Kirby Morgan Dive Systems, Inc.®

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Part# 525-762

Quad Valve Cover Kit Installation

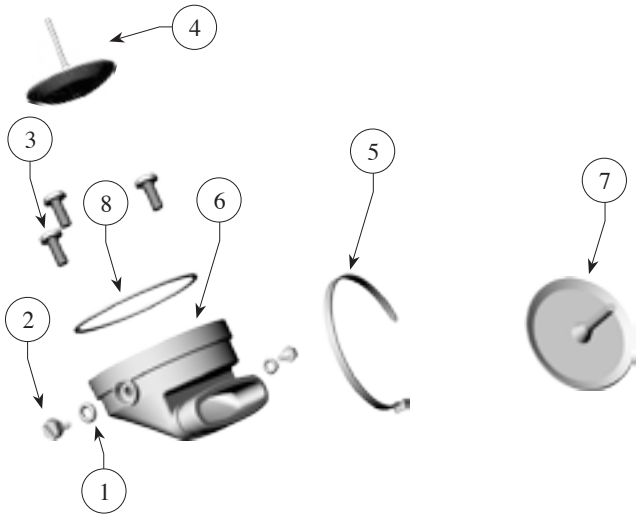
For all SuperLite 17-A/B and 37 helmets. NOTE: Not for use on any KMDSI band mask or SL 27® Helmet. Please read and understand all instructions before installing any parts.

NOTE: Where country or company policy dictates, the Quad-Valve kits should be installed by a qualified, certified Kirby Morgan technician only. Where policy does not dictate, individuals desiring to perform the installation should call or E-mail KMDSI if doubt about proper installation exists.

NOTE: This assembly and its installation procedures are for use on a helmet with a TRI VALVE EXHAUST previously installed. Some minor modifications to the tri valve assembly are required to allow this additional component to work properly.

Parts Included in this kit:

Loc. #	Part Number	Description	Qty
1	510-007	O-ring	2
2	530-019	Screw	2
3	530-032	Screw	3
4	510-561	Valve, Water Dump, Black	1
5	520-042	Tie Wrap	3
6	560-530	Water Dump Adapter Cover	1
7	510-552	Exhaust Valve	1
8	510-033	O-ring	1



Tools Needed:
Small X-ACTO® knife with new triangular blade
Medium flat blade screwdriver
Inch Pound torque screwdriver w/ medium flat blade
1 ⅜" (lg. tube regulator) or 1 ¼" (sm. Tube regulator) socket /torque wrench
1 1/16"-1 3/16"-⅞"- open end torque wrench adapters
⅞" open end wrench

NOTE: It is necessary to completely remove the demand regulator as well as bent tube or "A" style hose connection to the side block to allow proper modification and installation of this assembly.

***NOTE:** Due to variations in fiberglass thickness, it may be necessary to remove and replace these 3 mount screws for the main exhaust body. This is indicated by inspecting the ends of the original screws. By removing the original water dump adapter cover, look to see if the screws protrude through the main exhaust body, If they do, they may cause interference with the new S.S. Quad cover. Replace them with the 3 new screws P/N 530-032. Replace the exhaust valve P/N 510-552 if needed.*

Document # 130718004

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Procedures:

1. Remove bent tube or hose from between the side block and regulator completely.

2. Remove the 4 screws, 2 kidney plates and 4 spacers (or zinc anodes if present) that retain the whisker to the port retainer. Remove regulator mount nut and O-ring. Safeguard all of these parts.

3. Remove the demand regulator from the helmet.

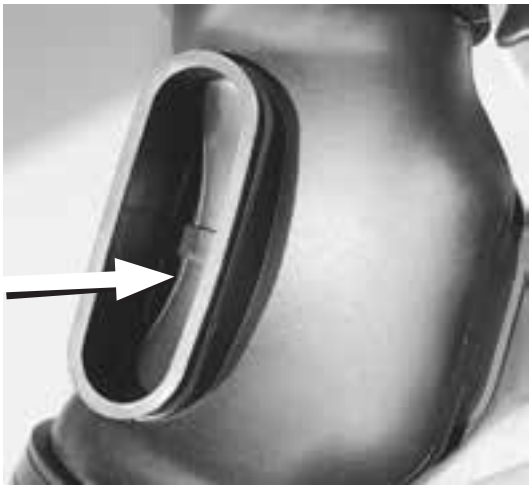
4. Remove the Tri Valve Whisker assembly from the demand regulator by cutting only the tie wrap that attaches to the regulator exhaust flange and carefully twist off. Avoid pulling from where the outboard tie wraps are located as this may dislodge the whiskers from their position. Inspect parts for damage and or wear and replace as needed.

5. Inspect the demand regulator exhaust valve P/N 510-552 for damage. Clean and replace as may be necessary. Note the oval shaped protrusion at the bottom rear edge of the whisker main body. The area shown in fig (1) will need to be trimmed open (except for the center rib) using the X-Acto knife to allow a connection between the main exhaust chamber and the main chamber of the Tri Valve assembly.

6. Trim the base of the opening as shown fig (2), leaving the center rib intact. Remove all of the cut away material.

7. Loosely install the tie wrap P/N 510-042 as shown in fig:(3). Insert the Water Dump Adapter Cover P/N 560-530 as far as possible into the oval opening making sure the large diameter of the cover is facing up as shown in fig (4).

Fig 1



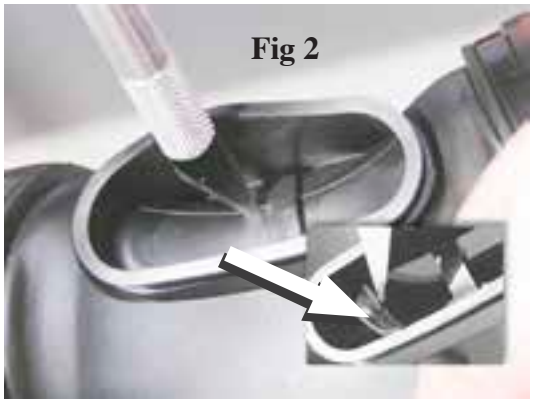


Fig 2

Remove all of the cut away material.

Fig 3

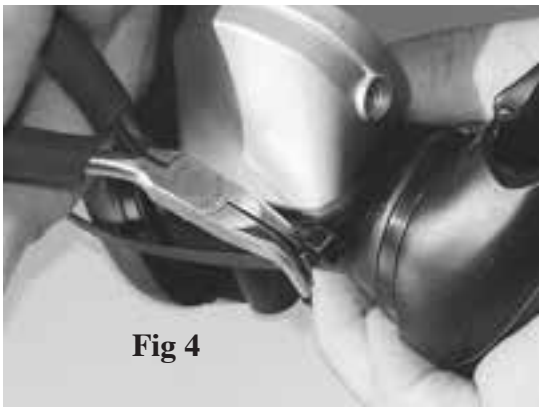


Fig 4

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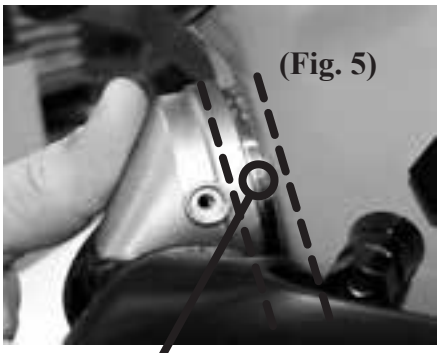
8. Finish tightening the tie wrap, using needle nose pliers as shown in fig. (4). This tie wrap must be as tight as possible. Trim excess wrap. Make sure no sharp edges remain.

9. Remove the main exhaust/water dump cover and inspect both the exterior outer surface of the valve body as well as the valve itself. The new cover will require a seal to the outer surface of this body. This surface must be free of any damage to allow getting a seal. Replace the body if damage is found. Replace the exhaust/water dump valve if needed.

10. Install the Quad valve whisker assembly back on to the demand regulator making sure all parts are properly aligned. Seal to the regulator with a new tie wrap. Use needle nose pliers and make up as tight as possible. Trim excess leaving NO sharp edges. Install the 510-033 O-ring into the groove near the round open end of the water dump adapter cover.

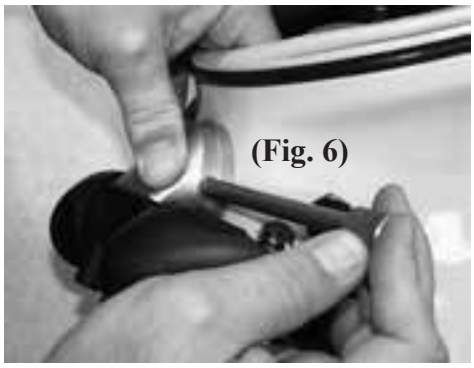


Note: parallel dashed lines to guide the alignment of the part to the Helmet.

11. Begin to re-install the demand regulator into the mounting hole, but insert only about halfway in. This will allow the Water Dump Adapter Cover to align easier with the water dump body. Start the cover straight onto the water dump body, then alternate back to inserting the regulator. Do this until both are in their proper positions fig(5). Lubricate the regulator seal O-ring and hand start the regulator mount nut.

12. Lubricate and install the (2) O-rings P/N 510-007 onto the washer head screws. Using either a flat blade screwdriver or a ¼ nut driver, fully engage the screws P/N 530-019. Tighten until snug.

13. Reinstall bent tube assembly and tighten the side block fitting to 100 inch pounds and the regulator fitting to 40 inch pounds. Or reinstall the "A" style hose if the unit has the A side block.



14. Retighten the regulator mount nut to 100 inch pounds.

15. Reinstall the 4 spacers kidney plates (or zinc whisker anodes) and screws and torque to 12 in/lb.

16. Attach any other components that may have been displaced to aid in this installation.