



# Kirby Morgan Dive Systems, Inc.®

1430 Jason Way Santa Maria, California 93455

Phone: 805/928-7772 Fax: 805/928-0342

www.KirbyMorgan.com email: kmdsi@KirbyMorgan.com

## Part #525-774 REX® 47/77 Regulator Assembly Kit

PART NUMBER	DESCRIPTION	QTY
320-040	Regulator Mount Washer	1
505-278	REX Regulator Assembly	1
510-741	Valve, Waterdump, 47	1

### Tools Required:

- Torque Wrench
  - Open-End Attachments  $1\frac{1}{16}$  and  $1\frac{3}{16}$  inch
  - $\frac{3}{8}$  inch Ratchet Extension
  - Regulator Mount Nut Tool P/N 325-640
  - $\frac{1}{4}$  inch Flat Blade Attachment on Torque Screwdriver
  - $1\frac{3}{16}$  Open End Wrench
  - $1\frac{1}{16}$  inch Open End Wrench
  - 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 first and then disconnected from the regulator inlet side.



*Remove the screws that secure the kidney plates and whiskers.*

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. (The microphone must be removed from the mask before removing it from the helmet)



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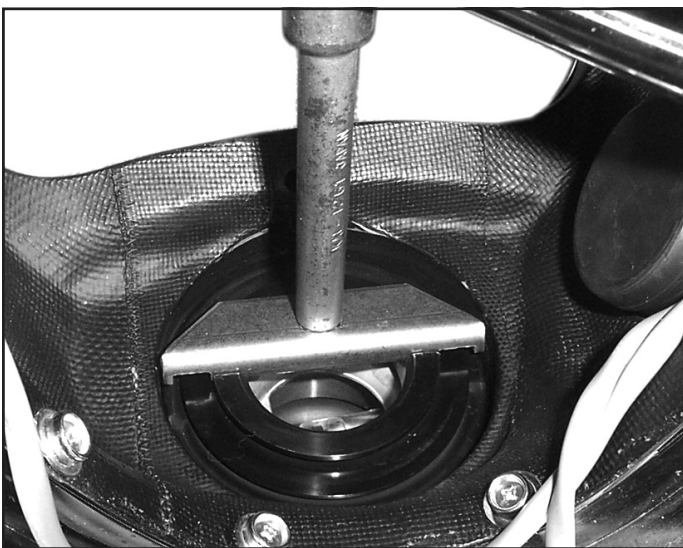
*Remove the oral nasal mask after removing the nose block device.*

4. Remove the regulator mount nut using the regulator mount nut tool P/N 325-640 mated to a  $\frac{3}{8}$ " ratchet extension then pull the regulator assembly away from the helmet.



**NOTE**

The regulator should be pulled slightly away from the pod as the mount nut is being unscrewed.



*Remove the regulator mount nut from inside of the helmet.*

5. Pull regulator body away from helmet.



*Pull regulator body away from helmet.*

Reinstalling the REX® Regulator onto the Helmet

## **⚠ WARNING**

**All parts on Kirby Morgan helmets and masks must be adjusted to their proper torque specifications. See Appendix 1 for a complete listing of torque specifications for each part. Failure to adjust parts to the recommended specifications could lead to helmet failure and accidents. This could be fatal.**



**NOTE**

Replace the water dump valve P/N 510-741 found on the inside of the regulator mount nut.

1. Use Christo-Lube® or equivalent oxygen compatible lube to lightly lubricate the threads on the regulator mounting tube.
2. Insert regulator assembly into the helmet. Place the regulator mount washer P/N 320-040 over the regulator threads from inside the helmet and thread the regulator mount nut onto the threads, but just hand tight.
3. Work the edge of the main whisker body around the raised edge of the shell





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(fiberglass) or pod (stainless steel) to ensure correct sealing of the regulator to the helmet.

4. Once the regulator is correctly positioned continue to tighten the regulator mount nut by hand until snug. The regulator body should still be able to rotate if needed.

## ⚠ WARNING

**Replace the bent tube if it is excessively scratched dented or compressed deeper than  $\frac{1}{8}$  inch. If the helmet has been used for burning jobs, carefully check for erosion of the metal or severe corrosion. Replace if any erosion is present or integrity is in question.**



### NOTE

If this replacement 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.

5. Lightly lubricate the bent tube O-ring and install in the O-ring groove at the regulator end of the bent tube, then install Teflon® O-ring at the side block end.
6. 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.
7. Be sure the 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.
8. Start the regulator end of the bent tube assembly nut onto the nipple tube of the demand regulator and run it up by hand three to four threads. **Use a wrench on the nipple tube hex, if necessary, to prevent the nipple tube from threading inward. If the nipple tube threads inward this can damage the sealing surface of the inlet valve.**



### NOTE

Run the bent tube assembly nut up on the inlet nipple hand tight only.

9. Using a torque wrench, torque the bent tube assembly nut onto the side block. Always reference Torque Specs starting on page TORQ-1 for correct torque.



*Make sure the connection between the bent tube and the regulator is torqued. Always reference Torque Specs starting on page TORQ-1 for correct torque.*

10. Hold the hex on the nipple tube with a wrench and tighten the bent tube assembly nut against it with a torque wrench. Always reference Torque Specs starting on page TORQ-1 for correct torque.
11. Use regulator mount nut tool P/N 325-640 with  $\frac{3}{8}$  inch ratchet extension to tighten regulator mount nut. Always reference Torque Specs starting on page TORQ-1 for correct torque.
12. Install the oral nasal mask. Confirm correct placement and orientation of oral nasal valve. Valve should open into the mask and must be present to use the helmet.





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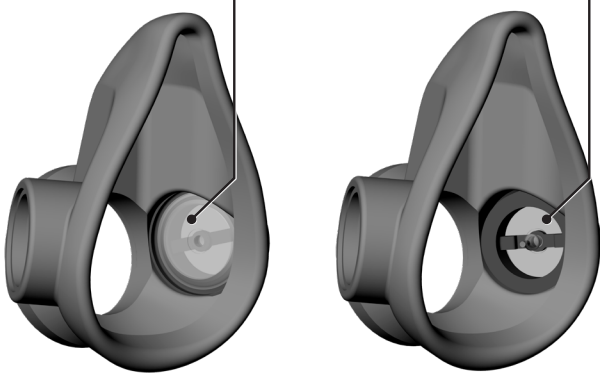
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Correct

**INCORRECT**



screwdriver adapter, carefully torque these screws. Always reference Torque Specs starting on page TORQ-1 for correct torque.

## **⚠ WARNING**

**Avoid any contact between Loctite® and the face port. This can cause the port to fail unexpectedly and drowning could result.**

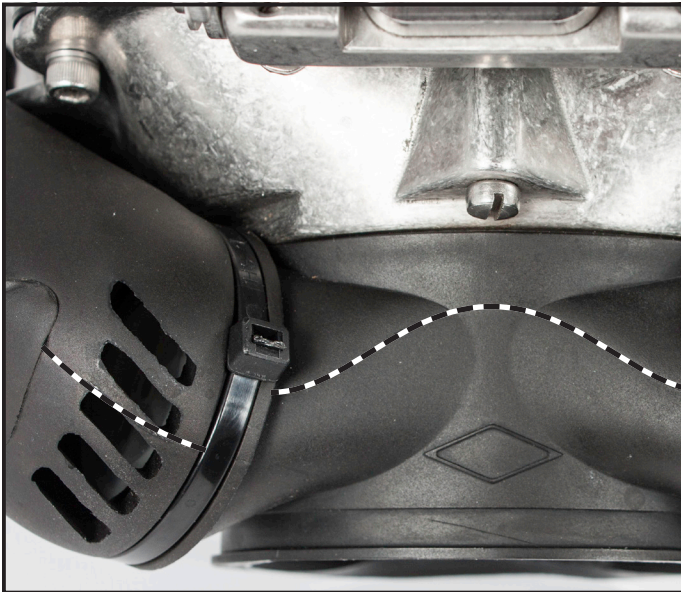
For questions or details you were unable to find, please consult your USB flash drive manual that was delivered with your helmet, the manual online at [www.kirbymorgan.com](http://www.kirbymorgan.com) or contact us with the info on this letterhead.

### 13. Install Microphone into oral nasal mask.



**NOTE**

The port and starboard whiskers should align so that the parting line on the bottoms of the wings is  $\frac{5}{16}$  inch behind the parting line on the main body, and the heads of the tie wraps are positioned on the back of the body.



14. Attach the leading edge of 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.

15. Using a torque wrench with a flat blade

