

**The Septic Heater Company**

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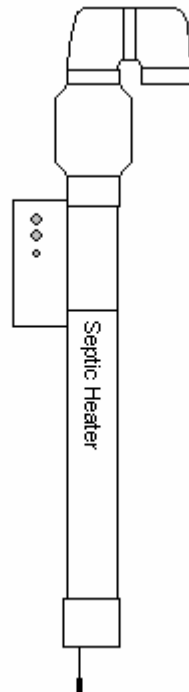
1 (888) 417-3784

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# A-100 Septic Heater Owners Manual

**SAVE THIS MANUAL**

Read rules for safe installation and operation carefully.



Thank you for choosing the Septic Heater. With proper care and maintenance, this heater will provide you years of dependable trouble-free service. Save these instructions for future reference.

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Be sure to send in Registration Card for warranty to be in effect.

## A. Important Safety Instructions



- 1) The septic heater is designed for any septic system, provided it can vent properly.
- 2) All traps must have water in them – floor drains, sinks, etc; to prevent gases from entering the home.
- 3) Methane gas is present in your septic system and is flammable. If you ever smell sewer odors, unplug the septic heater and call your onsite professional; you have a ventilation problem.
- 4) Follow all instructions and directions.
- 5) Use of an attachment not recommended by the manufacturer may result in an explosion, fire, or electrical shock to persons.
- 6) To reduce risk of damage to the electrical plug, pull by the plug rather than the cord when disconnecting the Septic Heater.
- 7) Do not disassemble the Septic Heater. DO NOT operate in a horizontal position.
- 8) To reduce the risk of electrical shock, unplug the Septic Heater before attempting cleaning.
- 9) Never place a Septic Heater on a septic system where the air cannot vent out.
- 10) Never place the Septic Heater on a pressurized pipe.
- 11) Never reduce the airflow by placing the Septic Heater such that it blows into pipes less than 2” in diameter.
- 12) Make sure the extension cord will not be driven on, stepped or tripped on, or traversed by anything that may damage it.
- 13) Use only the **recommended** gauge wire within the extension cord.  
(See installation step 3).
- 14) Use of improper extension cord may result in risk of fire, electrical shock, or explosion. The pins on your plug should be the same size and shape to match the pins on the Septic Heater plug-in.
- 15) The extension cord must be in good electrical condition.
- 16) Use on a GFI receptacle only to power the Septic Heater.
- 17) Do not operate the Septic Heater with a damaged extension cord.
- 18) The Septic Heater is **NOT** intended to thaw frozen systems. If the pipes are completely blocked, they must be thawed before using the Septic Heater.
- 19) **DO NOT USE A NON-GROUNDED EXTENSION CORD OR POWER SOURCE!**

## B. WARNING - RISK OF EXPLOSIVE GASES



Working in the vicinity of a septic system is dangerous. Septic systems generate explosive and corrosive gases during normal operations. For this reason, it is of the utmost importance that each time before using your Septic Heater, you read this manual and follow the instructions.

## C. How the Septic Heater works

The Septic Heater is activated by the sensor that hangs out the bottom of the heater. This sensor works in air or water. Do not place the sensor in the liquid of a septic tank. Be careful not to damage this wire or sensor.

### **Automatic/On Mode:**

When the sensor temperature falls to 38°F, the heater will turn on and heat for 2-4 hours on average. It then shuts itself off until the sensor temperature falls to 38°F again.

- The green light on the exterior of the heater indicates the heater has a power connection.
- The red light on the exterior of the heater indicates the heat element is active.
- A blinking red light indicates the heater has gone into fault. Unplug the heater and plug it in again. If it goes into fault again within one hour, contact The Septic Heater Company.

Every 20 minutes, whether heating or not, the fan runs for 5 seconds as a self-check.

While the heater is in a heating cycle, the red light may turn off for 1-2 minutes, then back on for 2-3 minutes. This is normal and it means that the heater has reached its optimum heat output temperature, and turns power off to the heat element until the low output air temperature is reached, then the heat element turns on again.

### **Test Mode:**

When the YELLOW test button on the control box is pressed, the fan will blow air (unheated) for 5 minutes. The heater may go into heating cycle if sensor gets cold enough.

When the heater is first plugged in, the fan will start and run for 5 seconds.



### **If there is a problem:**

If the red indicator light is blinking, unplug the Septic Heater, press circuit breaker in (if popped), wait 20 seconds and plug it back in. The green light should come on. Press the test button. If the problem persists, contact The Septic Heater Company.

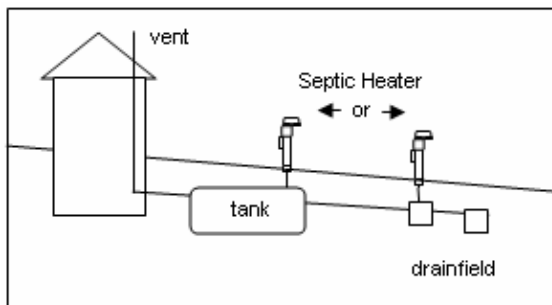
If the heater goes into fault after 1 hour of operation, call the Septic Heater Co.

## D. Installation

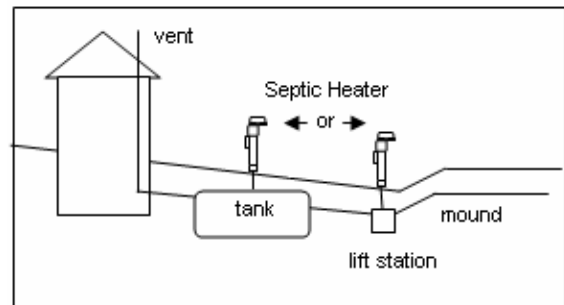
In both gravity and mound septic systems, the Septic Heater is installed above the tank if pipes are freezing between the house and tank or in the tank itself. If it is freezing in the drainfield, the Septic Heater is installed above a drop box in gravity systems and above the lift station in mound systems.

**Airflow is critical.** The Septic Heater must be placed such that the air can exit the system. In gravity systems with no lift or pump, there is positive airflow and the Septic Heater can be placed above the tank or drop box in the drainfield. In a mound system, though, you would not install the Septic Heater in the drainfield because there is nowhere for the air to vent. Instead you would place it over the lift station so air can vent out of the main vent of the house.

Gravity septic system



Mound septic system



### Pipes and Sizes:

The Septic Heater fits onto a 4" SDR35 sewer pipe, which is a thin wall PVC pipe that is most commonly used in sewer applications. The Septic Heater slides onto the male end of the SDR35 pipe.

You may have Schedule 40 PVC riser pipes, which is a thicker wall pipe than SDR 35. If you have this type, you will need an adapter to make the proper fitting.

You could also have 6" riser pipes rather than 4", you will need an adapter to make the proper fitting.

These adapters are standard sizes, all of which can be purchased at your local hardware store.

## What you will need:

- Tape measure
- 5/16" wrench, socket, or nut driver
- Ladder to get on roof
- Recommended extension cord

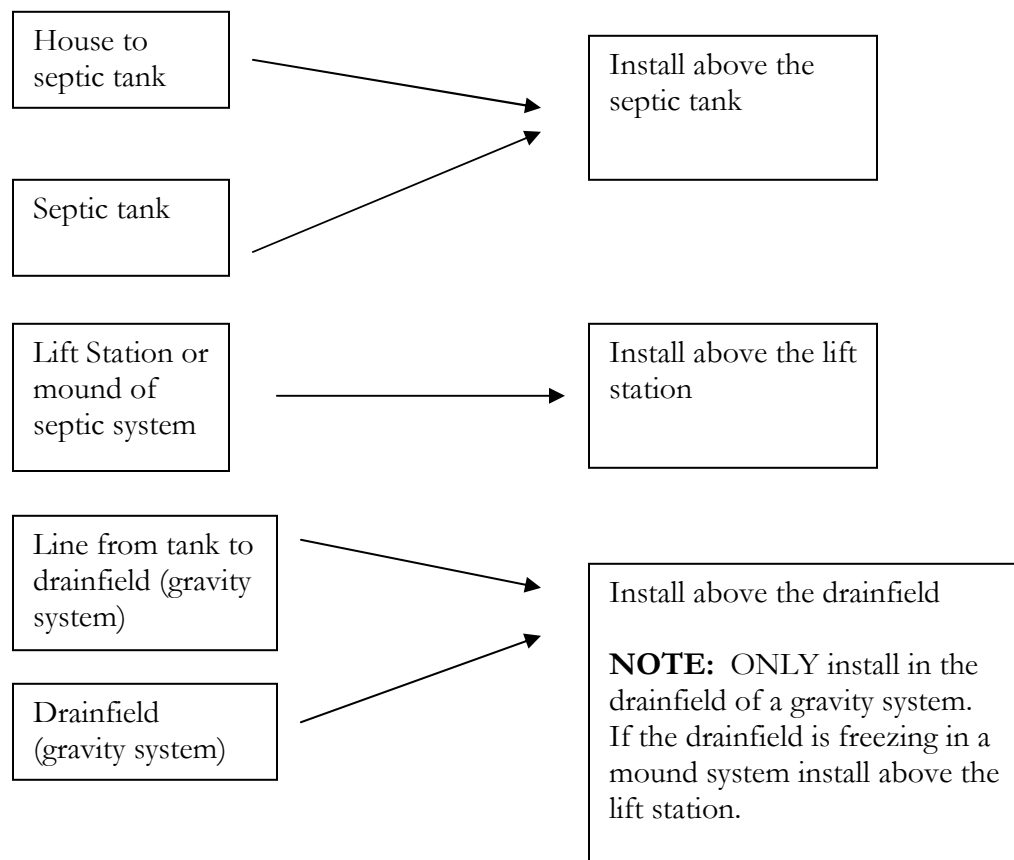
## Installation Steps:

- 1) Determine where to install the Septic Heater.

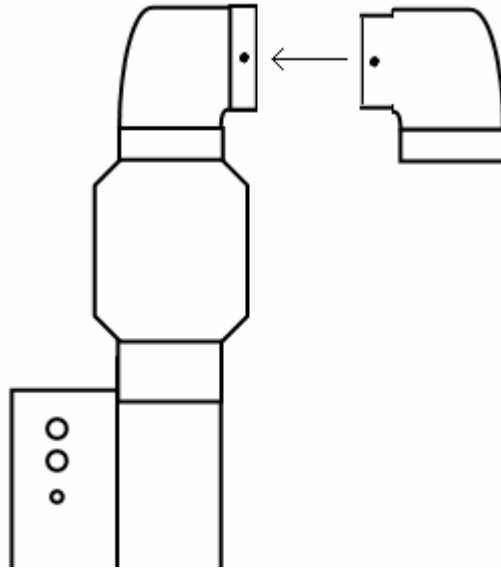
Identify where you will likely have freezing problems or where you have had problems in the past. Place the Septic Heater downstream of that point (see diagram below). You can also refer to section (F) Septic System Basic Layout.

TIP: If you have not had problems in the past, we recommend that the Septic Heater be placed over the septic tank.

### Where is your septic system likely to freeze?



- 2) Attach the air intake.



Slide together and insert screw (provided) into pre-drilled holes.

- 3) Run the heavy-duty outdoor extension cord to the desired location. Do not plug the Septic Heater into the extension cord yet.



**Use only GROUNDED outdoor extension cords:**

- If the distance from the outlet to the Septic Heater is less than 100 feet, use a 14-gauge wire power cord.
- If the distance from the outlet to the Septic Heater is over 100 feet, use a 12-gauge wire power cord.

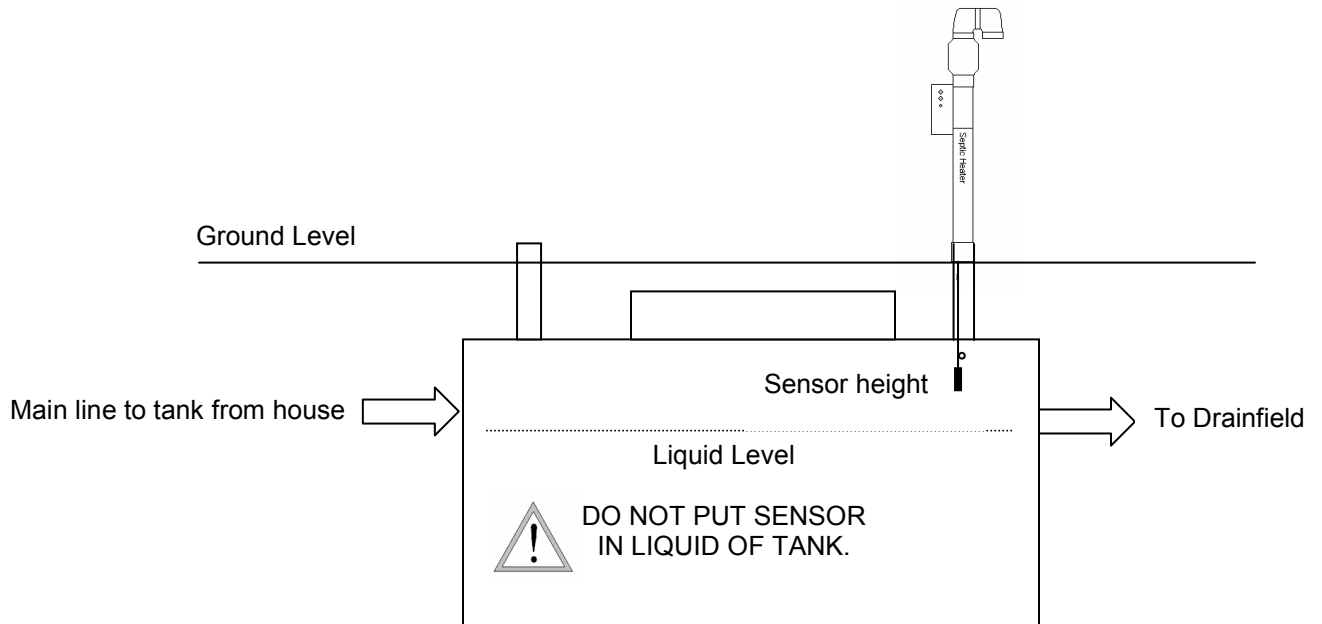
- 4) Adjust the sensor for proper length.

### For Tank Installations:

The sensor must hang in the air and not the liquid of the septic tank!

- a) Remove the cap on the riser pipe.
- b) Measure down to the top of the liquid from the top of the riser pipe, then subtract 12 inches. This will be the length of the sensor cord from the end of the Septic Heater to the end of the sensor.
- c) Coil and secure any excess wire with the zip-tie (provided) on the sensor wire to hold the correct sensor height. The sensor will then be 8" above the liquid level when the Septic Heater is installed. *The sensor should not hang into the liquid of the septic tank. DO NOT kink or cut the sensor wire.*
- d) If the sensor wire is not long enough, let the sensor wire hang at full length.

### Tank Installation Diagram

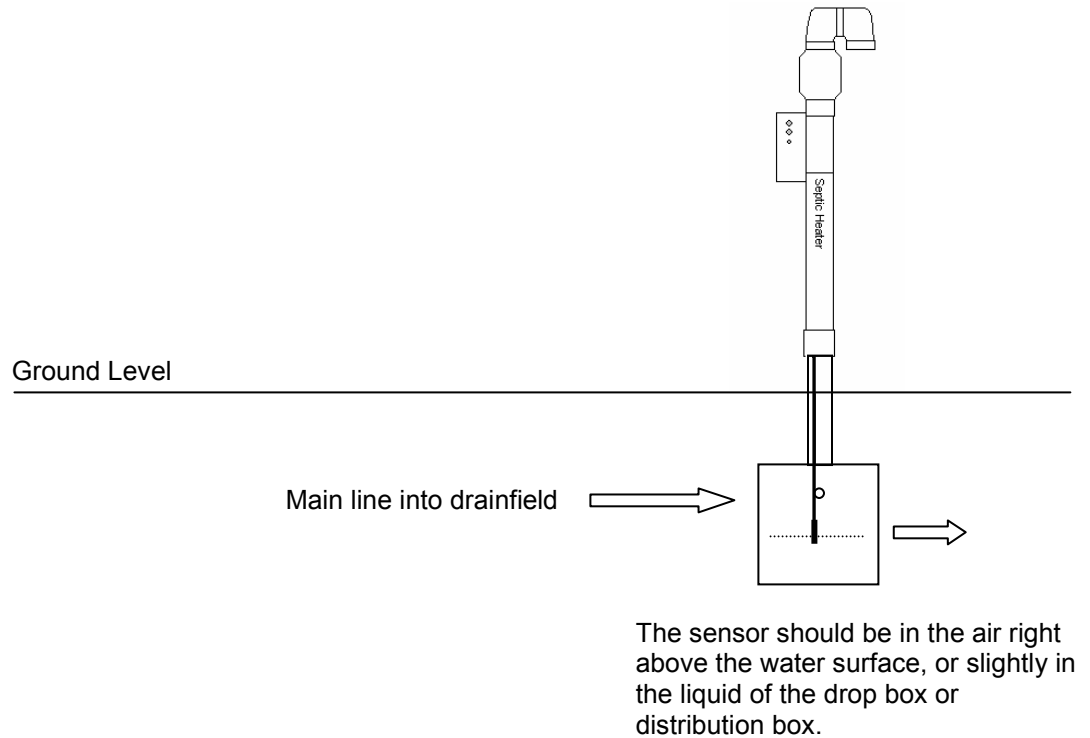


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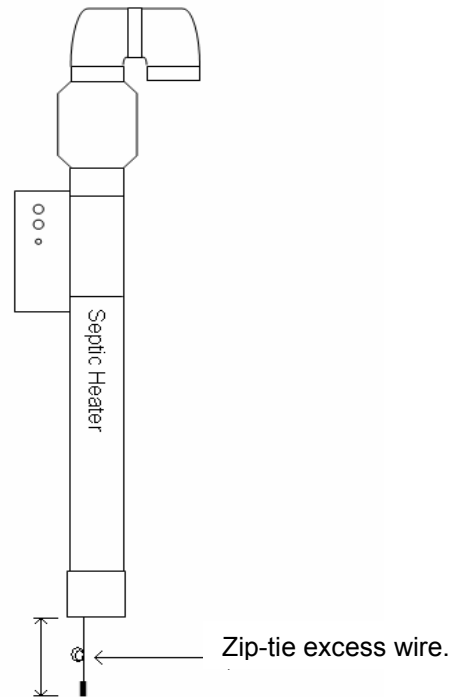
**For Drainfield Installations:**

- a) Remove the cap on the riser pipe.
- b) Measure down to the top of the liquid in the drop box or distribution box from the top of the riser pipe, then subtract 4 inches. This will be the length of the sensor cord from the end of the Septic Heater to the end of the sensor. (The sensor should hang in the air or slightly in the water.)
- c) Coil and secure any excess wire with the zip-tie (provided) on the sensor wire to hold the correct sensor height. *DO NOT kink or cut the sensor wire.*

**Drainfield Installation Diagram**



4) (continued)



- 5) Put the sensor down the riser pipe, making sure it does not catch on the sides of the pipe and/or gets damaged.
- 6) Slide the Septic Heater onto the riser pipe. There should be 4” of the riser pipe exposed before you put the Septic Heater on the pipe so that it fits securely. (Most riser pipes are 4” in diameter. If yours is wider, you can use an adapter to reduce your pipe to 4”. Then the Septic Heater will fit properly.)
- 7) Plug the extension cord in at the GFI Receptacle, then plug the Septic Heater into the extension cord.
- 8) Press the “TEST” button to verify operation. The Septic Heater (fan only) will run for 5 minutes. If the sensor is below 38 degrees F, the unit will then begin heating.
- 9) You must verify that you have airflow through the pipes. To do this you can look at the house vent, and if it is cold enough, you will see steam rising from it. If temperatures do not permit, you should manually check this by going onto the roof, and feeling for the airflow. Use caution and the proper safety equipment while working on roof.



**NOTE:** If you do not detect airflow, call your plumber to make sure none of your pipes are blocked.

- 10) **Complete and return** the Warranty Registration Card to the manufacturer for warranty to be in effect. It is located at the back of this manual.

## E. Care & Maintenance of your Septic Heater

**REMOVE** the Septic Heater from the septic system when the chance of freezing has subsided. During the summer months, bugs accumulate in the septic system, which may nest within the Septic Heater if it is not removed.

Store in a clean, cool, dry place during non-use periods.

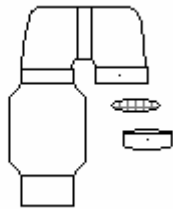
Follow the installation procedure when you place the Septic Heater in service for the following seasons.

While the unit is in storage, seal the bottom of the pipe to prevent bugs and or debris from entering the Septic Heater.

Always use caution when handling the Septic Heater so that the sensor wire does not get damaged or stressed.

It is very important that the air intake screen remains free of any and all obstructions. Inspect the screen periodically to verify that there are no obstructions.

### Air Intake



Disassembly instructions for inspection and Cleaning

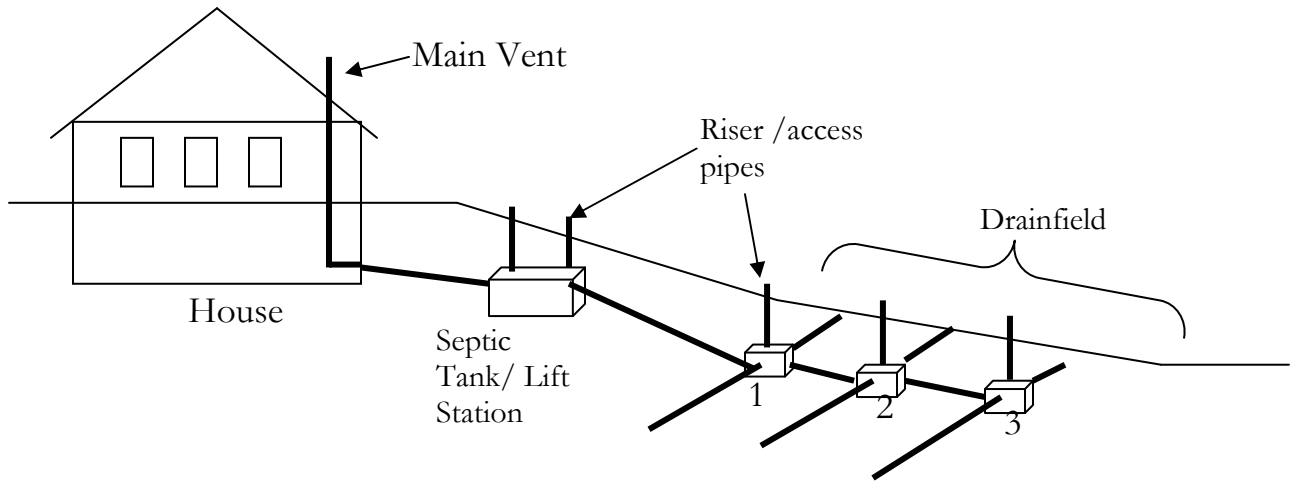
- 1) Remove Set Screw
- 2) Remove Support Ring
- 3) Remove Air Screen

Re-assembly

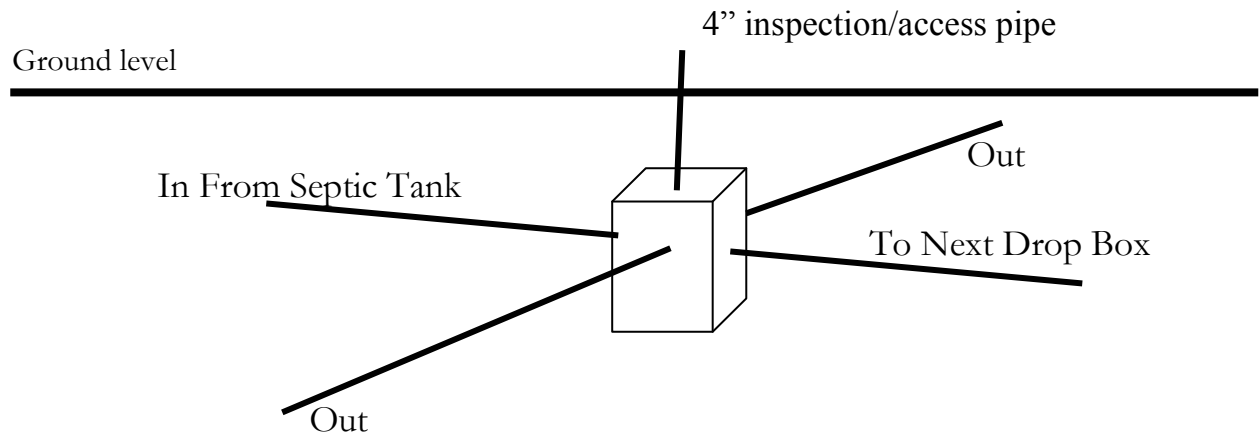
- 1) Insert Air Screen with plastic ring down
- 2) Insert Support Ring, align the hole
- 3) Re-install Set Screw

# F. Septic System Basics

Typical septic system layout:



Drop box / distribution box detail:



# **WARRANTY**

Norgaard Enterprises, Inc., dba The Septic Heater Company (TSHC) products are warranted against defects in workmanship, material, design, labeling, and packaging. No other warranty, expressed or implied, written or oral, applies.

## **Warranty Period:**

This warranty is effective for thirty-six months from the date the product is first placed in service. Product Registration Cards must be completed upon installation, and returned to TSHC.

## **Conditions:**

TSHC products must be installed, operated and maintained in accordance with TSHC's instructions. TSHC is not liable for damage or unsatisfactory performance of the product resulting from accident, negligence, alteration, unauthorized repair, improper application or installation of the product or corrosion. TSHC is NOT liable for any incidental or consequential damages. Claims against carriers for damage in transit must be filed by the purchaser with the carrier. Removal and re-installation of the product, and shipment of the unit for repair or inspection shall be at the purchaser's risk and expense.

## **Remedy:**

The Septic Heater in question should be returned, freight prepaid, to:

The Septic Heater Company  
41296 310<sup>th</sup> St. SE  
Gully, MN 56646

The Septic Heater will be repaired or replaced at TSHC's discretion.