



Kirby Morgan Dive Systems, Inc.®

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Part # 525-766 Stainless Steel 450 Regulator Kit

Tools Needed:

Phillips head screwdriver (2) 7/8" Wrenches
1 1/16" Wrench 1 3/8" Socket

Part #	Description	Qty.	Part #	Description	Qty.
505-560	S.S. Reg. Assembly	1	510-781	Spacer	1
510-012	O-ring	1	520-033	Teflon O-ring	1
510-490	O-ring	1	520-042	Tie Wrap	2

Instructions:

- 1) Remove kidney plates, screws and spacers and set aside.
- 2) Remove bent tube assembly. Inspect and replace if needed.
- 3) Remove the regulator mount nut and sealing O-ring P/N 510-490.

O-ring identification on reverse.

O-rings should be lightly lubricated with food grade silicone Dow Corning 111 or equivalent in accordance with the operations and maintenance manual. Christo-Lube® may also be used. At a minimum, all helmet or BandMask O-rings should be replaced at least once a year in accordance with the A2.1 for the helmet or mask being inspected. During daily and monthly maintenance, disturbed O-rings and valves may be reused providing no damage or deformation is found. O-rings and valves may require replacement more often than yearly if the helmet or mask use is extreme, or if the helmet or mask is used in waters containing oil or chemical contamination. Daily cleaning and inspections as well as performing the monthly inspection A2.2 will identify the need more accurately than simply placing a number of hours between overhaul. Store spare O-rings, valves and soft goods in a cool, dark, dry place. Avoid prolonged exposure to temperatures above 90 degrees Fahrenheit and/or exposure to ultra violet rays. Do not lubricate exhaust valves. Lubricating valves can cause dirt to stick, allowing leakage.

▲ CAUTION

Use only KMDSI original replacement parts. The use of other manufacturer's parts will interfere with the performance characteristics of your life support equipment and may jeopardize your safety. Additionally, any substitutions will void any warranties offered by KMDSI. When ordering spares, always insist on Kirby Morgan Genuine Parts.

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4) Remove old regulator assembly. Cut tie wrap from flange area and separate the tri or quad valve exhaust from the regulator.

5) Check all tri/quad valve components and replace or clean as necessary.

Note: re-usable clamps P/N 525-032 for the whiskers are available to use in place of tie wraps. Check your local dealer for details.

6) Reinstall the tri or quad valve onto the new regulator assembly and properly align it. Secure the assembly to the regulator using the new tie wrap supplied P/N 520-042

7) Install the rubber spacer onto the regulator mount tube as shown. (See fig. 1a and 1b)

Adjustment Instructions:

1) Remove the 2 screws and washers at the front cover on the reg, and remove the cover and diaphragm.

2) Remove the bent tube.

3) Turn the Flex Knob on the reg all the way in until you hear it “Click” (listen closely), then turn it OUT, 3 full turns.

4) The lever arm is probably loose and floppy, so you need to now adjust the tension on it. Inside the end of the reg where the bent tube fits on, you can look inside and see a nipple adjustment that has a screwdriver slot on the end. Use a driver that fits into the tube end and back out on the nipple while watching the lever arm. As you back it out, the lever arm should raise up. When you see the arm stops moving up, turn the adjustment nipple back IN until you see the lever arm just barely drop, or wiggle. Check the lever arm for play. There should hardly be any play at all.

5) Re-install the bent tube, diaphragm, cover and screws with washers. A quick check would be to attach a bail out tank and reg to check the adjustment. There should be no air flow when you supply air pressure.



Figure 1a



Figure 1b