



Kirby Morgan Dive Systems, Inc.®

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Part #525-771 SuperFlow® 350 Regulator Assembly Kit

PART NUMBER	DESCRIPTION	QTY
100-100	Warranty Card	1
505-069	SuperFlow® 350 Regulator Assembly	1
520-042	Tie Wrap	2

Tools Required:

- Torque Wrench and 1 $\frac{3}{8}$ inch Socket and/or P/N 525-625 Regulator Mount Socket Wrench (in 525-620 Tool Kit).
- $\frac{1}{4}$ inch Flat Blade Attachment on Torque Screwdriver
- Open-end attachments: $\frac{11}{16}$ and $\frac{7}{8}$ inch
- $\frac{7}{8}$ inch Open-end Wrench
- $\frac{7}{16}$ inch Open-end Wrench
- $\frac{3}{8}$ Ratchet Extension
- Christo-Lube® or equivalent

SuperFlow® 350 Demand Regulator Removal from Helmet

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.
3. Remove the nose block device, followed by the oral nasal mask (be sure to remove microphone from the mask prior to removal).

4. Remove the regulator mount nut along with the sealing O-ring from inside of the helmet.



The regulator mount nut must be removed to remove the regulator.

For Quad-Valve Equipped Helmets

5. Cut the tie wrap that connects the regulator body to the water dump adapter cover.
6. Now the regulator assembly can be pulled away from the helmet.



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7. The center section of the exhaust whisker, named the Quad Valve exhaust main body, has a tie wrap holding it in place. Remove the tie wrap then stretch the body off the regulator exhaust flange.
8. Older model double or single exhaust whiskers are removed similarly.

SuperFlow® 350 Demand Regulator
Installation onto Helmet

For Quad-Valve Exhaust

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 whiskers. If replacing valves or rebuilding the exhaust valve assembly by individual components see Quad Valve and Tri-Valve® Exhaust section in our modular manual.



NOTE

1. Install your new SuperFlow® 350 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 whiskers can be installed. 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 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 With Quad Valve Exhaust

4. Pre install a tie wrap as shown onto the exhaust main body. This will make installation much easier and ensure a good seal.



Pre-install the tie wrap.

For Helmets Equipped With The Stainless Steel Quad-Valve Pod

5. Insert the regulator into the pod and align by stretching the Quad Valve main exhaust body onto the water dump extension on the pod.

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.



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Insert the regulator onto the Quad Valve exhaust main body and carefully tighten the tie wrap.

For All Helmets

6. 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®.



7. Install the sealing O-ring, then thread the regulator mount nut onto the regulator, finger tight ONLY.
8. 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.



NOTE

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.



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9. 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.
10. 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.
11. 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.
12. 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.

NOTE

13. Using a torque wrench, tighten the bent tube assembly nut onto the side block. Always reference Torque Specs starting on page TORQ-1 for correct torque.
14. 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.
15. 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 TORQ-1 for correct torque.
16. Use a torque wrench inside the helmet with a 1 3/8" socket and extension to tighten the regulator mount nut. Always reference Torque Specs starting on page TORQ-1 for correct torque.
17. Attach the leading edge of the exhaust

whiskers to each side of the face port retainer using the screws, zinc anodes or kidney plates with spacers. For stainless steel helmets ONLY: Place a small amount of Loctite® 248 onto the last two or three threads at the end (end opposite the screw head) of each of whisker screws.

Using a torque wrench with a flat blade screwdriver adapter, carefully torque. Always reference Torque Specs starting on page TORQ-1 for correct torque..



The Quad Valve must be properly connected to the regulator and the water dump cover on the pod.

