

EDGE



In this manual; Warnings, Cautions and Notes calls your attention to information provided to help ensure your safety. Always dive safely.

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.

WARNING: This manual provides essential instructions for the proper setup, inspection, use, and care of your new regulator. It is very important to take the time to read these instructions in order to understand and fully enjoy the features that are unique to your specific model. Improper use of your regulator could result in serious injury or death.

Regulator Features

NOTE: Some features featured in this manual such as the venturi switch and the inhalation control knob may not exist on your regulator. Disregard instructions about features that do not apply to your regulator.

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GENERAL WARNINGS: Before using this regulator, you must receive instruction and certification in SCUBA diving from a recognized training agency. Use of SCUBA equipment by uncertified or untrained persons is dangerous and can result in injury or death.

This regulator is not configured for commercial use with surface supplied air.

Always pressurize the regulator gradually by opening the cylinder valve SLOWLY.

NEVER apply any type of lubricant to any part of the regulator or cylinder valve.

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

Factory prescribed service for this regulator must be performed at least once annually by a factory trained EDGE service technician. Disassembly, repair, or first stage adjustment must not be attempted by persons who are not factory trained and authorized by EDGE Systems.

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

DO NOT carry the regulator by the first stage when it is connected to a cylinder. Always carry the cylinder by the cylinder valve or an attached carrying device.

When diving in cold water (below 50° F, or 10° C), you must have received training and certification in the techniques of cold water diving from a recognized training agency.

This regulator is designed and intended for use only with clean, compressed atmospheric air or nitrox mixtures below 40% oxygen. Failure to observe this warning may result in serious injury or death due to fire or explosion.

INTRODUCTION

Congratulations—and thank you—for choosing EDGE.

Your EDGE regulator is covered by EDGE Limited Lifetime Warranty against defects in materials or workmanship. This warranty is only extended to the original purchaser, however, and is not transferable. For more information, be sure to read the warranty section of this manual, and remember to save your sales receipts. Copies of these receipts must be presented whenever obtaining warranty service.

Perhaps more than any other piece of diving equipment you will own, your regulator's function and performance relies greatly on the care and maintenance it will receive, in addition to regularly scheduled dealer service. Before you dive with your new EDGE regulator, it is therefore important to read this manual in its entirety to become familiar with its features, as well as the correct procedures for setup, pre-dive inspection, and post-dive maintenance.

Please read on to learn how you can obtain the maximum enjoyment from your regulator, and maintain its like-new performance for many years to come.

WARNING: Improper use or misuse of SCUBA equipment may result in serious injury or death. Read and understand this owner's manual completely before diving with your EDGE regulator.

SETUP AND OPERATION

Optional First Stage DIN Adapter

Your EDGE regulator may be sold with a standard U.S. yoke connection, which is approved for use with cylinder pressures up to 3,500 psi. If you intend to use your regulator with a high pressure cylinder equipped with a DIN valve, a DIN adapter is available separately and can be purchased from and installed by your authorized dealer.

WARNING: Installation of a first stage DIN adapter must only be performed by an authorized dealer, must not be attempted by unauthorized individuals. Failure to obtain this service through an authorized dealer may result in faulty installation, and could lead to severe injury or death.

DIN to Yoke Converter

For regulators which may be used back and forth between Yoke and DIN connections, EDGE offers a convenient DIN to Yoke converter. First, obtain factory prescribed installation of the DIN connector through an authorized dealer. Then, simply attach the converter to connect your regulator to a yoke valve.

PREPARATION

EDGE recommends that you bring your regulator to your authorized dealer for the installation of any accessory items, including instrumentation, LP quick disconnect hoses, and alternate air source second stages. Your dealer can also answer any questions you may have pertaining to the information in this manual.

If you are using a standard cylinder with a yoke connection valve, inspect the cylinder valve O-ring for any wear or damage. If you are using a high pressure cylinder with a DIN valve, remove the protector cap from the first stage to inspect the sealing O-ring of the DIN connector. If the sealing O-ring is damaged or worn, replace it before mounting the regulator on the cylinder valve.

WARNING: Ensure that your mouthpiece is properly installed on the 2nd stage and that it is securely attached so that it will not come off while diving.

MOUNTING THE FIRST STAGE ONTO THE CYLINDER VALVE (YOKE)

1. Partially unscrew the yoke screw of the first stage regulator so that the dust cap can be removed from the filter and air inlet.
2. With the cylinder valve facing away from you, release a small amount of air from the cylinder by turning the hand wheel counter-clockwise to open the valve only slightly. When air is heard exiting immediately close the valve. This will clear any moisture or debris that may be inside the cylinder valve outlet opening.
3. Place the first stage regulator over the cylinder valve so that the inlet fitting aligns with the O-ring of the cylinder valve and the LP hose of the primary second stage will be routed over the right shoulder. While holding the first stage in place, turn the yoke screw clockwise. Ensure that the yoke screw mates into the small dimple on the backside of the cylinder valve, and **tighten finger-tight only**.
4. Before opening the tank valve (pressurizing the regulator), test the regulator for leaks by first exhaling through the regulator. Then inhale gently. You should not receive any air. If you receive even the slightest amount of air, do not use the regulator. Your system has a leak and cannot be used until it has been inspected and serviced by an authorized service center.
5. If a submersible pressure gauge is attached to the first stage, ensure that the gauge is facing away from you. Pressurize the regulator by slowly turning the cylinder valve hand wheel counter-clockwise. Continue to turn the valve knob counter-clockwise until it is fully open, and then turn it back clockwise 1/4 turn.
6. Listen near the first stage to check for any leakage. If leakage is detected, immerse the first stage and cylinder valve while pressurized to determine the source.
7. If leakage has been detected, follow the procedure for removing the regulator from the cylinder valve. If air was leaking between the first stage and cylinder valve; check, replace or re-seat the cylinder valve O-ring as needed and repeat the above procedure. If leakage persists, return the system to an authorized dealer.

MOUNTING THE FIRST STAGE ONTO THE CYLINDER VALVE (DIN)

1. Remove the protector cap from the cylinder valve. With the cylinder valve facing away from you, release a small amount of air from the cylinder by turning the hand wheel counter-clockwise to open the valve slightly. If air is heard exiting immediately close the valve. This will clear any moisture or debris that may be inside the threaded cylinder valve opening.
2. Position the first stage near the cylinder valve so that the LP hose of the primary second stage will be routed over the right shoulder. Thread the first stage DIN connector into the cylinder valve and turn the hand wheel clockwise by hand until it is lightly snug. **DO NOT** use tools to tighten.

3. If a submersible pressure gauge is attached to the first stage, ensure that the gauge is facing away from you. Pressurize the regulator by slowly turning the cylinder valve hand wheel counter-clockwise. Continue to turn the cylinder valve hand wheel counter-clockwise until fully open, and then back clockwise 1/2 turn.

4. Listen near the first stage to check for any leakage. If leakage is detected, immerse the first stage while pressurized to determine the source.

5. If leakage has been detected, follow the procedure for removing the regulator from the cylinder valve. If air was leaking between the first stage and cylinder valve, replace or re-seat the cylinder valve O-ring as needed and repeat the above procedure. If leakage persists, return the cylinder and regulator to an authorized dealer.

PRE DIVE

DIVING WITH YOUR REGULATOR

Before each use, it is important to perform a complete pre-dive inspection of your regulator. NEVER dive with a regulator that shows any sign of damage or unsatisfactory performance until it has received complete inspection and service from an authorized dealer.

PRE-DIVE INSPECTION CHECKLIST:

1. Carefully inspect all hoses at their fittings to ensure they are securely connected into their respective ports on the first stage. Inspect the length of each hose to ensure that the hoses are not blistered, cut, or otherwise damaged. If hose protectors are present, slide the protectors back to expose the hose fittings and inspect the hoses as described above.

2. Visually inspect both the first and second stage regulators for any signs of external damage.

3. Remove the dust cap and closely inspect the condition of the first stage filter. It should appear clean and free of any corrosion or discoloration. If discoloration is visible on the surface of the filter, moisture may have entered the first stage and could cause corrosion to begin forming inside which can seriously impair the regulator's performance. Colored residue may also indicate that the regulator has been used with an internally corroded cylinder. In this event, both the regulator and the cylinder in question should be returned to the dive store for internal visual inspection.

CAUTION: If discoloration or contaminant residue is found to be present on the surface of the filter, do not use the regulator. It is important to return the regulator to an authorized dealer at the earliest opportunity for factory prescribed service. Failure to do so may result in severe corrosion, decay of internal components and/or regulator failure while diving.

4. **Environmentally sealed first stages only:** Closely inspect the external sealing diaphragm for any signs of damage or deterioration that may cause leakage. Check to ensure that the retainer which holds the external diaphragm in place is tightly secured.

WARNING: If the external diaphragm shows any signs of damage or neglect, DO NOT dive with the regulator until it has received factory prescribed service from an authorized dealer. The regulator's performance may be compromised, and first stage freeze-up could occur in cold water conditions.

5. Connect the first stage regulator to a fully charged SCUBA cylinder. (For mounting instructions, read the Setup section.) SLOWLY open the cylinder valve to pressurize the regulator. Continue turning the valve counter-clockwise until it stops, and then back 1/4 turn. This is to ensure that the valve is completely open.

6. If present, turn the inhalation control knob completely "out" (counterclockwise), and then back "in" (clockwise) until the regulator provides maximum ease of breathing with no leakage present. Do not apply excessive pressure.

7. Depress the purge button momentarily to blow out any dust or debris which may have entered the second stage. Release the purge button and listen to ensure that the second stage does not continue to flow any air after the purge button is released.

8. Before you place the mouthpiece in your mouth, take a deep breath, then place the mouthpiece in your mouth and blow forcefully out through the regulator. This should ensure that the 2nd stage is clear of any foreign matter before you breathe in through it. Inhale slowly, cautiously and deeply from the regulator several times. The regulator must deliver enough air for you to breathe easily without noticeable resistance.

9. As you breathe through the regulator look at the submersible pressure gauge, it should be displaying a constant accurate measurement of the air pressure inside the cylinder. The needle should not dip as you breathe.

10. If present, check to ensure that the venturi control switch on the 2nd stage is set to "MIN", gently turn the inhalation control knob completely "in" (clockwise), only until it stops. **Do not apply excessive pressure.** These settings will help to minimize any loss of your air supply during water entry or while making a long surface swim.

DURING THE DIVE

When you are ready to submerge, place the second stage in your mouth and set the (If present) venturi switch at a position between MIN and MAX, whatever is comfortable to you. If present, turn the inhalation control knob out (counter-clockwise) until the regulator breathes comfortably without leaking or being undesirably sensitive.

NOTE: It is not acceptable for the second stage to continuously leak a very small amount of air/breathing gas when the inhalation control knob is turned all the way “out” (counter-clockwise), in order to provide the maximum range of adjustment.

As you descend, you may want to adjust the venturi switch on/or off, and the inhalation control knob in or out to make breathing easier.

This will be particularly true on deep dives where the air becomes denser.

WARNING: Adjusting your regulator to increase breathing resistance will not conserve air. Instead, excessive breathing resistance will actually increase air consumption, and may elevate the CO₂ in your bloodstream to a dangerous level which could lead to serious injury or death due to drowning if you lose consciousness. If you swim underwater in an upside down or sideways position, or facing a strong current, you can turn the inhalation control knob back “in” (clockwise), to desensitize the opening effort to prevent any free flow. At the end of your dive, be sure to return the venturi switch to the off position, and turn the inhalation control knob “in” when you have arrived at the surface.

WARNING: Deep diving requires special training and equipment, and greatly increases your risk of decompression sickness and other serious diving injuries. If you attempt to dive beyond prescribed no-decompression limits without first obtaining sanctioned technical dive training, you risk serious injury and death.

DIVING IN COLD WEATHER AND COLD WATER

Cold water for the purpose of this instruction manual is 50°F (10°C) or lower. In such conditions, there is a risk of freeze-up; particularly in fresh water, which has a higher freezing point and thermoclines. Incidents of first or second stage freeze-up usually result in free flow from the second stage with a rapid loss of air. Before attempting an unsupervised dive in cold water conditions, it is important for you to obtain certified training in cold water diving techniques, and to use only equipment which has been specifically designed and maintained for such use. If these precautions are not taken, freeze-up can occur.

It is possible for icing or freeze-up to occur, even with a regulator that has been specially designed for cold water use. It is therefore imperative to practice the correct cold water diving procedures, and take special precautions to prevent second stage icing. This training must include procedures for dealing with regulator freeze-up, unexpected free flow, and emergency out-of-air situations. These procedures are taught in cold water training programs provided by most recognized certification agencies.

PRE DIVE

The following measures will further reduce the risk of freeze-up:

1. Request verification from your dive store that the air used to fill your cylinder(s) is dry. It should have a dew point below -82°F or -54°C. Excess water vapor can freeze, causing a free flow condition, or blocking the flow of air entirely.
2. Protect your regulator from any contact with water until you are ready to begin your dive.
3. Protect your equipment from cold temperatures before the dive. Keep your regulator and all its accessories in a warm, dry place.
4. Avoid breathing through the regulator or pressing the purge button in very cold air before entering the water.
5. Avoid removing the regulator from your mouth during the dive. This will prevent cold water from entering the regulator's second stage.
6. When possible, avoid heavy exertion during the dive to minimize the volume of air flowing through the regulator.

WARNING: SCUBA regulators and equipment have operational limits when used in water colder than 50° F (10° C). If you attempt to dive in cold water without first obtaining the necessary training and preparation of your equipment, you risk serious injury or death.

AFTER THE DIVE

NOTE: If fresh water is available, rinse your regulator completely before depressurizing it, and thoroughly dry the first stage and cylinder valve. This will help to prevent any contaminants from entering the regulator when it is removed from the cylinder.

Removal of the Regulator from the Cylinder Valve (Yoke Connector)

1. Shut off the cylinder air supply by turning the cylinder valve hand wheel clockwise until it stops.
2. While observing the submersible pressure gauge, depress the purge button of both the second stages. When the gauge reads zero and airflow cannot be heard from the second stage, release the purge button.
3. Turn the yoke screw counter-clockwise to loosen and remove the first stage from the cylinder valve.
4. Dry the dust cap with a clean towel, or blow the water off with your breathe. **DO NOT use High Pressure air from the tank.**

5. Place the dust cap over the first stage inlet fitting and seal it securely in place by tightening down the yoke screw.

POST DIVE

Removal of the Regulator from the Cylinder Valve (DIN Connector)

1. Turn off the cylinder air supply by turning the cylinder valve hand wheel clockwise until it stops.

2. While observing the submersible pressure gauge, depress the purge button of the second stage. When the gauge reads zero and airflow cannot be heard from the second stage, release the purge button.

3. Turn the first stage hand wheel counter-clockwise to loosen and remove the first stage from the cylinder valve.

4. Blow out any water inside the protector cap or wipe it out with a soft cloth, and wipe the threads of the first stage connector clean and dry. Install the cap over the threads of the first stage connector.

CAUTION: Be careful when removing the first stage from the cylinder valve to ensure that moisture does not enter either the inlet opening of the first stage or the opening of the DIN valve.

5. With the cylinder valve facing away from you, open the valve slightly to release a short burst of air, and then immediately close the valve. This will clear any moisture that may have entered the valve opening. Immediately seal the protector cap securely in place over the opening of the DIN valve to prevent the entrance of moisture or debris.

USER CARE & MAINTENANCE

It is important to provide the proper preventative maintenance in order to ensure the best possible performance and maximum life of your EDGE Regulator. The following maintenance procedures should be performed routinely after each use to ensure that the regulator is cleaned, inspected, and prepared for the next use or for storage.

1. Whenever the regulator is removed from the cylinder valve, it is important to wipe or blow the dust cap completely dry, and then fasten it securely over the first stage inlet fitting. This is critical to prevent the entrance of moisture into the first stage.

2. As soon as possible after diving, the regulator should be rinsed thoroughly with fresh water while it is attached to a cylinder and pressurized with air.

3. Rinsing alone, however, will not sufficiently clean the regulator. To clean the regulator as thoroughly as possible, it is necessary to soak it in warm (not over 120° F) tap water for at least one hour.

4. The preferred method is to attach the regulator to a charged SCUBA cylinder, open the cylinder valve to pressurize the regulator, and thoroughly soak both the first and second stages. Pressurizing the regulator will effectively prevent the entrance of moisture and/or contaminants into the regulator while it soaks.

5. If it is not feasible to soak the regulator while it is attached to a cylinder, it may be soaked provided that the dust cap is securely sealed over the inlet, and the second stage purge buttons are not depressed while the regulator is submerged or wet.

NOTE: When soaking or rinsing an adjustable model regulator unpressurized, check to ensure that the second stage inhalation control knob is turned completely “in” (clockwise) to prevent moisture from entering the valve and LP hose.

CAUTION: DO NOT loosen the first stage yoke screw, depress the second stage purge button, or turn out the inhalation control knob (if present) if the regulator is submerged unpressurized. Doing so will allow the entrance of moisture, and will require that the regulator be returned to an authorized dealer for service.

6. While the regulator is soaking, move the VENTURI control switch (if present) back and forth several times from the ON/OFF settings. You may also turn the inhalation control knob slightly back and forth—no more than 4 turn. This action will help to loosen any salt or mineral deposits that may remain lodged in the second stage.

7. After the regulator has been properly soaked, it is important to rinse it vigorously by flushing the first stage ambient chamber (non-environmentally sealed models only), the second stage mouthpiece, and the openings in the second stage front cover with a pressurized stream of water. This will remove any deposits of salt and minerals that were loosened during soaking. If the regulator is not pressurized, do not press the purge button underwater. Moisture may otherwise enter the valves, which will require that the regulator be returned to an authorized dealer for service.

8. Wipe the regulator as dry as possible and hang by the first stage to ensure that all remaining moisture drains from the second stages.

9. Adjustable models should be stored with the inhalation control knob turned all the way out (counterclockwise), away from the regulator body. This will help to extend the life of the low pressure seat.

10. When the regulator has completely dried store it in a clean box or inside a sealed plastic bag. Do not store it where it may be exposed to extreme heat or an electric motor which produces ozone. Prolonged exposure to extreme heat, ozone, chlorine and ultraviolet rays can cause premature degradation of rubber parts and components.

11. Never store the regulator while it is connected to the cylinder valve.

12. Do not use any type of solvent or petroleum based substances to clean or lubricate any part of the regulator. Do not expose any part of the regulator to aerosol spray, as some aerosol propellants attack or degrade rubber and plastic materials.

DEALER SERVICE & REPAIR

It cannot and should not be assumed that a regulator is in good working order on the basis that it has received little use since it was last serviced.

* Remember that prolonged or improper storage can still result in internal corrosion and/or deterioration of O-ring seals.

2. You must obtain factory prescribed service for your regulator at least once a year from an authorized dealer, regardless of the amount of use it has received. Your regulator may require this service more frequently, depending on the amount of use it receives and the environmental conditions in which it is used. When in doubt have your regulator serviced.

3. If the regulator is used for rental or training purposes, it will require complete overhaul and factory prescribed service every three to six months. Chlorinated swimming pool water is an especially damaging environment for SCUBA equipment, due to the high levels of chlorine and pH balancing chemicals which cause certain components to rapidly deteriorate.

4. **DO NOT** attempt to perform any disassembly or service of your regulator. Doing so may cause the regulator to malfunction and will render the warranty null and void. All service must be performed by an authorized dealer.

OBTAIN SERVICE AND/OR AN INSPECTION FOR YOUR REGULATOR AT LEAST ONCE A YEAR, FROM AN AUTHORIZED DEALER. YOUR PERSONAL SAFETY AND THE MECHANICAL INTEGRITY OF YOUR REGULATOR MAY DEPEND ON IT.

WARRANTY

WARRANTY INFORMATION

All warranty transactions must be accompanied by proof of original purchase from an authorized dealer. Be sure to save your sales receipt, and present it whenever returning your regulator for warranty service.

Limited Lifetime Warranty

EDGE warrants to the original purchaser that the product will remain free from defects in material and workmanship throughout its useful life; provided that it receives normal use, proper care, and prescribed dealer service subject to those restrictions stated below. This warranty does not apply to units subjected to misuse, abuse, neglect, modification, or unauthorized service.

This limited warranty is extended only to the original purchaser for products purchased directly from an authorized dealer, and is not transferable.

This warranty is limited to repair or replacement only at the discretion of EDGE.

WARNING: It is dangerous for untrained and uncertified persons to use the equipment covered by this warranty. Therefore, use of this equipment by an untrained person renders any and all warranties null and void. Use of SCUBA equipment by anyone who is not a trained or certified diver, or receiving training under the supervision of an instructor, could lead to serious injury or death.

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

EDGE DISCLAIMS AND EXCLUDES ANY LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. SOME STATES IN THE U.S. AND CERTAIN FOREIGN COUNTRIES DO NOT ALLOW EXCLUSIONS OR LIMITATIONS OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS MAY NOT APPLY TO YOU.

WARRANTY RESTRICTIONS

The following restrictions apply to this warranty:

- This warranty does not cover normal wear. Factory prescribed service by an authorized dealer is required at least once annually.
- This warranty does not extend to damages caused by improper use, improper maintenance, neglect, unauthorized repairs, modifications, accidents, fire, or casualty.
- Cosmetic damage, such as scratches, dents, and nicks are not covered by this warranty.
- This warranty does not extend to equipment used for rental, commercial, or military purposes.
- This warranty covers products purchased in the USA. For warranties that may apply elsewhere, please contact your local representative.
- Returning Your Regulator For Service
- Whenever your regulator requires annual service or warranty repair, EDGE recommends that you bring it to an authorized dealer. If you need to return products for service, follow these steps:
 - Provide the dealer or service center with photocopies of your original sales receipt and service records if the product is more than one year old.

National Service Center

EDGE US Warehouse, 5208 Mercer University Dr. Macon, GA. 31210

Phone: 888-370-3483 or 478-477-9131 Email: sales@edge-gear.com

It is recommended that you staple a copy of the sales receipt to this page and keep this manual for reference before, during and after use.

CUSTOMER SERVICE RECORD

Present this service record to the service center each time you have your regulator serviced.

Name (First MI Last) _____

Home Address _____

City _____ State_ _____ Zip Code _____

Registration/ Receipt # _____ Date of Purchase (mm/dd/Year) _____

Product # 1st Stage Name Serial Number _____

Product # 2nd Stage Name Serial Number _____

Service Record

Date _____ Technician Signature _____ Service Center _____

Date _____ Technician Signature _____ Service Center _____

Date _____ Technician Signature _____ Service Center _____

Date _____ Technician Signature _____ Service Center _____