



Kirby Morgan Dive Systems, Inc.®

1430 Jason Way Santa Maria, California 93455

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PART #525-309 Regulator Rebuild Kit For Helmets & KMB-Band Masks

PARTS INCLUDED IN KIT:

Loc #	Part #	Description	Qty
7	510-011	O-Ring	1
22	510-014	O-Ring	1
26	510-552	Exhaust Valve	1
15	510-553	Diaphragm	1
6	520-032	Washer	1
16	530-303	Nut	1
19	530-506	Washer	1
10	530-601	Retaining Pin	1
3	535-807	Spring Set	1
23	545-026	Inlet Valve	1
24	535-804	Spring	1
25	530-505	Washer	1

TOOLS REQUIRED:

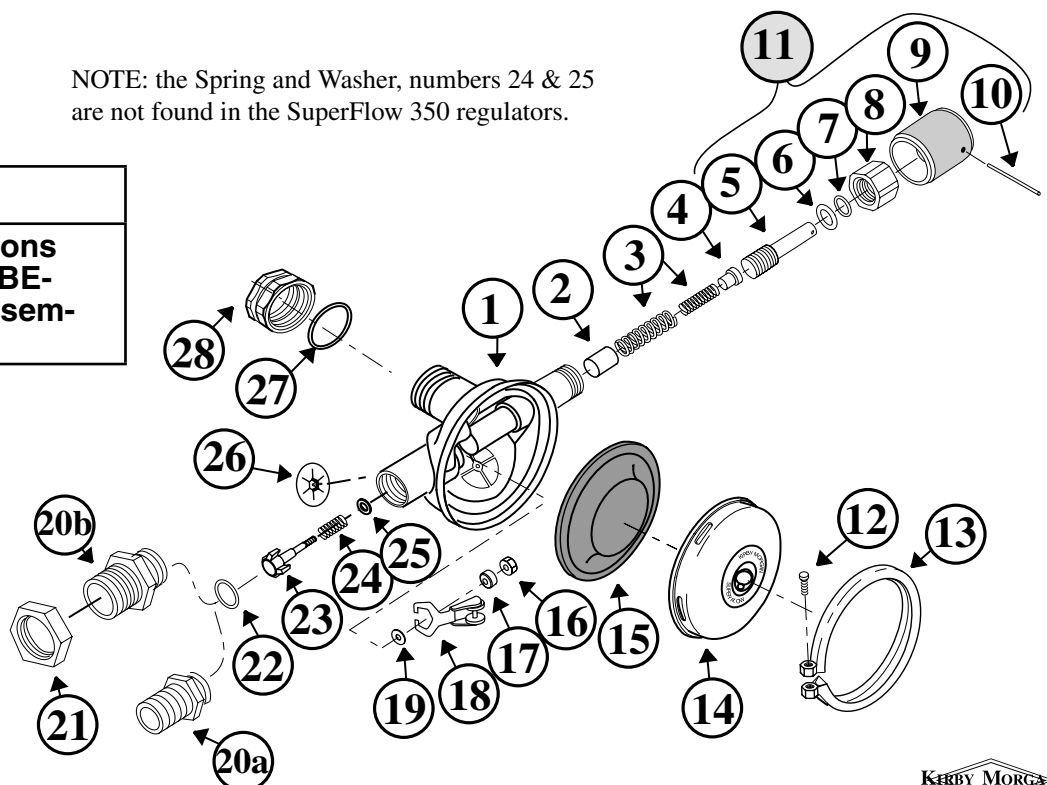
- 1 1/4" Socket on Torque Wrench
- 1/4" Flat Blade Attachment on Torque Screwdriver.
- 3/4" Open End Attachment on Torque Wrench
- 1 1/16" Open End Attachment on Torque Wrench
- 7/8" Open End Attachment on Torque Wrench
- 1 3/16" Attachment on Torque Wrench
- 7/8" Open End Wrench
- Regulator Tool Kit, Part #525-620
- Small Ball Peen Hammer
- 3/32" Punch

These location numbers are for this instruction sheet only.

NOTE: the Spring and Washer, numbers 24 & 25 are not found in the SuperFlow 350 regulators.

NOTICE

Read ALL the instructions on this sheet through **BEFORE** doing any disassembly or assembly



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DISASSEMBLY PROCEDURE:

Remove the regulator from the mask or helmet and disassemble following the procedures outlined in the Product Manual. Clean all metal parts in a sonic cleaner or in white vinegar and blow off with air. Inspect all parts carefully. Replace any that are worn or damaged as well as all that are supplied in the repair kit.

ASSEMBLY PROCEDURE:

1. Install the new exhaust valve (26) into the regulator and trim off excess stem.
2. Place the new spring (24) and the brass washer (25) onto the inlet valve (23). Use the Castle Wrench from the Tool Kit, (Part #525-620) to insert the inlet valve into the inlet mount tube in the regulator body (1) as shown in the blow-apart drawing.
3. Push in on the Castle Wrench depress the inlet valve so the stem extends into the interior of the regulator body. Place the washer (19) and the spacer (17) over the end of the inlet valve stem (23). (The washer (19) and spacer (17) may be placed in the recess in the regulator body before inserting the inlet valve (23).)
4. Place the nut (16) into the socket of the socket wrench from the Regulator Tool Kit (Part #525-620) and insert

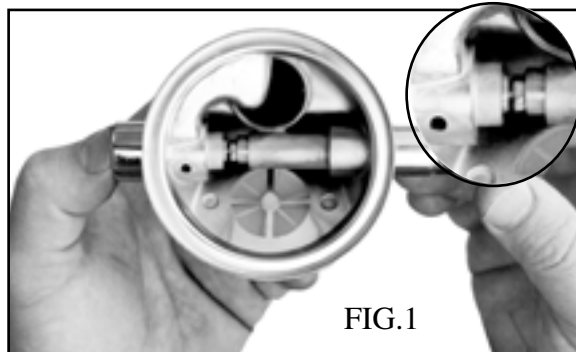


FIG.1

⚠ WARNING

The lock nut (16) must always be replaced if removed from the inlet valve (23). The plastic material that locks the nut is not designed for reuse. If the nut were to come loose, the regulator would reduce flow or supply no air to the diver. Although the diver could still breathe by manually operating the free flow on the side block, this could cause panic.

⚠ CAUTION

This washer (19) is a stamped part. One side is smooth and the other side may have rough edges. Load the washer (19) onto the inlet valve shaft (23), rough side first, so that the rough side will seat against the regulator body (1). The smooth side will be out for the lever (18) to act against. This will assure smoother regulator operation.

it through the adjustment shaft tube. With the inlet valve depressed, run the nut onto the inlet valve stem about 2 turns, leaving enough slack to allow installation of the lever (18) (FIG.1) With the inlet valve depressed the washer (19) and spacer (17) should be loose on the inlet valve stem.

5. The lever (18) is installed next. The lever legs MUST be parallel to each other. Check them with a straight edge and true if necessary by carefully bending with pliers. Now, with the inlet valve depressed insert the lever legs

between the washer (19) and spacer (17) (FIG.2).

6. Use the Castle Wrench or the Inlet Valve Holder from the Regulator Tool Kit to hold

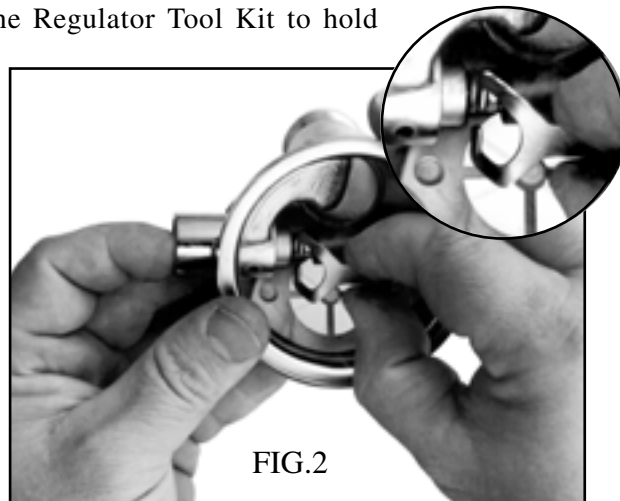


FIG.2

the inlet valve (23). Now tighten the nut (16) until two threads are visible past the nut (FIG.3)

7. While holding the lever (18) down, install the inlet



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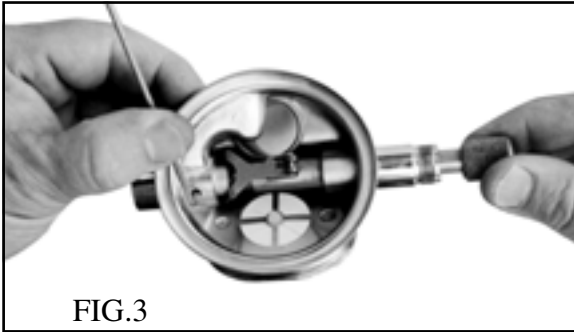


FIG.3

nipple (20a / b) with its O-ring (22) into the regulator body (1). Tighten inlet nipple to 40 inch pounds.

8. Lightly lubricate the piston (2) and spacer (4). Install the piston (2), spring set (3) and spacer (4) into the adjustment tube of the regulator body (1) as shown in the blow-apart drawing.

9. If you have disassembled the adjustment knob assembly (11), next slide the washer (6) and O-ring (7) onto the adjustment shaft (5).

10. Slide the packing nut (8) onto the adjustment shaft (5), then slip the knob (9) onto the end of the shaft. Hold the shaft (5) and rotate the knob (9) until the pin holes line up. Use the inlet valve holder from the Regulator Tool Kit to accurately align these holes.

11. Install the retaining pin (10) by tapping it in with a light hammer until it is flush.

12. Lubricate the threads lightly, then thread the adjustment shaft (5) into the tube until the packing nut (8) can be started. Tighten the packing nut (8) to 40 inch pounds. Make sure that the adjustment knob (9) is run in simultaneously.

13. Check the adjustment knob (9) for free rotation.

14. Stretch the exhaust whisker onto the exhaust flange of the regulator.

15. Mount the regulator to the mask or helmet. Lubricate and install the sealing O-ring (27) and thread on the regulator mount nut (28).

16. If the mask / helmet is a "B" model, install the bent tube assembly before tightening the regulator mount nut

(28). Lubricate the O-ring and Teflon O-ring on the bent tube assembly. Slide the O-ring end of the bent tube assembly into the regulator inlet nipple until the side block end is aligned with the threads for the bent tube mount nut. Insure that the Teflon O-ring is in place and tighten the mount nut to 100 inch pounds. Now tighten the regulator mount nut (28) to 100 inch pounds. Thread the large nut on the bent tube assembly onto the inlet nipple. Run this nut on until it just bottoms on the shoulder on the bent tube. Do not tighten further. Using two wrenches, hold the large nut on the regulator end of the bent tube and tighten the jam nut to 100 inch pounds.

17. On the "A" models the regulator mount nut (28) may be tightened before installation of the hose assembly. Tighten the hose assembly to the side block to 100 inch pounds. The swivel nut on the regulator end is tightened to 50 inch pounds.



Tighten the Jam Nut using two wrenches

18. Attach the whisker to each side of the face port using the screws, plates and spacers. Carefully torque these screws to 12 inch pounds.

19. Adjust the regulator following instructions on page 4 of this sheet. Adjustment instructions are also included in the "Regulator Tool Kit," (Part #525-620).

20. Install the diaphragm (15), cover (14), clamp (13) and screw (12). Torque the screw (12) to 8 inch pounds.

21. Check the regulator for proper operation and fine tune the adjustment if necessary.