



***Zeagle***



**OWNERS MANUAL**

**ULTIMATE PERFORMANCE IN ANY CONDITION**

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## CONGRATULATIONS ON YOUR ZEAGLE REGULATOR PURCHASE!

Your Zeagle Regulator has been designed and manufactured to the highest possible standards of performance and reliability. With the reasonable care outlined in this manual it will provide you with many years of diving enjoyment.

**This manual covers these Zeagle regulator systems:**

**F8 - ONYX II - ENVOY II**

**F8 OCTOPUS - ONYX II OCTOPUS - ENVOY II OCTOPUS**

Since 1979, Zeagle Systems Inc. has been providing divers with Scuba equipment and Buoyancy Control Devices. Zeagle Systems and our worldwide network of authorized dealers are always ready to serve you. For more information on our products, and for the dealer nearest you, visit our web site at [www.zeagle.com](http://www.zeagle.com). Thank you for choosing Zeagle!

# F8 Limited Lifetime Warranty

Zeagle warrants this regulator against defects in materials and workmanship for the lifetime of the product except as noted below. This warranty does not cover normal wear, or damage from accident, abuse, neglect, alterations, improper usage, or failure to follow reasonable care and maintenance as outlined in this manual. Under this limited warranty, Zeagle will either repair or replace, at its sole option, any original equipment or parts that fail to perform as intended. To validate your warranty, you must complete and return your warranty registration card within 30 days of purchase or register online at Zeagle.com. The warranty card includes the model no. and serial no. Please use this information if you chose to register your regulator online.

To obtain warranty service, you must deliver the regulator to the factory, or one of its authorized repair facilities. If you send the regulator to the factory, you must pay the shipping charges to the factory. If the regulator is returned to the factory and it is determined that the problem is due to material or manufacturing defect, there will be no charge for parts, labor or return shipping.

This warranty excludes filters, hoses, O-rings, seals, diaphragms, mouthpieces, and any plastic components which are warranted for two years from the regulator's date of purchase. This warranty does not extend to equipment used for rental or commercial purposes.

**I.** This warranty is not contingent upon proof of service and will remain in effect for the lifetime of the product. It is required, however, that maintenance include an annual safety inspection to be performed by an authorized Zeagle dealer or factory.

- 2.** Factory or authorized dealer servicing is required at intervals of 200 dive hours or 2 years, whichever occurs first. This service will include disassembly, cleaning, replacement and lubrication of all o-rings and seals, and safety check.
- 3.** For proof of ownership, you must save the original purchase receipt. It is your record of when and where the regulator was purchased. It also lets you know when your annual service should be performed.
- 4.** This warranty does not cover products from other manufacturers or make any claims as to the performance or suitability of those other products when attached to your Zeagle regulator.
- 5.** This limited warranty applies only to regulators sold in the USA through authorized Zeagle dealers.
- 6.** This warranty gives you specific legal rights. You may also have other rights that may vary from state to state.
- 7.** This warranty applies only to regulators purchased from Authorized Zeagle Dealers located within the United States. Warranty coverage in countries other than the US varies. Outside the US your dealer will be able to get further Warranty information from the Authorized Zeagle Regional Distributor.

## ONYX II & ENVOY II LIMITED LIFETIME WARRANTY

Zeagle warrants this regulator against defects in materials and workmanship for the lifetime of the product except as noted below. This warranty does not cover normal wear, or damage from accident, abuse, neglect, alterations, improper usage, or failure to follow reasonable care and maintenance as outlined in this manual. Under this limited warranty, Zeagle will either repair or replace, at its sole option, any original equipment or parts that fail to perform as intended. To validate your warranty, you must complete and return your warranty registration card within 30 days of purchase or register online at Zeagle.com. The warranty card includes the model number and serial number. Please use this information if you chose to register your regulator online.

To obtain warranty service, you must deliver the regulator to the factory, or one of its authorized repair facilities. If you send the regulator to the factory, you must pay the shipping charges to the factory. If the regulator is returned to the factory and it is determined that the problem is due to material or manufacturing defect, there will be no charge for parts, labor or return shipping.

This warranty excludes filters, hoses, O-rings, seals, diaphragms, mouthpieces, and any plastic components which are warranted for one year from the regulator's date of purchase.

**I.** This warranty does not extend to equipment used for rental or commercial purposes. This warranty is not contingent upon proof of service and will remain in effect for the lifetime of the product.

2. Factory or authorized dealer servicing is required at intervals of 100 dive hours or 1 year, whichever occurs first. This service will include disassembly, cleaning, replacement and lubrication of all o-rings and seals, and safety check.
3. For proof of ownership, you must save the original purchase receipt. It is your record of when and where the regulator was purchased. It also lets you know when your annual service should be performed.
4. This warranty does not cover products from other manufacturers or make any claims as to the performance or suitability of those other products when attached to your Zeagle regulator.
5. This limited warranty applies only to regulators sold in the USA through authorized Zeagle dealers.
6. This warranty gives you specific legal rights. You may also have other rights that may vary from state to state.
7. This warranty applies only to regulators purchased from Authorized Zeagle Dealers located within the United States. Warranty coverage in countries other than the US varies. Outside the US your dealer will be able to get further Warranty information from the Authorized Zeagle Regional Distributor.

# DISCLAIMER AND LIMITATION ON REMEDY

*(Some states do not allow limitations on how long an implied warranty lasts or do not allow exclusion of incidental or consequential damages, so the following limitations or exclusions may not apply to you.)*

Zeagle expressly limits any and all warranties, expressed or implied, to the terms of the limited warranty as set forth above. Your remedies are limited to those contained herein and are in lieu of all other remedies, whether based on breach of warranty or contract, negligence, strict product liability or other tort.

Zeagle specifically disclaims liability for any consequential, special or indirect damages arising out of the use of Zeagle Equipment.



# F8 REGULATOR SYSTEM



F8 REGULATOR OVERVIEW

**The Zeagle F8 Regulator is the top of the Zeagle Regulator line, designed to perform in any condition.**

The perfect travel regulator, the F8 is the lightest of the Zeagle regulator line.

# ONYX II REGULATOR SYSTEM



**The Zeagle ONYX II is an easy breathing high performance regulator.**

A high performance environmentally sealed regulator with adjustable first and second stages.

# ENVOY II REGULATOR SYSTEM



ONYX II & ENVOY II REGULATOR OVERVIEW

**The Zeagle ENVOY II is a regulator with tremendous value with uncompromising performance.**

Best value, with an adjustable second stage.

## SAFETY INFORMATION

Read these instructions carefully before using your regulator. Keep this manual for future reference. Following the care and maintenance section at the end of this booklet will help ensure reliable service.

### IMPORTANT SAFETY INFORMATION PLEASE READ CAREFULLY



### WARNING



Scuba products are subject to conditions of extreme wear and corrosion. Inspection and maintenance are required to ensure continued performance. Zeagle requires that you have your regulator inspected and serviced once a year on the anniversary date of its purchase at any authorized Zeagle dealer worldwide. Zeagle Scuba equipment should be used by certified Scuba divers only.

Zeagle regulators are manufactured using materials suitable for use with EAN (i.e., Nitrox, etc.) providing the oxygen content does not exceed 40%. The regulator must be kept “Oxygen Clean” and used only with EAN mixtures to maintain this status. Once the regulator is used with air not certified to be clean for enriched air use, the regulator will have to be cleaned again for EAN use by a certified technician.

**WARNING****NITROX (EAN) USE – ALL MODELS****IMPORTANT NOTICE - READ BEFORE YOU USE THIS REGULATOR**

Using Nitrox (EAN) requires special training and procedures. These regulators have been assembled, cleaned and made compatible for enriched air Nitrox (EAN) to a maximum 40% oxygen concentration at a maximum pressure of 3500 psi (241.3 BAR). They do not require additional cleaning or servicing.

**IF THE REGULATOR BECOMES CONTAMINATED WITH DIRT, OILS, OR GREASES FROM ANY SOURCE, HAVE THE REGULATOR RE-CLEANED BEFORE USING IT WITH EAN. DO NOT USE SILICONE OR HYDROCARBON GREASES IN OR AROUND REGULATORS BEING USED FOR EAN NITROX OR OXYGEN MIXES. DO NOT UNDER ANY CIRCUMSTANCES USE THESE REGULATORS WITH PURE OXYGEN OR ANY GAS MIXTURE EXCEEDING 40% OXYGEN. FAILURE TO COMPLY WITH THE ABOVE WARNINGS COULD CAUSE SERIOUS PERSONAL INJURY OR DEATH FROM FIRE OR EXPLOSION.**

**NITROX (EAN) USE**



## **WARNING**



### **IMPORTANT NOTICE - READ BEFORE YOU USE THIS REGULATOR**

Scuba diving is a recreational activity that involves a significant degree of risk. Zeagle Systems Inc. Self-Contained Underwater Breathing Apparatus (SCUBA) equipment is only to be used by those trained and certified by a nationally recognized scuba training agency. Diving without the necessary training in safe diving procedures, or without observing the practices outlined by your training agency for your level of certification, is extremely hazardous and could result in serious personal injury or death. This owner's manual is in no way meant to be a substitute for the instruction received from a certified scuba training agency.

Zeagle regulators must be serviced only by dealers or technicians trained and authorized to service Zeagle Scuba equipment. At no time should any unauthorized person attempt to repair the regulator or adjust components. Scuba equipment that is not properly serviced might malfunction during use, putting the diver at risk of serious personal injury or death.



## WARNING COLD WATER USE



Cold water is defined as water at a temperature of 50 degrees F (10°C) or lower. In cold water there is a risk of the first or second stage freezing. The risk of freezing is increased as the ambient temperature gets lower, the air flow increases, and/or the moisture content of the air supply increases. Regulators for cold water use should have environmentally sealed first stages to prevent water entry and lower the chance of freezing. The second stages should have extra heat absorbing features such as the metal Heat-sink. The F8 and ONYX II include these freeze resisting features, and are the best Zeagle models for Cold Water. It is not possible to completely eliminate regulator freezing under all conditions. In order to reduce the possibility you should:

1. Start the dive with the regulators as warm as possible.
2. If an Octopus regulator is put into the mouth underwater (IF safely possible), try to start the breathing cycle with a long exhalation to get the interior of the 2nd stage as warm as possible before the first breath is drawn.

3. Avoid pushing the purge button in the second stage during cold water diving operations.
4. Avoid high rates of breathing, and excessive inflation of buoyancy devices or dry suits. The deeper the dive the greater the risk.
5. Do not practice unnecessary buddy breathing, etc.
6. Do not use your regulator to fill lift bags, etc.
7. Keep YOUR regulator in YOUR mouth. In an emergency, offer the spare regulator. When taking the spare regulator, do not hit the purge button to clear the water (if possible). Clear the regulator with as long a first exhalation as is safely possible.
8. If the physical gear set-up allows, use two 1st stages and utilize one for breathing air and the other one for inflation air. This will split the cooling effect between the two regulators.



 **WARNING** 

Extreme cold water diving such as diving under ice requires specialized training, certification and procedures. Do not attempt these activities unless you are fully qualified and properly equipped to do so safely.

 **WARNING** 

- 1.** The high-pressure outlets (HP Ports) are distinctly larger than the low-pressure outlets. Only devices with fittings, hoses and components designed for the full tank pressure that the regulator will be mounted on, such as Submersible Pressure Gauges, are to be installed in these ports.
- 2.** During installation, the O-ring hose fittings will seal with hand-tight pressure, but may come loose during use if not tightened carefully with a small wrench. Proper torque for the hose fittings is 40-45 in lbs. (4.5-5 N-m) Excessive tightening won't help the seal and may damage the parts.

# Innovative Product Features

## FIRST STAGES – F8, ONYX II, ENVOY II

**Compact Size:** High performance diaphragm design provides stable intermediate pressures under any condition

**Environmentally Sealed (F8 & ONYX II Only):** Ambient chamber seal kit reduces the possibility of freezing at low temperatures and seals water and contaminants out of the first stage.

**Enriched air compatible:** The F8, ONYX II, and ENVOY II are nitrox ready from the factory to 40% maximum oxygen concentration at 3500 PSI (241.3 BAR) maximum pressure.

**Two high pressure ports and five low pressure ports:** Allows virtually any hose orientation.

**Limited Lifetime Warranty** (All first and second stage models).

## Innovative Product Features — Second Stages & Octopus

**Balanced Poppet:** Aerodynamic, pneumatically balanced poppet provides enhanced airflow and easy breathing, regardless of tank pressures.

**Super Alloy Valve Spring:** This proprietary, special spring alloy is over 10 times the cost of conventional stainless steels, but has superior tensile strength and corrosion resistance compared to stainless steel. Its high strength allows us to use fewer coils in the design for uninterrupted airflow through the second stage.

**Elliptical Exhaust Valve:** Dramatically reduces exhalation effort at depth. Over-size, high flow valve.

**Dive/Pre-Dive Venturi Lever:** Diver controlled venturi adjustment lever. This lever controls the sensitivity of the regulator.

**Comfort Mouthpiece:** Specifically formulated dual hardness silicone mouthpiece is comfortable and soft, yet extremely durable.

# Special Features

## F8 & ONYX II ONLY

**Rapid Air Adjust Knob:** One-turn manual override adjustment allows quick increased resistance to flow for surf entries, octopus use, or other special situations.

**Cold Water Thermal Sink:** High thermal conductivity sink helps transfer cold out of the second stage to reduce freezing effect in cold water.

**Zirconium Plated Valve Body (F8 ONLY):** Zirconium plating provides added protection against rust and corrosion

**Seat Saving Orifice (F8 ONLY):** This new orifice design dramatically prolongs the life of the rubber seat. Seat wear is the number one cause of regulator leaks and performance degradation over time. The only adjustable dynamic orifice (pat. #5,803,073) is pressure energized and only contacts the rubber seat when the regulator is being used. The orifice is constructed of corrosion resistant stainless steel.

# System Set-Up

## Hoses

Your regulator was function tested and is ready for use from the factory. You will need to install your high pressure gauge, instruments, and low pressure accessories such as inflators. If you are in doubt on how to do this, see our Zeagle professional retailer for assistance.

### Low Pressure Hoses (LP thread size 3/8"-24)

Your regulator has 5 low pressure (LP) ports in a fixed orientation. Choose the ports that give you the best orientation for your particular set-up. The LP port plugs can be removed by using a 5/32" (4mm) hex wrench. Install the LP hoses into the port, proper torque for the hose fittings is 40-45 in lbs. (4.5-5 N-m) Do not over tighten as this will not improve the seal and may damage the threads.

### High Pressure Hoses (HP thread size 7/16"-20)

Your regulator has 2 high pressure ports on either side of the body. The HP ports and plugs are larger in size than the LP plugs. Remove the plugs with the same hex wrench and install the high pressure gauge hose into the high pressure port, proper torque for the hose fittings is 40-45 in lbs. (4.5-5 N-m).

**! CAUTION !**

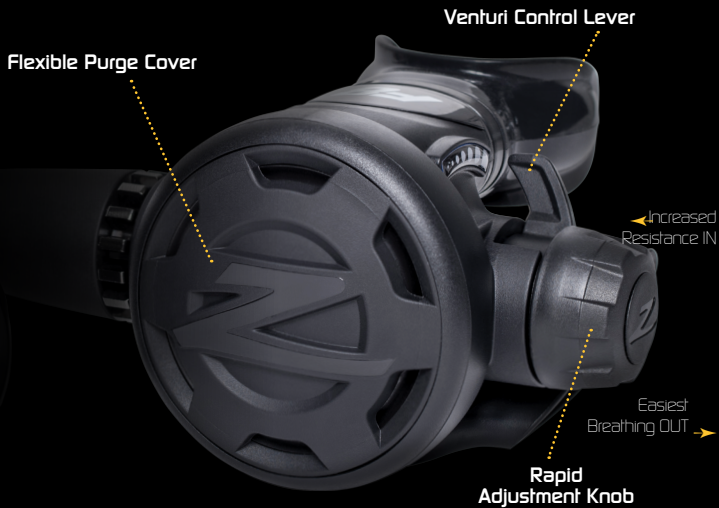
Do not assemble any low pressure hoses to the HP port of the first stage. The hose could rupture and could cause serious personal injury. Do not assemble the high pressure gauge to the low pressure port or the gauge will not indicate tank pressure.

**2 High  
Pressure  
Ports**



**5 Low Pressure Ports on First Stage**

# Operation



These regulators operate similarly to others of this type. There are some unique features of the Zeagle second stages you should be familiar with.

## **RAPID ADJUSTMENT KNOB**

The rapid adjustment knob on the side of the regulator that can be used to “detune” or increase inhalation effort. Under normal use, the knob should always be turned all the way out (counterclockwise) for the lowest breathing effort. During entries through the surf, from a vessel or dock, or situations where the regulator is not in your mouth, you may want to turn the knob all the way in (clockwise) to increase resistance. Do not leave the knob in the increased resistance position while diving. The common misconception is this will conserve air is not true and will only make breathing slightly harder. Never force the knob past its stops in either direction.

## **FLEXIBLE PURGE COVER**

The entire front cover of the second stage is flexible and can be depressed to purge the regulator.



## VENTURI CONTROL LEVER

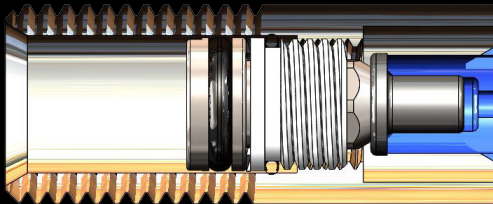


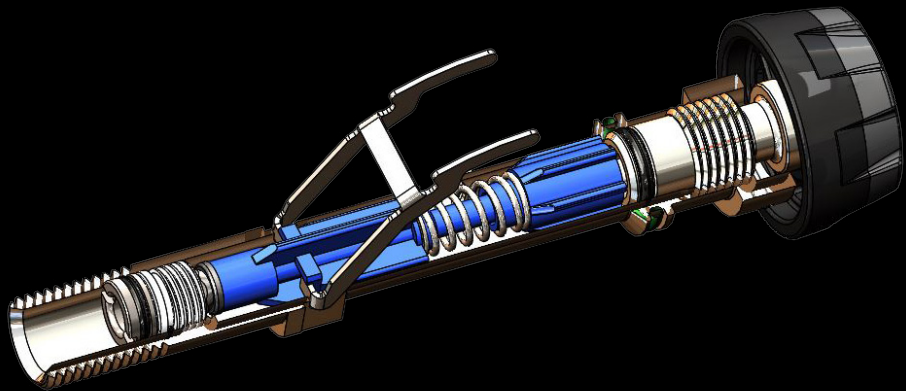
This lever controls the sensitivity of the regulator. The DIVE and PRE-DIVE Positions for the lever are marked on the case beside the lever. To avoid unexpected venturi free flows at the surface, or when entering into the water, the lever should be set in the PRE-DIVE (**forward**) position. As soon as the diver is ready to descend, the lever should be moved to the DIVE (**back**) position.

## SEAT SAVING ORIFICE

pat. № 5.803.073

When not being used, the orifice automatically retracts away from the seat just enough to prevent damage during storage. This dramatically increases the service life and maintains “like new” performance.





 **CAUTION**   
**DO'S AND DON'TS**

Do set up your equipment carefully before each dive and check your entire system for signs of damage, loose hose fittings, and air leaks. Make sure the yoke knob or DIN connection is hand tight before turning on your air supply. Purge the regulator and take a test breath before entering the water.

Do not use your regulator if you notice any problems or malfunctions. Return it to the factory or authorized dealer to have it checked or repaired.

Do not pick up your tank by the hoses. You may damage them or work loose a connection that could lead to loss of air.

## POST DIVE CARE

Chromed or plated brass components are subject to corrosion and require as a minimum reasonable maintenance fresh water rinsing after use in salt water and proper storage. Training agencies recommend a further wash in water after every dive to clean the regulator of salt, sand or dirt is all that is required. Do not rinse or soak the regulator in solutions containing bleach as this can permanently damage the silicone rubber components. Dry or blow off any water in the first stage dust cap and fit it in place. Rinse through the ambient port on the front first stage (unless fitted with an environmental seal) and through the mouthpiece of the second stage. Rinsing is particularly important with the first stages to maintain it in top condition and keep the chrome looking attractive. If the second stage is purged when it is rinsed or soaked, it is a good idea to re-connect the regulator to a tank and blow out any water that may have entered the first or second stage.

Store the regulator away from direct sunlight to prevent fading and deterioration of the rubber and plastic parts. Keep away from excessive heat, humidity or insects.

## **REQUIRED SERVICE**

It is required that your regulator is checked at least annually by an authorized Zeagle regulator technician. Unusually heavy use, or use in dirty or contaminated water may result in the need for more frequent service. A service record has been provided at the end of this manual to assist you in keeping your regulator's service up to date.

<b>DATE</b>	<b>SERVICE RECORD</b>

***Zeagle***

Toll Free: (888) 270-8595

[www.zeagle.com](http://www.zeagle.com)