



## **System O))® Guide - User Guide (Use and Maintenance)**

**TSA - Advanced Secondary Treatment Level**  
**TT-P - Tertiary Treatment Level – Phosphorus Removal**  
**TT-UV - Tertiary Treatment Level - Disinfection**

### **Residential Field of Use**

System certified by the Bureau de Normalisation du Québec  
Standard CAN/BNQ 3680-910



## Important Safety Instructions

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It is extremely dangerous and even potentially fatal to enter a septic tank, a pumping station or any confined space that is part of a wastewater treatment system. This work must be performed by a person trained in confined space work and rescue procedures and equipped with the required equipment.

The degradation of organic matter by bacteria in wastewater results in the production of gases, such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and hydrogen sulphide (H<sub>2</sub>S). H<sub>2</sub>S in a pre-tank or in a pumping station can cause death within minutes. Therefore, this work must be carried out by a qualified person.

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Pipes and electrical wires are buried near your septic system. Please contact your installer or the DBO Expert Inc technical team. to take the necessary precautions before digging or undertaking excavation work in the vicinity of your septic system.

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Please ensure that the covers of the septic tank, pumping station, piezometers and sampling device are always in place and accessible at all times to facilitate periodic inspections and action when required (e. g. septic tank drains). The same applies to the distribution box.

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Caution: the UV lamp produces potentially dangerous radiation. Protect eyes and skin from exposure to UV radiation. Always disconnect the power supply from the UV disinfection device before replacing or cleaning the UV lamp or performing any maintenance on the device.

Do not look directly at the UV lamp and do not expose your skin to the light if the UV reactor is turned on. Permanent eye damage and skin burns may occur following exposure to UV rays. Safety glasses that block UV rays must be worn during installation, maintenance or whenever the lamp is to be switched on. Safety glasses to block UV rays are available from the manufacturers of protective tools.

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Advanced Enviro))Septic<sup>®</sup> pipes are covered by a limited manufacturer's warranty. Details of this coverage are provided in Section E.

The UV disinfection device is covered by a limited warranty offered by the manufacturer. Details of this coverage are presented in Section I.

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## 1. Introduction

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Congratulations, dear customer! You have chosen System O)) for your septic system. Your system has been designed to effectively treat the wastewater from your septic tank that comes your isolated residence. However, certain instructions must be followed in order to maintain its purification performance level and for you to be able to use it for many years to come.

We therefore invite you to read the content in this document and keep it on file for your reference if necessary.

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### **Purpose of this document**

This guide explains the rules of use and monitoring to ensure the proper function of a System O)) for treating domestic wastewater.

Please note that it is the owner's responsibility to ensure that his system is used correctly and according to the expected treatment capacity. It is also their responsibility to comply with the requirements of the Environment Quality Act and the Q-2, r. 22 regulation that covers the evacuation and the treatment of wastewater from isolated dwellings.

Note: Despite our efforts, it is possible that some errors may have ended up in the text. Feel free to contact the technical department of DBO Expert with any questions or comments. We are also happy to take your suggestions on improving this guide to make it easier to use.

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### **System O)) general data**

**Name :** System O)

**Model:**

- O-AES-TSA;
- O-AES-TT-P;
- O-AES-TT-UV.

**Type of treatment:** System O)) meets all requirements for the NQ 3680-910 standard for advanced secondary systems, tertiary systems with phosphorus removal and tertiary systems with disinfection depending on the type of system installed.

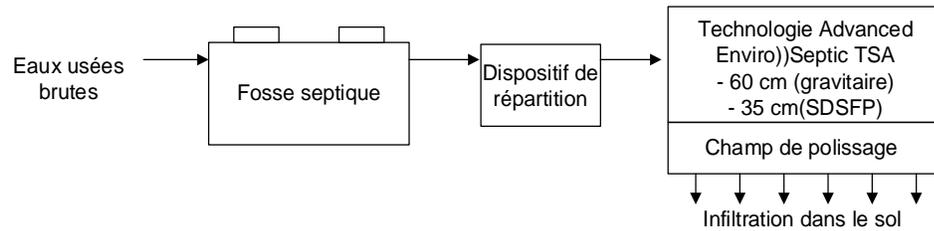
**Field of use:** Residential

This system cannot be used to treat water in order to make it drinkable. It is designed to treat domestic wastewater to an acceptable level so that it can be discharged into the environment in accordance with applicable standards stated in the Q-2, r. 22.

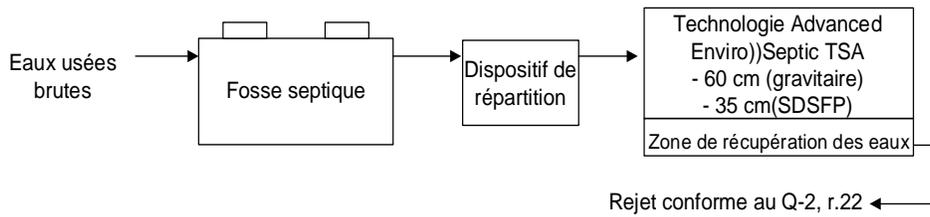
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**System O))  
processing  
chain**

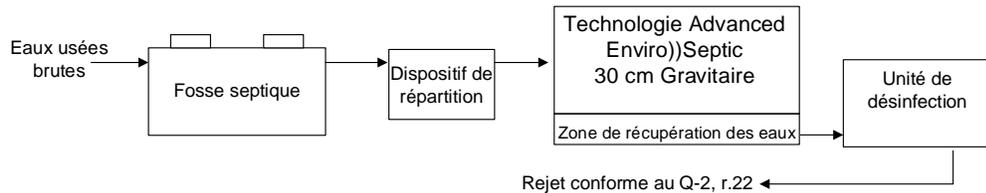
**1- TSA – Discharge by infiltration into the ground**



**2- TSA – Discharge following a system with a recovery zone**



**3- TT-UV – Discharge following a disinfection system**



**Nameplate**

Each treatment system is identified by a specific nameplate. This label, similar to the one shown in Figure 1, is installed in the cover of the sampling device access tube. The number at the bottom of the plate allows you to find the information relevant to this system.

The class of the system in place is indicated on the nameplate.

 <p><b>ADVANCED ENVIRO))SEPTIC</b></p> <p><small>Note : Le système de traitement Enviro-Septic doit être précédé d'une fosse septique certifiée ou d'un traitement primaire adéquat. / The Enviro-Septic system must be preceded by a certified septic tank or an appropriate primary treatment.</small></p>	<b>Modèle / Type :</b> System O))	  <b>Distributeur autorisé au Canada / DBO Expert inc. Canadian Authorized Distributor: (1-866-440-4975)</b>	
	<b>Classe de traitement / Class of treatment :</b>		<input type="checkbox"/> O- <input type="checkbox"/> AES-TSA-60 / NQ 3680-910 – Classe III / Class III
			<input type="checkbox"/> O- <input type="checkbox"/> AES-TSA-35 / NQ 3680-910 – Classe III / Class III
			<input type="checkbox"/> O- <input type="checkbox"/> AES-TT-UV-30 / NQ 3680-910 – Classe V / Class V
	<b>Les conduites AES sont fabriquées aux / The AES are Made in :</b> États-Unis / USA		
	<b>Par / by :</b> Presby Environmental, Inc, 143 Airport Road, Whitefield, NH, 03598		
	<b>Norme / Standard :</b> La conduite Advanced Enviro))Septic est utilisée pour réaliser une installation conforme à la norme NQ 3680-910/2000, Certif. N°890. / The Advanced Enviro))Septic pipe is used to realize a stand-alone wastewater treatment system complying with the NQ 3680-910/2000 standard, Certif. N°890.		
	<b>Capacité hydraulique / Hydraulic Capacity:</b> 126 litres par conduite Advanced Enviro))Septic / 126 litres per day per Advanced Enviro))Septic pipe		
	<b>No. de système / System number:</b> DBO-002001		

Figure 1- Nameplate

**Authorized installer**

The System O)) must be installed by an installer who has received the necessary training to obtain an authorized installer certificate from DBO Expert or one of its representatives. DBO Expert's customer service department is able to provide the names of installers who have been trained to do this work.

**Contact details for customer service and technical support**

Contact our customer service department if additional information is required. Here are the contact details to contact us :

Telephone : 1-866-440-4975 ou (819) 846-3642

Fax : (819) 846-2135

E-mail : [info@dboexpert.com](mailto:info@dboexpert.com)

Website : <http://systemo.ca/>

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## 2. Instructions for using System O))

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### Background

The use and maintenance of a System O)) is relatively simple. In general, using a reasonable amount of water in the home and following the rules below will ensure that you can use your installation without problems for many years to come.

For more details on this subject, we encourage you to consult the MSDECC website and more specifically the guide of good practices for owners of wastewater treatment systems. You will find that the following rules are essential to the proper function of all septic systems, regardless of the technology used.

In the following paragraphs, you will find the basic rules to follow in order to ensure the proper function of your System. To make it easier to understand, they are presented to you as things to do or not to do in each room of the house or outside it.

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### Wastewater volume

Large quantities of water leaving the house and going into a septic system within a short period of time have a negative impact on treatment efficiency and wastewater infiltration. A large quantity of water causes agitation in the pre-tank. A certain amount of sludge or scum may be resuspended in the water and then enter the Advanced Enviro))Septic pipes and the infiltration bed. Therefore, the frequency of this occurrence must be minimized.

You must therefore ensure that the volume of wastewater discharged to the pre-tank and System O)) is reasonable in relation to the total expected daily flow.

**If the use of the residence changes** from what it was when the system was built, be sure to contact a qualified person to ensure that your septic system has the capacity to treat and infiltrate the pollution loads and wastewater volumes that will then be generated.

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### In the bathroom

**You must :**

- Immediately repair any leaks coming from the faucet or toilet.
- Use a reasonable amount of toilet paper.

**You must not :**

- Use a tablet toilet disinfectant, whether placed in the toilet bowl or in the tank.
- Throw cigarette butts or medication in the toilet.

Throw tissues, paper towels or other personal hygiene products in the toilet.

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### In the kitchen

**You must:**

- Immediately repair any leaks in the faucet.
- Use dishwashing soap (or dishwasher soap) low in phosphate (0 à 5 %);
- Use only the amount of soap required to do the job. Please note that the quantity required is often less than that suggested by the manufacturer.

**You must not :**

- Use a waste shredder that would be connected to your septic system.
  - Place vegetables, meat, fats, oils, coffee beans or **any other non-related material** directly into your septic system.
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**For laundry****You must :**

- Use phosphate-free laundry soap. Preferably use liquid soap. If this is not possible, use rapidly biodegradable powdered soap.
  - Use only the amount of soap required to do the job. **Please note that the quantity required is often less than that suggested by the manufacturer.**
  - Minimize as much as possible the volume of water used for laundry according to the amount of clothes to be washed.
  - Spreading wash loads over the week rather than doing all the washing on the same day is also a recommended practice for any wastewater treatment system.
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**Elsewhere  
around the  
house****You must :**

- Remove drainage water from the site where Advanced Enviro))Septic pipes are installed.

**You must not:**

- Connect the outlet of the drinking water softening system (used for cleaning cycles) to the septic system.
  - Connect the outlet of pool filters, whirlpools or other devices discharging chlorine-treated water to the septic system.
  - Connect the outlet of gutters, drainage pipes or a sump pump to the septic system.
  - Discard solvents, paints, antifreeze, motor oils, floor waxes, carpet cleaners, pipe cleaners, or other toxic or flammable products in the septic system. Also, do not allow water from brushes or rollers that have been used to apply latex paint to flow to the septic system (latex paint contains elements that are harmful to the septic system).
  - Discard animal bedding, tea bags, ground coffee, egg shells, cigarette butts, paper towels, condoms, diapers or sanitary napkins in the septic system.
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**Chemical  
products for  
septic  
installations**

Your System O)) does not require any starting chemicals, cleaners or other additives. The bacteria that carry out the treatment are naturally present in the wastewater of an isolated residence. Any chemicals or additives added to the system may destroy these bacteria.

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**Aeration**

Good ventilation is essential for the proper function of the septic system. The vent(s) installed at the ends of the treatment system promote this aeration. It is important to ensure that the opening is not obstructed and that air can circulate freely at all times. Air enters the vent, flows through the rows of pipes and septic tank and then exits through the plumbing of the residence (or building) and the roof vent.

The owner must ensure that there is a vent on the roof and that the vent is clear at all times. When a pumping station is used, an additional bypass line or vent must be present to ensure the aerated circuit.

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**Motorized traffic and heavy vehicles**

**No heavy vehicles can be driven** over a septic system before, during or after its construction. The same applies to all motorized traffic. The efficiency of water drainage into the soil depends on the presence of natural soil that is uncompacted and unsaturated with water. The passage of heavy vehicles or motorized traffic closes the soil's natural pores, reducing its permeability and promoting water accumulation.

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**Vegetation**

The surface of the treatment system must be grass covered. The lawn should be cut regularly to encourage regrowth without the use of fertilizers. The vegetation cover contributes to the removal of nitrogen and phosphorus.

However, trees or other plants with taproots should not be planted near the treatment system (minimum distance of 3 metres).

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**Responsibilities of the owner**

The owner must:

- Use their System O)) according to the instructions presented in this user guide;
- **Have their septic tank emptied in accordance with the rules in force;**
- Record information regarding septic tank emptying and provide it to DBO Expert upon request;
- **Have the pre-filter, pumping station, low pressure distribution system or ratchet valve maintained as per the manufacturer's instructions and record the information in a logbook (if this equipment is part of the installation);**
- Ensure that the vent opening is clear;
- Ensure access at all times to System O)) (piezometer and sampler covers and to the vent(s), dephosphating unit and UV lamp);
- Comply with the requirements of applicable laws and regulations, particularly with respect to compliance with the discharge standards of the system;
- Periodically check the water level in the piezometers (see water level measurement procedure) or having this work performed by a qualified person.
- **Have an annual monitoring contract with DBO Expert or its representative as required by article 3.3 of the regulation Q-2, r. 22.**

**Qualified person**

The person qualified to perform the maintenance or follow-up of a System O)) is a person who has been trained by DBO Expert to perform a task associated with the System O)). For more information, contact our customer service department at 1-866-440-4975.

For the maintenance of pumping stations and low-pressure distribution systems, the owner must refer to the user guide produced by the manufacturer of these systems.

The septic tank must be emptied by a specialized company. Check with your municipality to find out which companies in your area are qualified to do this work.

### 3. System O)) / O-AES-TSA - Class III

#### Background

Liquids leaving the septic tank contain suspended solids that can promote premature deterioration of traditional septic systems. These suspended solids may be too numerous for the ability of bacteria to establish on the receiving soil. Poor water distribution can lead to the presence of anaerobic bacteria responsible for clogging the pores of the receiving soil. The operating mechanisms of the Advanced Enviro))Septic technology help to limit these risks and promote better septic system performance.

System O)) – TSA is a passive wastewater treatment technology. If properly installed, the system does not require any specific action to be taken during daily, intermittent use or after a prolonged absence.

#### System O)) - Class III general information

**Name :** System O))

**Model :** O-AES-TSA<sup>1</sup>

**Class and treatment type :** System O)) meets all the criteria of the standard NQ 3680-910 for Class III Treatment systems – Advanced Secondary Treatment

Class and Installation Type	Maximum Concentration in the Effluent		
	Total Suspended Solids TSS (mg/L)	Carbonaceous Biochemical Oxygen Demand over 5 days – BOD <sub>5</sub> C, (mg/L)	Fecal Coliform (CFU/100 ml)
III – Advanced Secondary Treatment	15	15	50 000
<b>Class III System O)) Performances (6-month Average)</b>			
III – Advanced Secondary Treatment	≤ 1	≤ 2	≤ 200

**Field of use :** Residential

The System O))– TSA is a passive system that facilitates the proliferation of bacteria responsible for wastewater treatment. It has two main components that are inseparable: the Advanced Enviro))Septic pipe rows and a layer of filter sand.

This system must be preceded by a septic tank and a wastewater distribution system. Treated water can be discharged directly to the ground, to the watercourse or to another tertiary treatment system depending on site conditions and discharge standards.

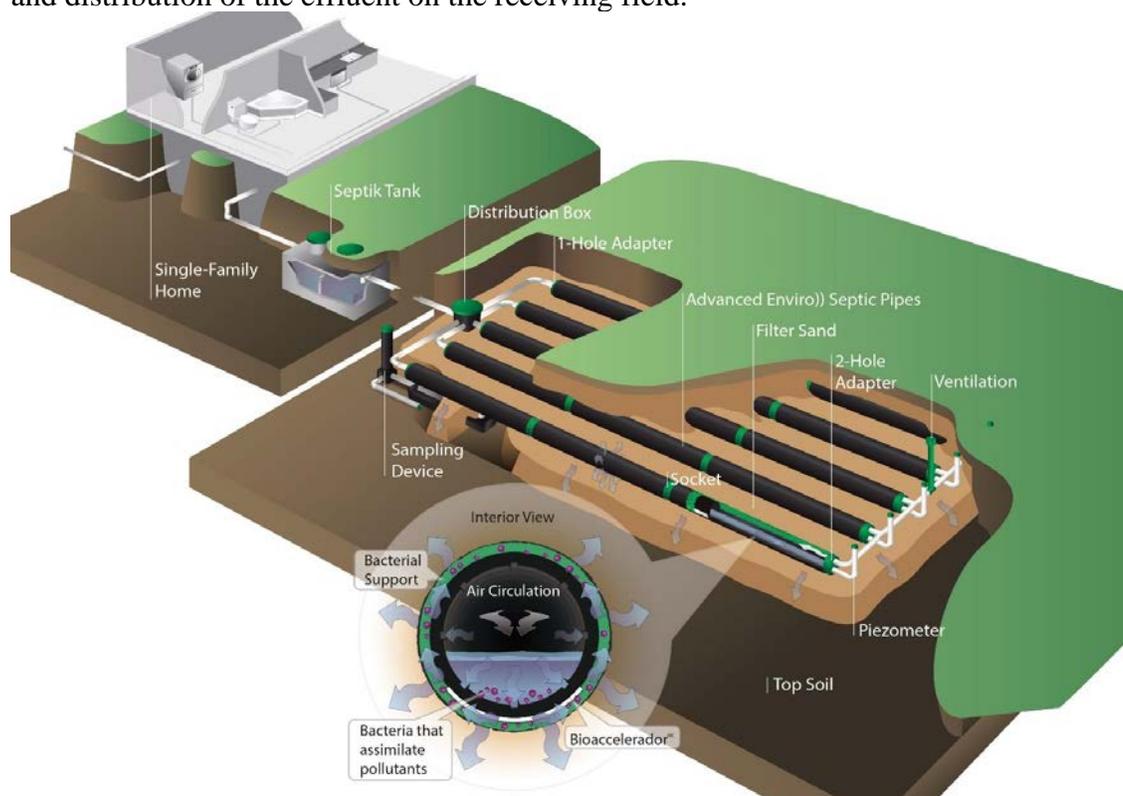
<sup>1</sup> The advanced secondary treatment model of System O)) – Class III is the O-AES-TSA. It is made out of Advanced Enviro))Septic pipes.

**System O)) –  
Class III  
function**

The Advanced Enviro)) Septic pipe rows and the filter sand in which they are installed allow wastewater to be treated and distributed on the receiving soil surface (polishing field or purifier element surface).

The pipes initially favour the separation of particles by flotation and settling. The water then drains through the perforations around the pipe and through the pores of the three synthetic media membranes that cover the pipe. These membranes facilitate the fixation of a microbial culture that promotes wastewater treatment and longitudinal distribution.

The layer of filter sand continues the treatment and facilitates the dispersion of water before it infiltrates the natural soil. As a result, System O)) combines both the treatment and distribution of the effluent on the receiving field.



**Figure 2 – System O)) – Classe III**

**System O)) –  
Class III  
Capacity**

The hydraulic capacity of the System O)) is a function of two elements :

- The number of pipes used to build the system.
- The drainage capacity of the soil on which the pipes are installed.

The system may also be limited by the capacity of the soil surface to allow infiltration and drainage. This value must be evaluated by the designer mandated to produce the plans and specifications for your septic system. It is therefore important to check with the designer to see if the soil capacity allows the maximum volume of water that can be treated by the installed pipes to infiltrate and completely evacuate the treated wastewater.

*1- Number of Advanced Enviro))Septic pipes – Isolated Residence*

Number of bedrooms	Minimum number of Advanced Enviro))Septic pipes (3.05m each)	Maximum hydraulic capacity (L/day)
1	5	540
2	9	1080
3	10	1260
4	12	1440
5	15	1800
6	18	2160

**Table 1 – Hydraulic capacity of the system as a function of the number of bedrooms in a isolated residence**

*1- Number of Advanced Enviro))Septic pipes – Other Buildings*

Maximum total daily flow rate (L/day)	Minimum number of Advanced Enviro))Septic pipes (3.05 m each)
<b>540</b>	<b>5</b>
810	7
<b>1080</b>	<b>9</b>
<b>1260</b>	<b>10</b>
<b>1440</b>	<b>12</b>
1620	14
<b>1800</b>	<b>15</b>
1960	16
<b>2160</b>	<b>18</b>
2280	19
2440	20
2600	21
2760	22
2920	24
3080	25
3240	26

**Table 2 – Hydraulic capacity of the system as a function of the number of pipes installed for another building**

Table 3 presents the normal characteristics for domestic wastewater.

Parameter	Units	Wastewater	Septic tank effluent
TSS	mg/L	237 – 600	50 - 90
CBOD <sub>5</sub>	mg/L	210 – 530	140 – 200
Fecal coliform	CFU/100mL	10 <sup>6</sup> – 10 <sup>10</sup>	10 <sup>3</sup> – 10 <sup>6</sup>

**Table 3 – Domestic wastewater**

As with any septic system, some attention must be paid to the nature of the wastewater being treated. It is important that system users comply with the instructions in this guide.

### Usage instructions

It provides a detailed list of do's and don'ts in and around the residence or building to be served. Failure to comply with these instructions may result in clogging or premature aging of the system. If a situation like this occurs, actions can be taken to regenerate the clogged pipes or to replace certain components when the damage is too severe.

The system is a passive wastewater treatment technology. If properly installed, your system does not require any specific action during sporadic use or prolonged absence.

### What to do if a problem arises?

If, during normal usage of the treatment system, any of the following phenomena are observed :

- Presence of abnormal odours in the residence, around the septic system or from drinking water sources;
- Abnormally wet ground, persistent puddles of water or odour around the location of the septic tank or System O)) – TSA;
- Backflow into toilets or other sanitary devices in the residence;
- Presence of abnormally abundant vegetation on and around the surface of the septic tank or System O)) – TSA;
- Flooding of the site where the System O)) – TSA is installed;
- Backfill erosion above or around System O)) – TSA;
- Pump station alarm if included as part of your installation...

...contact your installer or DBO Expert customer service at (819) 846-3642 and have the information about your system on hand.

**Caution: Please note** that the situations described above may occur on any septic system, whether it has been built with a System O)), another certified wastewater treatment technology or any other purifying element mentioned in the Q-2, r.22. When these problems occur, they are generally caused by a defective installation, leaking plumbing attached to the treatment system, extreme climatic or geological factors, or a flow of surface water to the septic system.

## Section A – Maintenance Program for Components

### Background

The System O)) – TSA requires no maintenance. In practice, it is more a question of periodically monitoring the system. This follow-up may eventually lead to some maintenance.

However, it should be noted that the septic tank, pre-filter, pumping station or distribution system may require more extensive maintenance depending on the regulations or guidelines of the manufacturer of these systems.

**Septic tank  
maintenance**

The septic tank preceding the System O)) – TSA must be emptied regularly. For more details on this subject, it is recommended to check the regulations or contact municipal authorities.

If the septic tank is not emptied regularly, an increasing amount of suspended solids and fats can leave the septic tank and be transported into the treatment system. The septic tank will no longer provide the necessary efficiency and System O)) – TSA could be affected. This is why it is necessary to periodically empty the septic tank.

At all times, the septic tank must be emptied by a professional using appropriate pumping equipment.

**It is the owner's responsibility to have his septic tank emptied in accordance with the applicable regulations. This work must always be done by a qualified person. It is very dangerous to enter a septic tank without first taking the necessary precautions.**

**Caution: The owner must ensure that the septic tank covers are properly installed at all times. An improperly installed cover can interfere with the proper function of the System O)) – TSA and is a potential source of danger.**

**Pre-filter**

The pre-filter is mandatory in all BNQ certified pre-tanks manufactured after 1 January 2009. It must be maintained according to the inspection and maintenance procedure provided by the manufacturer.

**It is very important to maintain the pre-filter regularly. If it is not cleaned regularly, there may be backflow of wastewater into the residence, blockage of air flow or an overflow of grease and suspended solids into the treatment system.**

**Distribution box and equalizers**

Under normal use, the distribution box of the septic system does not require adjustment. The initial adjustment and self-levelling ability (natural adjustment) of the equalizers maintain good water distribution in the Advanced Enviro))Septic pipe rows. However, a variation of more than 100 mm in the piezometers between the lowest and highest water levels during two consecutive measurements indicates that the equalizers should be adjusted. A qualified person must then make the adjustment.

If an adjustment is necessary, the technician must perform the following activities :

- Remove the cover from the distribution box;
- Remove the equalizers from the distribution lines and wash them with plenty of water to remove any silt build-up;
- Remove any sludge that may have accumulated in the bottom and walls of the distribution box;
- Replace the equalizers on the distribution line openings so that the adjustment dial is at the top;
- Turn the adjustment dial on each equalizer clockwise until the movable weir plates are in the highest position;
- Pour enough water into the box until water flows through the levellers;
- Once the water level has stabilized, using the water level as a reference, determine which opening is the lowest;
- Turn the knob of each of the other equalizers to level all openings to the same level as the initial lowest opening;
- Complete the adjustment by slowly adding water to ensure that all openings are at the same level;
- Repeat this step once or twice to ensure that you have obtained the correct level of distribution for all equalizers.

**Low Pressure Distribution System pipes**

During normal use, the Low Pressure Distribution System pipes don't require maintenance. The pipes are designed to maintain an even distribution of water in the rows of Advanced Enviro))Septic pipes. A variation of more than 100mm between the piezovents with the highest and lowest readings during 2 consecutive inspections indicate that an orifice might be clogged. The DBO Expert team should be contacted to take care of the imbalance.

**Advanced Enviro))Septic pipe rows**

During normal use, Advanced Enviro))Septic pipe rows do not require maintenance.

It is normal to find some fluctuation of the water level in the pipes. If, on the other hand, the water level reaches 230 mm, a regeneration of the System O)) should be considered. This procedure must be performed by a qualified person.

**Piezometers**

There is no maintenance to do on the piezometers. However, it must be ensured that the caps are in place at all times.

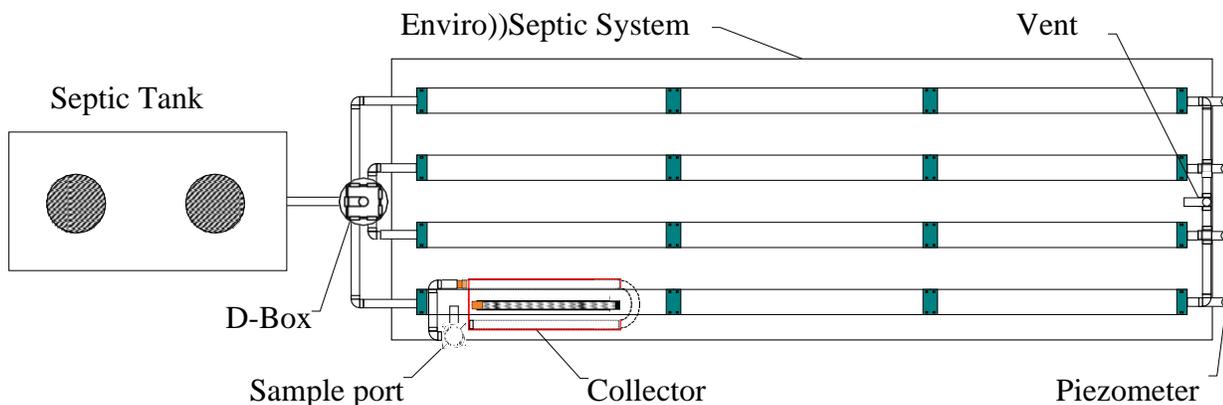
**Sampling device**

System O)) – TSA has a sampling well. A 200 mm diameter pipe terminated with a plug must appear above the ground, on the side of the rows near the end of the rows supplied with water from the septic tank (see figures 3 and 4) or near the distribution box.

The sampling device does not need to be maintained. However, it must be ensured that the cap remains in place and is held in place with a plastic clip.

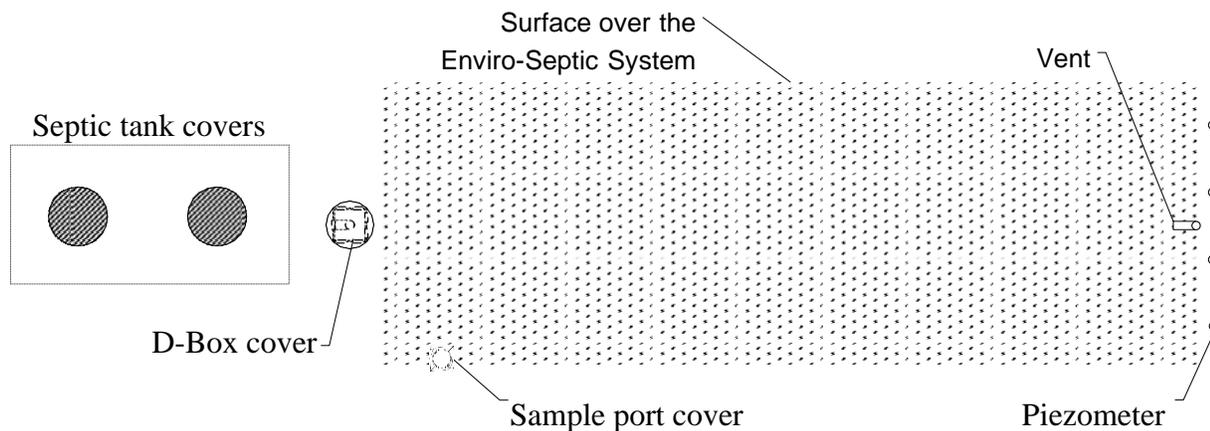
Sampling is a job that must be performed by a qualified person. For more details on how to use the sampling device, see the chapter on the sampling procedure.

**Components of System O)) – Class III installed in the ground**



**Figure 3**

### **Components of System O)) that Appear Above Ground**



**Figure 4**

**Note :** The position of the components may vary depending on the configuration installed. The position of the septic tank is indicated by a rectangle with solid lines. The position of the System O)) is represented by the large rectangle. These are not visible from the surface.

Only the vent and covers of the septic tank, distribution box, sampling device and piezometer(s) are visible above the ground surface.

If a pumping station is used, its cover will also be visible above ground level.

#### **Vent**

The vent requires no maintenance. However, the owner must ensure that there is no obstruction to air circulation. In winter, the pipe opening must be high enough so that the snow does not block the passage of air. At all times, there must also be a minimum difference of 3 meters between the inlet vent located at the end of the System O)) – TSA and the outlet vent generally located on the roof.

If a (shorter) summer vent is used, it must be replaced by the normal vent for the winter season, when snow accumulation could block the passage of air.

#### **Filter sand**

There is no maintenance needed for the filter sand during normal use of the System O)) – TSA.

#### **Pumping station or Low Pressure Distribution System**

In some cases, site constraints or water allocation needs require the use of a low pressure pumping station or distribution system. The owner is responsible for complying with the maintenance rules of the manufacturer of this equipment.

For a System O)) pumping station O-SP, refer to the guide “Pumping Station (Low Pressure Distribution System – LPDS)” available on our website.

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**System O)) –  
Class III  
backfill surface**

The surface of the backfill above System O)) – TSA must be covered with herbaceous vegetation. A slight slope should be given to the surface to encourage rainwater to runoff to the outside of the system. The lawn must also be cut regularly. Any indentation that may develop over time must be filled in to avoid any accumulation of water above the system and to prevent erosion.

If plants that have a taproot are installed on the treatment system, they must be removed as they could damage the pipes.

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**Maintenance  
summary table**

The table on the next page provides a summary of the maintenance to be done on each of the System O)) – TSA components. Maintenance tasks that cannot be performed by the owner must be performed by DBO Expert or a third party trained to perform this work.

The regular monitoring of System O)) – TSA is carried out within the framework of a monitoring contract to be concluded between the parties.

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**Table 4 - System O)) / O-AES-TSA - Classe III Components**

<b>Component</b>	<b>Function</b>	<b>Follow-up</b>	<b>Frequency</b>	<b>Who is responsible</b>
Pre-tank	Wastewater primary treatment	Periodic emptying	According to the applicable rules and regulations	Owner (the work needs to be a qualified person)
Pre-filter	Retention of solids larger than the maximum size of the openings in the filter.	According to the manufacturers directions.		
Repartition System 3 options A) Polylok distribution box and equalizers  B) Low Pressure Distribution System  C) Index Valve	Redistribute the water coming from the pre-tank between the rows of Advanced Enviro))Septic pipes.			
		A) According to the levels of water in the piezometers.	A) As needed	A) Owner (It is recommended that the work be done by a qualified person)
		A) According to the levels of water in the piezometers	A) As needed	A) Owner (Contact the DBO Expert technical team)
		C) According to the manufacturers directions.		
Rows of Advanced Enviro))Septic pipes	Distribute and treat wastewater	See piezometers		
Piezometers	Shows the amount of water in the rows of Advanced Enviro))Septic pipes	Measure the water level	Once or twice a year as a preventative measure, before emptying the pre-tank	Owner or qualified person <sup>2</sup>
Sampling Device	Verify the purification performance of the System O)) – Class III	Facultative	Facultative	Qualified person
Vent	Allows the passage of air in the System O)) – Class III	Verify that the opening isn't obstructed	As needed	Owner
Filter Sand	Completes the wastewater treatment and promotes the evacuation of the water	No		
Pumping station (optional)	Displacing the water towards the System O)) – Class III	According to the manufacturers directions Or According to the guide « Pumping Station (Low Pressure Distribution System – LPDS » for a System O))		

<sup>2</sup> Measuring the water level in the piezovents is a part of the follow-up contract with DBO Expert

## Section B – Component Inspection Procedure

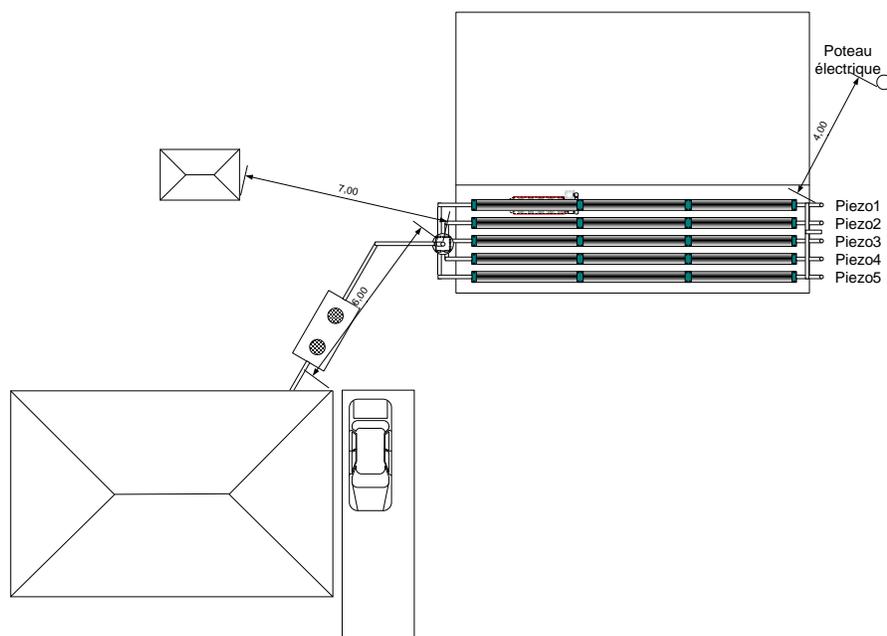
**Background** Although System O)) – TSA does not require official maintenance, periodic monitoring is required to verify that it is working like it should. The following paragraphs present the components to be verified.

**Documentation** It is important to consider the evolution of the septic installation. This is why a proper monitoring includes the compilation of data on the state of the system during the inspection. Appendix 1 provides a sheet that can be used for this.

**Installation diagram** It is important to prepare a diagram of the position of the septic components in the ground. This diagram should include the following elements as well as any other elements that could facilitate locating and identifying the system components:

- Septic tank covers;
- Cover of the pumping station if present;
- Location of the distribution box;
- Advanced Enviro))Septic;
- Location of the sampling device access tube;
- Location and numbering of piezometer openings;
- Vent.

Here is an example of a System O)) schematic.

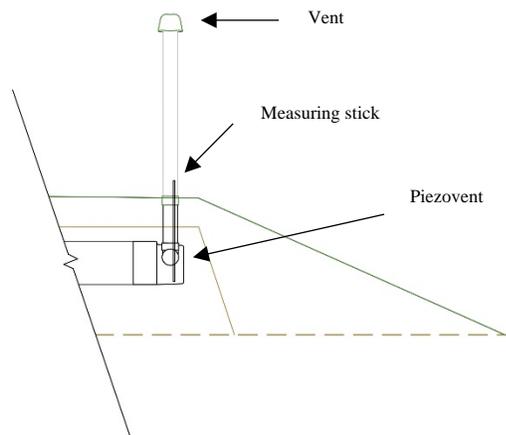


**Figure 5 – Example of a Layout of the Location**

<b>Precautions to take</b>	<p>The water in the septic tank, pipes and piezometers is wastewater. Resurgent water can also be contaminated. Therefore, certain precautions must be taken. The person inspecting a septic system must protect himself or herself properly. Work clothes, goggles and protective gloves are required. The use of disposable protective gloves is recommended. To avoid possible contamination, avoid direct contact with waste water.</p>
<b>Pre-tank</b>	<p>The pre-tank precedes the treatment system. It must be emptied frequently. A record of when the pre-tank is emptied must be kept by the owner.</p> <p>During an inspection:</p> <ul style="list-style-type: none"> <li>• Check that the pre-tank covers are in place and in good condition.</li> <li>• Check that runoff water cannot enter through the pre-tank openings.</li> <li>• Check that the soil above and around the pre-tank is stable and not spongy, which could indicate the presence of a leak.</li> </ul>
<b>Visual inspection</b>	<p>During the inspection of the treatment system :</p> <ul style="list-style-type: none"> <li>• Check that the soil is stable above and around the treatment system and covered with herbaceous vegetation;</li> <li>• Check that the lateral embankments have an acceptable slope (not too steep) to avoid potential erosion problems;</li> <li>• Determine if there are any warning signs of a problematic situation such as spongy or wet soil, presence of weeds, presence of resurgent water or soil erosion.</li> </ul> <p>It is suggested to take photos showing the condition of the septic system during the inspection and to keep these photos on file.</p>
<b>Measuring water level in the piezometers of the Advanced Enviro))Septic pipes</b>	<p>The water level in the pipe rows is measured from the piezometer(s) at the end of the System O)) – TSA.</p> <p><u>Water level measurement procedure :</u></p> <ol style="list-style-type: none"> <li>1- Remove the cap from the piezometer to be measured.</li> <li>2- Slide a wooden stick or a meter (measuring instrument) into the piezometer so that its end soaks in water that may be present at the bottom of the piezometer. Normally, a wooden stick of one meter long will be sufficient. If, on the other hand, your piezometers are longer, use a longer wooden rod. A string attached to the wooden rod can also be used in this case to lower and raise your measuring instrument into the piezometer.</li> <li>3- Using a ruler (or directly on the meter), determine the water level in the pipe by observing the height of the wet area. If reading is difficult, add a little fine sand to the wet rod before lowering it into the piezometer. The sand will be largely removed from the area that has soaked in water and will make it easier to read.</li> <li>4- Note the water level of the piezometer.</li> <li>5- Replace the cap on the piezometer</li> <li>6- Wipe the wet area on the wooden rod (or meter) with a disposable cloth.</li> </ol>

- 7- Repeat all steps for each piezometer.
- 8- Clean the meter, wooden stick or gloves if they are reusable. Place disposable gloves and cloths in a closed plastic bag.
- 9- Record the results obtained in the water level register in the piezometers (see Appendix 1).

Another option: Instead of a meter or wooden stick, the reading can also be taken with a pipette. The pipette is a small graduated tube used to collect a small amount of liquid. The technician lowers the pipette to the bottom of the piezometer. If there is water, it enters through the bottom opening. The technician then closes the other end with his thumb and removes the pipette from the piezometer to take the reading.



**Figure 6 – Measuring Water Level**

#### **Adjusting the equalizers in the distribution box**

If the water level measurement in the piezometers shows a variation of more than 100 mm between the lowest and highest water levels during measurements made during two consecutive visits, it is because the equalizers should be adjusted. Adjust according to the instructions in Section A.

#### **Condition of the Low Pressure Distribution pipes**

If measuring the water level in the piezometers shows a variation of more than 100mm between the piezometer with the highest water level and the piezometer with the lowest water level during two consecutive visits, it is possible that orifices could be obstructed. Contact DBO Expert, who will solve the imbalance.

**Measuring the water level in other piezometers**

Regulations may require the installation of one or more piezometers to measure the water table level. The designer can also request the installation of piezometers to check the behaviour of the groundwater table. These piezometers can be installed in the centre of the treatment system or on the outer perimeter of the treatment system.

If these piezometers are present, take the water level measurement in them and record the results on the follow-up sheet. The level in these piezometers should normally be at least 60 cm lower than the base of the System O)) – TSA in the case of very permeable soil and at least 30 cm in the case of permeable and very permeable soils.

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## Section C – Certificate of 20-Year Limited Warranty

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**PRESBY ENVIRONMENTAL, INC.**  
*INNOVATIVE SEPTIC TECHNOLOGIES*

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This 20-year limited warranty is provided by Presby Environmental Inc, a New Hampshire corporation established at 143 Airport Rd., Whitefield, New Hampshire, 03598 (hereinafter referred to as "Presby"). This warranty applies only to Presby Products sold directly by or through its authorized distributor DBO Expert Inc., whose mailing address is 501, chemin Giroux, Sherbrooke (Québec) J1C 0J8 (hereinafter referred to as "the distributor"). Presby Products" includes the Enviro-Septic underground spreading system and Presby Maze, as well as their accessories (sleeves, off-center adapters).

**Warranty:** Presby warrants Presby Products against any manufacturing defect for a period of 20 years from the date of installation, but at no time for a period of more than 21 years from the date of manufacture. A manufacturing defect means an imperfection or breakage in the Products caused by or occurring during the manufacturing process of the Products. This Warranty does not cover damage to the Products caused by, or resulting from, transportation, accident, misuse, abuse, neglect, storage, installation, repair, maintenance or use other than ordinary and normal use of the Products. This Warranty does not apply to damage to the Products caused by, or resulting from, a failure to install or use the Products in accordance with the distributor's instructions approved by Presby, or a failure to carefully inspect and maintain the Products.

**Warranty Registration, Claims Procedure and Corrective Action:** In order to give effect to this Warranty, the Monitoring Agreement must be completed and returned to the distributor within thirty (30) days of the purchase of the Products. Any claim under the Guarantee must be made in writing and forwarded to the distributor within thirty (30) days of becoming aware of the facts giving rise to such a claim. The distributor shall have the opportunity to inspect the Products, as they have been installed and shall have access to all records and information concerning the handling, storage and installation of the Products. Failure to comply with any of the above requirements will render the Guarantee null and void. If during the Warranty Period, the distributor and Presby conclude that there is indeed a defect in the Products, the sole and exclusive obligation of the distributor and Presby shall be, at their discretion, to either repair the Products or supply replacement Products. The distributor and Presby are under no obligation to remove the defective Products or install the replacement Products. The distributor and Presby shall not be liable for any other damage or claim related to the defective Products, including, without limitation, any claim for direct or incidental damage, loss of profits or legal costs.

**Exclusion:** The warranty given by the distributor and Presby hereunder excludes all other warranties, express or implied, including, but not limited to, any warranty of quality or fitness for a particular purpose. The application, interpretation and any dispute arising out of this Guarantee or any contract related to this Guarantee shall be governed by the laws applicable to the State of New Hampshire.

## 4. Disinfection Unit

### Background

The Salcor 3G UV disinfection unit is designed to operate for many years with minimal maintenance. Among other things, it is recommended by the manufacturer that the UV lamp be replaced at least every two years to ensure effective disinfection. It is also recommended to remove and maintain the UV lamp support frame every six months to ensure proper disinfection.

The Q-2, r. 22 regulation requires a minimum maintenance and a measurement of the performance two times a year.

### System O)) – Class V general data

**Name :** System O))

**Model :** O-AES-TT-UV

**Class and type of treatment :** The System O)) – Class V respects all the requirements of the standard NQ 3680-910 for Class V treatment systems (Tertiary treatment with disinfection).

**Table 5**

Class and Treatment Type	Maximum Concentration of the Effluent		
	Total Suspended Solids (mg/L)	Carbonaceous Biochemical Oxygen Demand over 5 days (mg/L)	Fecal Coliform (CFU/100mL)
Class V – Tertiary Treatment with Disinfection	≤ 15	≤ 15	≤ 200
System O)) - Class V performance (6 month average)			
Classe V – Tertiary Treatment with Disinfection	≤ 3	≤ 4.7	≤ 20

**Field of Use :** Residential

### What to do in the event of a problem?

If, during the normal use of the disinfection system, you observe one of the following phenomena:

- Flooding of the site where the UV treatment device is installed;
- Erosion of the backfill around the UV treatment device;
- Alarm of the UV radiation treatment device;
- The lamp life end indicator is activated on the UV reactor control panel.

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Contact your installer or DBO Expert customer service at 1-866-440-4975 and have the information about your system on hand.

---

**Before getting started**

Clear the area around the cover of the protection box or access shaft and remove the cover.

Check that the device indicator light indicates that the system is operating normally.

Turn off the device by removing the contact block from the disconnect switch or by closing the circuit breaker that supplies it to the UV reactor (located on the main electrical panel of the residence).

**Caution:** Ultraviolet (UV) safety glasses must be worn at all times during maintenance or whenever the lamp is on.

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## Section D – Cleaning Procedures for the UV Lamp Support Frame

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### 1-Electric Box

- Check that the device indicator light is now off.
- Remove the electrical box from the access line and set it aside.



**Figure 7**

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### 2- Removing and cleaning the aluminum frame

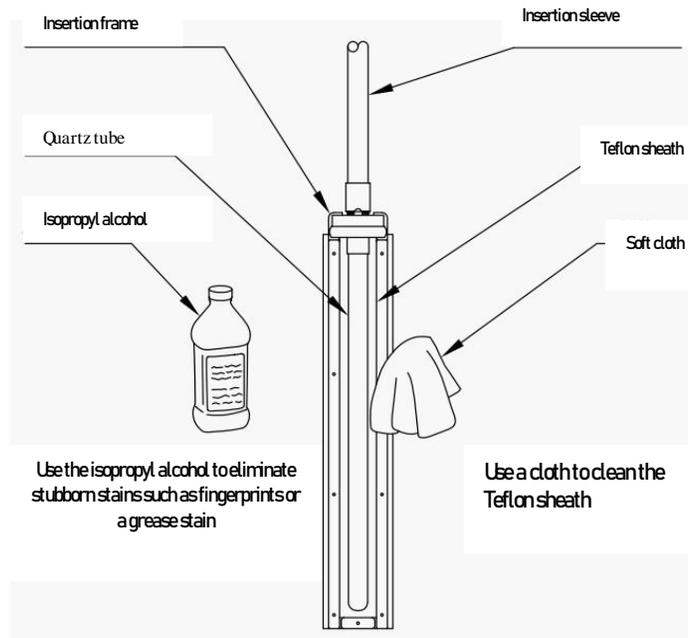
- Using the insertion sleeve, remove the support frame from the UV lamp.



**Figure 8 – Removing the UV lamp support frame**

- Check the Teflon sheath for damage or biological film development. If the sheath is damaged or if there is a biofilm between the sheath and the quartz tube, the support frame of the UV lamp must be replaced.
- If the Teflon sheath and frame are in good condition, use a soft, damp cloth to clean them thoroughly over the entire surface.
- Use isopropyl alcohol on a soft cloth to remove stubborn stains such as fingerprints or biofilm.

**Caution:** If the UV lamp needs to be replaced, proceed to the UV lamp replacement procedure (section H).



**Figure 9 – Cleaning the Teflon sheath**

### 3- Put the support frame back in place

- Use water or glycerine to lubricate the rubber seals on either side of the UV lamp support frame;
- Using the PVC insertion handle, gently insert the UV lamp support frame into the access pipe and disinfection chamber. Ensure that the positioning openings of the frame top plate are aligned with the pins of the disinfection chamber;
- Place the excess power cable in the access pipe around the insertion sleeve;
- Replace the electrical box;
- Replace the contact block of the disconnect box and close the box or return the main electrical panel circuit breaker into the «On » position;
- Check that the green lamp operation indicator light is illuminated;
- Replace the protective box cover.

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## Section E – Procedure for Replacing the UV Lamp

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### Background

At this point, steps 1 and 2 of the cleaning procedure for the UV lamp support frame must have been completed. Before closing the access chamber, the UV lamp can be replaced.

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### 4-Remplating the UV lamp

- Loosen the compression nut located on the upper part of the insertion handle. This compression nut holds the lamp cable in place. By loosening it, the power cable will be able to move freely;
- Remove the screwed-on ring to access the UV lamp;
- Carefully remove the UV lamp using the power cable;
- Disconnect the power cord from the UV lamp;
- Set aside the old UV lamp and dispose of it properly<sup>3</sup>.

**Caution: Do not come into contact with the surface of the new UV lamp. Use a soft, clean cloth to handle it.**

- Align the tab of the male connector of the new UV lamp connection cable with the alignment groove of the female connector of the power cable. Press both connectors together until the male connector is fully inserted into the female connector.
- Insert the UV lamp and power cable into the insertion sleeve and support frame until the base of the UV lamp is at the bottom of the quartz tube. Make sure that the UV lamp has reached the bottom of the quartz tube. Do not force the UV lamp into the Quartz tube, as it could damage the base of the tube. When the UV lamp is at the bottom of the Quartz tube, it should be completely inserted into it. Rotate the power cable to make it easier to pass if the UV lamp is misaligned.
- Lower the anti-stress compression nut to the end of the insertion sleeve, making sure to remove any excess power cable from the outside of the power sleeve without raising the UV lamp.
- Insert and tighten the screw-on ring and strain relief fitting to ensure a good seal.

**Proceed to step 3 of the cleaning procedure for the UV lamp support frame.**

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<sup>3</sup> UV lamps contain mercury, which is harmful to the environment. Recycle old UV lamps in a recognized recycling center.

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## Section F – Warranty

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### Salcor 3G warrant

#### **SALCOR INC**

P.O. Box 1090 Fallbrook, CA 92088-1090

Telephone: 760-731-0745

Fax: 760-731-2405

E-mail: jscruver@aol.com

#### **LIMITED WARRANTY**

#### **SALCOR MODEL 3G UV DISINFECTION UNIT**

This warranty is given by SALCOR Inc. for the benefit of the first purchaser of the product to which the warranty applies. The warranty applies only to those parts which are manufactured and delivered by SALCOR Inc.

The warranty is that the parts manufactured and delivered by SALCOR Inc. will be free from defects in the material or workmanship under normal use and service according to the Installation and Operating Instructions for the time specified below.

In the event of a failure of a part due to such a covered defect, SALCOR Inc. will repair or replace, at its option, the defective part at its factory located at 447 Ammunition Road, Suite E, Fallbrook, CA 92028. At the option of SALCOR Inc, repairs or replacement may be made at the site of equipment installation.

The part must be returned to the factory at the expense of the person claiming the benefit of the warranty unless SALCOR Inc. elects to repair or replace the defective part at the installed site.

The warranty shall be for a period of twenty four (24) months after the date of delivery of the product, or the specified service life of the product, whichever period is the shortest. All products for which warranty claims are filed must be returned as provided above to the factory within thirty (30) days from the date of the claimed malfunction in order for this warranty to be effective. The only entity authorized to do any warranty repairs is SALCOR Inc.

The repairs or replacement by SALCOR Inc. will be accomplished within twenty (20) days from receipt of the defective parts at the factory.

This warranty is expressed in lieu of all other warranties, expressed or implied, including the implied warranty of fitness for a particular purpose, and of all other obligations or liabilities on the part of SALCOR Inc., and it neither assumes nor authorizes any other persons to assume for SALCOR Inc. any other liabilities in connection with the sale of the products.

This warranty does not cover parts of products made by others, or products or any part thereof which have been repaired or altered, except by SALCOR Inc., which shall have been subjected to misuses, negligence, or accident.

SALCOR Inc. shall not be liable for damage or delay suffered by the purchaser regardless of whether such damages are general, special, or consequential in nature whether caused by defective material or workmanship, or otherwise, or whether caused by SALCOR Inc. negligence, regardless of degree.

## 5. Method of Collecting and Evaluating Samples

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### Background

The System O)) treatment system has a sampling device that can be used to recover treated water for analysis. The following paragraphs describe how to sample system water.

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### Required material

The following is a list of elements to be considered in order to facilitate sampling the treated water from the System O)) sampling device :

- Sampler equipped with a peristaltic pump and a water intake pipe equipped with a strainer;
  - Flashlight for a clear view of the bottom of the sampling well;
  - Cooler and laboratory containers for collecting samples;
  - Container that is 100 mm in diameter and 125 mm tall, installed at the end of a pole, at the height required for the top of the container to reach just below the supply pipe invert when the rod touches the bottom of the well. The container must be clean;
  - Bottles to recover the water that will be analyzed in the laboratory;
  - Cooler with ice or ice packs to keep samples below 11 degrees Celsius.
- 

### Cleaning equipment

The cleanliness of the equipment used for sampling is very important. All containers, piping and strainer used to take samples must be cleaned before the sampling campaign. They must then be handled in such a way as to avoid any contamination. The recommended cleaning process is as follows :

- Initial rinse with water
  - Brushing surfaces with water and phosphate-free detergent.
  - Three rinses with tap water to remove detergent.
  - Two rinsings with purified water.
- 

### Conserving samples

Once collected, samples should be kept at 4 to 11°C. If they cannot be delivered to the laboratory on the same day as the sample, store them in the refrigerator at about 4°C.

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### Sampling procedure

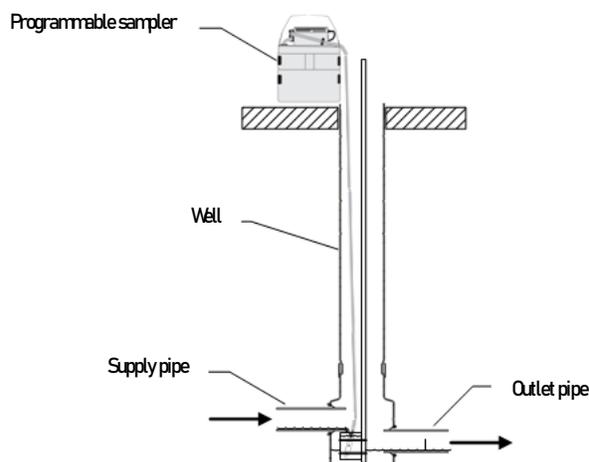
- Remove the plastic seal from the sample well cover.
- Remove the sample well cover..

Note: If there is water accumulated in the sampling well above the infiltration pipe, it is likely that the sand around the infiltration pipe is 100% saturated with water. This is a sign that the flow of treated water exceeds the capacity to evacuate the soil or that the water table level is above the level of the receiving soil. In both cases, hydraulic equilibrium must first be restored before sampling.

- Place the strainer connected to the sampler's peristaltic pump at the bottom of the container where the water will be collected.
- Place the container and strainer in the bottom of the sampling well so that any new water flow from the sampling device falls into the container. The overflow must then overflow from the container and fall back to the bottom of the well to evacuate.
- Prepare and program the sampler to recover the water required for analysis.
- Adequately protect the sampler from poor weather for the duration of sample collection.
- Once the water from the samples has been collected, filter the water through a 0.25 mm screen to remove any large sediment particles that may have separated from the walls of the sampling device. This sieve is used to obtain a representative result. It is less constraining than the 100 mm of sand that the water would have passed through to the receiving soil surface if it had not been intercepted by the sampling device.
- Pour the filtrate into the containers provided by the laboratory.
- Place the test containers in the cooler to keep them cool.
- Empty the liquid not required into the sampling well or into a piezometer connected to one of the rows of pipes.
- Replace the sampling device cover and place a plastic seal to replace the one that has been removed.
- Deliver samples quickly to the laboratory.
- Be sure to leave the premises in their original condition.

### Installing sampling equipment

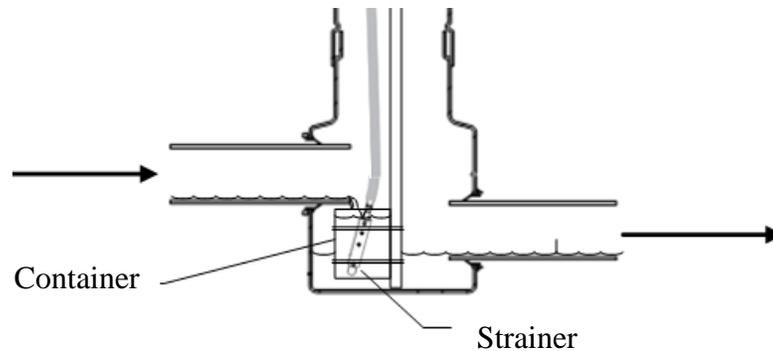
Figure 13 shows an example of how to install sampling equipment.



**Figure 10**

### Container and strainer

Figure 14 shows the position of the container and the strainer to collect some of the water collected.



**Figure 11**

**Visual and olfactory techniques for evaluating the effluent**

If System O)) is operating normally, the effluent collected from the sampler must be light or slightly coloured (yellowish, brownish). In addition, it must be relatively translucent. If it gives off an odour, it should be slight.

Visual evaluation

Place the sample in a container with translucent walls. Place this container against a white surface such as a sheet of paper. Observe the visual appearance of the sample through the wall of the container. If the effluent is dark in colour or shows high turbidity, this indicates that the treatment system is not operating normally.

Olfactory evaluation

Holding the container open with your hand, make a slight circular motion in the horizontal plane so that the liquid rotates inside the container. If an odour of ammonia (pungent and pungent odour), hydrogen sulphide (rotten eggs) or any other strong odour is detected, it is a sign that the system is not working normally.

If any of the signs of a potential problem are present, test for CBOD<sub>5</sub>, TSS and fecal coliforms.

**Evaluation of the effluent – TSS, CBOD<sub>5</sub> and fecal coliforms**

Collected samples must be placed in specially designed containers and shipped to an accredited laboratory in accordance with approved storage methods. The effluent quality must meet the expectations of the advanced secondary treatment level, tertiary treatment with dephosphatation or tertiary disinfection treatment depending on the type of System O)) installed.

## Appendix 1- Annual Monitoring Report



### Rapport de suivi annuel 2009 - Feuille de relève – Régie interne

**Client :** Monsieur Dominic Côté  
(Hélène Blackburn)  
23, chemin de l'Oratoire  
Lac-Beaulieu, (Québec)  
J3Z 1H1

Anglophone : Non  
Tél. : 819-864-2344  
Bureau : 819-939-1207  
Chalet :  
Cell :  
Courriel :

#### Système Enviro-Septic :

Date d'installation : 4/29/2009  
Type de système : TSA  
Type d'évacuation :  
Position :  
Mode de distribution : Boite distribution  
Type de bâtiment :  
Nombre de CC : 3

Nombre de rangées : 5  
Nombre de conduites : 15  
Débit total quotidien (L/d) :  
Date de la dernière vidange de la fosse septique :

Excavateur : Ent. Gaston Clavet inc  
Concepteur :

Remarque :

#### Informations contrat :

No. Client : 1200 (cn)

Contrat signé reçu :  
Refus : Non

payé :  
mode de paiement :

<u>Piézomètre</u>	<u>No 1</u>	<u>No 2</u>	<u>No 3</u>	<u>No 4</u>	<u>No 5</u>	<u>No 6</u>	<u>No 7</u>	<u>No 8</u>	<u>No 9</u>
<u>2007</u>									
<u>2008</u>									
<u>2009</u>									

Le technicien doit se placer dos à la boîte de distribution, par conséquent faire face aux piézomètres. Le piézomètre no 1 est celui situé à l'extrême gauche, et ainsi de suite de gauche à droite.

Niveau d'eau dans échantillonneur : \_\_\_\_\_ (mm)      Bouchon(s) cassé(s) ou manquant(s) : \_\_\_\_\_

No sceau : \_\_\_\_\_

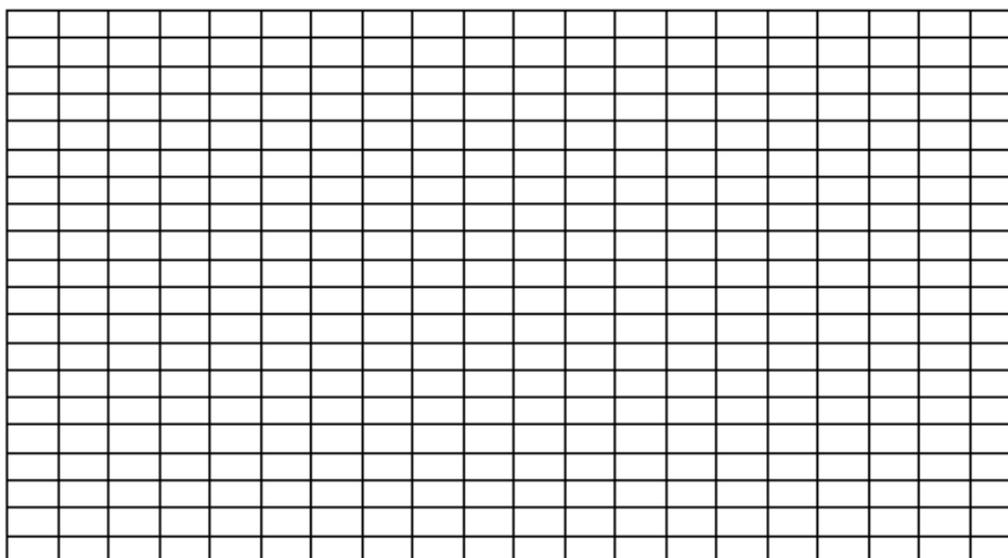
Prise de photo : \_\_\_\_\_      Propriétaires présents sur place : \_\_\_\_\_

No client : 1153

**Inspection:**

- Végétation :  OK  
 Système non recouvert de gazon.  
 Présence de plantes nuisibles à proximité.
- Odeur :  À l'évent d'entrée       À l'évent de sortie
- Évent :  Il n'y a pas d'évent sur le toit.  
 Différentiel de 3 m non respecté  
 Dimension de l'évent de toiture \_\_\_\_\_ po

**Schéma de l'installation (1 carré = 1 m) :**



**Notes additionnelles :**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date de la visite : \_\_\_\_\_ 2009      No accroche-porte : \_\_\_\_\_

Heure de la visite : \_\_\_\_\_ AM/PM

Conditions météorologiques :       soleil       pluie

Météo des derniers jours : \_\_\_\_\_





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## ***Appendix 4 – Pre-Filter***

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### **Background**

The outlet of a BNQ certified prefabricated pre-tank must be equipped with a pre-filter.

Although the pre-filter is a device that at first glance constitutes an improvement to the treatment chain, it also involves certain constraints that the designer, installer and owner of a facility must be aware of.

All pre-tanks manufactured after 1 January 2009 require a pre-filter.

---

### **Air passage**

The shape of the pre-filter varies from one manufacturer to another. One of the most important parameters is the ability of the filter to retain all particles that exceed a certain diameter (two categories: 1.5 and 3 mm in diameter).

Any infiltration bed takes advantage of the presence of air to feed the bacteria in the clogged layer. One way to increase the amount of available air is to use a vent at the end of the absorption bed to create a ventilated circuit between the absorption bed and the roof of the building being served.

As this aerated circuit passes through the septic tank, the air must also pass through the pre-filter. This is why the designer and installer should choose a septic tank equipped with a pre-filter that allows air to pass through.

In Québec, there are the main pre-filters used by pre-tank manufacturers. The following table presents the recommended models to be used with System O)). These are suggested because they allow air to pass between the System O)) and the pre-tank. If you plan to use a pre-tank equipped with another type of filter, please contact DBO Expert's technical team to verify that the pre-filter is acceptable.

---

**Table 6**

<b>Pre-filter</b>	<b>Recommended</b>
Polylok PI-122	Yes
PT Aqua ETF-080	Yes, but no longer available
Tuf-Tite EF-6	No
Tuf-Tite EF-6COMBO-V	Yes

**Maintenance**

The main function of the pre-filter is to retain particles over a certain size in the pre-tank. Like its name indicates, it uses a filter that varies from product to product. These filters offer a surface on which bacteria can proliferate and organic materials can accumulate.

Overtime this accumulation of organic material can build up and block the filter which causes the water level inside the pre-tank to rise. If the situation persists, the water level can rise enough to allow the grease and suspended solids that are usually contained in the pre-tank to flow over the top of the pre-filter and into the System O)).

This situation can have a negative effect on the lifespan of the treatment system, which is why **the pre-filter needs to be regularly maintained**. Cleaning the pre-filter every 6 months eliminates the risk of it clogging.



[www.dboexpert.com](http://www.dboexpert.com)  
(866) 440-4975  
[info@dboexpert.com](mailto:info@dboexpert.com)