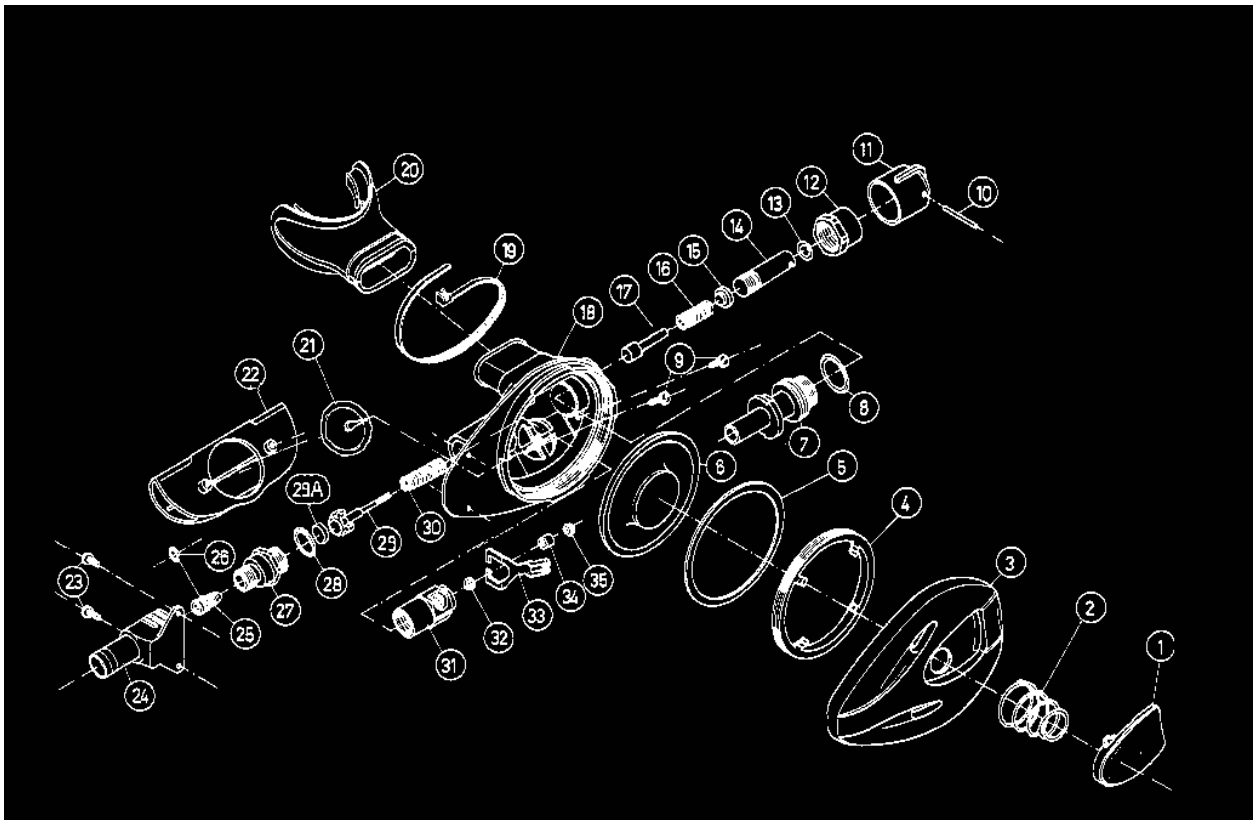
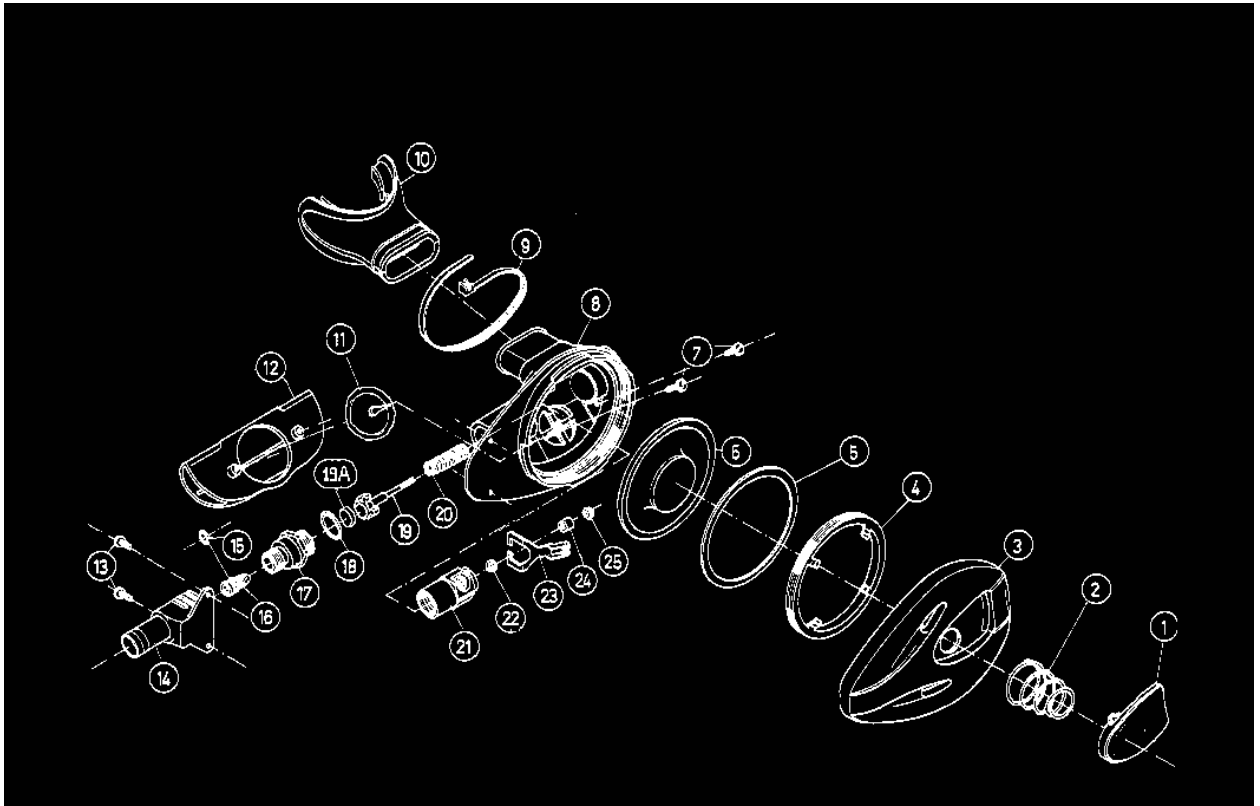


## II STAGE ENTERPRISE NITROX



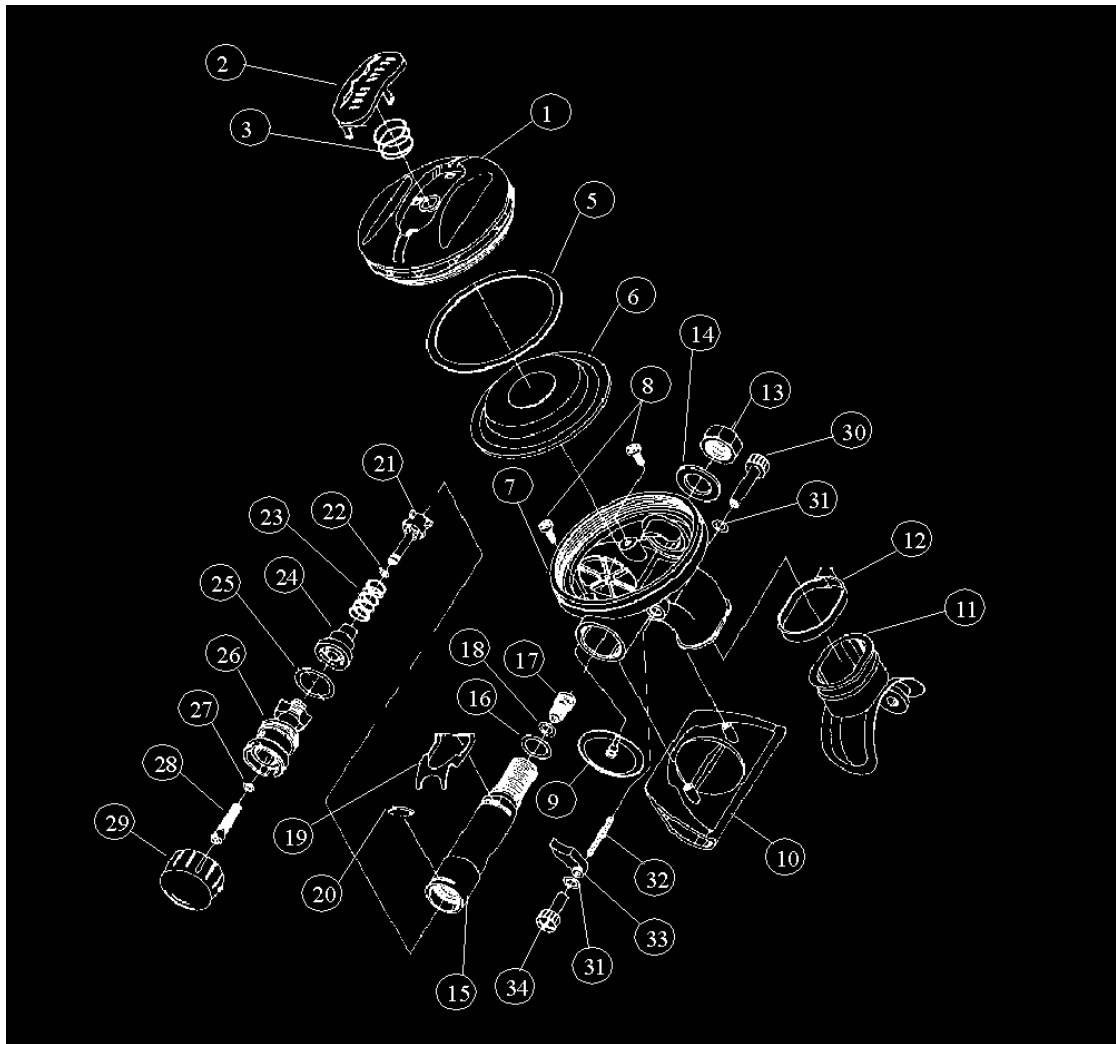
DESCRIPTION	CODE	KEY	DESCRIPTION	CODE	KEY
PURGE BUTTON	8805	1	ADJUSTMENT KNOB	8825	11
SPRING PURGE BUTTON	8819	2	NUT ADJUSTMENT KNOB	8828	12
COVER NITROX	8890	3	TRIM SCREW	8824	14
MOUTHPIECE	10058	20	SPRING GUIDE ADJ.	8823	15
CABLE TIE	9560	19	SPRING ADJUSTMENT	8822	16
DIAPHRAGM	29878	6	PISTON ADJUSTMENT	8821	17
WASHER DIAPHRAGM	8832	5	HOUSING ADJUSTMENT	8826	7
COVER RING	8816	4	EXHAUST DIAPHRAGM	8811	21
NUT DEMAND LEVER	9666	35	EXHAUST COVER BLACK	8806	22
SPACER DEMAND LEVER	9667	34	SCREW M2X6 EXH. COVER	8764	9
DEMAND LEVER	9668	33	SCREW M2 X 10 HOSE	8763	23
WASHER DEMAND LEVER	9669	32	POPPET	9677	29
HOUSING NOZZLE	9670	27	HOUSING POPPET	9678	31
O-RING 12.5 X 2 VITON	9681	28	SPRING POPPET	8833	30
NOZZLE	9672	25	BODY 2ND STAGE	8804	18
O-RING 2025 VITON	9683	13-26	SHROUD 800 mm	9950	
O-RING 2056 VITON	9421	8	HOSE SHROUD	8830	24
RETAINING PIN ADJ. KNOB	8831	10	SEAT POPPET	8865	29 a
ADJUSTMENT KNOB	8858	11	INSERT M2 CO3.5	8765	

# OCTOPUS ENTERPRISE NITROX



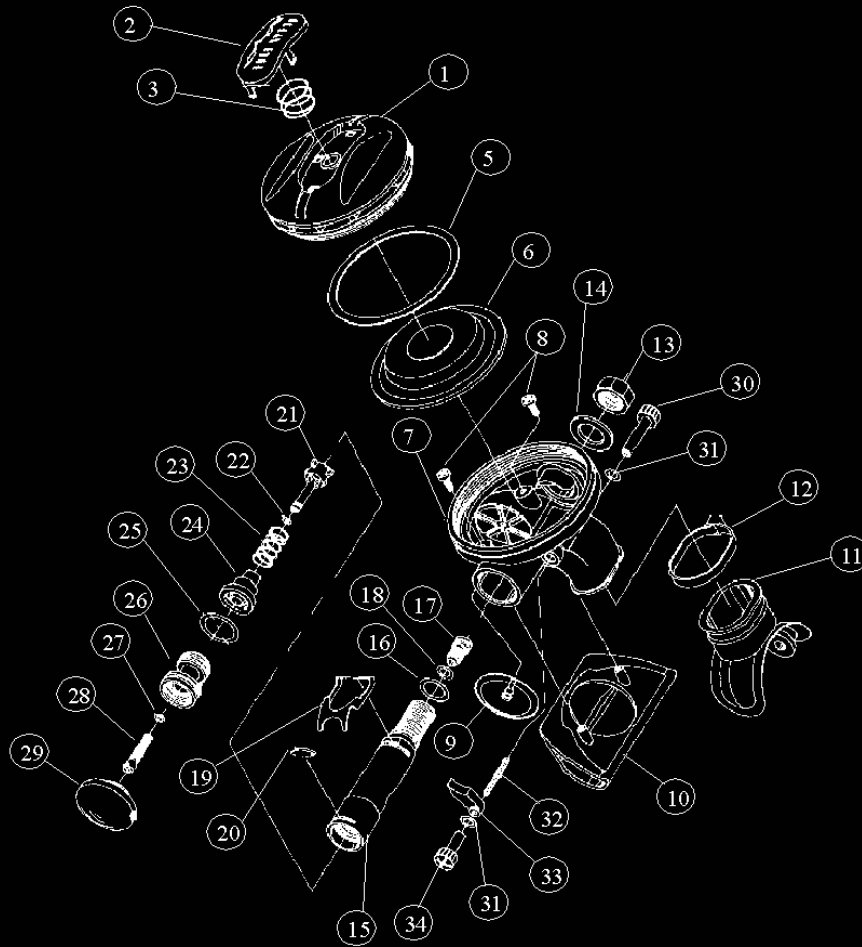
DESCRIPTION	CODE	KEY	DESCRIPTION	CODE	KEY
PURGE BUTTON	8805	1	O-RING 2025 VITON	9683	15
SPRING PURGE BUTTON	8819	2	EXHAUST DIAPHRAGM	8811	11
COVER OCTOPUS NITROX	8890	3	EXHAUST COVER BLACK	8806	12
MOUTHPIECE	10058	10	SCREW M2X6 EXH. COVER	8764	7
CABLE TIE	9560	9	SCREW M2 X 10 HOSE	8763	13
DIAPHRAGM	29878	6	POPPET	9677	19
WASHER DIAPHRAGM	8832	5	HOUSING POPPET	9678	21
COVER RING	8816	4	SPRING POPPET	9679	20
NUT DEMAND LEVER	9666	25	BODY 2ND STAGE	8804	8
SPACER DEMAND LEVER	9667	24	SHROUD 100 cm YELLOW	9951	
DEMAND LEVER	9668	23	HOSE SHROUD	8830	14
WASHER DEMAND LEVER	9669	22	SEAT POPPET	8865	19 A
HOUSING NOZZLE	9670	17	INSERTS M2 CO 3.5	8765	
O-RING 12.5 X 2 VITON	9681	18	DEFLECTOR	8840	
NOZZLE	9672	16	PLUG BODY	8864	

## II STAGE OCEAN EDGE NITROX



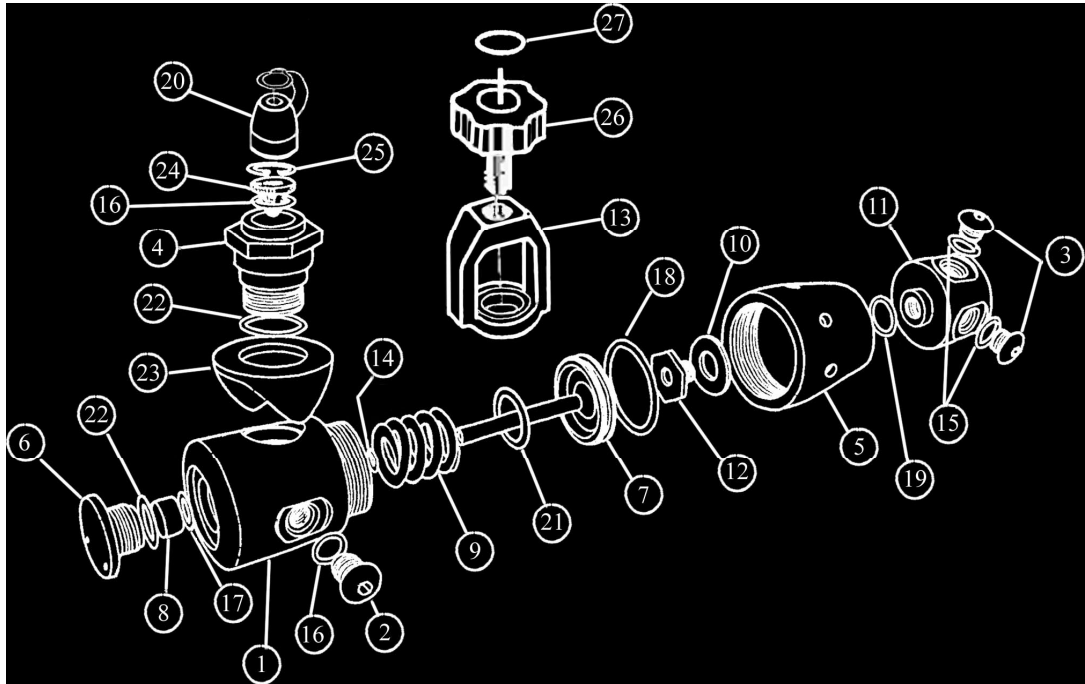
DESCRIPTION	CODE	KEY	DESCRIPTION	CODE	KEY
			O-RING 6.2 X 1.4 VITON	15437	18
COVER OVAL LIME NITROX	14918	1	DEMAND LEVER	15448	19
OVAL BUTTON BLACK	16919	2	WEDGE	15447	20
SPRING OVAL BUTTON	15479	3	POPPET	9677	21
INHALATION DIAPHR. RING	15451	5	O-RING 2.6 X 1 VITON	15449	22
INHAL. DIAPHR. W/PUCK	15254	6	SPRING POPPET	15440	23
HOUSING	16454	7	BALANCE PISTON	15443	24
PLASTIC SCREW	15431	8	O-RING 2068 VITON	15456	25
EXHAUST VALVE	8811	9	ADJUSTMENT SCREW	16456	26
EXHAUST COVER	15430	10	O-RING 0.128 X 0.05 VITON	15754	27
MOUTHPIECE	10058	11	TRIM SCREW	15750	28
CABLE TIE	9560	12	ADJUSTMENT KNOB	15445	29
HEX NUT	15433	13	ASPIRATION KNOB RIGHT	16407	30
BODY WASHER	15257	14	O-RING 2021 VITON	16553	31
VALVE BODY	15532	15	STUD ASPIRATION	16409	32
O-RING 114 VITON	9520	16	TAB ASPIRATION	16408	33
NOZZLE	9672	17	ASPIRATION KNOB LEFT	16406	34

# OCTOPUS OCEAN EDGE NITROX



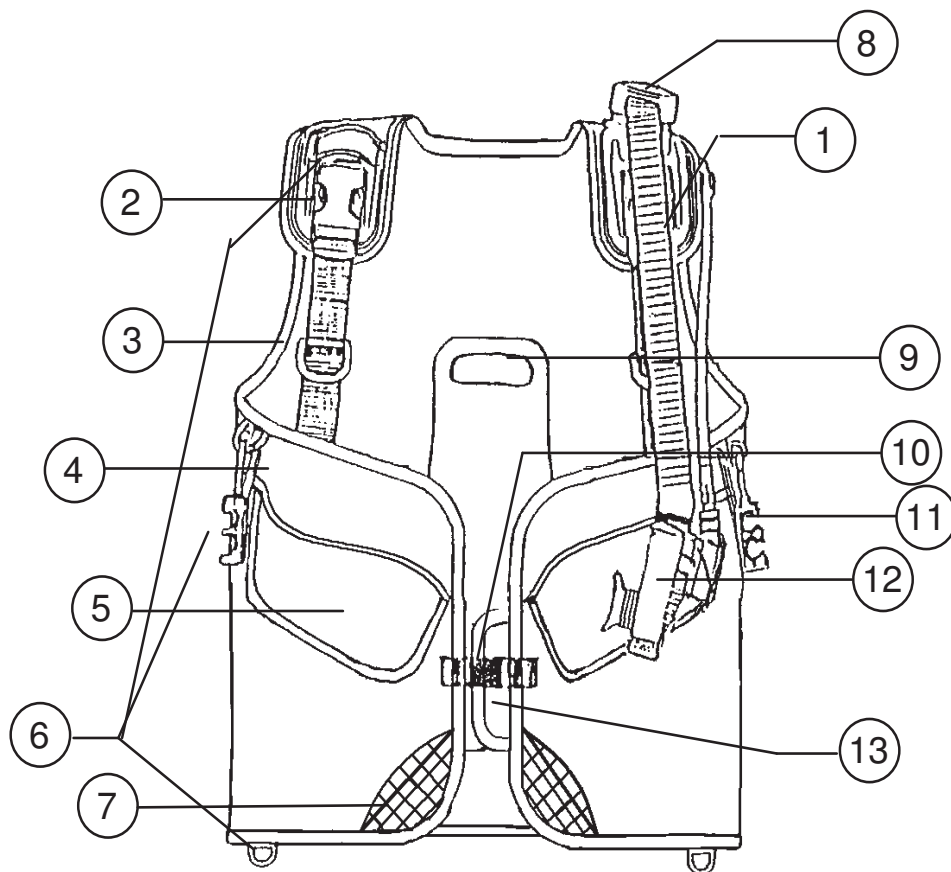
DESCRIPTION	CODE	KEY	DESCRIPTION	CODE	KEY
			O-RING 6.2 X 1.4 VITON	15437	18
COVER OVAL LIME NITROX	14918	1	DEMAND LEVER	15448	19
OVAL BUTTON BLACK	16919	2	WEDGE	15447	20
SPRING OVAL BUTTON	15479	3	POPPET	9677	21
INHALATION DIAPHR. RING	15451	5	O-RING 2.6 X 1 VITON	15449	22
INHAL. DIAPHR. W/PUCK	15254	6	SPRING POPPET	15440	23
HOUSING	16454	7	BALANCE PISTON	15443	24
PLASTIC SCREW	15431	8	O-RING 2068 VITON	15456	25
EXHAUST VALVE	8811	9	SCREW BODY	15904	26
EXHAUST COVER LIME	16430	10	O-RING 0.128 X 0.05 VITON	15754	27
MOUTHPIECE	10058	11	TRIM SCREW	15750	28
CABLE TIE	9560	12	SCREW CAP	15905	29
HEX NUT	15433	13	ASPIRATION KNOB RIGHT	16407	30
BODY WASHER	15257	14	O-RING 2021 VITON	16453	31
VALVE BODY	15532	15	STUD ASPIRATION	16409	32
O-RING 114 VITON	9520	16	TAB ASPIRATION	16408	33
NOZZLE	9672	17	ASPIRATION KNOB LEFT	16406	34

# I STAGE 6600 NITROX



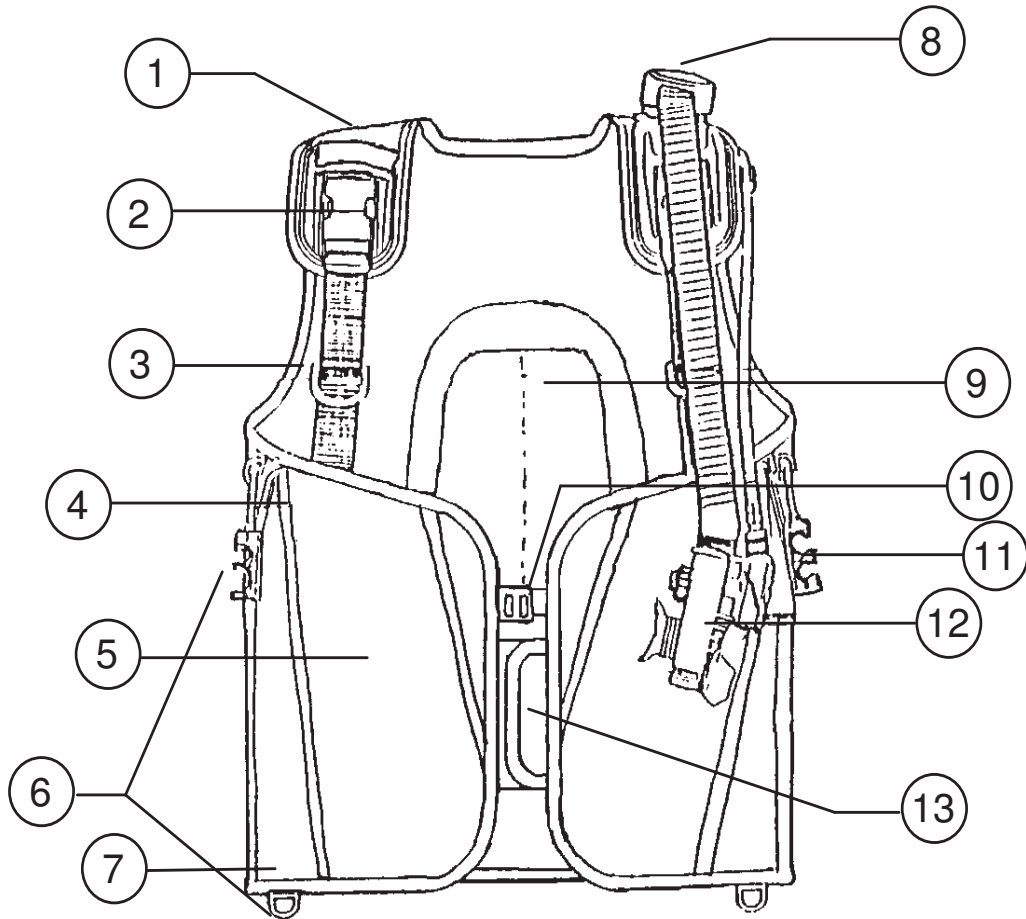
DESCRIPTION	CODE	KEY	DESCRIPTION	CODE	KEY
1ST STAGE BODY	12130	1	O-RING 2031 VITON	9419	15
HP PORT PLUG	12550	2	O-RING 108 VITON	9415	16
LP PORT PLUG	12144	3	O-RING 114 VITON	9454	17
YOKE RETAINER	12141	4	O-RING 2100 VITON	9652	18
CAP	12135	5	O-RING 2037 VITON	7841	19
SEAT RETAINER	12132	6	INLET CAP	9402	20
PISTON	12134	7	PISTON SHIM	12313	21
HP SEAT	12131	8	O-RING 2056 VITON	9421	22
SPRING	12133	9	SADDLE NITROX	12597	23
SWIVEL WASHER	12136	10	CONICAL FILTER	12831	24
SWIVEL	12137	11	RETAINING RING FILTER	12832	25
SWIVEL RETAINER	12138	12	YOKE SCREW	9600	26
YOKE	9637	13	FLAG O. R.	9110	27
O-RING 2025 VITON	9683	14			

# TEK VEST 225



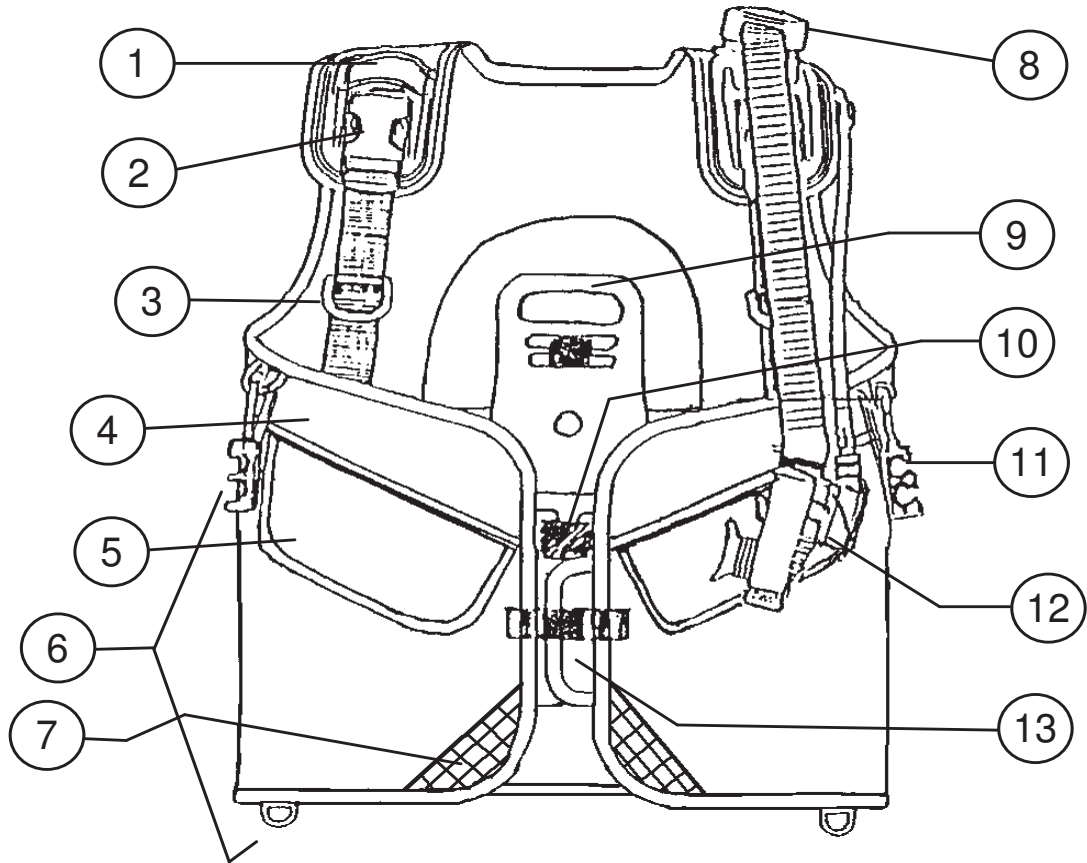
DESCRIPTION	CODE	KEY
BELT BUCKLE ASSEMBLY	009313	
NON SKID RUBBER PAD	009316	
RELIEF VALVE	009340	
POWER-ORAL INFLATOR ASS.	009359	12
WHISTLE	009314	
LP INFLATOR HOSE	009307	
HOSE CLIP	009293	11
RUBBER BACKUP PLATE	009326	
VELCRO FOR INFLATOR	009251	

# LJS 93HT



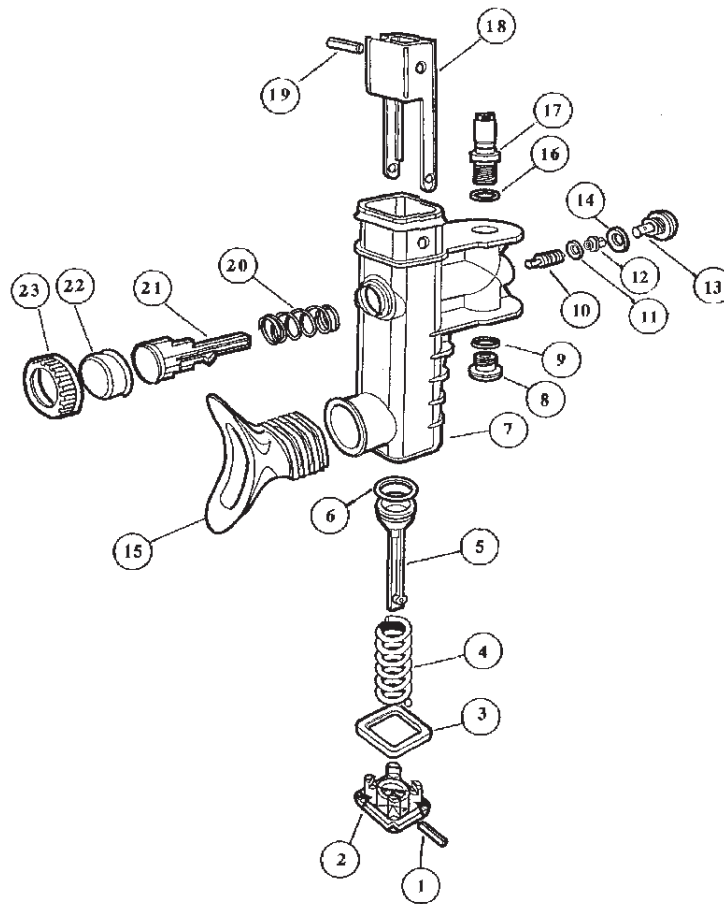
DESCRIPTION	CODE	KEY
L. P. INFLATOR HOSE	009307	
WHISTLE	009314	
POWER/ORAL, INFLATOR ASSEMBLY	009359	12
HOSE CLIP	009293	11

# LJS 5400HT



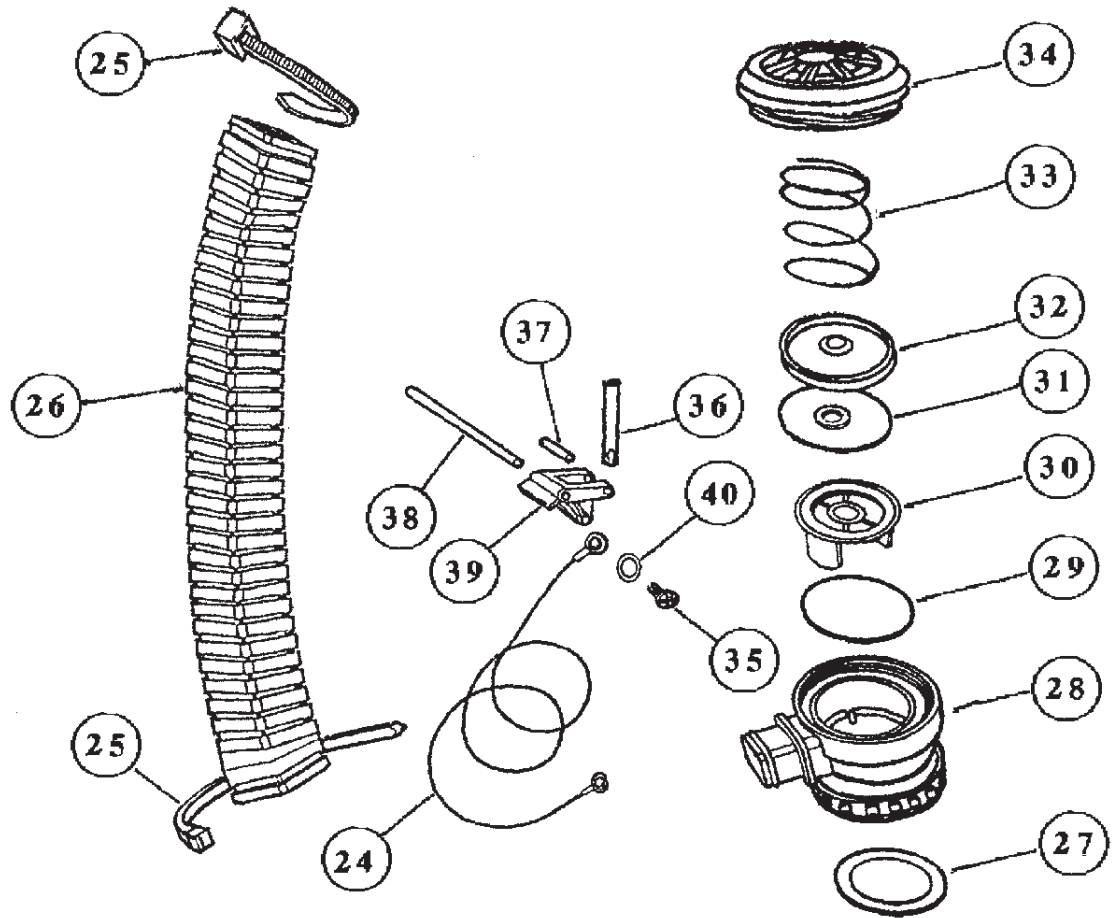
DESCRIPTION	CODE	KEY
L. P. INFLATOR HOSE	009307	
WHISTLE	009314	
POWER/ORAL, INFLATOR ASSEMBLY	009359	12
HOSE CLIP	009293	11
BELT BUCKLE ASSY	009313	

# INFLATOR'S VALVE



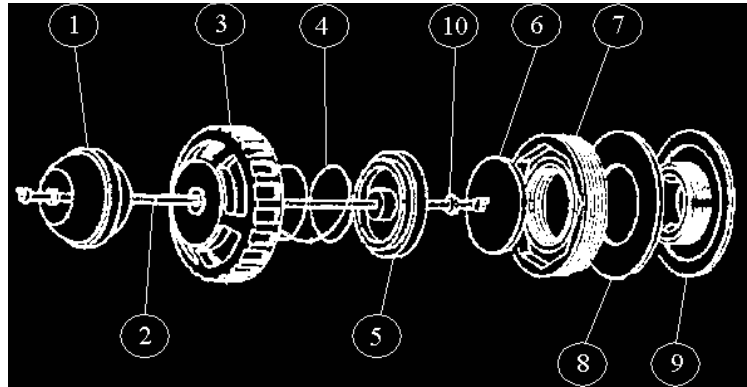
DESCRIPTION	CODE	KEY
PIN-ROLL, 3/32 DIA. X .5	007851	1
BUTTON-MANUAL INFLATE	007852	2
GASKET-BUTTON, ORAL INFLATE	007853	3
SPRING, ORAL INFLATOR	007854	4
ROD-POPPET, INFLATOR	007855	5
O-RING 2050	007856	6
HOUSING, INFLATOR, B.C.	007857	7
CAP, B.C. VALVE, PLASTIC 7/16"	007858	8
O-RING 108	009405	9-14
SHRAEDER VALVE, B.C. VALVE	007863	10
O-RING 2025	009673	11
VALVE HOUSING	007888	12
VALVE PLUG	007887	13
MOUTHPIECE	007868	15
O-RING 2031	009409	16
NIPPLE-LP HOSE	007860	17
INSERT -INFL HOUSING	007861	18
PIN .125 DIA. X .883	007862	19
SPRING B.C. VALVE	007864	20
PISTON B.C. VALVE	007865	21
BUTTON COVER	007866	22
FASTENING RING	007867	23

# INFLATOR'S EXHAUST VALVE



DESCRIPTION	CODE	KEY
AIRWAY CABLE ASSEMBLY	007885	24
CABLE TIE	007869	25
HOSE-EXHAUST, ORAL INFL.	007870	26
GASKET	009289	27
EXHAUST HOUSING SUBASSEMBLY	007891	28
O-RING 2175	007874	29
INSERT-EXHAUST VALVE	007875	30
ONE-WAY GASKET	007876	31
PLATE-SEAL, EXHAUST	007877	32
SPRING, EXHAUST	007889	33
EXHAUST COVER	007879	34
EXHAUST PIVOT SCREW	007880	35
EXHAUST ROD 24x4.8	007881	36
EXHAUST PIVOT PIN, SM 15x2.5	007882	37
EXHAUST PIVOT PIN, LG 30x2.4	007883	38
EXHAUST PIVOT	007884	39
PIVOT WASHER	007886	40

# OVERPRESSURE VALVE



DESCRIPTION	CODE	KEY
PULL KNOB	006730	1
CORD	006731	2
CAP	006739	3
SPRING	006732	4
VALVE RETAINER	006733	5
VALVE	006734	6
MANIFOLD	006735	7
DOUBLE GASKET	006736	8
RETAINER	006737	9
WASHER	006738	10

## OCEAN EDGE TOOL - OCEAN EDGE KNIFE

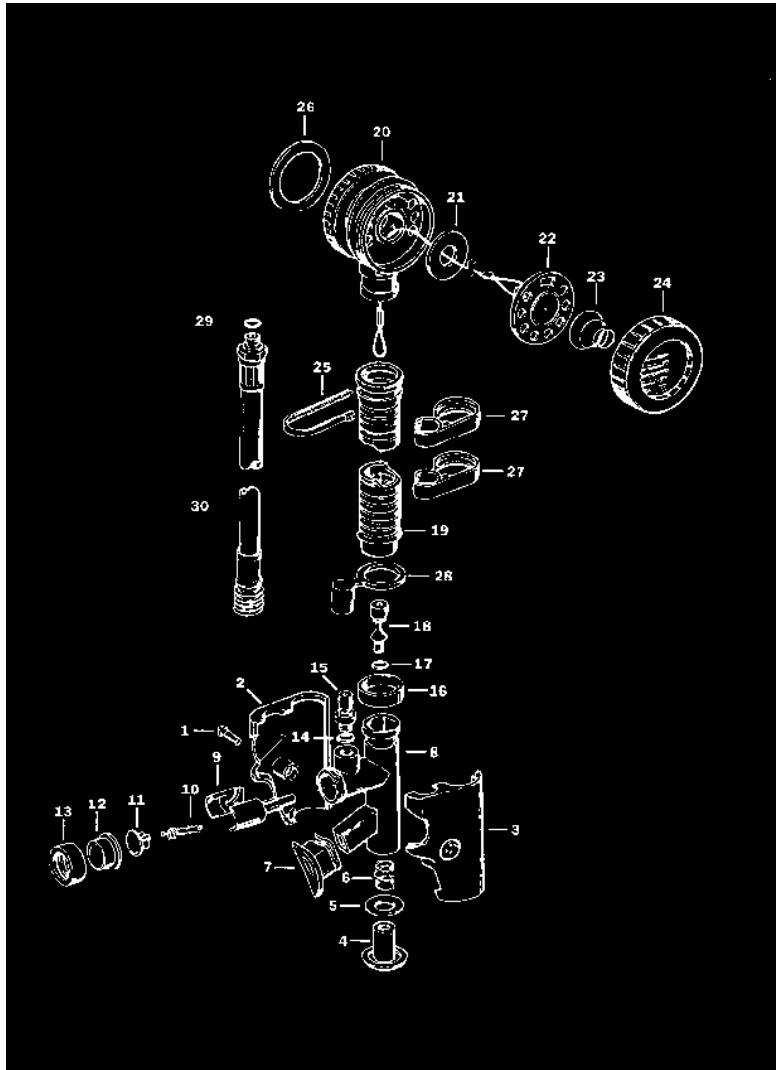
Description	Code
Strap holder	009202
Strap adjuster	007500
Button	008203
Spring for sheat	008195
Handle	008171
Tool blade	008174
Knife blade	008172
Knob	008182
Short strap	001301
Long strap	001300

## TEK KNIFE SILVER - BLUNT TIP - BLACK

Description	Code
Strap holder	009202
Strap adjuster	007500
Tek Knife Black blade	008177
Tek Knife Silver blade	008175
Tek Knife Blunt Tip blade	008185
Short strap	001301
Long strap	001300
Clip for sheat	008188
Pivot for sheat	008199
Spring for sheat	008180

# POWER INFLATOR 99

(Syntex & Tek 840)



DESCRIPTION	CODE	KEY	DESCRIPTION	CODE	KEY
SCREW		1	O-RING		17
SHELL		2&3	METAL PIN		18
ORAL BUTTON		4	HOSE		19
ORAL BUTTON WASHER		5	ELBOW ASSEMBLY		20
INFLATOR SPRING		6	ELBOW WASHER		21
MOUTHPIECE		7	CABLE ASSEMBLY		22
HOUSING		8	OVER-PRESSURE SPRING		23
INSERT		9	ELBOW CAP		24
SHROEDER VALVE		10	CLAMP/TIE WRAP		25
POWER BUTTON		11	MANIFOLD WASHER		26
BUTTON COVER		12	HOSE CLIP		27
POWER BUTTON RING		13	FITTING CAP		28
O-RING		14	O-RING		29
QUICK CONNECTION		15	LP HOSE		30
HOSE RING		16			

# SERVICE MANUAL

## attachments

- p.37** NIRA SERVICE PROCEDURE
- p.39** TROUBLESHOOTING NIRA II
- p.40** INSTRUMENTS – acceptable tolerances  
DECONTAMINATION OF OUR NEPTUNE II MASK WITH GSM AND D.MIC ASSEMBLED IN  
(NOT REMOVED) FROM ORGANIC MATERIAL.
- p.41** COMPUTER interface setting
- p.42** HOW TO IDENTIFY THE RELEASE OF INTERFACE
- p.43** GSM & M101A TROUBLESHOOTING
- p.44** M105 DIGITAL TROUBLESHOOTING
- p.45** EQUALIZATION SYSTEM REL.2.3 – NIRA POPPET AND SPRING POPPET REL. DEC02

## NIRA SERVICE PROCEDURES:

### Tools Required:

- |                               |            |
|-------------------------------|------------|
| 1. 19mm spanner               | cod. 9782  |
| 2. 17mm spanner               | cod. 9783  |
| 3. Small screwdriver line     | cod. 9784  |
| 4. Screwdriver crosses        | cod. 9790  |
| 5. O-ring pick                | cod. 33407 |
| 6. NIRA nozzle tool           | cod. 33404 |
| 7. NIRA ad.tool w/pres. gauge | cod. 9754  |
| 8. Silicone grease            | cod. 33410 |

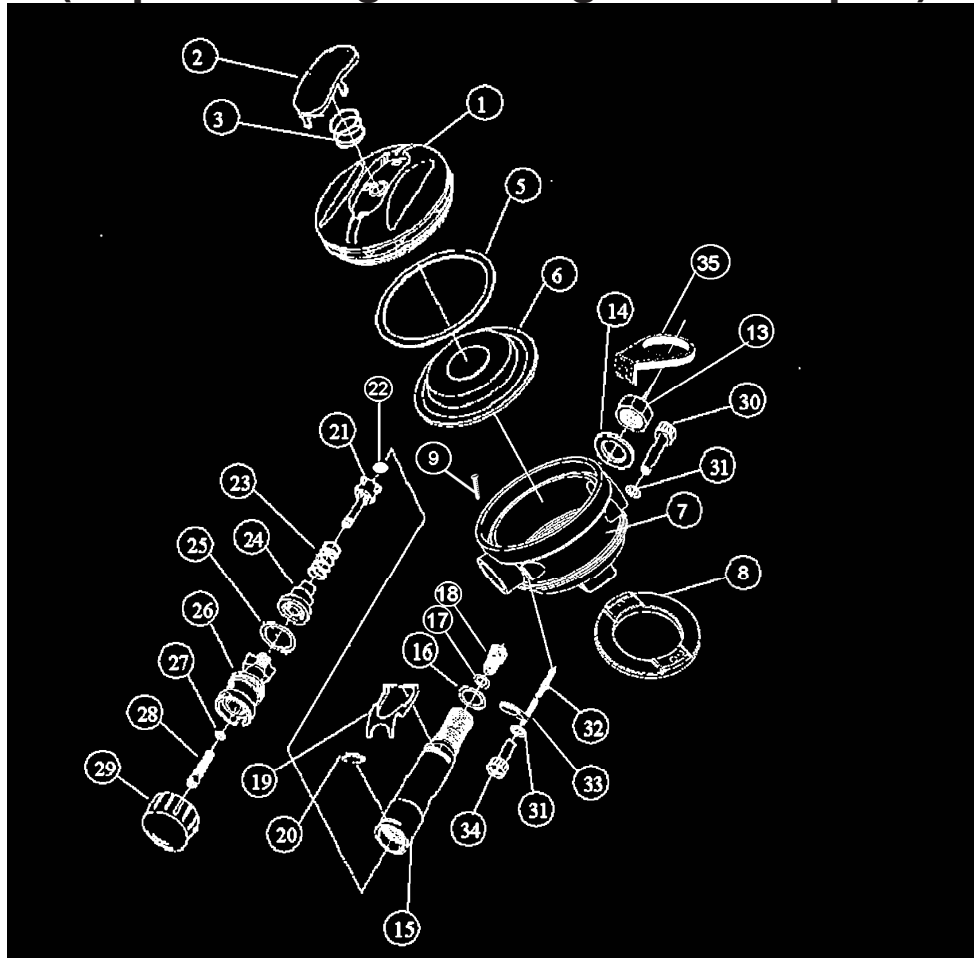
### DISASSEMBLY:

- Step 1** Remove intermediate pressure hose from the NIRA using two wrenches, 19MM Spanner & 17MM Spanner.
- Step 2** Remove **cover lock (35)**. Remove **Cover (1)** unscrewing it by hand from the Housing. Remove the **inhalation diaphragm washer (5)** and gently remove the **inhalation diaphragm (6)** if the diaphragm is stuck to the housing carefully peel back the outer edge to avoid tearing it.
- Step 3** If required remove the **purge button (2)** and the **purge spring (3)** by pressing the four tabs on the underside, inward.
- Step 4** Loosen the **hex nut (13)** with a crescent wrench and remove it along with the **valve body washer (14)**. Remove the valve body assembly from the housing. by sliding the **valve body (15)** out so the **lever (19)** is fully exposed. Remove the lever and slid the entire assembly out of the housing.
- Step 5** Remove the **adjustment screw (26)** from the **valve body (15)**. Remove the **wedge (20)** and unscrew the adjustment screw until it is free of the valve body. It may be necessary to turn the adj. screw clockwise to release and remove the wedge before unscrewing the adj. screw counter-clockwise.
- Step 6** Gently tapping on the open end of the valve body will cause the **poppet (21)**, **poppet chamber (24)**, and the **poppet spring (23)** to drop out. **NOTE: TO ASSURE BEST PERFORMANCE, THE POPPET SEAT SHOULD BE REPLACED WITH A NEW POPPET SEAT ANY TIME IT IS REMOVED FROM THE VALVE BODY.**
- Step 7** Unscrew the **nozzle (18)** with the flat blade screwdriver. Due to friction of the **O-ring (17)** the nozzle will tend to stay in the valve body. It may be carefully pushed out with the eraser end of a pencil or with the ¼" dowel. Care must be taken not to scratch or nick the end of the Cone shaped surface.

### INSPECTION, REASSEMBLY AND ADJUSTMENT:

- Step 1** Inspect all O-rings and sealing surfaces to ensure that they are clean and free of any debris. If necessary, clean with a mild acid solution (Vinegar and water). Replace any parts that appear worn especially O-rings. **Replacement of the poppet seat should be standard part of any servicing.** Lightly lubricate all O-rings with silicone grease and re-install. Inspect inhalation diaphragm for cuts or nicks. Inspect nozzle blade, replace nozzle o-ring.
- Step 2** Install the **nozzle (18)** with a flat blade screwdriver. To position the nozzle, continue screwing it in until the cone end reaches the far side of the slot in the valve body.
- Step 3** Assemble the **poppet (21)**; **poppet seat (22)**; **poppet spring (23)** and the **poppet chamber (24)**. Insert the entire assemble into the **valve body (15)**.
- Step 4** Assemble the **adjustment screw (26)** into the end of the **valve body (15)**.Screw into valve body until you can see slot then insert #20 wedge then unscrew till it lock
- Step 5** Slide the valve body assembly partially into the housing. Position the slot for the **lever (19)** up. Slip the ends of the lever into the slot, the lever should fall easily into place, if it does not, screw the nozzle further into the body. Push the valve body all the way into the housing, aligning the locking flats in the housing with the flats on the valve body. Add the washer and hand tighten the hex nut onto the threaded end of the valve body. With a crescent wrench, tighten the hex nut snugly (Approx. 30 inch pounds torque).
- Step 6** The position of the nozzle affects the operating position of the lever. To precisely position the nozzle, adjust the position of the nozzle until there is only about 1/32" free-play at the end of the lever.
- Step 7** Replace the **inhalation diaphragm (6)**, **Inhalation diaphragm washer (5)** and **cover assembly (1)**.
- Step 8** Screw the **inline adjustment tool** onto the threaded end of the valve body. Hand screw a regulator with a second stage hose onto the tool.
- Step 9** For the final adjustment to the NIRA; connect the regulator to an air supply With the air pressure ON, back OUT the nozzle with the inline tool until the NIRA leaks air. Now screw the nozzle back IN until the leak stops. Operate the purge button a few times to confirm there is not a leak. If necessary, readjust the nozzle. (In the field or when no inline adjustment tool is available the same adjustment procedure may be made with the **trim screw (28)** by removing the elastomeric **adjustment knob (29)** and turning the trim screw OUT till the NIRA leaks air and then turn IN until the leak stops, operate the purge a few times to confirm there is not a leak, readjust the trim if necessary.) ( **NOTE: THE ORIGINAL ADJUSTMENT FOR ACCEPTANCE AT THE FACTORY REQUIRES THAT The VALVE BEGINS TO FLOW WHEN THE PRESSURE AT THE MOUTHPIECE IS MINUS 1.3 + 0.2 – 0.1 INCH OF WATER.**).
- Step 10** The aspiration control device may be removed by holding one **aspiration knob (30 or 34)** fixed and unscrewing the other aspiration knob free of the **stud (32)**. When free the knobs can be pulled out of the housing, the **tab (33)** will fall free and the stud will remain in one of the knobs.

# NIRA (Neptune Integrated Regulator Adapter)



DESCRIPTION	CODE	KEY	DESCRIPTION	CODE	KEY
COVER OVAL BLACK	17918	1	NIRA STUD ASPIRATION	16411	32
OVAL BUTTON BLACK	19920	2	NIRA TAB ASPIRATION	16410	33
SPRING OVAL BUTTON	15479	3	ASPIRATION KNOB LEFT	16406	34
INHALATION DIAPHR. RING	15451	5	FRONT COVER LOCK	8812	35
INHAL. DIAPHR. W/PUCK	15254	6	THICKNESS RING	15452	
NIRA HOUSING WITH OR 2021	8818	7	OWNER'S MANUAL	6906	
NIRA LOCK RING	8910	8	800 mm STD HOSE	9950	
SCREW M2X6	8764	9	HOSE PROTECTOR	9311	
HEX NUT	15433	13	<b>Ann.Mant.Kit (NIRA)</b>	<b>9875</b>	
BODY WASHER	15257	14	POPPET (*)	15259	21
VALVE BODY	15532	15	SEAT POPPET	8865	22
O-RING 114	9420	16	O-RING 114	9420	16
O-RING 2025	9673	17	O-RING 2025	9673	17
NOZZLE	9672	18	O-RING 2068	15446	25
DEMAND LEVER	15448	19	O-RING 0,128 X 0,05	15753	27
WEDGE	15447	20	O-RING 2021	16453	31
SPRING POPPET (*)	15442	23	SPRING POPPET (*)	15442	23
POPPET CHAMBER	15443	24	<b>Ann.Mant.Kit (NIRA 50/60 PSI)</b>	<b>9862</b>	
O-RING 2068	15446	25	POPPET (*)	15259	21
ADJUSTMENT SCREW	16456	26	SEAT POPPET	8865	22
O-RING 0.128 X 0.05	15753	27	O-RING 114	9420	16
TRIM SCREW	15750	28	O-RING 2025	9673	17
ADJUSTMENT KNOB	15445	29	O-RING 2068	15446	25
POPPET (*)	15259	21	O-RING 0,128 X 0,05	15753	27
SEAT POPPET	8865	22	O-RING 2021	16453	31
ASPIRATION KNOB RIGHT	16407	30	SPRING POPPET 1.2x10.6x24	15440	
O-RING 2021	16453	31			

## TROUBLESHOOTING NIRA II

### **VISOR FOGS UP**

*IT'S A WARNING SIGNAL THAT MASK IS NOT POSITIONED CORRECTLY ON FACE!*

- a) orinasal mask not positioned correctly or pinched
- b) orinasal mask not seated properly in MI-1 breathing assembly
- c) top harness straps pulled to much – loosen
- d) bottom harness straps not pulled tight enough, mask tens to go up

### **AIR LEAKS**

- a) Hair / hood trapped inside mask skirt
- b) Sewing on hood – skirt will not necessarily seal on all hoods especially if sewing on hood where mask skirt fits
- c) Straps pulled to thigh or not properly

### **REGULATOR FREE FLOWS**

- a) Adjustment knob opened to much, regulate by closing knob in face down position
- b) Regulator purge button has sand / pebbles stuck inside
- c) Regulator needs servicing
- d) First stage intermediate pressure not 135 psi / 9.5 bar

### **REGULATOR HARD TO BREATH FROM**

- a) Adjustment knob closed too much, regulate by opening knob in face down position
- b) Aspiration knob on red instead of green
- c) Regulator needs servicing
- d) First stage intermediate pressure not 135 psi / 9.5 bar
- e) If purchased before June 1,1999 request upgrade kit (poppet cod 15259, poppet seat cod 8865, spring cod 15442 )

### **FFM VIBRATES**

- a) Harness straps not adjusted properly - tighten bottom straps
- b) Adjustment knob opened too much
- c) Nira adjustment too soft – make proper adjustment with adjustment tool

### **CLAMPING BAND TEARS**

- a) improper removing technique must pull forward not outward

### **NIRA COVER PLATE UNSCREWS**

- a) request NIRA cover plate lock

## INSTRUMENTS

They are all certified in according with EN 250 rules – certification stamp is C5 0474  
The following tables are the max. tolerances acceptable by EN 250

### ACCEPTABLE TOLERANCES OF PRESSURE GAUGES AND DEPTH GAUGES

#### PRESSURE GAUGE

40 bar		+ - 5 bar	
100		+ -10	
200		+ -10	
300		+ -10	

#### DEPTH GAUGE

9 m		+ -0,5 m	
15		+ -0,7	
20		+ -1	
30		+ -1.5	
40		+ -2	
50		+ -2.5	
60		+ -3	
70		+ -3.5	
80		+ -4	

### DECONTAMINATION OF OUR NEPTUNE II MASK WITH GSM AND D.MIC ASSEMBLED IN (NOT REMOVED) FROM ORGANIC MATERIAL.

Isopropilic Alcool 70%  
Distilled water 30%  
or  
SEPTHIOL Steril , made by STERIS (USA)  
or  
SPIRICLEMS made by Adams (UK)

The general rules are the following

Cleaning of mask:

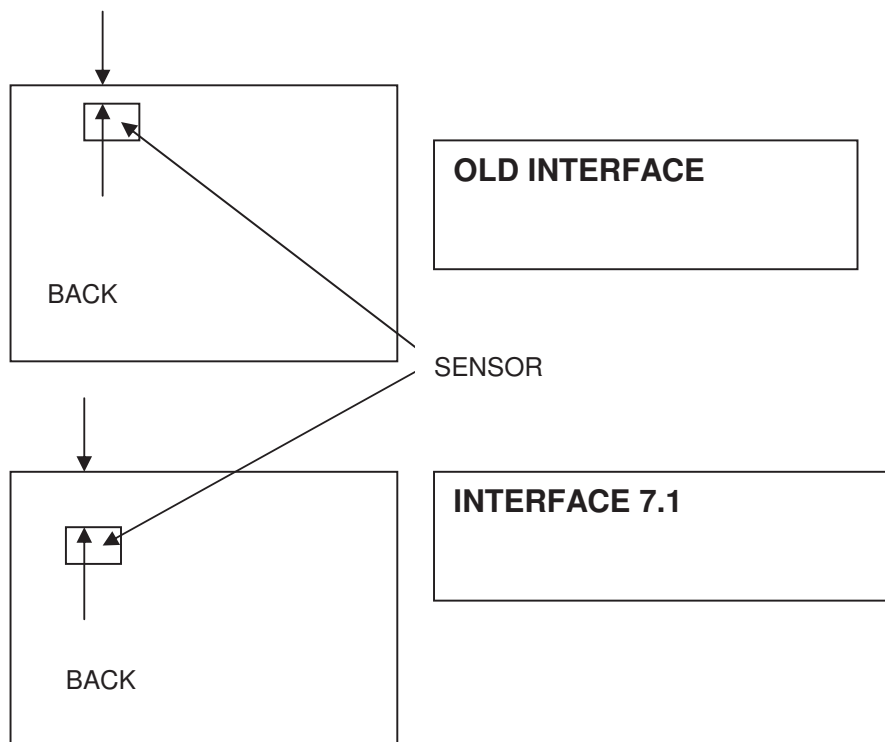
- 1 -if you have the mask ONLY , you may submerge it in boiling water for some minute.
- 2 - if you have the mask + NIRA you may do the same operation but we suggest to have the mask in the boiling water for no more than 15".
- 3- if you have the com unit and mic (DO NOT USE boiling water) but submerge the complete system in Isopropilic Alcool 70% - water 30% (if distilled is better).
- 4 - If you have oil or other hydrocarburic materials you may clean the mask by solvents but , you need to remove the traces of solvent with a proper solvent cleaner and finally use the system 1-2- or 3.

## **COMPUTER SETTING FOR OCEAN 01 PLUS & OCEAN 02 NITROX INTERFACE COMPUTERS**

1. GO TO MY COMPUTER
2. CONTROL PANEL
3. SYSTEM
4. COM PORTS  
**CHOOSE THE COM PORT WHERE YOU HAVE CONNECTED THE INTERFACE**
5. PROPERTY
6. SETTING  
**1200 BAUDS  
8 BITS  
NO PARITY  
FLOW 1 STOP BITS  
FLOW CONTROL HARDWARE**
7. ADVANCE SETTING  
**DISABLE FILO BUFFERS**

## HOW TO IDENTIFY THE RELEASE OF INTERFACE

7.1 MAY BE USE FOR ALL OCEAN REEF COMPUTERS (OCEAN 01R . OCEAN01 NITROX – OCEAN 01 PLUS – OCEAN 02 NITROX)  
OLD INTERFACE MAY BE USED JUST ON OCEAN 01 R AND OCEAN 01 NITROX



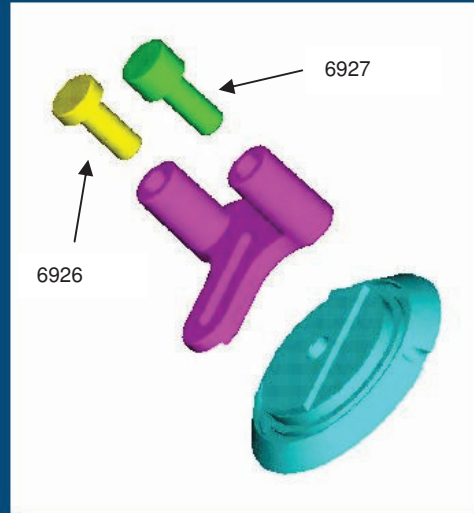
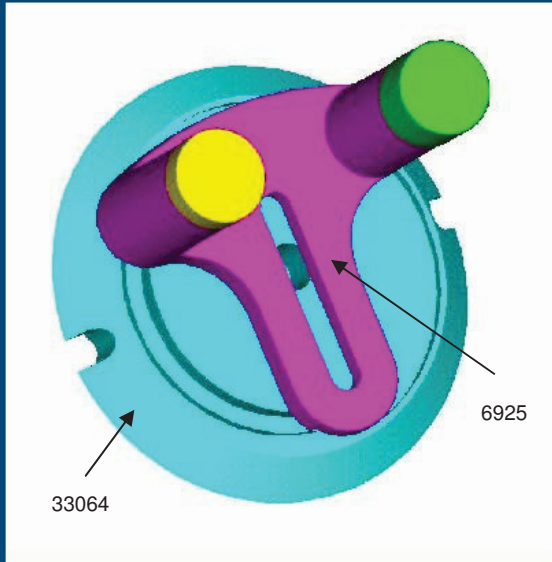
# GSM AND M101A troubleshooting

	<b>Trouble</b>	<b>Reasons</b>	<b>Action</b>
<b>1</b>	Switch doesn't turn on	No battery The contacts are protected or rusted The battery is expired	Insert the battery, remove the protection Use a brand new battery
<b>2</b>		Polarity is wrong	Remove battery and change polarity
<b>3</b>		Flooded battery compartment	Wash the battery compartment with fresh water – dry – protect contacts with silicone grease. Battery cover o-ring must be cleaned and sprayed with silicone oil or grease. DO NOT exceed with screwing strength
<b>4</b>		Unit contacts are broken or corroded	SEND TO OCEAN REEF
<b>5</b>		Electronic failure	SEND TO OCEAN REEF
<b>6</b>	Battery is hot	Polarity was wrong	Replace battery with proper position in the battery compartment
<b>7</b>	Flooding battery compartment	Wrong assembling of O-Ring cover Missing, cracked or dirty O-Ring	Follow instructions at point 4 Replace O-Ring if needed
<b>8</b>		Broken battery cover	Replace battery cover
<b>9</b>		Broken GSM body	SEND TO OCEAN REEF
<b>10</b>		Broken battery cover screw inserts	SEND TO OCEAN REEF
<b>11</b>	Unit has power but does not transmit	Environment conditions Micro-bubbles in the water Obstacles Receiving unit is not working	Check the environment Remove micro bubbles Remove obstacles Compare with other receiving units
<b>12</b>		Microphone fails 1. Check contacts 2. Check Hydroponics Membrane if broken 3. Check Mic & Power continuity of mic	Clean them and spray protective silicone grease or oil Replace mic.  If no continuity, replace mic.
<b>13</b>	You hear the transmission "beep" but there is no transmission	Battery is low Defective receiving unit	Replace the battery Check with another receiving unit.
<b>14</b>		Electronic failure	SEND TO OCEAN REEF
<b>15</b>	You hear a low battery alarm beep when you start transmission	Battery has low voltage Battery compartment "may be" flooded	Change battery
<b>16</b>	You press the transmission button but after an alarm beep the unit resets to receiving only	Battery to low Battery compartment flooded Internal electronic failure	Change battery
<b>17</b>	Not clear communication. Can't understand	Wrong mic position inside of the mask or wrong connection of contacts	Check mic position and contacts
<b>18</b>		Failure of mic	Replace mic
<b>19</b>	Alarm beeps with random effect after a certain depth	Electronic fail	SEND TO OCEAN REEF
<b>20</b>	No receiving only	Transceiver unit doesn't work	Change transceiver unit
<b>21</b>		Speaker fails	SEND TO OCEAN REEF
<b>22</b>	Transmission only, will not go back to receiving mode	PTT fails	SEND TO OCEAN REEF

# M105 DIGITAL troubleshooting

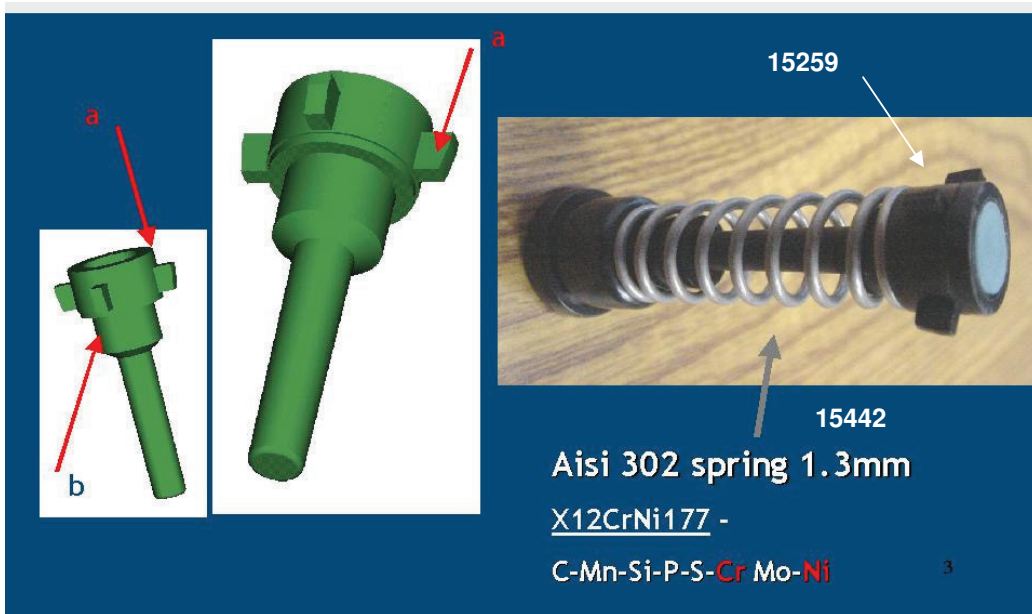
	<b>Trouble</b>	<b>reasons</b>	<b>Action</b>
<b>1</b>	Unit doesn't turn on	No battery The battery is expired or need to be charged	Insert the battery, charge the battery Use a brand new battery
<b>2</b>		Polarity is wrong	Remove battery and change polarity
<b>3</b>		Antenna is not connected to the antenna plug port or it is not properly connected	Connect the antenna or check the connection
<b>4</b>		Electronic failure	SEND TO OCEAN REEF
<b>5</b>	You hear a whistle	Antenna cable is broken.	Dry the cable - Repair the cable sealing the broken part or replace it
<b>6</b>	No transmission	Environment conditions Micro-bubbles in the water Obstacles Receiving unit is not working	Check the environment Remove micro bubbles Remove obstacles Compare with other receiving units
<b>7</b>		Antenna not in correct plug port	Move the antenna to the Antenna plug port
<b>8</b>		Antenna failure	Replace the antenna
<b>9</b>		Mic in a wrong plug port	Move the mic to the Mic plug port
<b>10</b>	Not receiving	Unit is not turn on	Turn on the unit
<b>11</b>		Antenna not in correct plug	Move the antenna to the antenna plug port
<b>12</b>		Antenna failure	Check, repair or replace
<b>13</b>		Volume switch failure	SEND TO OCEAN REEF
<b>14</b>		Speaker failure	Use the headset and SEND TO OCEAN REEF
<b>15</b>		Electronic failure	SEND TO OCEAN REEF
<b>16</b>	You hear the transmission "beep" but there is no transmission	Battery has low voltage Receiving unit failure Environment conditions	Replace the battery Check with another receiving unit. Check the environment
<b>17</b>		Electronic failure	SEND TO OCEAN REEF
<b>18</b>	You hear a low battery alarm beep when you start transmission	Battery has low voltage	Recharge the battery
<b>19</b>	You press the transmission button but after an alarm beep the unit resets to receiving only	Battery to low	Recharge battery
<b>20</b>	Not clear communication. Can't understand	Environment conditions and transmission unit failure	Remove obstacles, micro-bubbles etc etc
<b>21</b>		Antenna is at the wrong depth – possible thermo cline	Check different depth
<b>22</b>		Reflections from the bottom	Change location
<b>23</b>		Antenna is dirty or in a wrong position	Have some silicone oil or soap on the antenna transducer
<b>24</b>		Antenna failure	Check the antenna
<b>25</b>		Speaker or volume switch failure	Clean contacts. Replace if necessary
<b>26</b>		Mic failure	Check the connection and the mic

**NEPTUNE II EQUALIZATION SYSTEM – UPDATING TO REL.2.3 – DEC 2002**



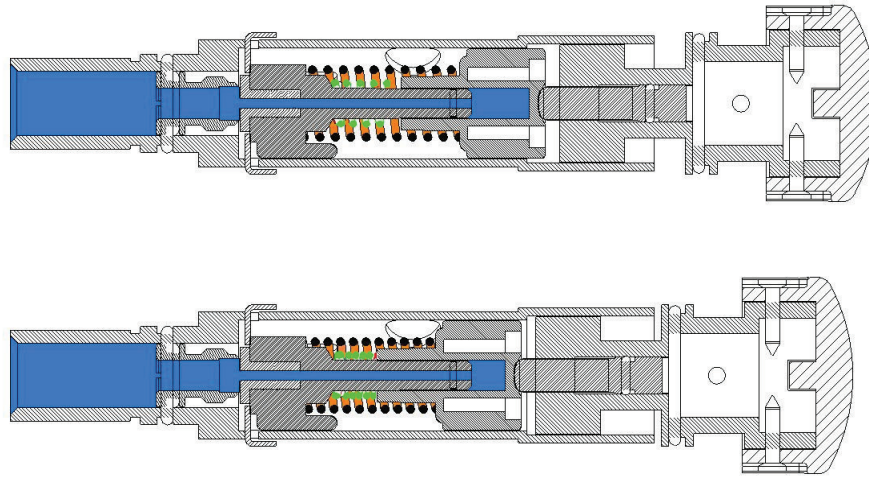
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**NIRA SPRING & POPPET – UPDATING TO REL. DEC 2002**



a: NEW BACKWARD WINGS  
 b: NEW SPRING PISTON GUIDE

## NEPTUNE SPACE REGULATOR



<u>Unit : Grams</u>	internal volume	weight	H2O volume	<b>Buoyancy</b>
NIRA—860ml	860	930	740	<b>670</b>
KIRBY MORGAN—1230ml	1230	2300	1580	<b>510</b>
INTERSPIRO—885ml	885	980	677	<b>582</b>
SPACE--620	620	860	646	<b>406</b>

Buoyancy of Neptune Space compared with other FFM

## Neptune SPACE TROUBLESHOOTING

### **VISOR FOGS**

#### ***WARNING SIGNAL THAT MASK IS NOT POSITIONED CORRECTLY ON FACE!***

- oralnasal mask positioned incorrectly or pinched
- oralnasal mask improperly seated—check that it is properly tucked around communication port and exhaust valve
- top harness straps pulled too tightly—loosen
- bottom harness straps not pulled tight enough

### **AIR LEAKS**

- hair/hood trapped inside mask skirt
- sewing on hood—skirt will not necessarily seal on all hoods, especially if sewing on hood is where mask skirt fits
- straps pulled too tightly or improperly

### **REGULATOR FREE-FLOWS**

- adjustment knob opened too much—regulate by closing knob in face-down position
- purge button has sand/pebbles stuck inside
- regulator needs servicing \*
- 1st stage intermediate pressure not 135 psi/9.5 bar

### **REGULATOR HARD TO BREATHE THROUGH**

- adjustment knob closed too much—regulate by opening knob in face-down position
- aspiration knob pushed to “-“ instead of “+”
- regulator needs servicing \*
- 1st stage intermediate pressure not 135 psi/9.5 bar

### **FFM VIBRATES**

- harness straps not adjusted properly—tighten bottom straps
- adjustment knob opened too much
- Neptune Space adjustment too soft—make proper adjustment with adjustment tool
- 1st stage intermediate pressure not 135 psi/9.5 bar

### **CLAMPING BAND TEARS**

- improper removal technique

**\* Ocean REEF recommends that the regulator be serviced at least once a year, or after 100 dives. This should only be performed by an Ocean REEF dealer or an authorized Ocean REEF repair station which uses original spare parts. This also applies to any periodic servicing and/or repairs required.**



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