

## Operation and Maintenance

## **E-Z Treat Sand/Media Filter**

1-703-753-4770

**E-Z Set Company** requires regular inspection and maintenance of the E-Z Treat Re-Circulating Sand/Media Filter, as a condition of purchase and ongoing operation compliance. The mandatory service contract will include a performance based system inspection. The service provider must be trained and certified by E-Z Set Company.

All inspection and maintenance reports must be forward, along with any additional documentation, to E-Z Set Company, the local authorized E-Z Treat Dealer and all required or designated regulatory agencies.

The following is a list of the routine maintenance and cleaning procedures that are required by E-Z Set Company. Failure to perform the required system maintenance could reduce the desired performance of the system and will void the warranty on the E-Z Treat Sand Filter System.

### **Semi-annual inspections the first year of operations and annual inspections thereafter.**

E-Z Treat Re-Circulating Sand/Media Filter Model # 0600  
Capacity of Model #0600 - 700 GPD Residential Strength Effluent

E-Z Treat Re-Circulating Sand/Media Filter Model # 1200  
Capacity of Model #1200 – 1400 GPD Residential Strength Effluent

### **Septic Tank**

The septic and re-circulation tank shall be inspected annually to ensure they are operating properly. Remove the access covers over the tank openings to perform the inspection.

1. Verify the lid and riser assemblies are watertight. Check for any damaged, water weeping marks, holes or cracks. The system must remain watertight to perform properly.
2. Remove, clean and replace the outlet effluent filter in accordance with the instructions provided by the effluent filter manufacturer.
3. Inspect the liquid level in the septic tank, it should be level with the bottom of the outlet pipe.
4. Inspect the effluent and scum layers in the septic tank. Look for oil or any other contaminants that are not normal.
5. Verify the tank has received its scheduled pumping and cleaning. Check the solids layer in each of the tanks. If the solids layer is excessive have the tank pumped.

### **Re-Circulation Tank**

The re-circulation tank shall be inspected annually to ensure it is operating properly. Remove the access covers over the tank openings to perform the inspection.

Verify that the lid and riser assemblies are watertight. Check for any damaged, water weeping marks, holes or cracks, the system must remain watertight to perform properly.

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### Re-Circulation Tank

1. Inspect the liquid level in the re-circulation tank, it should be level with the bottom of the outlet pipe.
2. Inspect the float by-pass valve. Manually start the re-circulation pump and observe the float ball valve, the ball should drop as the liquid in the re-circulation tank drops the effluent returning from the sand filter pod should flow back into the re-circulation tank and should not flow out the discharge pipe.
3. The spin filter is employed for removal of construction debris only, once the system has run for 3 normal re-circulation cycles, remove the cartridge from the spin filter following the instructions provided by the spin filter manufacturer. Discard the cartridge and **Do Not Re-Install a Filter Cartridge**.
4. Verify that all the re-circulation pump floats are in good condition, properly secured to the float bracket and are able to move freely within the re-circulation tank.
5. Observe the system as it re-circulates. Visually verify all flows thru the system.

### Control Panel/Pumps/Alarms

1. Check the functions of the E-Z Treat Sand Filter control panel.

Control: **Main Control** “On/Off Switch”

Function: Turns Power ON or OFF

Control: **System Setting Switch** “Manual ON” and “Auto On”

Function: “Manual ON” overrides all Float Switches and Time Clock Switches “Auto On” allows for normal operations dictated by the Time Clock and Float Switches.

Control: **Time Clock** “Minutes On” and “Minutes Off”

Function: Controls run time of re-circulation pump i.e. GPD re-circulated thru media

Control: **High and Low Water Alarm** “Alarm On”, “Alarm Auto” and “Alarm Silence”.

Function: “Alarm On” will manually turn on the audio/visual alarms. “Alarm Auto” is the normal operational setting and “Alarm Silence” turns off the alarms.

## Operation and Maintenance

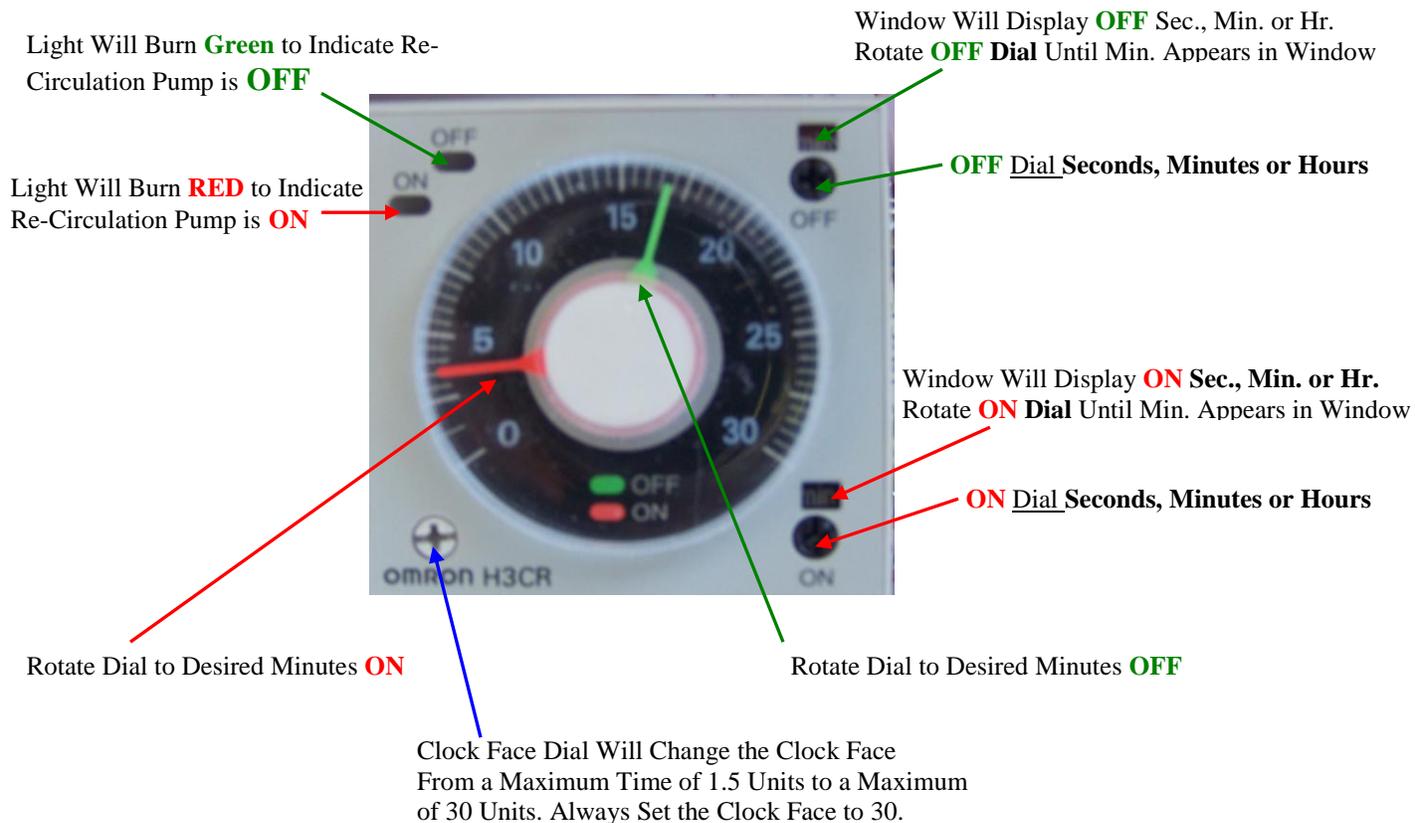
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Check re-circulation pump. Place the system in the manual mode by turning the re-circulation pump switch to “ON”. The re-circulation pump should begin to supply effluent to the spray nozzles in the treatment pod.

2. Check the voltage and motor amp draw and record the readings. If the readings are beyond the limits of the NEC recommendations, have an electrician check the main service line feeding the system control panel.
3. Place the system in the normal operating mode by turning the re-circulation pump switch to “AUTO”. Verify the Time Clock ON/OFF settings are the same as set at system start-up. Record those timer settings in the system log.
4. Verify the accuracy of the system ON/OFF Timer Clock. To accomplish this use a stop watch and verify the length of time the re-circulation pump is OFF then verify the time the re-circulation pump is ON, those times should match the ON/OFF Timer Clock settings in the control panel.

### Re-Circulation Pump Time Clock



5. Confirm the operation of the visual and audible “HIGH” and “LOW” water alarms. The control has an alarm switch clearly marked Alarm “ON”, Alarm “Auto” and Alarm “Silence” Place the Alarm Switch in the “ON” position, you will hear a loud buzzer and see a red flashing light. Move the switch to the Alarm” Silence” position the red light and buzzer will go dormant.
6. Once the alarms have been triggered return all settings to their original position of Alarm “AUTO” (If applicable, verify the operation of the telemetry unit by checking the alarm notations on the website.)
7. Verify the floats are operational by manually raising and lowering the floats to simulate the systems normal operation. Verify proper operation of “High Level Float” by lifting the float while the system Timer Clock is in the “OFF” time mode, the re-circulation pump should turn on over riding the “OFF” timer, the Visual and Audible alarms should activate. Return the float to its normal position the re-circulation pump will turn off. Reset the alarms and manually lower the “Low Water Float” with Timer Clock in the “ON’ mode, the re-circulation pump will turn off and the visual/audible alarms will activate. Return the float to the normal position and the re-circulation pump will run. Reset the Alarms.
8. Properly re-install and secure all tank accesses!

### **E-Z Treat Sand/Media Filter**

The E-Z Treat Sand Filter should be inspected to ensure it is operating properly. Remove the pod cover to perform this inspection.

1. Take a grab sample of the effluent check for:
  - a. Odor, the effluent may have an earthy or musty smell there should be no strong or offensive odors present.
  - b. Color, the effluent should be clear and absent of any color.
  - c. Solids, there should be no visible suspended solids
  - d. Solids, let sample set for 15 minutes, there should be no visible settling of solids.
  - e. Test the pH, it should measure 6.9 to 7.5

If there is odor, color or solids clean the media.

If the Ph is below 6.9 reduce the re-circulation rate by increasing to “Off” time on the Time Clock Control. Recheck the Ph in 90 days.

2. Observe the spray distribution nozzles during operation. If a nozzle appears to be clogged or if the spray pattern is not uniform, remove the nozzle and clean the nozzle using a pipe stem cleaning brush.

3. Record the pressure reading on the distribution manifold gauge. Compare that pressure to the pressure recorded at the previous inspection. The pressure should read 18 to 27 PSI.
  - a. Verify the pressure gauge on the spray distribution manifold is performing properly.
  - b. Verify the flow rate at the spray nozzles (it should be 1.75 to 2 GPM).
  - c. Verify the re-circulation pump is the same make and model pump that was specified for the original installation.
  - d. Verify the re-circulation pump is performing in accordance to the pump manufacturers' specifications including amp draw and flows at specific pressures.
  - e. If the pressure is above the prior recording or above the start up setting, open the ends of the distribution manifold lines, manually start the re-circulation pump and allow it to run for 5 minutes. This should flush out the spray distribution lines. If the pressure remains too high, after cleaning the spray nozzles and flushing the spray distribution lines, adjust the pressure to the desired PSI using the ball valve on the main spray distribution supply line.
  - f. If the pressure/flow is too low check for cracks, breaks or obstructions in the main distribution supply line.
4. Verify the treatment pod is properly draining by looking down the pod side wall vents, there should be no standing water, the bottom of the pod should be visible.
5. Visually inspect the surface of the treatment media for:
  - a. Holes, tears, loose seams
  - b. Foreign material
  - c. Black color on media (media should have light brown tint)
  - d. Excessive bio mat growth
  - e. Ponding
  - f. Clumping of the media.

**Note:** If any of these conditions exist the media needs to be cleaned or replaced.

6. Lift the corners of the media mattress and visually inspect the sides and bottom of the treatment media for:
  - a. Holes, tears, loose seams
  - b. Black color on media (media should have light brown tint)
  - c. Excessive bio mat growth
  - d. Clumping of the media.

**Note:** If any of these conditions exist the media needs to be cleaned or replaced.

### Cleaning the Filter Media

Depending upon influent strength and influent volumes, excessive biological growth can accumulate inside and on the surface of the media filter after 3 to 5 years of use. Cleaning of the media is a very simple and easy 10 step process.

**Step One:** Turn off power to any discharge pump.

**Step Two:** Remove the treatment pod cover and remove the spray distribution manifold.

**Step Three:** Connect wash down hose to the main spray distribution supply line.

**Step Four:** Manually turn on the re-circulation pump.

**Step Five:** Pressure wash the surface of the media mattress, the wash water will drain into the re-circulation tank and will be re-used as wash water.

**Step Six:** Roll the media mattress and wash the sides and bottom of the media mattress.

**Step Seven:** After the media is completely cleaned properly place the media mattress in the treatment pod.

**Step Eight:** Re-Install the spray distribution manifold.

**Step Nine:** Pump out and clean the Re-Circulation Tank removing all the wash down water. Pump out the Septic Tank.

**Step Ten:** Turn on power to discharge system and return the treatment system from Manual mode to Automatic mode.

### Replacement of Media Mattress

If the Filter Media is exposed to excessive concentrations of petroleum products, paints, glues, waxes etc. it will become necessary to replace the media. The replacement process it is a very fast and simple. Removing the media mattress should be performed by service agents that are trained and certified by E-Z Set.

**Step One:** Turn off power to recirculation pump, discharge pump and controls.

**Step Two:** Pump the Septic tank and re-circulation tank to assure continued service by residence during the replacement.

**Step Three:** Remove the spray distribution manifold.

**Step Four:** Lift the media mattress out of the filter pod.

**Step Five:** Place the mattress into the fiberglass Transport Container provided by E-Z Set Company. The Transport container is easily hauled in a pickup truck or on a light duty trailer.

**Step Six:** Install new Filter Media and replace distribution manifold.

**Step Seven:** Reset all system control settings to “AUTO” and turn the main power switch to the ON position.

Once the mattress is returned to E-Z Set the material will be sent to the nearest re-cycler to be reprocessed and sold on the open styrene market, disposal of this product is easy and economical.

## **Attention System Owner and Users**

**Caution: Do Not Open or Enter Any System Components for Any Reason. If a Problem Exists or You have Questions about Your System, Call Your Certified Services Provider.**

Once the E-Z Treat System is installed, a post-construction conference is recommended. This is an opportunity to familiarize the owner with the system. No attempt should be made to adjust any component of this system except by a Certified Operator.

**The E-Z Treat Sand/Media Filter System allows the homeowner to receive a high quality, reliable and economical wastewater system that protects the environment. As with any onsite wastewater treatment system, the homeowner should be familiar with basic guidelines which help the system achieve repetitive, reliable performance. Please do not hesitate to contact your certified operator or E-Z Set Company with any questions, concerns or comments about your E-Z Treat Sand/Media Filter.**

Users of the System.....Remember!

To assure proper performance of your E-Z Treat Re-Circulating Sand/Media Filter, you should avoid disposing of the following products into your septic tank:

- Oil & Grease (kitchen waste)
- Water Softener backwash
- Wax & resins
- Petroleum Products
- Paint & Paint Solvents
- Pesticides
- Condoms & sanitary napkins
- Toxic substances (Liquid Plumber, Drano, etc.)
- Non-Biodegradable products (cigarette butts, antibacterial wipes, etc.)
- Any kind of septic tank additive (Rid-X, etc.)

## **E-Z TREAT Sand/Media Filter**

**703-753-4770**

### ***Owner's Guidelines***

#### **Attention System Owners and Users**

Remember, As The Owner.....

- Keep heavy loads and traffic off of your onsite system components and drainfield
- Never drive cars or trucks within 10 feet of any system access lids
- Landscaping or future building projects should be planned with the drainfield and drainfield repair area in mind.
- Do not shovel or blow snow on top of your onsite wastewater system. This will temporarily limit access to your system and could overload and damage the system.
- Makes sure drainage from the house or around the property is carried away from your onsite system.
- **DO NOT OPEN OR ENTER ANY OF THE TREATMENT SYSTEM TANKS, SEPTIC GASSES CAN BE TOXIC, CAUSING SERIOUS INJURY OR DEATH!**