



Kirby Morgan Dive Systems, Inc.®

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Part #525-773 SuperFlow® Regulator Assembly Kit

PART NUMBER	DESCRIPTION	QTY
100-100	Warranty Card	1
505-027	SuperFlow® Regulator Assembly	1
520-042	Tie Wrap	2

Tools Required:

- Torque Wrench and 1 ¼ inch Socket and/or P/N 525-625 Regulator Mount Socket Wrench (in 525-620 Tool Kit).
 - ¼ inch Flat Blade Attachment on Torque Screwdriver
 - Open-end attachments: 1½/16 and 7/8 inch
 - 7/8 inch Open-end Wrench
 - 3/8 Ratchet Extension
 - Christo-Lube® or equivalent
1. To remove the regulator from the helmet, the bent tube should be disconnected first. The bent tube assembly should be loosened at the side block and then disconnected from the regulator.
 2. Remove the whiskers from the port retainer by removing the screws. Take care not to lose the spacers, kidney plates or zinc anodes.



Remove the whiskers from the helmet.

3. Remove the nose block device, followed by the oral nasal mask (the microphone must be removed from the mask before removing from the helmet).
4. Remove the regulator mount nut along with the sealing O-ring from inside the helmet.



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The regulator mount nut must be loosened with a wrench.

SuperFlow® Demand Regulator Installation onto Helmet

For Quad-Valve Exhaust



NOTE

The Quad & Tri-Valve Exhaust assemblies can be removed and replaced onto the exhaust flange of the regulator as a complete unit. If assembled using the individual components special attention is required to ensure the exhaust valves correct orientation and seating inside the exhaust whisksers. If replacing valves or rebuilding the exhaust valve assembly by individual components see Quad Valve and Tri-Valve® Exhaust section in our modular manual.

1. Install your new SuperFlow® regulator into the main exhaust body then use a tie wrap to secure. Carefully tighten the tie wrap, making sure it is completely in the groove. Trim the tie wrap as close as possible. Check for good fit.

For Tri-Valve Exhaust

2. Stretch the Tri-Valve® main exhaust body onto the exhaust flange of the regulator. Rotate as needed so the port and starboard whisksers can be installed.

For Older Double Exhaust Or Single Exhaust

3. For the older double exhaust or single exhaust, stretch the exhaust whisker onto the exhaust flange of the regulator. Fasten the double exhaust to the regulator with a tie wrap and tighten.

⚠ WARNING

The exhaust valves must be correctly installed in the exhaust valve inserts or they will not seal correctly. This could lead to a backflow of water into the helmet, which could expose the diver to contaminants in the water. Depending upon the properties of the contaminants, this could lead to serious personal injury or death.

For All Helmets

4. Pre install a tie wrap as shown onto the exhaust main body. This will make





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installation much easier and ensure a good seal.



Pre-install the tie wrap.



5. Insert the regulator into the helmet and align by stretching the Quad Valve main exhaust body onto the water dump adapter cover.
6. Carefully tighten the tie wrap, making sure it is completely in the groove of the exhaust main body. Trim the tie wrap as close as possible. Check for a secure fit.
7. Inspect the regulator mount nut for contaminants and damage. Use a tooth brush to clean threads as needed. Lightly lubricate the regulator mounting tube threads and the sealing O-ring with Christo-Lube®.

8. Install the sealing O-ring, then thread the regulator mount nut onto the regulator, finger tight ONLY.
9. Carefully inspect the bent tube for damage and contaminants. The bent tube must be free of dents and compressions deeper than 1/8" and should not have deep scratches or sever corrosion. Replace the bent tube if questionable. Install the bent tube assembly finger tight before final tightening of the regulator mount nut.

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If this maintenance is during an annual overhaul, replace the Teflon® O-ring at the side block end of the bent tube and the O-ring at the demand regulator inlet side of the bent tube.

10. Lightly lubricate the bent tube O-ring and install into the O-ring groove at the regulator end of the bent tube, then install a new Teflon® O-ring at the side block end.
11. Push the O-ring end of the bent tube assembly into the regulator nipple tube. Slide it in until the side block end is aligned with the threads for the mount nut.
12. Be sure the new Teflon® O-ring is in place on the side block end of the bent tube, then engage the threads to the side block and hand tighten.
13. Start the “regulator to bent tube” mount nut onto the nipple tube of the demand regulator and run it up by hand as far as it will go.



Run the mount nut up on the inlet nipple hand tight only.

14. Using a torque wrench, tighten the bent tube assembly nut onto the side block. Always reference Torque Specs starting on page APNDX-19 for correct torque.
15. Make certain the regulator end of the bent tube is threaded onto the regulator (nipple tube), by lightly applying torque to the hex nut on that end. When a small amount of resistance is felt, lock it into place with the jam nut.
16. Hold the hex on the bent tube with a wrench and tighten the jam nut against it with a torque wrench. Always reference Torque Specs starting on page APNDX-19 for correct torque.
17. Use a torque wrench inside the helmet with a 1 ¼" socket and extension to tighten the regulator mount nut. Always reference

Torque Specs starting on page APNDX-19 for correct torque.

18. Attach the whisker to each side of the face port retainer using the screws, zinc anodes or kidney plates with spacers.
19. Using a torque wrench with a flat blade screwdriver adapter, carefully torque these screws. Always reference Torque Specs starting on page APNDX-19 for correct torque.

