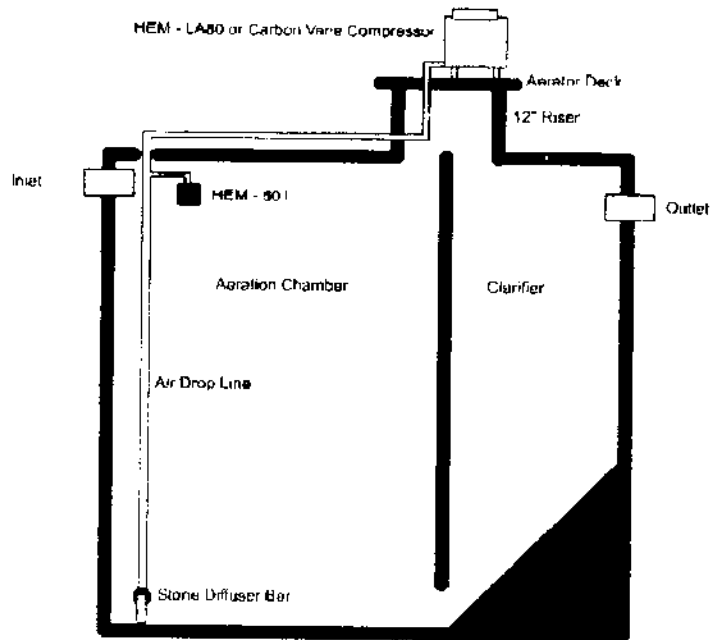


# Cajun Aire Wastewater Treatment Systems

An H. E. McGrew Inc. Product



**System owners manual**  
**Cajun Aire Basic 500, 750, 1000 gallon per day models**

## **Cajun Aire Operation**

Thank you for your purchase. You have chosen the very best technology the industry has to offer for individual on-site wastewater treatment needs. The Cajun Aire Wastewater Treatment System is a Class I, mechanical, aerobic, wastewater treatment plant that will process your household sewage into a clear odorless fluid within a 24 hour time frame. The Cajun Aire wastewater treatment system was tested against the NSF Standard No. 40 and approved by the National Sanitation Foundation (NSF).

The process the Cajun Aire uses to treat common household wastewater is an extended aeration (use of air introduced into the sewage through diffusion), activated sludge process. When air is introduced to the wastewater, it promotes growth of aerobic bacteria and other microorganisms that break down the organic material found in regular household sewage.

Inside the aeration chamber, the wastewater should appear to be brown in color. This is caused by the return of sludge from the clarifier. As the wastewater leaves the aeration chamber, it enters this clarifier better known as the "quiet zone". No mixing should occur inside the quiet zone.

In the clarifier, the solids separate from the liquid and settle to the bottom of the clarifier; this solid material is called sludge. Sludge contains dissolved oxygen and the bacteria it contains are activated by oxygen. This activated sludge is returned to the aeration chamber to be mixed and digested again. The sludge mixes with the incoming wastewater and this mixture of returned sludge, wastewater, and dissolved oxygen is referred to as mixed liquor. The mixed liquor flows back into the clarifier, the solids separate and return once again to the aeration chamber. This never ending cycle produces high quality effluent that is ready to be released to the environment.

## **Treatment Plant Startup**

Upon completion of the installation of your new system, you will need to fill the unit with water if it has not already been done. Once the unit has been filled with water and all electrical and plumbing connections have been made, you are ready to start using your new system.

In order for your new system to maintain its biological stability and give you years of outstanding performance, there are a few things you should know about your new unit.

1. Your local regulating authorities has sized your new Cajun Aire wastewater

treatment system for your house. This means you should try to maintain a certain amount of water flow into the unit per day. You can find the size of your unit at the back of this book. The amount of flow the unit should obtain per day is as follows:

<u>Size</u>	<u>Safe Zone</u>
500 Gallons Per Day	350 - 550 Gallons Per Day
750 Gallons Per Day	550 - 800 Gallons Per Day
1000 Gallons Per Day	800 - 1000 Gallons Per Day

2. As great as the unit performs in treating common household sewage, it cannot however treat anything flushed from the house. Some, but not all of these items are - rubber products, plastic products, feminine products, large paper products (paper towels, diapers, bags, etc...), harsh detergents and bacteria killing agents (bleach, liquid fabric softeners, grease, oils, heavy metals, etc...).

Note: you can use common cleaners with the Cajun Aire wastewater treatment system as long as you follow the manufacturers instructions on the labels of the products. You will also want to monitor your frequency of washing clothes and dishes as this could complicate the treatment process if most of the wastewater from your house is this level of sewage (gray water). Gray water does not contain enough organic material to help the treatment process at all.

The Cajun Aire wastewater treatment system is much like a living organism in that it needs things to work and perform properly. Your new unit can treat most any type of household wastewater you put in it. This includes showers and baths, clothes and dishes, and toilet water. However, there are also some things that you should try to keep from going down your drains. These items include but not limited to grease in any amount, hair in large amounts, and the use of garbage disposals in heavy volumes.

#### **Items that are safe to use in your new system**

It is acceptable to use household cleaners as long as they are not over used. Following the suggested directions on the labels of the containers of the cleaners, you should be fine with the amount of chemicals being used in the Cajun Aire wastewater treatment system.

Other than regular household sewage and minor use of cleaners, any other products should not be introduced to the Cajun Aire wastewater treatment system.

#### **Items that are not safe to use in your new system**

The following is a list of products and items that should never be allowed to flow into the Cajun Aire wastewater treatment system.

1. Large amounts of bleach or any other chemical that can kill bacteria
2. Large amounts of disinfectants
3. Chemicals that have high volumes of bacteria killing agents
4. Cigarette filters, condoms, feminine products, large paper products, and any rubber products.
5. Shrimp shells, coffee grounds, or any level of cooking grease and oils
6. Chemicals that are designed to clean out drains or correct "septic tank" problems

Note: the Cajun Aire wastewater treatment system is not a "Septic Tank". Septic tanks use or work by a different form of bacteria and the use of chemicals that correct septic tanks could greatly effect the "aerobic" bacteria in your new unit. In any case, it is a good idea if you have doubts about a certain chemical, call your authorized installer or the home office of Cajun Aire.

### **The Control Panel**

Each Cajun Aire wastewater treatment system has its own control panel. This panel is located in the aeration equipment. This control panel is equipped with a complete systems malfunction alarm system. The alarm system allows you to monitor the entire unit without performing a complete systems check. This is how it works - if for any reason the air pressure in the aeration system drops, the alarm will sound. It's that simple. If you should notice your alarm system (internal to the air compressor) sounding, you will know something is not working properly with your new unit and you will need to call your installer or service provider for maintenance. To locate a service representative near you, call 1-318-746-5122. Ask for the service department.

### **Periodic Pumping and Cleaning**

The Cajun Aire wastewater treatment system is designed with you in mind meaning we strive to relieve you of the burden of common and troublesome septic problems associated with other systems you will find in the market place. However, you will need to have a competent septic tank cleaning service clean your unit every 4 to 7 years depending on your daily loading. You should expect to obtain one inch of sludge at the bottom of your unit every year. If you use more water than what the unit was designed to handle, you will have more build up in less time. This means you will need to have your system pumped and cleaned more frequently.

### **Service Policy and Obligations**

A service policy is included in the price of each unit. This means you should receive a service check on your unit every 6 months (at a minimum) or at least twice a year. This is a requirement of the NSF Standard No. 40 and your local

regulating authorities. If you notice that you are not receiving proper service checks from your installer or service provider, do not hesitate to contact the home office of Cajun Aire wastewater treatment products at 318-746-5122.

### **Your Responsibilities**

There are a few things that you will need to do in order for your new Cajun Aire wastewater treatment system to work to its full potential. These things include but not limited to:

1. Make sure the aerator is never exposed to water or fire ants. Your warranty does not cover water or fire ant damage.
2. Make sure the unit is not exposed to vehicular traffic. This will cause damage to the tank.
3. do not attempt to clean the aerator filter (the only filter on the unit) or service any part of the unit yourself. Doing so could result in electrical shock and may cause severe bodily damage or death.
4. Always be sure children are not allowed to play on or around any part of the unit. It is a good idea to teach your child or children about the unit and any other part of your septic system so they will know not to play around it.

### **Detecting Malfunctions or Problems**

If you notice the alarm sounding, call your installer or service provider for assistance or possible maintenance. The only thing the alarm system does not detect on its own is the actual treating of the wastewater. If you do ever experience odor problems or notice the unit not producing the normal high quality treated wastewater output (effluent), call your installer or service provider.

### **Non Frequent Use of the Cajun Aire**

If you do not think your unit is going to be used on a regular basis, such as in a vacation home or an alternate address, you should turn off the toggle switch located on the air compressor until someone returns to the address.

### **What to do for service**

On every unit installed, you should see data plates on the control panel and on the compressor (aerator). The data plate on the control panel will have information for you for obtaining service. Usually this company or person is the person who installed your unit. If you need service on the unit or you notice the unit is not working, as it should be, contact the person on the data plate.

### **Service Policies and Warranties**

An initial service policy is included in the price of your new Cajun Aire wastewater treatment system. Here is what is included in this policy (at a minimum):

1. A total of 4 system check service calls within 2 years
2. A warranty of two years on your aerator

At the end of this initial 2 year period, you have the option of purchasing an additional service policy much the same as the initial service policy. Some variations in policy may be added but its generally the same. We encourage you to purchase this additional policy at that time, as this will help your systems performance for many years to come.

Note: in some states, it is a requirement for you to have a continual service agreement made with a licensed service provider who is authorized to service the Cajun Aire wastewater treatment system.