

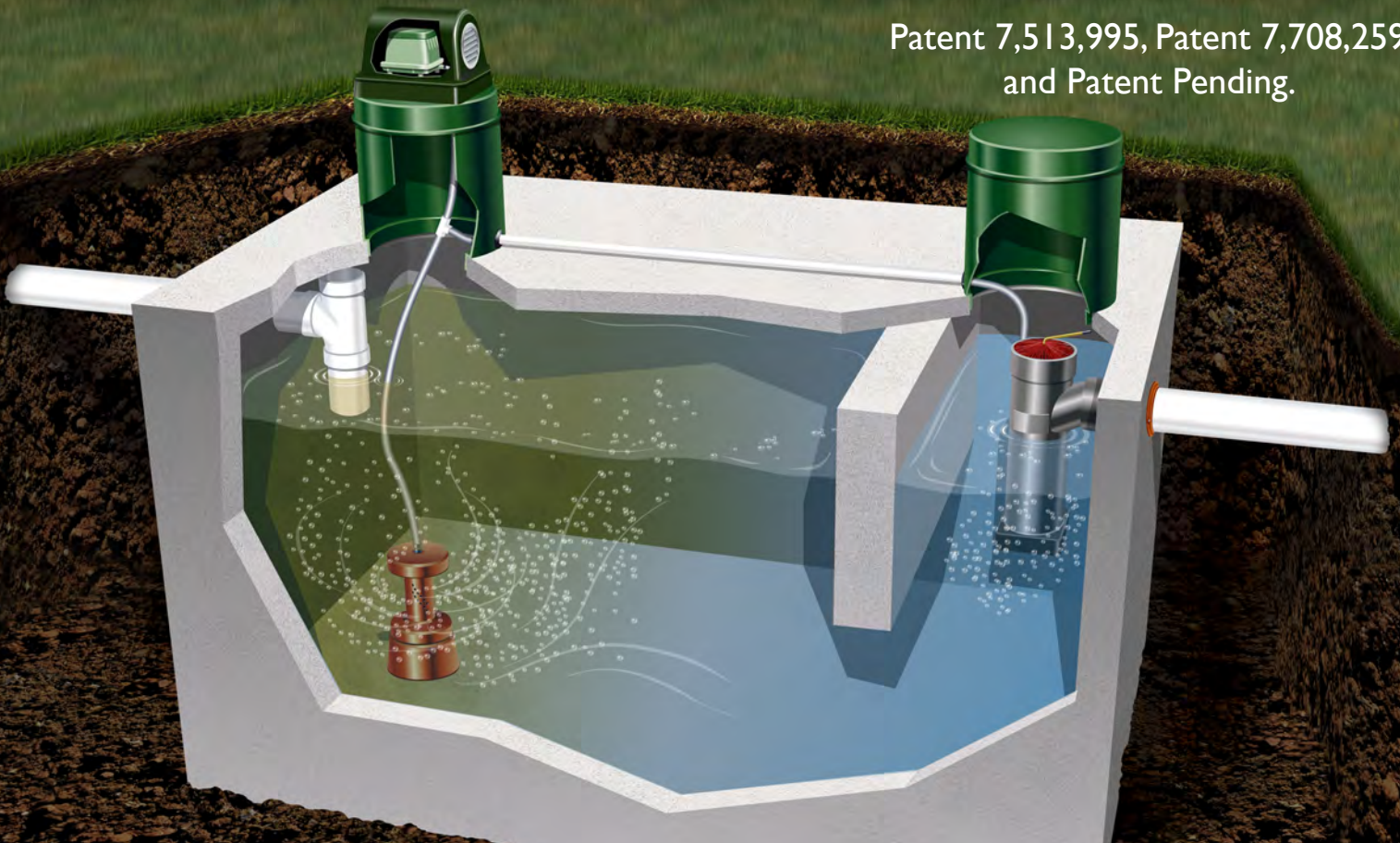
# SepAerator™

## THE SEPTIC TANK AERATOR

Developed By Septic Solutions, Inc.

### Owner's Installation and Maintenance Manual

Patent 7,513,995, Patent 7,708,259  
and Patent Pending.



Innovative! Inexpensive! Incredible Results! Environmentally Friendly!



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Dieterich, IL 62424

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

*Since the installation of the SepAerator™ is so simple, anyone with limited mechanical skills can install a SepAerator™ on their existing septic tank in just a few hours. Please check with your local authorities as requirements vary from County to County and State to State. Local regulations may require that a licensed septic system installation contractor install the SepAerator™.*

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## SepAerator™ Premium/Economy Installation Instructions

### 1. Locate Your Existing Septic Tank.

It is recommended that you contact a local pumping contractor to pump out your septic tank. Pumping is necessary to remove all the solids and sludge that has built up in your tank, which will allow the SepAerator™ to circulate the effluent properly and also allow the Diffuser assembly to set solidly on the bottom of the tank. Once you have located your septic tank it will be necessary to find two locations on the tank. You will need to locate the front of the tank lid or inlet lid, and the outlet lid or lid over the discharge pipe or baffle. Dig down to the tank at these locations and remove existing lids.

*(Skip Step 2 if you did not purchase the Premium or Economy Package)*

### 2. On the Outlet/Discharge End of the Tank Install the Air Driven Particle Recirculator (Illustration D).

You should already see a 4-inch pipe (the outlet line) sticking into the tank. **Remove any existing baffle**, clean pipe and glue the Air Driven Particle Recirculator to the outlet. Make sure the Air Driven Particle Recirculator is level running up and down. This can be checked with a small level.

If the pipe does not protrude into the tank far enough to glue the Air Driven Particle Recirculator you may use the Polylok Extend-N-Lok adapter by driving it inside the existing pipe and then attaching the Air Driven Particle Recirculator to it. The filter tee will fit either schedule 35 or 40 pipe or the Extend-N-Lok adapter. Make sure your filter can be removed through the septic tank access hole after installation of Air Driven Particle Recirculator.

*Note: The septic tank filter should be removed and washed with water every 3 to 6 months. If you have purchased the Premium package attach the small ¼ inch airline included to the*

*adapter fitting at the top of the Air Driven Particle Recirculator. The other end will later attach to a fitting on the air pump.*

### **3. Locate the Existing Lid on the Front Compartment of the Septic Tank.**

You need a minimum 8-inch diameter hole here. Once you have this follow step 3A and 3B and install risers if desired.

#### **INSTRUCTIONS FOR INSTALLING OPTIONAL RISERS AND LIDS**

##### **3A. Install Optional and Recommended Risers and Lids (Illustration F)**

Take caulking or sealant and place around the bottom of one of the tank adapter rings. Attach to tank with screws or anchor kits if the tank is concrete. Place riser on adapter ring and fasten with screws. Add as many risers as needed to bring lid to a minimum of 3 inches above grade. This will allow for access to the components as needed for periodic maintenance and inspection.

3B. Place lid on risers and attach with stainless coated screws included.

*Note: It is necessary to place an Air Driven Particle Recirculator on the outlet line of your septic tank if you have a single compartment septic tank. It is recommended that you do this on all installations and only comes with our Premium Package.*

### **4. Assemble and Install the Diffuser Assembly (Illustration C).**

Take the top portion of the diffuser assembly, if not already attached, and attach to the base securely with 2 washers and bolts provided. **DO NOT OVER TIGHTEN!** Attach the ½" Spa-Flex air line to the fitting on top of the diffuser assembly with the included clamp. *The air line will fit snugly on this fitting so you may have to place a small amount of lubricant on the fitting to allow the airline to go all the way on.*

Since the diffuser is designed to weigh 13 pounds, it is important that the hose and clamp are installed on the top of the diffuser properly to allow for lowering the diffuser assembly into the septic tank.

Lower the diffuser assembly through opening above the inlet in the septic tank until it sits solidly on the bottom of the tank. Drill a small hole just large enough for the ½ airline to pass through in the riser or lid of your tank. Place the air line through this hole and seal properly.

*Note: Take all precautions necessary to keep your septic tank watertight after installation of any components.*

## **5. Connect the Diffuser Assembly and the Air Pump.**

Run the airline (**flexible Spa-flex, Illustration G**) from the diffuser assembly through the bottom of the platform and attach the air pump. **The Premium Package will have an additional air line fitting (Illustration E) included which will connect the Patented Air Particle Recirculator and the Air Pump (See Step 6).** Mount platform along side of riser and lid. For remote mounting of air pump extend airline from diffuser assembly to air pump location by gluing ½ schedule 40 PVC pipe or additional spa-flex.

*Note: Do not exceed 80 feet from tank. Place platform high enough that air pump will not flood. Air must circulate between housing and platform. Keep dirt away from bottom of housing.*

## **6. On the SepAerator™ Premium Package only, connect Air Pump (Illustration B) and Air Particle Recirculator (Illustration D) with fitting supplied (Illustration E).**

Locate the ¼ inch airline and attach one end to the provided fitting on top of the Air Particle Recirculator Device (No clamp necessary here). Next, run the airline through the septic tank or below grade above the septic tank. Attach the ¼" airline on the ¼" fitting located on the air pump (Illustration E). Your installation of the SepAerator Conversion Kit is complete.

## **7. The Air Pump has an attached cord and will simply plug into any existing 115 V receptacle. (Illustration B)**

When 115 volt electrical connections have been made turn on power. Air pump should be running.

## **8. Backfill all risers and electric line carefully.**

## **9. Make sure your septic tank is full of water after installation.**

This is necessary to eliminate the possibility of tank floatation, as well as proper operation of the pump and diffuser assembly. Fill the tank with a garden hose or by turning on the faucet in your bathtub.

*Note: Empty septic tanks can float out of the ground due to high water conditions so filling the tank with water right away is important. It is also necessary for proper operation of the Air Particle Recirculator.*

## **10. The Air Pump is designed to Run Continuously.**

It provides quiet and energy efficient operation. Most pumps use less than 2 amps. For proper operation air pump should not be turned off or placed on a timer.

*Note: The small filter on the top of the air pump must be cleaned by air or water every 6 months and should be replaced every 12 months.*

**Begin using your system normally. It may take 4 to 12 weeks for a significant amount of bacteria to develop. It is these aerobic bacteria that will make the system produce a clear and odorless discharge.**

Please check with your local authorities as requirements vary from County to County and State to State. Local regulations may require that a licensed septic system installation contractor install the SepAerator™. Installations vary in each individual State. It is the sole responsibility of the end user (homeowner/purchaser) to see that the products are installed in accordance with all applicable county/state/federal laws, regulations and guidelines in effect.

## **OWNER MAINTENANCE CARE AND OPERATION INSTRUCTIONS**

**The SepAerator™ has been designed and built by the owners of Septic Solutions, Inc. to provide long term, reliable and cost efficient service. The SepAerator™ will operate with a minimal amount of attention.**

*The following procedures should be performed on a routine basis to insure proper plant operation.*

**Daily:** Check warning light and audible alarm (**if applicable**) for air supply malfunction. First check the electrical circuit providing power to the system to ensure the circuit is closed. Check the aerator compressor to be sure it is operating. Check for overheating, excessive vibrations, and unusual noises. If aerator compressor failure is observed, call your local service representative for service. After a power outage, an alarm may exist. Should an alarm remain for more than thirty (30) minutes after power is restored, you should call your local service provider to report the alarm.

**Weekly:** Check the tank for offensive odor.

**Periodically:** Check and clean air filter on air pump. Rinse with warm water to clean if necessary. Make sure filter is dry and re-install on aerator compressor. Check and clean septic tank filter every 3 to 6 months if necessary or as needed.

**Recommended:** Frequency of solids removal is no more often than every three (3) to five (5) years. Pump the existing tank when the settled solids make up more than twenty (20) percent of the total volume of the tank. **Warning:** Hydraulic displacement and tank floatation may occur whenever tanks are pumped. Tank should be immediately refilled with water after pumping occurs.

### Owner's Responsibility

It is the owner's responsibility to operate the SepAerator™ wastewater treatment components and their existing tank to the best of their ability. To keep maintenance to a minimum and ensure high effluent quality, the following items should not enter into the tank.

1. Disposable diapers, coffee grounds, chemical wastes, paint or paint thinners, oils or grease (such as discarded cooking grease), pet shampoo, pesticides, herbicides, automotive fluids or any other toxins.
2. Backwash discharge from any type of water softeners.
3. Strong disinfectants or bleaches, other than small amounts used in day-to-day house cleaning and laundries. Recommended detergents are low-sudsing, low phosphates and biodegradable. Recommended cleaning products are non-chlorine, non-toxin, non-corrosive and biodegradable. Anti-bacteria soaps should be avoided.
4. Waste material from a garbage disposal is not recommended. Food wastes represents additional loading the tank must digest, increasing the pump out intervals.
5. The SepAerator™ is designed to treat domestic wastewater and nothing else should go into the tank.

The SepAerator™ will not perform to its fullest capabilities if subject to hydraulic overloading. This condition exists whenever excessive water, above the designed treatment capacity is allowed in the system. Leaking plumbing fixtures or excessive water use may cause this condition. Hydraulic overload may also occur on washdays, when multiple loads of laundry are washed in succession.

## SEPAERATOR™ WARRANTY

### The SEPAERATOR™ Premium Package Comes With a 6 Month 100% Money Back Guarantee

We guarantee that the SepAerator™ Premium Package will improve the quality of the effluent being discharged from an existing septic tank and prolong the life of the secondary treatment system or Septic Solutions, Inc. will refund to the homeowner 100% of their original purchase price of the SepAerator™ Premium Package. Septic Solutions, Inc. is very confident that the SepAerator™ process will improve the performance of your septic system, however, we understand that every system is distinctive and there should be considerations for those systems given. Consequently, **if after 6 months from original purchase date, the SepAerator™ Premium Package does not perform as advertised, and you worked with our free technical support staff, you may return it to us for a full refund.**

As a requirement of this guarantee the purchaser must contact Septic Solutions, Inc., and speak with our technical staff concerning the operation and installation of their SepAerator™, as well as the remediation progress of your septic system, within 90 days of purchase date. We will, at that time, confirm the proper installation and/or make recommendations as to changes that must be made concerning proper installation. If the SepAerator™ Premium Package does not perform as advertised at the end of the 6 months from the purchase date, we will initiate the refund process at the customer's option. **This guarantee only applies when you purchase the complete SepAerator™ Premium Package and does not apply to other packages or individual components.**

The **SepAerator™ Premium Package 100% Guarantee** was developed to provide those homeowners the confidence they need to purchase the product and to display the confidence that Septic Solutions has in the product. There is however some restrictions that can and must apply to this guarantee that would be extraordinary and out of the control of the design elements of this system. Those elements that would cause this Guarantee to become null and void would include:

1. Adding any toxic materials and/ or harsh chemicals to the septic system that would be detrimental to the natural growth of aerobic bacteria. These could include paint and paint thinners, acids, heavy extended use of antibiotics, some form of pesticide, large amounts of chlorine, etc.
2. The actual septic system where the SepAerator™ would be installed doesn't allow excessive ground water infiltration, leaking stools or other faulty plumbing devices, have high seasonal water tables, or located in an area subject to flooding.
3. The septic system is not being overloaded by excessive water usage that is beyond what the original size and design of the system was at time of the septic system's actual installation.

The SepAerator™ is an amazing piece of equipment and will greatly enhance any septic system; however no aerobic process can overcome the obstacles as stated above. Those obstacles, if present, should be remedied at or before installation of this equipment in an effort to ensure the 100% Money Back Guarantee can apply. We will be fully supportive of your SepAerator™ installation and want our products to succeed for your application. We feel that by providing you with these restrictions it will only enhance your knowledge of this product and thereby greatly increase your success in using it.

The purchaser's responsibility would be to return the air pump, housing and platform, and provide proof that the other SepAerator™ components inside the tank are no longer functional. This guarantee does not cover optional equipment purchased such as risers, lids, and other miscellaneous items. Simply leave those optional pieces and the diffuser assembly in the tank.

Lifetime warranties are available when **SepAerator's™** are purchased through Septic Solutions, Inc. approved Licensed Septic System Installation Contractors and a continuous yearly maintenance agreement is in effect. This warranty applies to all **SepAerator™** systems installed in accordance with the Operation and Maintenance Manual. The following Limited warranty does apply.

### ***All SEPAERATOR™ Packages Limited Warranty***

Septic Solutions, Inc. **limited warranty** is that of the manufacturers of those products sold and does not cover any damages incurred by improper installation. To repair or exchange components, F.O.B. factory, that in the manufacturer's judgment is defective, provided that said component part has been paid for and is returned through Septic Solutions, Inc. prepaid. The **limited warranty** makes no provision for any informal dispute settlement agreement.

The **limited warranty** does not cover any products that have not been properly installed, damaged due to altered or improper wiring or overload protection, flooded by any external means, disassembled by any unauthorized person, or damaged by an act of nature. The **limited warranty** does not cover damages or defects caused by ants, insects, or rodents to any component part of the products.

Septic Solutions, Inc. through the manufacturer reserves the right to replace any component part covered under this **limited warranty** with a component part, which in the manufacturer's judgment, is equivalent to the part replaced. Septic Solutions, Inc. and the manufacturer claims no responsibility for any delays or damages caused by defective components or materials which cause losses incurred by interruption of service or for repairs or replacements of component parts covered by the **limited warranty**.

Septic Solutions, Inc. is not responsible for the infield operation of our products. The proper operation of the Separator™ depends upon proper organic and hydraulic loading. We cannot control the loading of substances that may upset the biological balance. Septic Solutions, Inc. recommends that you check with your local regulatory agencies to ensure that you are in compliance with all local regulations and state laws.

**Septic Solutions, Inc. warrants this product to be free from defects in material workmanship for 1 year from date of purchase. Our warranty will not apply to any product that has been subject to negligence, misapplication, improper installation or maintenance. Buyer's only remedy and Septic Solutions, Inc. only duty is to repair or replace defective products (at Septic Solutions, Inc. choice). Septic Solutions, Inc. shall not be liable for any consequential, incidental, or contingent damages whatsoever.**

**Warning!** Service to electrical devices by non-qualified persons may result in an electrical shock hazard resulting in serious injury or death. If service is required to electrical components please contact a qualified electrician. Any and all safety requirements such as the electrical wiring, blower operation or plant discharge concerning the owner, their families, friends, or guests are the sole liability of the owner.



**SEPTIC SOLUTIONS, INC. WARRANTY AND REGISTRATION CERTIFICATE**

It is the sole responsibility of the purchaser to fill out this registration certificate and mail it or fax it within 30 Days of purchase date to the address below. All warranties are valid only if this registration certificate has been filled out completely and mailed or faxed directly to Septic Solutions, Inc. within this 30-Day period. Please remit this Certificate to:

**Septic Solutions, Inc.  
314 W Center Street  
Dieterich, Illinois 62424  
Fax: 217-925-5375**

**For Questions Call: 217-925-5992**

**SepAerator™ Purchaser's Information**  
*Please Print*

Owner's Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_

Purchase Date: \_\_\_\_\_ Air Pump Serial #: \_\_\_\_\_

Please circle SepAerator™ package purchased below:

**PREMIUM    ECONOMY    VALUE    VALUE PLUS    SAVER    SAVER PLUS**

Name of Person that Installed the SepAerator™

\_\_\_\_\_