

ATOMIC[®]
AQUATICS

OWNERS MANUAL

*"The most
comfortable
breathing
experience on
every level"*



TFX

Titanium
Front
Exhaust



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THANK YOU...

for choosing Atomic Aquatics. You now own one of the finest regulators available. Since we introduced the world's first line of Titanium diving regulators in 1997, we have continued our dedication to designing and manufacturing only the finest diving products crafted from the most durable, high-performance materials.

REGISTER YOUR REG

Your regulator has a limited LIFETIME WARRANTY. Registration enables you to obtain warranty service and helps us contact you with safety notices, service updates, or changes regarding your regulator. For your convenience, you can register online at www.atomicaquatics.com.

LET'S GO DIVING

Before you dive, please read this manual. It shows you the features and controls you need to know for a great dive. Keep it for future reference about maintenance, service and warranty.

IMPORTANT SAFETY INFORMATION PLEASE READ CAREFULLY



This regulator is intended to be used only by those competent, trained and certified by a nationally recognized SCUBA training agency. This manual is not a substitute for such training. Diving without such training is extremely hazardous and could result in serious personal injury or death.

NITROX (EAN) USE

Our regulators have been independently lab tested to meet the stringent ASTM G-175 requirements for positive ignition testing. Each Atomic Aquatics reg model has been tested and passed the ASTM G-175 requirement before we certify it as SAFE for EAN. Note: The TFX regulator may be used interchangeably with air or EAN mixes of up to 40% oxygen concentration at 3500 psi maximum. They need not be dedicated for EAN use, provided that they are used with air or EAN mixtures that meet minimum dive industry purity standards.



NITROX (EAN) USE — ALL MODELS

IMPORTANT NOTICE - READ BEFORE YOU USE THIS REGULATOR

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. They do not require additional cleaning or servicing.

If the regulator becomes grossly contaminated with dirt, oils, or greases from any source, have the regulator re-cleaned before using it again 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.

WARNING **COLD WATER USE**

For diving in extreme cold waters below 50°F (10°C), we recommend having the first stage sealed with the installation of the optional anti-freeze kit (standard in TFX, T3, T2x, ST1 & M1). This is a rubber sleeve that fits over the ambient chamber ports of the first stage to prevent icing of the first stage. This is a factory or dealer installed item, as it requires special tools and disassembly of the first stage for filling of the chamber with a special low temperature lubricant.

DIN CONNECTIONS

For use with cylinders having DIN style valves (typically at pressures above 3000 psi), a 300 BAR DIN connection is available. It replaces the yoke connection and can be ordered as standard from the factory or as an option installed by the dealer.



ATOMIC AQUATICS TFX

You now own one of the finest and most unique regulators available. . . regardless of price. The TFX forges a new Titanium standard as our signature regulator, providing you unprecedented reliability and performance.

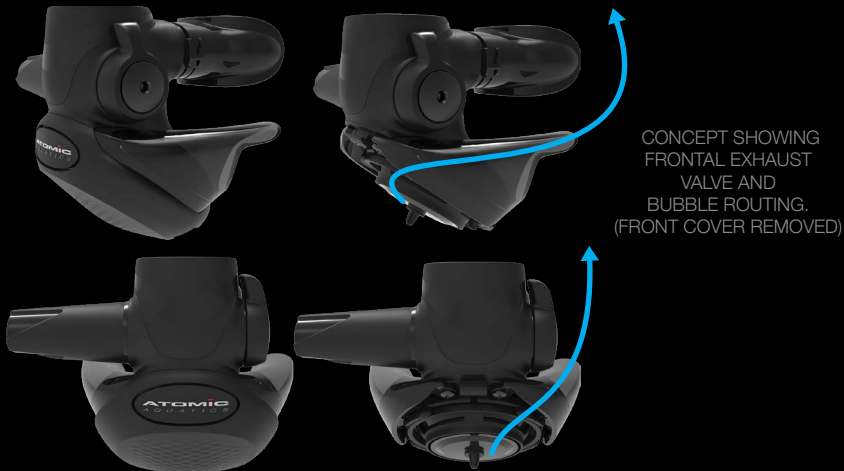
The TFX name refers to Titanium Front Exhaust. This differs from conventional second stages which are configured with an exhalation diaphragm in the front and an exhaust valve in the rear. The placement of the inhalation diaphragm and exhaust valve centered in the front of the regulator offers some unique advantages for improved breathing and dryness.

The front exhaust is not a new concept. Developed over 40 years ago, we have taken a fresh look at this unconventional design to bring you the ultimate "connoisseurs" breathing regulator with a natural and sophisticated air delivery. The TFX includes many of the iconic features and specialty materials found in all Atomic Aquatics regulators.

INNOVATIVE PRODUCT FEATURES

FRONT EXHAUST CONCEPT:

Showing frontal exhaust valve and bubble routing. (Front Cover Removed)



INNOVATIVE PRODUCT FEATURES

First Stage for TFX

Compact Size: Small size, high performance, high flow first stage.

Balanced: Flow through piston design.

Freeze protection kit: Ambient chamber seal kit reduces the possibility of freezing at low temperatures and prevents silt, sand, or contaminants from entering ambient chamber.

Enriched air compatible: Nitrox ready from the factory to 40% maximum oxygen concentration at NON-dedicated at 3500 psi maximum pressure.

3 year or 300 dive service interval: Jet seat piston system for low maintenance and corrosion resistant materials throughout.

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

YOKE VERSION WITH UNIQUE 4x YOKE KNOB:

This new type of yoke knob has a special thread that moves in or out 4 times the distance of conventional yokes with each turn for quick, easy setup.



TFX INCLUDES:

Patented All-Titanium comfort swivel with Black and Gold Zirconium PVD coatings.



INNOVATIVE PRODUCT FEATURES SECOND STAGE



TITANIUM DEMAND VALVE:

Performance is always at its peak because the vital internal components will never rust corrode. They also make for one of the lightest second stages available.

RAPID ADJUSTMENT KNOB:

Quarter turn venturi controls rotates the venturi nozzle and allows quick detuning for surf entries, octopus use or other special situations.

COAXIAL EXHAUST VALVE:

The coaxial inhalation diaphragm and exhaust valve minimizes the inhalation variation in different breathing attitudes, enhances water exhalation and improves dryness.

BALANCED POPPET:

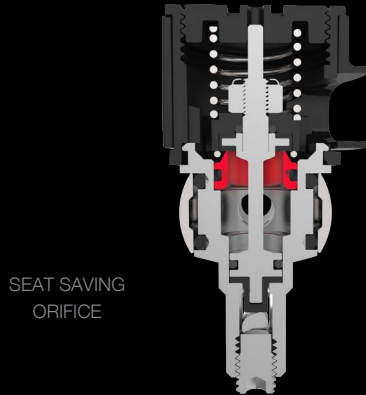
Aerodynamic, pneumatically balanced poppet provides enhanced airflow and easy breathing, regardless of tank pressures.



BALANCED POPPET

SEAT SAVING ORIFICE:

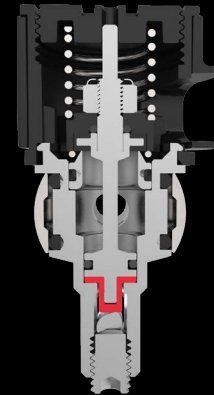
This new orifice design dramatically prolongs the life of the rubber seat. Seat wear is the number one cause of regulator leaks and performance degradation over time. The first and only adjustable dynamic orifice is pressure energized and only contacts the rubber seat when the regulator is being used. The orifice is constructed of corrosion-free titanium.



SEAT SAVING
ORIFICE

LOW FRICTION BEARING SURFACES:

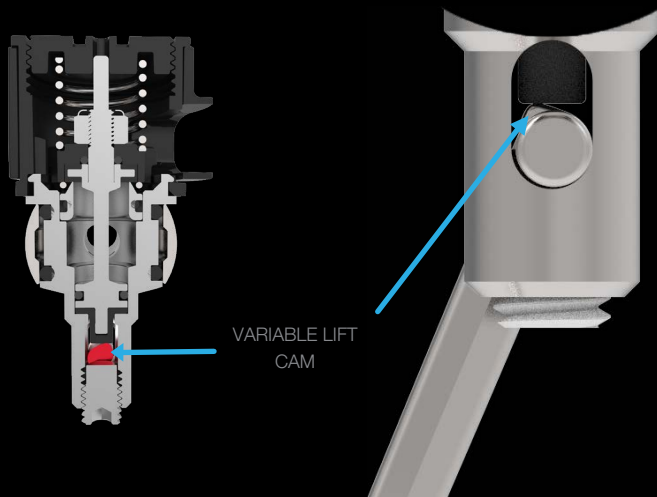
The demand valve is tipped with low friction cap that provides smooth, silky inhalation, even after millions of cycles due to this proprietary reinforced polymer insert at the pivot point of the lever.



LOW FRICTION CAP
CAM SURFACE

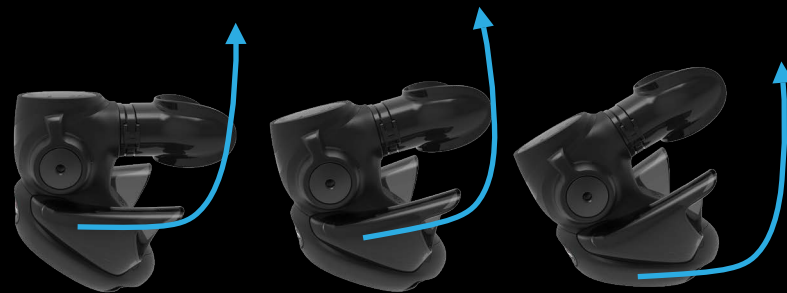
VARIABLE LIFT CAM:

The demand valve lever incorporates a computer designed cam that increases lift at high demands to provide high flow yet maintain low inhalation efforts.



EXTENDED SILICONE EXHAUST TEE FOR MANAGEMENT OF BUBBLES:

Soft extensions on the exhaust tee divert the bubbles to the sides of the mask and out of your vision.



FLEXIBLE SILICONE EXHAUST DEFLECTORS

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 your Atomic Aquatics professional retailer for assistance.

LOW PRESSURE HOSES: (LP thread size 3/8"-24)

Your regulator has either 5 low-pressure (LP) ports on the swivel end of the first stage (T3, T2x, ST1, M1, B2) or 7 low pressure ports (Z2/Z3) 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 unscrewing with a 5/32" (4mm) hex wrench. Install the LP hoses into the port and snug up with a wrench. Do not overtighten 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 (marked HP) 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 and snug it with a wrench.



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.

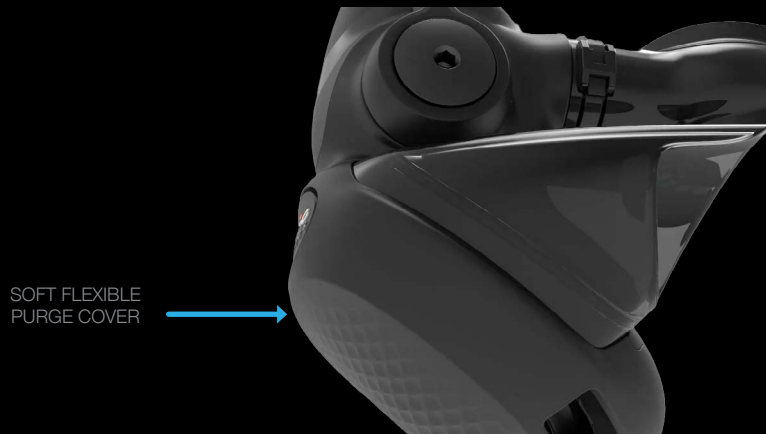
5 LOW PRESSURE PORTS
ON FIRST STAGE SWIVEL

2 HIGH
PRESSURE PORTS



OPERATION:

This front cover has a soft flexible frontal surface that is easy to depress to purge. The closed frontal surface reduces the chance of free flow that might occur if in a strong current, such as might be encountered in caves or open water. The ambient water ports of the second stage are directed to the sides, where a frontal current will not upset the regulator diaphragm.



RAPID ADJUSTMENT VENTURI CONTROL:

The quarter-turn manual override adjustment allows quick detuning for surf entries, jumping off a boat, octopus use or other special situations. The knob rotates the Venturi nozzle towards or away from the mouthpiece opening. Pushing it forward results in maximum flow during diving; pulling rearwards reduces sensitivity and chances of free flowing. Note that this control reduces overall flow yet does not change the inhalation effort or make it harder to breathe.





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:

A simple fresh water rinse 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 ports of the first stage (unless fitted with an anti-freeze kit) and through the mouthpiece of the second stage. Rinsing is particularly important with the chrome

plated brass first stages (M1, B2, Z2/Z3) to maintain it in top condition and keep the chrome looking attractive. Avoid soaking the regulator unpressurized, as water may enter the second stage and first stage mechanism. 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

The major service interval for the Atomic Aquatics regulators is once every three years or 300 dives*.

We recommend that you take your regulator to an authorized Atomic Aquatics dealer annually for a safety inspection. At this time, they will inspect and check for proper operation, and advise if a major service is required. The major service will include replacement of all seals, seats and o-rings. The labor charges for this service will vary with the individual dealer. Parts replacement will be in accordance to the terms of the limited lifetime warranty in this manual.

*TFX,T3: 3 years or 300 dives.

WEIGHTS:

System Weight (with yoke) 838 grams (1.80 lb) (0.816 kg)
System Weight (with DIN) 778 grams (1.71 lb) (0.775 kg)
Second Stage only with hose 385 grams (0.85 lb) (0.385 kg)
Service Interval 3 Years or 300 Dives.

PERFORMANCE:

Exceeds requirement for European EN250 (1.5 joules/liter @ 50 meters) and USN group A (0.14 kg.m/liter @ 200 feet at 62.5 RMV)

TFX LIMITED LIFETIME WARRANTY (U.S.A.)

Atomic Aquatics warrants this TFX regulator against defects in materials and workmanship for the lifetime of the original owner with the exception of mouthpieces, hoses, o-rings, filters, or valve seats, which are warranted for Three years. Atomic Aquatics will at its option repair or replace any components it finds defective.

IMPORTANT NOTE:

This warranty covers new regulators purchased from an authorized Atomic Aquatics reseller. To activate this warranty you must complete and return the warranty registration card, or online warranty registration is available at www.atomicaquatics.com.

It is **IMPORTANT** to register your regulator within 30 days of purchase in the event of we would need to contact you for special safety notices, upgrades, or service bulletins in the future.

All titanium components are warranted for the lifetime of the original owner against the effects of corrosion. 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 as described in this manual.

This warranty is not contingent upon proof of service and will maintain in effect for the lifetime of the original owner. It is recommended however that maintenance include an annual safety inspection to be performed by an authorized Atomic Aquatics dealer or by the factory.

Factory or authorized dealer servicing is required at intervals of 300 dive hours or 3 years, whichever occurs first. This service will include disassembly, cleaning, replacement and lubrication of all o-rings and seals, and safety check.

To obtain warranty service, you must deliver the regulator to Atomic Aquatics 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 within the continental USA.

This warranty does not cover damage or defects due to neglect, misuse, alteration, or attempted repairs by someone other than an authorized dealer.

Atomic Aquatics shall not be liable for loss of use of this product or incidental or consequential costs or damages incurred with the use of this regulator. Some states do not allow this exclusion so the above may not apply to you.

This warranty gives you specific legal rights and you may have other rights which vary from state to state.

MANUFACTURER

Huish Outdoors 1540 N 2200 W
Salt Lake City, UT 84116 – USA

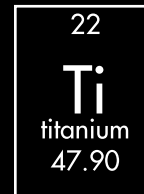
HUISH OUTDOORS AUTHORIZED EUROPEAN MARKET REPRESENTATIVE:

Huish Outdoors LLC (BARE Sports)
Factory BLB019C, Bulebel Ind Estate
Zejtun, ZTN 3000 Malta

All products sold by Huish Outdoors in the EU meet the following requirements EN ISO 12209:2013: This regulator's thread and yoke connection conforms to ISO 12209:2013. Maximum working pressure:300 bar (4351 PSI).

EN12021: This standard specifies the allowable contaminates and component gases that make up compressed air. This standard is the equivalent of the USA Compressed Gas Association's Grade E air. Both standards allow very small amounts of contaminants that are not harmful to breathe, but can cause a problem if present in systems using gases with a high percentage of oxygen.

Declaration of Conformity – www.huishoutdoors.com/eu-declarations/



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www.atomicaquatics.com

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