



Kirby Morgan Dive Systems, Inc.®

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Part #325-772 EXO BR Regulator Assembly Kit

Part #	Description	Qty
305-040	EXO BR Regulator Assembly	1
320-040	Regulator Mount Washer	1

Tools required:

$\frac{3}{8}$ " ratchet with an extension.

EXO Tool Kit, Deluxe. KMDSI Part #325-650.

This can be a difficult procedure. It is recommended that this procedure be done by a factory trained KMDSI dealer. If you are going to attempt this procedure ***read and understand this entire section before you start disassembly!***

If you are doing a regulator rebuild, the regulator must be removed from the mask in order to replace the exhaust valve.

1.1 Regulator Assembly Removal

- 1) Remove the spider and the communications module.
- 2) Remove the EXO BR oral nasal mask and equalizer.
- 3) Remove the screws and washers that hold the wire retainer on and remove the wire retainer.
- 4) Using the regulator mount nut tool on a $\frac{3}{8}$ " ratchet with an extension is the easiest method of removing the regulator mount nut.



Pliers can also be used to grip and turn the regulator removal tool.

- 5) With the mask face down in your lap, place the regulator mount nut tool in the grooves of the regulator mount nut. Remove the regulator mount nut.

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To remove the regulator, you must remove the regulator mount nut.

- 6) Remove the mount ring.
- 7) Gently pull straight out on the regulator assembly, removing it from the mask.
- 8) Remove the regulator mount washer from the inside of the mask.

1.2 Regulator Assembly Installation

1) Inspect the mask seal in the regulator area for tears or holes and replace if damaged. Ensure that the mask seal is properly mounted into the frame. This is what seals the regulator to the mask. It is very important that the seal in this area remain correctly seated in the frame and does not get pushed through during all phases of installation.

2) Once the seal is correctly in place, lightly lubricate the inside of the regulator mounting hole in the mask seal with silicone grease. Do not get grease between the mask seal and the frame. If the grease gets between the frame and the mask seal, the mask seal will become unmounted and push through more easily when installing the regulator. Lightly grease the threads on the regulator body.

3) Holding the mask in one hand and the regulator assem-

bly in the other with the exhaust whisker openings pointed down to the bottom of the mask, insert the regulator assembly into the mask. Hold the regulator at a slight angle when you first start to push it through the opening then straighten it out as you go in.

Start the threads of the regulator partially in on one side of the opening then work it into the hole. On the inside of the mask use your finger tips to support the mask seal to keep it from being pushed to the inside of the frame.

Once the regulator is in, visually inspect the mask seal on the inside of the mask and **make sure that the mask seal did not get pushed through and that it is still correctly seated on the frame.** If the seal has been pushed through, take the regulator out and try again.



Make sure that the mask seal did not get pushed through past the regulator body.

Once the regulator is properly seated, inspect where the exhaust whisker meets the frame and make sure that the whisker is properly seated into the groove of the front of the regulator mount area on the frame.





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4) Lightly lubricate the regulator mount washer and install it on the regulator.

5) Place the mount ring inside of the mount nut. The pressed in insert on the mount ring should have the bumps facing the regulator.

6) Thread the Mount Nut onto the regulator assembly. The mount nut must go on straight. Do not cross thread! It is easiest to start the mount nut by hand. Put the nut on the regulator, slowly turn counterclockwise until you feel the nut drop onto the threads (you may hear a slight "click" when this occurs). Then, gently thread on by hand as far as possible to ensure that it does not cross thread.

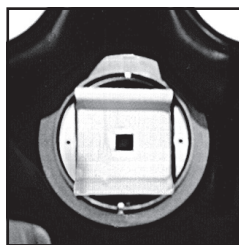
The mount nut must not be cross threaded!



Cross threading can damage the regulator body. If the threads are damaged in any way the body must be replaced. Once the mount nut is on correctly, start tightening. Once again, check and make sure that the exhaust whisker is properly seated in the frame before final tightening. Tighten the regulator mount nut to 100 inch pounds.

7) Put the mount ring adjustment tool on the ratchet extension and mount the tool into the mount ring. Turn the mount ring until it is horizontally aligned.

The mount ring adjustment tool is essential for correct mounting of the regulator.



8) Reinstall the wire retainer with the screws and washers.

9) Reinstall the oral nasal mask(EXO BR) and properly

align the nose cavity. Make certain the round mount lip is properly / completely inserted into the mating groove found on the regulator oral nasal mount nut.

10) If you are using the current silicone oral/nasal, (P/N 310-055) a tie wrap is not required for installation. However, if you are using an earlier style oral/nasal, install the tie wrap. Insert the tail of the tie wrap into the head and pull it through about 1.5" This will allow enough circle to fit over everything during installation. Begin installation by carefully folding the oral nasal mask in on itself only enough to allow the tie wrap to pass over the outside of it.

Be careful not to displace the oral nasal from the groove of the regulator mounting ring. Double check making sure the oral nasal is seated in the groove. Carefully begin tightening the tie wrap, while pushing it down against the regulator mount nut. Direct the head of the tie wrap towards the channel inside the main mask cavity, found at about the nine o'clock position.

Before the tie wrap is closed tight, check again to be sure the oral nasal is still in the groove. Hold the tie wrap down against the mount nut and tighten with needle nose pliers. Snip off any excess tie wrap material as close to the head as possible.

Check the installation by lightly tugging at the oral nasal. It should remain seated. If it pulls free, repeat steps 4 thru 9 with a new tie wrap.

If the installation tests properly, reinstall the microphone into the pocket in the oral nasal. Re install the nose equalizing device onto its mount.

11) Reinstall the communications.

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⚠ CAUTION

Use only KMDSI original replacement parts. The use of other manufacturers' 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.

