _____ Date: _____

NO.	STEP	INIT.
1.	Visually inspect exterior and interior of mask and pod for any type of obvious damage. Both should be free of debris, cuts, nicks, and deterioration.	
2.	If using a BOV/DSV on the pod, test IAW manufacture's instructions. Ensure the BOV/DSV and mouthpiece are secure in the pod. If using a demand regulator and/or separate pod for secondary gas supply, inspect IAW the manufacturer's recommendations and ensure the regulator and mouthpiece are secure in the pod.	
3.	Inspect the mask and pod sealing surfaces and ensure they are in good condition with no cracks, tears, debris, or punctures.	
4.	Carefully inspect head harness for signs of cracking or tearing. Head harness adjustment buckles should be checked for damage and tested for proper function. Ensure each strap has a keeper.	
5.	Visually inspect viewing lenses. They should be clean and clear. A good practice is to **APPLY ANTI-FOG SOLUTION PRIOR TO USE**.	
6.	Inspect following pod components: ☐ Hook ☐ Regulator ☐ BOV ☐ DSV ☐ Catch/Release Dewater/Purge Valve ☐ Mouthpiece is Secure ☐ Nose Pinch Assembly Pod Catch Release requires routine inspection before and after each dive to ensure part is in optimum working condition. When attaching pod assembly to the mask, pod catch release should make a snapping sound while engaging each ratchet tooth on mask catch. No sound or physical contact while engaging ratchet teeth on mask catch indicates material fatigue, damage or obstruction. Under such circumstances, pod catch release/hook must adjusted or replaced prior to dive.	
7.	Check the mouthpiece of the regulator/BOV/DSV to ensure correct installation, function, and secure fit. (covered in #2)	
8.	Check accessory mounting bracket and installed components (if applicable) for secure fit.	
9.	If installed. Check for proper installation of communication system and/or communication port plug,	
10.	Conduct a surface fit check of mask, harness and buckle assembly prior to diving. Confirm that the skirt in not folded under itself and sits properly on the face.	

Appendix 2 Post-Dive Cleaning and Inspection

Diver Name: _____ Date: _____

NO.	STEP	INIT.
1.	Remove pod from mask.	
2.	Soapy Solution Wash: Prepare solution of warm water (80–100 °F) and mild hand type dishwashing soap. Agitate components in solution for 2–3 minutes; use soft bristle brush or cleaning rag. Allow mask to soak for 10 minutes then rinse thoroughly with clean fresh water.	
3.	Ensure all debris such as sand and dirt is removed from regulator mouthpiece and BOV/DSV inhalation and exhalation ports. Clean the regulator; BOV or DSV IAW manufacturer's instructions. Thoroughly rinse the tilt-to-purge valve.	
4.	Rotate Regulator Adjustment Knob fully out (counter clockwise), if equipped.	
5.	Gently blow dry mask and pod with clean, oil-free low pressure air (less than 30 psig, or 1.8 bar) or hang and let air dry completely. Allow mask to dry completely before storage. Avoid direct sunlight. To avoid spotting, dry view ports with a clean, lint free cloth.	
6.	Inspect mask for damaged, worn, or missing parts.	
7.	Dry and store mask and pod out of sunlight and fluorescent light, preferably in protective bag or pouch.	

Appendix 3 Scheduled Maintenance

	ACTION	FREQUENCY	REFERENCE
1.	Pre-Dive Inspection	Before Each Use	"PRE-Dive Inspection" on page 23
2.	Post-Dive Procedures	After Each Use	"Post-Dive Cleaning and Inspection" on page 32
3.	Inspection Of Pod Dewatering/Purge Valve Assembly	Daily	
4.	Inspection of Pod Catch/Release and Pod Hook	Daily	"Post-Dive Cleaning and Inspection" on page 32
5.	Replace tie wraps	At Least Every 12 Months, Inspect Daily	
6.	Inspect mouthpiece	Daily	
7.	Inspect Head Harness, Buckle Assemblies And Strap Keepers.	Daily	
8.	Inspect Nose clearing device	Daily	

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