

# Kirby Morgan®

## KMB 18/28 BandMask®

### A2.3

## BandMask® and Emergency Gas System Daily Set-Up and Functional Checklist

THIS DAILY SET-UP AND FUNCTIONAL CHECKLIST SHOULD BE COMPLETED PRIOR TO COMMENCEMENT OF DAILY DIVING OPERATIONS AND AT LEAST EVERY 24 HOURS IF IN CONTINUOUS USE.

### WARNING

**These are recommended minimum checks when using Kirby Morgan KMB 18/28 Band Masks. Additional checks may be required as dictated by the conditions and tasks being performed. Failure to perform in-water checks may result in serious injury or death**

**NOTE:** Mask(s) being used in extreme environments will require more frequent inspection.

**NOTE:** During removal of components for inspection, O-rings and other consumable items may be reused, providing they are clean and a visual inspection does not reveal any damage or deterioration.

**NOTE:** Perform the Side Block/Demand Regulator inspection procedures with gas supplies not connected to the Side Block. Attach the gas supply at Step 5 of the “Side Block/Demand Regulator” inspection procedure.

**NOTE:** Steps 3(a)–3(e) use the EGS for setting up and checking the Mask’s systems. For a proper check of the Demand Regulator adjustment, the First Stage Regulator must have an intermediate supply pressure output between 135–150 psig (10–11 bar). The First Stage Bleed/Relief Valve should be set between 180–200 psig (12.4–13.8 bar). Do not attach the Umbilical until Step 6.

Date: \_\_\_\_\_

Mask Serial Number \_\_\_\_\_

Associated Equipment Serial #(s): \_\_\_\_\_

Technician (*print name*): \_\_\_\_\_

## 1. Hood and Band Assembly

**NOTE:** When the screws that hold the Bands in position are properly torque, the Hood and Face Seal cannot be removed from frame.

**DIVER/TENDER - CHECK THE FOLLOWING:**

Procedures	Initials
1) Visually inspect the Hood and Face Seal for signs of damage. Check the Hood for tears, holes, and/or cuts. Ensure the Face Seal is properly glued to the Hood.	
2) Check the screws that hold the Bands in position. They must be properly torque to 26 inch pounds (28 kg cm). Guidance Modular O & M Manual.	

<b>⚠ WARNING</b>
<b>If the Bands become loose, the Hood and Face Seal could separate from the Mask. This would cause the Mask to flood, which could cause drowning.</b>


3) Inspect the Head Harness/Spider to ensure there are no tears and/or cracks in the material. Ensure all five legs are present. If it is worn and/or cracked, it must be replaced.	
4) Ensure band keepers are installed and properly torqued, Guidance Modular O & M Manual.	

## 2. Visually Inspect Mask

**NOTE:** KMDSI recommends replacement of the Hose Assembly on the KMB-18A every 2 years, regardless of condition.

**DIVER/TENDER - CHECK THE FOLLOWING:**

Procedures	Initials
1) Visually inspect the interior/exterior of the Band Mask for any obvious signs of damage. Check to make sure the Oral Nasal Valve is correctly installed and the Oral Nasal Mask is installed on the Regulator Mount Nut properly. Ensure the Nose Clearing Device operates smoothly. Lubricate as necessary. Guidance Modular O & M Manual.	

Procedures	Initials
2) Ensure the Earphones and the Microphone are installed correctly. Check the Wire Lugs to ensure they are not touching each other. Guidance Modular O & M Manual.	
3) Ensure the Demand Regulator Cover is not excessively dented, with dents deeper than ¼ inch (6 mm).	
4) Inspect the Regulator Hose Assembly on the KMB-18A. The Hose(s) and fittings must be in good shape, no bulges cuts cracking or deterioration of the fittings. On the KMB-18B, The Bent Tube must not have any dents and/or compressed areas exceeding ⅛" (3 mm)	
5) Check all moving parts to ensure smooth and proper operation. <ul style="list-style-type: none"> <li>a) Defogger/Steady Flow Control Knob</li> <li>b) EGS Valve</li> <li>c) Nose Block Device</li> <li>d) Regulator Adjustment Knob</li> </ul>	
<b> WARNING</b>	
<p><b>The One Way Valve must be tested daily prior to commencing diving operations. DO NOT DIVE THE MASK if the One Way Valve is not operating properly. If the hose parts near the surface, serious injury could result to the divers' lungs and/or eyes. In extreme cases, this could be fatal.</b></p>	
6) Oral Method: Orally check the One-Way Valve. With the steady flow valve open, orally blow air thru the one-way valve. Air should pass freely. Next suck back on the umbilical adapter, no air should pass back thru the one way valve and umbilical adapter. If air can be drawn back thru the one way valve, the one way valve will require overhaul or replacement. <b>DO NOT DIVE IF TEST FAILS.</b>	
7) Connect the First Stage Regulator to the EGS Cylinder and the Mask Emergency Supply Valve. With the Cylinder turned OFF, open and close the Side Block Auxiliary Valve (EGS) to check for smooth operation. Then open and close the Defogger/Steady Flow Valve to check for smooth operation. Guidance O&M Manual.	

### 3. EGS Inspection

**NOTE:** The EGS being used must be properly maintained and fully functional.

**DIVER/TENDER - CHECK THE FOLLOWING:**

Procedures	Initials
1) Visually inspect all EGS hoses for signs of damage.	
2) Check to ensure the cylinder is within the VIP and the hydro dates.	
3) Ensure the First Stage Regulator pressure setting and the Over Pressure Bleed/Relief Valve settings have been checked within the past month. (Maintenance Log).	
4) Inspect the Safety Harness and Cylinder Retainer for wear and damage. Repair/replace as necessary	
5) Document inspection/maintenance in Maintenance Log (Appendix 3).	

### 4. Check the Mask

**DIVER/TENDER - CHECK THE FOLLOWING:**

Procedures	Initials
1) Rotate the Regulator Adjustment Knob in fully (clockwise), then rotate out (counterclockwise) 3-4 rotations to check for smooth operation.	
2) Open the EGS Supply Valve on the cylinder. Log the pressure _____ psig. Then open the Emergency Supply Valve on the Side Block.	
3) Momentarily open the Mask Defogger/Steady Flow Valve $\frac{3}{4}$ to one full turn. Check for a strong flow of gas out of the Defogging Train, and then close.	

Procedures	Initials
4) Check for gas escaping from the One-Way Valve. If any gas flow is detected the One-Way valve should be overhauled or replaced. <b>DO NOT DIVE IF TEST FAILS.</b>	

### 5. Attach the Umbilical

**TENDER - CHECK THE FOLLOWING:**

Procedures	Initials
1) Blow down the Umbilical and attach it to the Umbilical Adapter on the One Way Valve.	

### 6. Check the Demand Regulator Adjustment

**NOTE:** If the Purge Button travels further than ¼" before gas starts flowing, or has a weak flow of gas when fully depressed, the adjustment of the Regulator is necessary. Guidance Modular O&M Manual.

**DIVER/TENDER - CHECK THE FOLLOWING:**

Procedures	Initials
1) Rotate out (counterclockwise) on the Demand Regulator Adjustment Knob until a slight free flow develops. Then rotate in (clockwise) until the free flow stops.	
2) For masks equipped with a SuperFlow or SuperFlow 350 regulator, slowly depress the purge button to check for excessive travel. The purge button should travel in no less that ¼" and out no more than ⅛" (1.5-3 mm) before gas flow is heard. For masks equipped with a 450 or 455 balanced regulator depressing the flexible cover the cover should travel approximately ¼" (6 mm) before gas starts to flow.	
3) Depress the Purge Button all the way, verify a strong surge of gas. Pressing the flexible cover of the 450 and 455 further than ¼" (6 mm) should result in a strong flow of gas.	

Procedures	Initials
4) Ensure the Side Block <b>Emergency Valve is closed</b> , and the <b>Bail Out Cylinder Valve is open</b> . Log the cylinder pressure _____ psig.	

**7. Check the Communications**

**DIVER - CHECK THE FOLLOWING:**

Procedures	Initials
1) Perform communications check.	

**8. Check the Hot Water Supply (If Applicable)**

**TENDER - CHECK THE FOLLOWING:**

Procedures	Initials
1) Check the hot water supply connections. Ensure topside supply has been switched to the diver and verify flow to hot water shroud and suit (if used).	

**9. Check the Dry Suit Inflation Hose (If Applicable)**

**TENDER - CHECK THE FOLLOWING:**

Procedures	Initials
1) Check the dry suit Inflation Hose Connection. Ensure the dry suit Inflation Valve and Exhaust Valve function properly.	

## 10. Check the Entire Rig

TENDER - CHECK THE FOLLOWING:

Procedures	Initials
1) Soap and leak check the Mask gas fittings and connections including the EGS.	

## 11. Check the Diver's Entire Rig

SUPERVISOR/TENDER - CHECK ADJUSTMENT/FIT OF THE ENTIRE RIG, INCLUDING THE FOLLOWING

Procedures	Initials
1) Diver's Safety Harness	
2) Umbilical Strain Release	
3) EGS Hose Quick Disconnect	
4) Boots, gloves, knife, and other accessories	
<b>NOTE:</b> All equipment must be adjusted properly and functioning correctly.	

## 12. Check Breathing

DIVER - CHECK THE FOLLOWING:

Procedures	Initials
Check to ensure the Mask is breathing easily <b>NOTE:</b> The Mask must be breathing easily and properly.	

### 13. Diver(s) is/are Ready

DIVER - CHECK THE FOLLOWING:

Procedures	Initials
1) Report when you are ready to enter the water.	

Technician Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Comments: \_\_\_\_\_

---



---



---



---



---



---



---



---



---



---

KMDSI strongly recommends that a certified KMDSI Repair Technician make all repairs and that only genuine KMDSI repair and replacement parts be used. Owners of KMDSI products that elect to do their own repairs and inspections should only do so if they possess the knowledge and experience. All inspections, maintenance, and repairs should be completed using the appropriate KMDSI user guide and Operations and Maintenance Manual(s). Persons performing repairs should retain all replacement component receipts for additional proof of maintenance history. Should any questions on procedures, components, or repairs arise, please contact Kirby Morgan Dive Systems, Inc., by telephone at (805) 928-7772 or via e-mail at [kmdsi@kirbymorgan.com](mailto:kmdsi@kirbymorgan.com), or contact Dive Lab, Inc., by telephone at (850) 235-2715 or via e-mail at [divelab@divelab.com](mailto:divelab@divelab.com).

**NOTE:** The Maintenance Log, Appendix 3, found in the Misc. Appendices checklists on the Kirby Morgan website, may be used as a template to create blank pages to record all the maintenance performed.