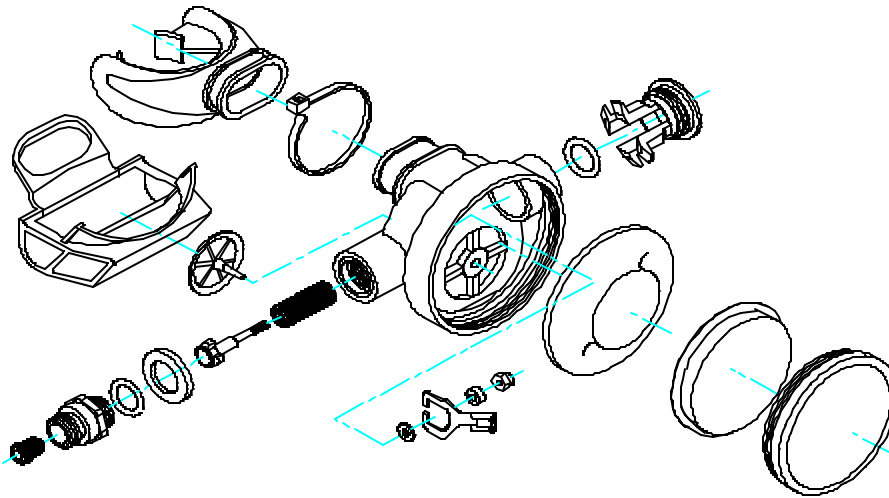


**Overhaul****Procedure: Atlas - Nova Second Stage****PREPARATION AND INITIAL INSPECTION**

- Always open Service Manual to proper page for easy reference
- Visually inspect the regulator exterior for damage and/or corrosion.
- Visually inspect the Silicone Mouthpiece (13-050000) and any other rubber parts for any visible signs of deterioration.
- Remove hose protector(s) if present, to visually inspect the hose and fittings.
- Closely examine the finish on the hose fittings. Be sure to check for flaking or chipping chrome.
- Examine carefully the entire second stage for any cracks or corrosion.

**DISASSEMBLY**

- Unscrew the front Cover Ring (08) by holding the regulator Body (01) and turning the front cover counter clockwise.
- Remove Diaphragm Retainer (07) and the Demand Diaphragm (06)
- Remove Silicone Mouthpiece (03) by cutting the Nylon Tie (02). This allows access to the Exhaust Tee (05). Gently pry out the upper edge on either side of the Exhaust Tee (05) and pull the top to remove from the regulator Body (01).
- Remove the Inlet Nipple (14) on the inlet side of the second Stage using a 3/4 inch or 19mm wrench
- Remove the Lever Arm (16) by pushing the LP Seat Carrier (12) in from the inlet side and pulling up on the Lever Arm (16)

- Remove Side Plug (20) from opposite the inlet side of second stage body by squeezing the small retaining legs on the inside of the body.
- Insert a 1/4 inch Nut Driver through the hole in the body and remove the SS Nut (18), this will allow removal of the Washer (15), Lever Arm (16), Spacer (17) and SS Nut (18)
- Remove all O-Rings from second stage parts

**CLEANING**

- Wash all metal parts using an approved regulator cleaning solution. For the best results use an ultrasonic cleaner to ensure the removal of all debris and corrosion
- Wash all plastic and/or rubber parts with a solution of warm water and mild detergent
- Rinse all cleaning solution in the prescribed manner and then rinse thoroughly with clean fresh water. Allow all parts to dry thoroughly
- Inspect carefully all parts for damage from misuse and/or corrosion. If parts are damaged they must be replaced even if the parts are not included on the Overhaul Kit
- Have the Overhaul Kit ready in order to begin assembly

**ASSEMBLY**

- Begin by checking that all parts are included in the Overhaul Kit

**9999-205000 NOVA second stage Overhaul Kit**

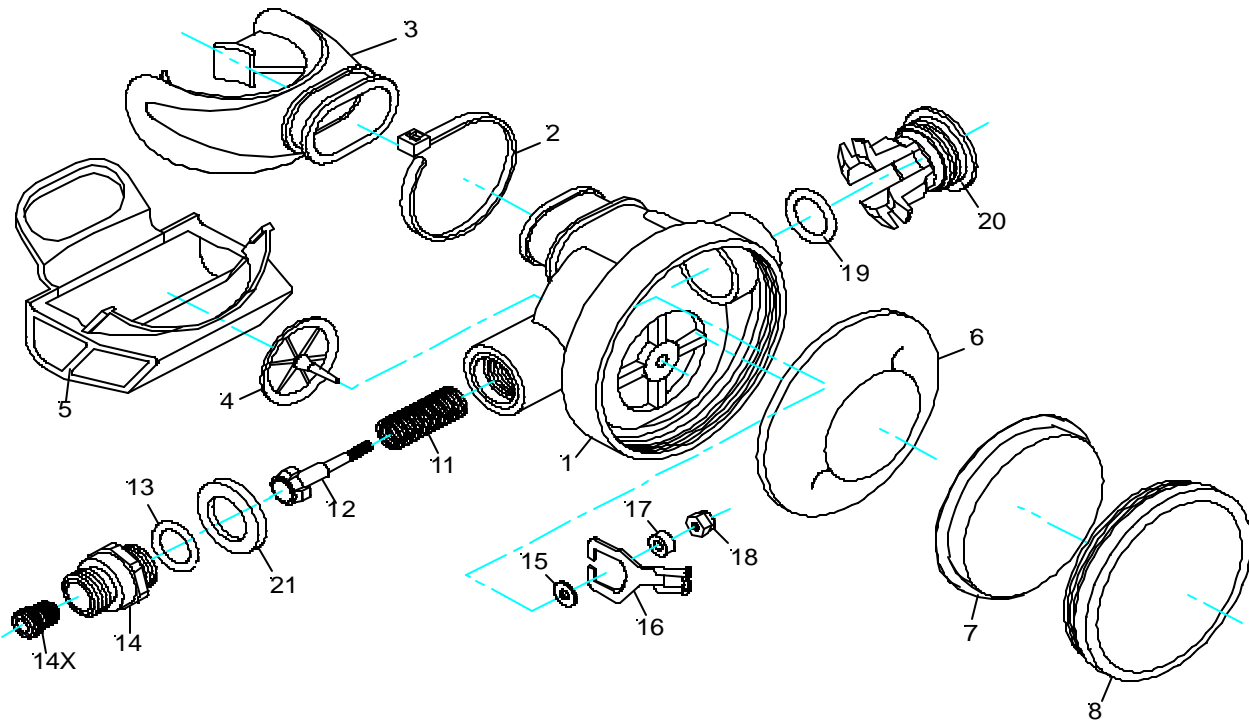
<u>Part #</u>	<u>Description</u>	<u>Drawing #</u>	<u>Qty</u>
02-991006	Nylon Tie	2	1
02-992004	Exhaust Valve	4	1
02-994013	Low Pressure seat	12a	1
02-991013	O-Ring	13	1
02-992021	O-Ring	19	1
02-992028	O-Ring	26	1
02-992032	Decal	30	1
02-992033	O-Ring	31	1
02-992036	O-Ring	34	1

- Ensure all parts are clean and dry, lightly grease all O-Rings with a high quality food grade silicone. Keep greased O-Rings separate to ensure they do not attract debris.
- Install parts from the Overhaul Kit

- Insert Spring (11) and LP Seat Carrier w\ Seat (12) push LP Seat Carrier until threaded portion extends into the second stage Body. Place Washer (15), Lever Arm (16), Spacer (17), SS Nut (18) turn the nut on one or two turns.
- Using the 1/4 inch nut Driver move the Nut clockwise until approx. 2-3 threads show beyond the nut.
- Insert Inlet Nipple (02-991014) into the Crown (02-991009) screw in the Inlet Nipple until approx. 1/16th of an inch shows beyond the Crown
- Screw Crown into second stage body, using the 3/4 inch or 19mm wrench snug the Crown to the body.
- Install O-Ring (19) on to the Side Plug (20) and insert plug into regulator body (01) far enough for all four legs to lock indise the regulator body

### ADJUSTMENT

- Attach the second stage to an Low Pressure air source (140-145psi +/-10psi)
- Check that the second stage has no air leaks, if air leaks are apparent the mostly cause is the unit has been assembled incorrectly or there is a defect in the Inlet Nipple (14), Crown (14a) or Rubber Seat
- Using the proper adjustment tool attach between air source and Inlet Nipple (14), adjust the Crown (14a) adjust the Inlet Nipple (14) out until the octo free flows then adjust in until free flow stops then turn in an additional 1/4 turn
- Breath off regulator checking to be sure the air is delivered smoothly and consistently.



Part #	Description	Draw #	Part #	Description	Draw #
99-022001	Body	1	99-021013	O-Ring	13
99-021006	Nylon Tie	2	99-021014	Inlet Nipple	14
13-050000	Silicone Mouthpiece	3	99-021009	Crown	14a
99-024004	Exhaust Valve	4	99-021015	Washer	15
99-022005	Exhaust Tee	5	99-021016	Lever	16
99-022006	Demand Diaphragm	6	99-021017	Spacer	17
99-022055	Front Soft Cover	7	99-021018	SS Nut	18
99-022050	Cover Ring	8	99-022021	O-Ring	19
99-021011	Main Spring	11	99-022044	Side Plug	20
99-021012	LP Seat Carrier w/ Seat	12	99-022040	Support Ring	21
99-024013	Low Pressure seat	12a			