

Miller Diving Equipment 1430 Jason Way Santa Maria, California 93455

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# Part #925-140

# Miller Diving Regulator Rebuild Kit Instructions

Part #	Description	Qty
510-011	O-ring	1
510-014	O-ring	1
520-032	Washer, Teflon®	1
530-303	Lock Nut	1
530-505	Washer, Brass	1
530-506	Washer	1
530-601	Retaining Pin	1
535-804	Spring	1
535-807	Spring Set	1

Part #	Description	Qty
545-026	Inlet Valve	1
545-038	Roller Lever Arm Assembly	1
550-052	Spacer	1
910-030	Exhaust Valve, Silicone	2
910-058	O-ring	1
910-073	O-ring	1
910-081	Diaphragm	1
910-103	O-ring, Inner Ring, Exhaust	1

#### **General Maintenance & Replacement:**

- 1. Remove regulator cover by unscrewing six screws.
- 2. Lift out diaphragm.

### Miller-10 Regulator **Description:**

Gas enters the inlet seat and is held back by the inlet valve. When the diver inhales, the diaphragm draws against the demand lever. This action pulls the inlet valve away from the inlet seat, allowing the gas to flow to the interior of the regulator body. Gas passes through the helmet to the diver. The double-spring system works together in tandem to close the valve after each inhalation, preventing free- flow of gas into the helmet. The adjustment knob changes the spring tension. This holds back the incoming gas supply until the diver inhales; and it allows the diver to adjust the resistance to free flow, according to the depth of the dive.

## **A** CAUTION

Use only Miller Diving 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 Miller Diving. When ordering spares, always insist on Miller Diving Genuine Parts.

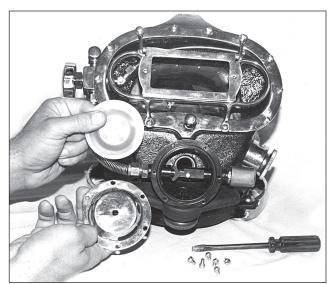
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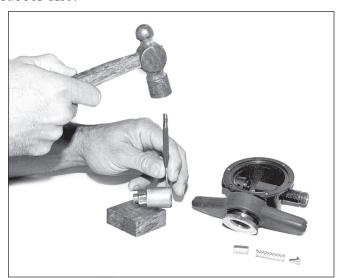


### Miller-10 Regulator Internal Parts Maintenance & Replacement:

- 1. Unscrew adjustment knob as far out as possible.
- 2. Loosen packing nut with a wrench.
- 3. Remove the adjustment assembly, shaft, Teflon® washer, O-ring, packing nut, and knob completely from the regulator.
- 4. To disassemble adjustment assembly, knock out pin with a 3/32" punch. Be sure to rest knob against solid support to avoid damage.
- 5. Reassemble.
- 6. Unscrew nut from inlet valve. Keep valve from rotating by inserting a small screwdriver into inlet area.
- 7. Remove spring, washer, inlet valve, rocker lever and spacer.
- 8. All metal and rubber parts may be cleaned in warm, soapy water, rinsed and air dried.
- 9. Inspect diaphragm for pinholes, cracks or other damage.
- 10. Inspect O-rings for damage.
- 11. Inspect inlet valve seat for wear and deep grooves in the rubber disc.
- 12. Inspect and replace all parts necessary.
- 13. Lubricate O-rings and threads lightly with silicone grease.
- 14. To reassemble, slip spring and washer on shaft of disc and retainer. Insert all three parts into regulator body inlet.
- 15. Place washer, lever, spacer, and nut on the tip of shaft which now protrudes into the interior of regulator body.
- 16. Tighten the nut so that two threads protrude past the nut.
- 17. Install inlet seat with O-ring.



 $Cover\ \&\ Diaphragm\ removed$ 



Support the knob when driving the pin

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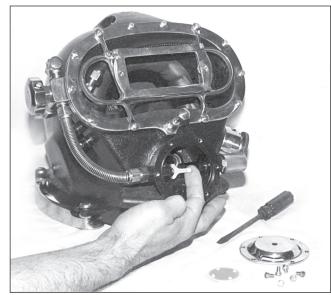
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18. Install the piston, spring set, and spacer into the adjustment tube of regulator body.

19. Install Teflon® washer, O-ring, packing nut, and adjustment knob on adjustment shaft. Line up the holes in knob and shaft and tap in pin with 3/32" punch.

20. Install the adjustment knob assembly into adjustment tube. To adjust the regulator, first pressurize system with approximately 150psi. The lever should be adjusted by nut to have no more than 1/16" free movement. The lever should be even with the top of regulator body where the diaphragm will almost touch it. If it is too high or too low the lever should be bent to the correct position. The adjustment knob should be screwed in to stop free flow. If free flow cannot be stopped, the nut is too tight.



Check free movement and position of lever