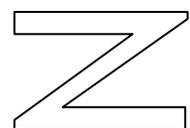
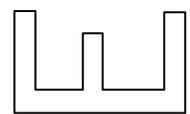
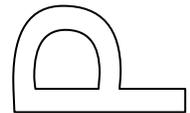
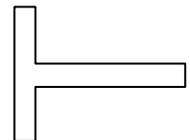
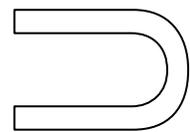
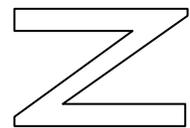
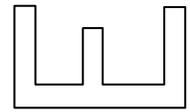
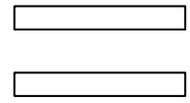


DIVING FULL FACE MASK &  
INTEGRATED REGULATOR  
ADAPTER

OWNER'S MANUAL

**OCEANREEF**<sup>®</sup>  
underwater, naturally.





# NEPTUNE II NIRA NIRA TR 94 POLAR

## USER GUIDE

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#### **UPDATES**

- Nira Cover Lock
- Directional Exhalation Valve (from rel. 2.2)

The DPis (Individual Protective Device) scrutinized in these operating instructions have undergone every possible test for design validation by:

**RINA SpA**  
**ITALIAN BUREAU OF SHIPPING**  
**V.Corsica 12 – 16128 Genova**  
**Notified Body n.: 0474**  
**Neptune II – Neptune II NIRA – Neptune II NIRA Tr94 Polar**

### PREMISE

The DPis in question are a separate part of the self-contained underwater breathing apparatus, commonly known as SCUBA.

They conform to European regulation EN-250 and are certified for underwater use up to a depth of 150 feet and for a pressure of 200 feet. They can be stored at a temperature of between 32° and 140° F.

It is necessary that this equipment only be used by fully trained, certified divers.

**Operating restrictions:** The DPis in question cannot be used with diving products without the EC stamp. Incorrect use, non-original spare parts and insufficient or poor maintenance, besides being dangerous to the health and life of the user, releases OCEAN REEF S.r.l. of any responsibility and nullifies the warranty.

**The series of DPis described in the following manual are comprised of:**

- **NEPTUNE II** : full face diving mask . Conform to European regulation EN-250.
- **NEPTUNE II NIRA** : full face mask Neptune II with integrated 2nd stage NIRA. Conform to European regulation EN-250.
- **NEPTUNE II NIRA TR94 POLAR** : Neptune II NIRA with membrane 1st stage TR94 POLAR with Yoke CGA 850 or DIN connection.

### ATTENTION



Watch the video “Neptune, A New Way to Dive” before you use your new Neptune mask.

### WARNINGS, CAUTIONS, NOTES

Pay special attention to informations provided in warnings, cautions, and notes, that is accompanied by these symbols:



A **WARNING** indicates a procedure or situation that, if not avoided, could result in serious injury or death to the user.



A **CAUTION** indicates any situation or technique that could cause damage to the product, and could subsequently result in injury to the user.



A **NOTE** is used to emphasize important points, tips, and reminders.



fig.1

# NEPTUNE II

## INTRODUCTION

The NEPTUNE II mask was development through experience gained from producing products for military personnel protection. All designs and materials were tested to obtain superior resistance, increasing safety and making it easier to use in difficult situations.

**The high quality of the product does not allow the user to ignore the problems connected with the correct use of the product and the rules for safe diving.**



## GENERAL PRECAUTIONS AND WARNINGS

Before using this mask, you must have successfully received training and certification in the technique of SCUBA diving from a recognized certification agency (or any U.S. Military or government operated diving school). Use of this equipment by a person who is not certified by a recognized agency shall render all warranties, express or implied, null and void.

**Use of SCUBA equipment by uncertified or untrained persons is dangerous and can result in serious injury or death.**

**This mask is not configured for commecial use with surface supplied air. Neptune II NIRA 50/60 mask (NIRA with a 50/60 psi) is designed to work with surface supplied air and not scuba tanks.**



**Always pressurize the Neptune II Nira gradually by opening the cylinder valve SLOWLY.**

**NEVER lubricate any part of the Neptune II Nira or cylinder valve with any lubricant.**

Lubrication must only be performed by an Ocean Reef trained technician.

DO NOT apply any type of aerosol spray on the Neptune II Nira. Doing so may cause permanent damage to certain plastic components, including the second stage housing.

Factory prescribed service for this product must be performed at least once annually by a factory trained Ocean Reef Service Technician who is employed by an Authorized Ocean Reef Dealer. Repair, service, disassembly, or first stage adjustment must not be attempted by persons who are not factory trained and authorized by Ocean Reef.

DO NOT leave a cylinder standing unsecured with the Neptune II Nira attached to the valve. Doing so may cause permanent damage to the Neptune II Nira and cylinder valve if the cylinder falls

over against the first stage.

When diving in cold water (below 45<sup>0</sup> F, or 7<sup>0</sup> C), you must have received training and certification in the techniques of cold water diving from a recognized training agency.

The Neptune II Nira is designed and intended for use only with clean, compressed atmospheric air. DO NOT use this equipment with any other gas or enriched oxygen mixture above 23% oxygen. Failure to observe this warning may result in serious injury or death due to fire or explosion.

## Section 1

### USE OF THE NEPTUNE II

#### 1.1 PRODUCT APPLICATION

The NEPTUNE II is designed for diving with SCUBA equipment. There are 2 ports to connect a regulator 2nd stage and 1 port for an underwater communication unit (diver to diver or diver to surface).

#### 1.2 PRODUCT CHARACTERISTICS

All the thermoplastic materials used to produce the NEPTUNE II have superior technical characteristics and optimum resistance to mechanical impact, chemical agents and aging. The primary component of the NEPTUNE II is the visor made of highly transparent (> 90%) polycarbonate with high mechanical resistance. A poly-siloxane resin coating increases abrasion resistance and protects against chemical agents like oil and gasoline. The visor is attached to a double-contoured face seal. It is sustained by a non-flexable six-strap harness which is directly connected to the visor. Both the face seal and the inner mask are made of soft silicone for maximum comfort, even at low temperatures and during prolonged use. The air circulation valves are also made of silicone for maximum resistance against deterioration with age.

The air from the regulator, whether attached in the front or side position, enters the inner mask through the two one way valves and ventilates the visor glass to avoid fogging.

The oral nasal cups also separate the fresh air from the exhaled air limiting the percentage of inhaled CO<sub>2</sub>. Exhaled air passes through the lower adjustable exhalation valve, which allows bubbles to escape laterally and not interfere with the visor.

The volume of air in the mask and the distance of the second stage regulator from the divers mouth cause increased loss of pressure and regulator breathing resistance.



Changes in regulator performance can also be caused by the different positions assumed during a dive; **the use of a regulator with flow adjustment is recommended.**



When descending the adjustment knob must always be turned on to get the proper air flow. Do not turn off the adjustment knob during descending.



#### 1.3 DIVE PREPARATION

The NEPTUNE II is tested with the Ocean Reef regulators Dynamic 6600, ENTERPRISE TR94 Polar and the integrated 2nd stage NIRA with TR94Polar 1st stage. **The manufacturer does not guarantee the performances of the NEPTUNE II using other regulators.**

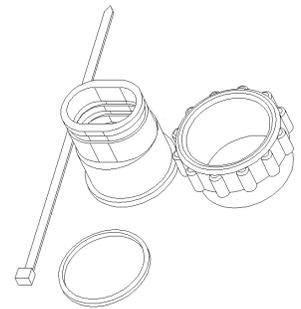


The NEPTUNE II has both frontal and lateral regulator attachments and is designed to allow the connection of two second stages. **It is recommended that the diver carry,**

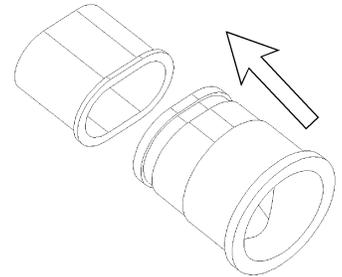
during any dive, a standard mask and octopus to use as an alternative to the NEPTUNE II.



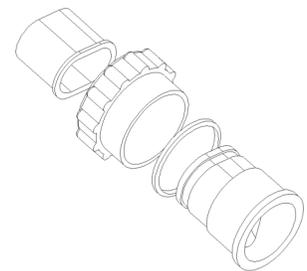
Remove the mouthpiece from your regulator and replace it with adapter (key 36) (pic.3), fastening it with the plastic band (key 38). Insert the bushing (key 37) (pic. 4) and the plastic ring, (key 42), utilizing the flexibility of the adapter (key 36) **(the little rings on the part key 42 must be in the direction of the part key 37)**. Remove the plug (key 1) and the washer (key 2) and connect the regulator turning the keeper ring until it stops (pic. 5). To connect to the lateral port, remove the plug (key 1) and the washer (key 2). Put the washer (key 2) on the front port and close it with the plug (key 1). **WARNING: before closing the bushing (key 37) be sure that the washer (key 2) is removed, otherwise the bushing (key 37) may not be sufficiently tightened!**



pic. 2



pic. 3



pic. 4

### 1.4 DONNING THE MASK

The NEPTUNE II is easy to wear. A light compression of the face seal draws the optical part of the visor closer and attaches the inner mask to the face to optimize the use of the mask. For first-time use, loosen all the straps of the harness. To loosen the harness press lightly on the buckles (pic. 6). Bring the mask to the face (pic. 7). Tighten and adjust the side straps until the mask firmly fits the face (pic. 8) and then adjust the two lower straps. Now pull on the upper straps of the harness and the mask will fit perfectly to the face. If the mask is worn correctly you will feel only light uniform pressure around the face. The top and side straps of the harness are adjusted just once for each user. To don or remove the mask only the two lower straps need be used.

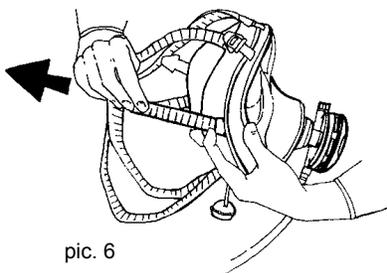
To remove the mask **pull forward and up on both bottom straps. This releases the straps and you may remove the mask over your head. (pic. 9).**

### 1.5 EQUALIZATION

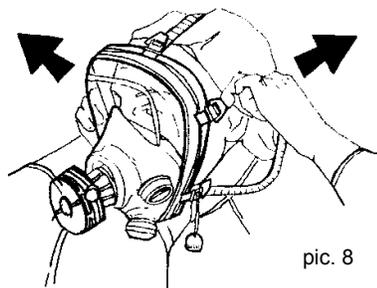
The NEPTUNE II is equipped with a simple patented internal device



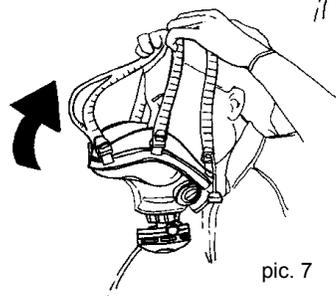
pic. 5



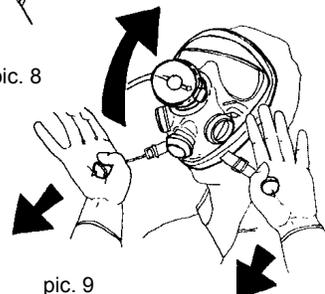
pic. 6



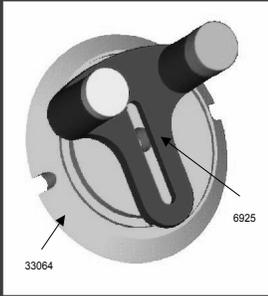
pic. 8



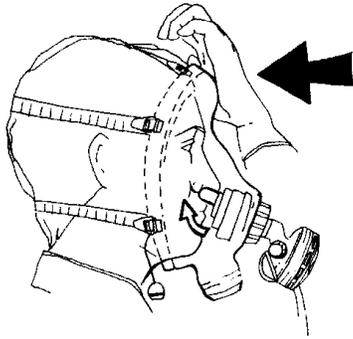
pic. 7



pic. 9



to close the nostrils and allow underwater equalization. A plate with 2 silicone movable caps attached with one screw to the front part of the inner mask (pic. 10). Releasing the screw it is possible to move the plate up and down to find the most comfortable position to equalize. The silicone caps may easily be turned or removed. By turning the caps you may adjust them to fit a larger or thinner nose (distance between the nostrils). Two additional plastic inserts shims are supplied. By removing the silicone cap it is possible to install the



pic. 11

insert in the plate (cap post) increasing the distance of the cap from the plate and allowing it to fit closer to the nostril. This is sometimes necessary for flatter noses or when a hood is used under the mask.

To close the nostrils for equalization, simply press the top part of the mask. The two equalization silicone caps will move upward and close the nostrils.

### 1.6 PURGING

The mask can easily be purged in the event that water enters the mask by pressing the exhaust button on the second stage. The water will flow out of the lower valve. The diver should be facing straight ahead, with the exhaust valve being the LOWEST part of the system.

Section 2

**MAINTENANCE**

2.1 MARKING OF COMPONENT PARTS

Many of the parts are marked with the letters listed in appendix A for easy identification should they need replacement. The band is marked with a progressive code that identifies the production lot.

TYPE OF ACTION	BEFORE THE DIVE	AFTER THE DIVE	EVERY TWO YEARS
CLEAN		X	
DISINFECT		X	
GENERAL PARTS CHECK	X		
REPLACE EXHAUST MEMBRANE			X
REPLACE ORAL NASAL MEMBRANE			X

2.2 CLEANING

**For optimum longevity of the mask and the proper functioning of its parts we recommend rinsing the mask thoroughly in fresh water after every use. DO NOT clean the visor with any abrasive materials. We recommend drying the visor, especially the inside parts, with a soft, clean cloth.**

2.3 STORAGE

The mask must be stored in a dry place with no direct sunlight and far from sources of heat. Do not store it at temperatures below -4°F (-20°C) or above +122°F (+50°C). We suggest you use the AC-4 visor protector and the carrying bag included in the package when storing the mask to avoid accidental abrasion (see section 2.4.3) .

## Section 3

### **COMMUNICATION**

#### 3.1 COMMUNICATION APPARATUS

The NEPTUNE II allows the use of various communication systems between divers and/or the surface. It is compatible with most underwater communication systems if supplied with the proper adapter DIN connection. Information may be obtained from your Ocean Reef dealer.

#### 3.2 INSTALLING THE UNDERWATER COMMUNICATION SYSTEM

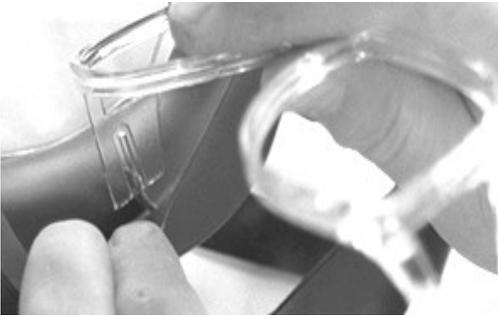
The microphone support (PTT) is screwed into the connection located on the left side of the mask and identified with the words COMMUNICATION SYSTEM. The GSM is installed on the left side of the head harness attaching the Neptune Assembly Connection System (NACS) on the 2 visor supports as per NACS/GSM instructions.

#### 3.3 USING OF THE UNDERWATER COMMUNICATION SYSTEM

For correct use of the underwater communication system see its special instructions.

# ACCESSORIES

## 4.1 CORRECTIVE LENSES



The NEPTUNE II permits the use of corrective lenses. Normal prescription lenses can be utilized with special accessory #33299 (optical lens support). For installation of the optical lenses support inside the mask insert the slots on the sides of the lens holder in the lateral ribs of the face seal (pic. 19).

## 4.2 REGULATOR ATTACHMENT KIT

To connect an alternate air source to the second regulator port the latter must be adapted by replacing the mouthpiece with the SDK-6 kit as described in section 1.3 for the application of the main second stage. For simultaneous use of the main regulator and an octopus connected to the NEPTUNE II we recommend the use of at least one adjustable regulator. The NEPTUNE II includes a medium size regulator attachment; also available as an option, is a small size for those regulators with small mouthpiece.

## 4.3 PROTECTIVE SCREEN



pic. 20

The visor of the NEPTUNE II should be protected from scratching and abrasion during storage and transport with accessory AC-4. To attach the screen over the visor insert the four lateral holes of the AC-4 around the buttons found on the band (key 19) (pic.20).

## 4.4 POLAR TEX STRAPS (9005)

pic. 19

Designed to be used in low temperatures and it is made of an elastic fabric.

## 4.5 H47 BLACKENED FACE SHIELD (7006)

The blackened face shield is used for special applications. This optical shield is painted to blacken the "non optical" areas; it does not come with siloxane double coating which is found on the standard face shield.

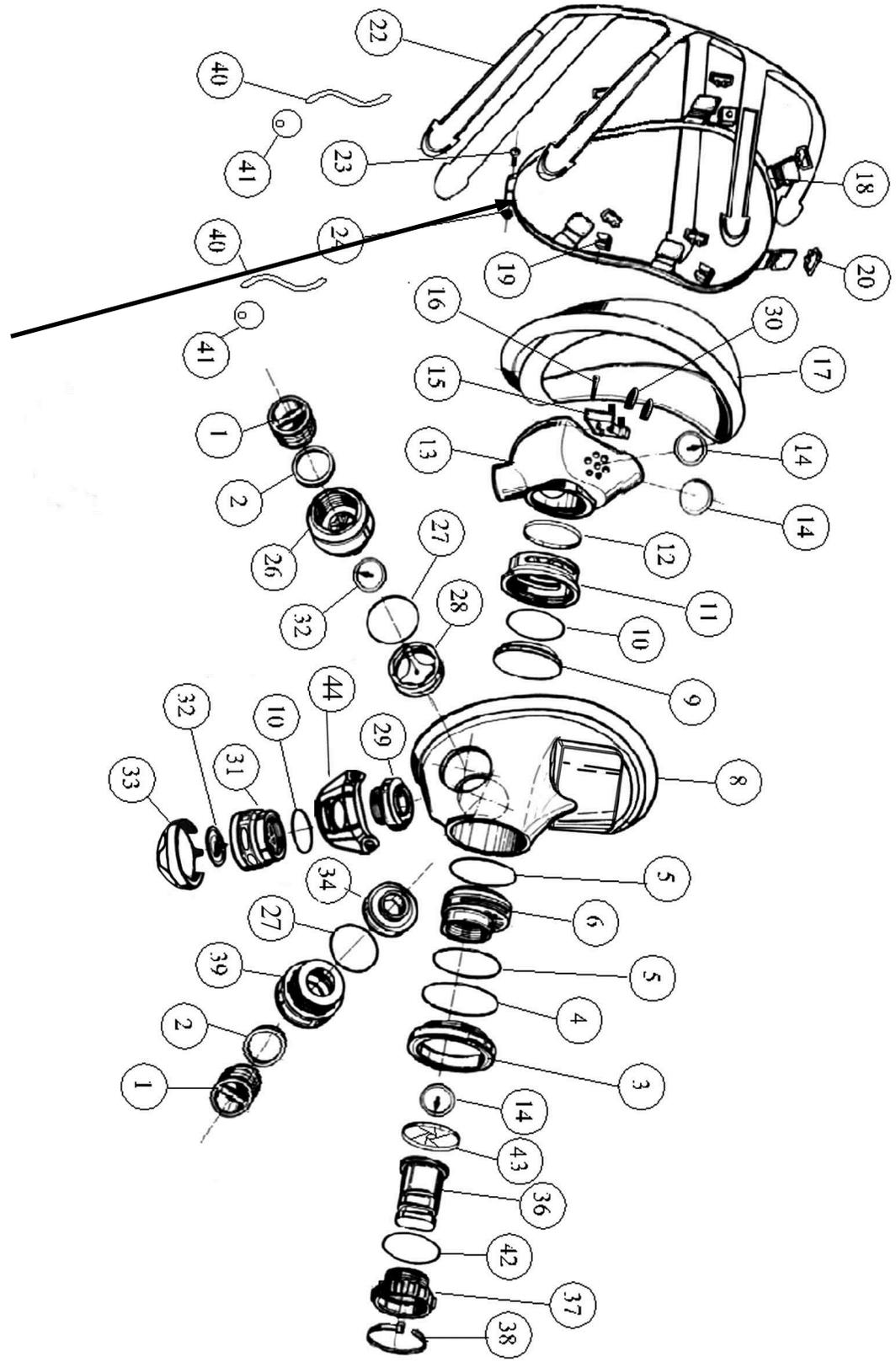
**APPENDIX A -  
spare parts list and  
accessories  
Release 2.3.**

Description	Code	Key
<b>Kit SDK-0 Clamping band</b>	33023	
Clamping Band	9001	18
MI-15 Visor support SYSTEM	6719	19
FRB2 buckle	9002	20
NG-23 Screw M3X14	6528	23
NG-24 Nut M3 3mm	6529	24
<b>Kit SDK-20 O-ring Neptune II</b>	33034	
MI-8 O-ring DI.67x1.5	6709	4
MI-7 O-ring 58.2x1.78	6708	5
MI-10 O-ring2131DI.33x1.78	6710	10
NG-13 Seal wo/g	1361	2
NG-12 O-ring DI46.9x1.5	6501	27
<b>Kit SDK-30 Valve Neptune II</b>	33035	
MI-5 Inhaler membranes	1371	14
MI-4 Membranes seat	6707	43
ER-09 Exhaust valve	8811	32
<b>Kit SDK-6 Regulator adapter "M"</b>	33021	
SB-2M Adapter Medium Size	6911	36
SB-3 Bushing	6729	37
SB-4 Plastic band 3.5 x 140	9560	38
Ring adapter regulator	6900	42
<b>Kit SDK-7 Equalizer</b>	33066	
SB-5A Equalizer	6925	15
SB-1 Disk for equalizer -assy	33064	9
MI-10 O-ring2131DI.33x1.78	6710	10
Screw M4x8 (2pcs)	15255	16
Washer M4 for screw M4x8 (2 pcs)	15253	
SB-5C Eccentric Equal. Block (2pcs)	6924	30
Equalizer extension, short (2pcs)	6926	
<b>Equalizer extension, long (2pcs)</b>	6927	
Maintenance tools kit	33460	
K11-A Closed-end wrench	33403	
K11-B L-shaped Allen wrench	33402	
K11-C I-shaped Allen wrench	33401	
Screwdriver	9790	
<b>Kit SDK-40 Quick Release Ball</b>	33036	
Lateral band	8900	40
Ball for Lateral Band "Quick Release"	6830	41

Description	Code	Key
Kit SDK-2 Front breathing section	33025	
MI-3 Threaded locking ring	6706	3
MI-8 O-ring 67x1,5	6709	4
MI-7 O-ring 58,2x1,78	6708	5
MI-2 Regulator connector	6705	6
MI-10 O-ring 213 33x1,78	6710	10
MI-1 Breathing assembly	6903	11
MI-14 Orinasal Band	6718	12
N-7 Orinasal	1355	13
MI-5 Inhaler Membranes	1371	14
MI-4 Membranes Seat	6707	43
<b>SDK-5 Com Systconnector section</b>	33028	
NG-13 Standard seal	1361	2
NG-12 O-ring 46,9x1,5	6501	27
MP-2 Com System bushing	6540	34
NG-9B Plug	6515	1
NG-9 Side Connector	6304	39
<b>RETROFITTING KIT TO NEPTUNE II</b>	33046	
MI-5 Inhaler Membranes	1371	14
MI-2 Regulator connector	6705	6
MI-3 Thread locking ring	6706	3
MI-7 O-ring 58,2x1,78 (2 pcs)	6708	5
MI-4 Membranes Seat	6707	43
SDK-3 Exhalation valve	33026	
NG-15 Bushing wholes	6518	29
MI-10 O-ring 2131 33x1,78	6710	10
NG-14 Exhal. valve holder	6517	
ER-09 Exhaust	8811	32
NG-17 Valve cover	6520	
Kit Directional Exhalation valve	33031	
M-10-O ring 2131 33x1,78	6710	10
ER-09 Exhalation valve	8811	32
Directional Exhaust valve holder	6502	31
Directional Exhaust valve cover	6503	33
Directional Exhaust valve deflector	6504	44
<b>SDK-4 Octopus connector section</b>	33027	
NG-9B Plug	6515	1
NG-13 Seal	1361	2

Description	Code	Key
NG-9 Side Connector	6922	26
NG-12 O-ring 46,9x1,5	6501	27
NG-10 Side connector bushing	6514	28
ER-09 Exhalation valve	8811	32
<b>Separate parts</b>		
Visor	7002	8
N-6AS Face seal black	1351	17
N-6AS Face seal cobalt	1352	17
N-6AS Face seal yellow	1350	17
M-8 Strap for FRB2 buckle	9003	22
MI-3 Threaded locking ring	6706	3
MI-2 Regulator connector	6705	6
MI-1 Breathing assembly	6903	11
MI-14 Orinasal band	6718	12
N-7 Orinasal black	1355	13
N-7 Orinasal crystal	1354	13
NG-15 Bushing w/holes	6518	29
NG-14 Exhaust valve holder	6517	
NG-17 Valve cover	6520	
NG-9B Plug	6515	1
NG-9 Side connector	6922	26
NG-10 side connector bushing	6514	28
MP-2 Com. system bushing	6540	34
NG-9 Side connector wo/h	6304	39
SB-5C Eccentric Equal. block	6924	30
FRB/2 Buckle	9002	
Equalizer extension ,short (2pcs)	6926	
<b>Equalizer extension , long (2pcs)</b>	6927	
NG-13 Seal wo/g	1361	2
Separate accessories		
<b>Directional Exhaust valve cover</b>	6503	33
Manual	6906	
Quick Reference Card	6915	
AC-4 Protective screen	6908	

Serial number



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