



Riverside Drive Area Grinder Pump Homeowner Responsibilities

Service Hot Line: 508-765-0051

Avoid blockages and damage.

The following items should **NOT** be placed into any sewer system:

- Abrasive materials
- Aquarium stone
- Coffee grinds
- Cooking oil and Grease
- Dental floss and dental picks
- Disposable diapers
- Explosives or Flammable materials
- Floor drains or sump pump discharges
- Gasoline, diesel fuels, kerosene
- Glass
- Gravel
- Kitty litter
- Lubricating oil
- Metal
- Nail polish remover, acetone
- Paints, varnishes, paint thinner or additives
- Plastic
- Plastic bags, pet waste bags
- Rope, string, fishing line
- Sand
- Sanitary napkins, tampons or applicators
- Seafood shells
- Socks, rags or cloths
- Storm water runoff or roof downspouts
- Strong chemicals (acids or alkaline)
- Wipes - personal, cleaning, cosmetic or baby wipes (even if labeled "flushable")

Repair and Corrective Service Costs

Many service calls have been made to unclog grinder pumps which have not been utilized properly. **Costs for excessive service calls or abuse of any kind are not included in the sewer rates and it is therefore necessary to recover all costs associated with repairs to grinder pumps due to improper use. Please expect to be billed for corrective service calls including all pumping services, materials, and labor expenses.**

Do not tamper with your tank.

Do not attempt to enter your tank or remove the green access lid. The septic environment creates gases that can cause illness. If your lid has been removed or damaged, contact a qualified contractor to repair it in a timely manner.

Know your circuit breakers and location of your service panel.

Know which circuit breaker in your house supplies power to your Grinder pump so that you don't accidentally turn it off. It is your responsibility to provide electric power to the Grinder system. Be aware of the location of the grey electrical service control panel outside of your building, but don't tamper with it!

Know what to do in case of a power failure.

If there is a power failure which affects your home your grinder pump will also lose power and be unable to operate. The grinder pump tank has a small amount of holding capacity, but interior water use should be severely limited until power has been restored. The TWWD cannot guarantee backup generator power during prolonged outages, and it is highly recommended the homeowner have a backup generator to run the grinder pump.

People with Town water service will still have water during power outages. However, if the grinder pump is without power water use during the outage can lead to overflows and sewage back up into the home which is the responsibility of the homeowner. Storage capacity in the pump tank is limited depending on the level in



the tank when the power went out. A maximum of 26 flushes until the sewer line backs up using a low flow toilet (1.6 gallon/flush) or 11 flushes, respectively with older toilets (3.6 gallon/flush). Acts such as showering are not advised. It is suggested that you have an understanding of your specific pump system's capacity to avoid sewer spills or back-ups. Once the power comes back on the alarm should clear within 5 to 10 minutes. If an alarm condition does not clear itself after 15 minutes, please call FR Mahoney at **508-765-0051**.

Know what to do in case of a Grinder System failure.

In the event that a grinder system fails, an alarm on the control box sounds an audible alarm as well as a red light that will illuminate. During an alarm condition, please limit your water usage until repairs have been made and follow the steps below.

DO NOT ATTEMPT TO REPAIR THE UNIT YOURSELF



To silence a Grinder System alarm.

E-One Systems: To silence the alarm, push the silence button on the bottom of the panel. Sometimes the condition will resolve itself; or if the unit is without power, it may require a tripped electrical breaker to be reset.

If the alarm light is still active after an hour, call FR Mahoney at **508-765-0051**.

If the alarm sounded and the system subsequently cleared itself, you should consider what caused this to happen. Examples: Did my power just come back on after an extended outage? Or was there an excessive amount of water sent to the house drain in a short period of time?

If you notice any irregularity with the unit, such as the alarm sounding frequently, then contact the number above.

If you have an alarm:

Your grinder pump is designed to produce an alarm signal in the event of a high-water level in the pump basin. If there is a grinder pump failure, the tank which contains the pump will become too full. You should:

- Check the 30 amp breaker in your home that controls the grinder pump panel control box. If the breaker is tripped, reset the breaker once. If the problem persists, please contact us at the number listed below. In the event our technician determines the problem is either the breaker, and/or an electrical issue in the home, it is the homeowner's responsibility to retain a licensed electrician.
- Discontinue water use to prevent overflows and sewage backups into your home. Wait fifteen (15) minutes before taking further action. A high level will sometimes cause the alarm to come on. This situation is often self-correcting, and the tank will automatically be pumped down.
- If fifteen (15) minutes have passed and the alarm light is still on, or if you continue to get an alarm during the next few pump cycles, please call **508-765-0051**.
- Never attempt to open the tank cover, the control panel/alarm unit or any other components of the grinder pump system.
- Our technicians will repair the grinder pump or advise you if there is a problem with your homes electrical service, which is your responsibility to have repaired.
- If the horn is sounding on the alarm panel you may silence it by pushing the button located underneath the panel. The alarm will silence but you must still report the problem. The warning light will remain on.

- Absent any extraordinary circumstances, pumps that fail after dark will be changed out the next morning beginning at 7:30 a.m.
- Blockages or pipe breaks that occur between the home and the E-1 housing are the responsibility of the homeowner. The TWWD is responsible for the E-1 housing out to the sewer main.
- If you observe an alarm, you should call for service. Do not ignore intermittent alarms. Intermittent alarms are a sign of pump wear and should be attended to promptly. Doing so may avoid more costly repairs later.

If you go on vacation for a length of time:

Flush the system before you go away. Run clean water into the until the pump activates and runs for at least three minutes. Turn off the water and allow the grinder pump to run until it shuts off automatically. If you have a duplex unit (two pumps), special attention must be taken to ensure that both pumps turn on when water is added to the tank. If you are going away for the season, please call 401-625-6701 for instructions and leave the power to the unit on, there is a very small resistance heater in the pump core to keep moisture from becoming a problem.

Storm Preparation:

If a major storm is predicted, prepare as follows:

- Stake out the pump housing before any large snow event.
- If you have a generator, make sure it is in working condition and has sufficient fuel available.
- Once the storm comes try and clear your pump cover outside as this will reduce down time if an emergency repair is needed. If a repair is needed it is the responsibility of the homeowner to clear a path to the pump not the TWWD.
- While you still have power run the water in your home until you hear the pump kick on. Once you hear the pump running shut off all water including laundry.
- You will now have an estimated 40 to 50 gallons of storage should you lose power.
- Once this storage is used up the system will start to back up to the house or overflow to the ground. If you overflow to the ground, then the pump will suffer damage as a result.

Call before you dig:

At least 48 hours before digging near the pump chamber control panel or the discharge pipe contact the TWWD at 401-625-6701. If you do accidentally break any pipeline or compromise the power wiring call **401-625-6701. Immediately minimize use of water in the house if this occurs.**

On your property, be aware ...

- Do not touch the valves.
- Do not turn off the power to the pump.
- Do not block the vent on the pump station.
- Do not cover the pump station lid or allow stormwater to flow towards the unit.

Modifications to your home (such as installing a spa or swimming pool or extending the house over or near the unit or discharge pipe) may affect the system. Ensure access is available to the pump station at all times. Keep plant growth and other debris away from the unit and the control panel.



Riverside Drive Area Grinder Pump Project

BACKGROUND INFORMATION



The use of low-pressure sewers has resulted in the provision of sewer service in many areas where gravity sewers would have been either physically impossible or considerably more expensive in terms of both resources and environmental damage.

In order to provide you with suitable wastewater disposal, your home is served by a low-pressure sewer system. The key element in this system is an Environment One grinder pump. The tank collects all solid materials and effluent from the house. The solid materials are then ground to a small size suitable for pumping as a slurry with the effluent water. The grinder pump generates

sufficient pressure to pump this slurry from your home to the wastewater treatment receiving line and/or disposal plant.

What is a Grinder Pump and how does it work?

As its name suggests, the grinder pump grinds up any solids so that they can be pumped into the TWWD sewer system. Waste enters the unit through a 4-inch PVC house connection and is pumped out through a 1 1/2 -inch PVC pressure line. The grinder pump also has a 60-gallon holding tank which stores the waste. As a volume of new waste enters the tank, the same volume of stored waste is pumped out. This prevents the waste from going septic.

Why do I need a Grinder Pump?

Grinder pumps are used to provide sewer service to areas that cannot be serviced by a gravity sewer. Most often this is due to topographic elevation issues but could also be for economic or environmental reasons.

With a gravity sewer, the waste flows by gravity in a pipe from a higher elevation to a lower elevation. This requires that the topography of the land provide for enough change in elevation in the pipe and enough ground cover to allow the waste to flow downhill. The same principle holds for a gravity house connection. The waste pipe exiting a house must be of a slightly higher elevation than the sewer main in the street so that the waste leaving the house will flow downhill toward the main.

Low-pressure sewers are used when it is not possible or practical to carry waste by gravity. Low-pressure sewers are effective in low-lying areas because they pump the waste from the lower areas into a gravity line or a pump station. Likewise, a pressure house connection uses the grinder pump to pump waste from the house into a low-pressure sewer line or sometimes directly into a gravity line. Houses at the bottom of a hill at the end of a dead-end street are good candidates for a grinder pump, as are houses set below the road at the bottom of a slope.

Funding

Funding for this project was provided by the US Department of Agriculture Rural Department and the Rhode Island Department of Environmental Management via the Narragansett Bay & Watershed Restoration Fund and the US Environmental Protection Agency Non-Point Source Management Program and the Rhode Island Infrastructure Bank.



E/One Extreme Series
Grinder Pump