

# DpEC Self-Cleaning Phosphorus Removal Unit

## Owner's Manual - Quebec

*Congratulations on your purchase of a **DpEC Self-Cleaning Phosphorus Removal Unit** from **Premier Tech Aqua (PTA)**, which may be followed or not by a **Sand Filter Kit** from PTA. With the **DpEC Self-Cleaning Phosphorus Removal Unit**, you have wisely chosen to protect your health and your environment.*

*The **DpEC Self-Cleaning Phosphorus Removal Unit**, a system consisting of a **Primary Reactor** and an **Electrocoagulation Unit (EC Unit)**, is designed to remove phosphorus from wastewater. The DpEC is certified according to the **NQ 3680-910** and **CAN/BNQ 3680-600** standards. This system may be followed by either an **Ecoflo® Biofilter**, which may be combined or not with a **DIUV Self-Cleaning Disinfection Unit** or a **Sand Filter Kit** from PTA.*

*This document contains information concerning the operating guidelines, the maintenance as well as the warranties of the **DpEC Self-Cleaning Phosphorus Removal Unit** and the **Sand Filter Kit**. All information relative to the operating guidelines and the maintenance of the **Ecoflo® Biofilter** or the **DIUV Self-Cleaning Disinfection Unit** can be found in these products' respective Owner's Manuals, available online at [www.premiertechaqua.com](http://www.premiertechaqua.com).*

*For additional information, please contact our Customer Service Department at **1 800 632-6356** or visit our website at **WWW.PREMIERTECHAQUA.COM***

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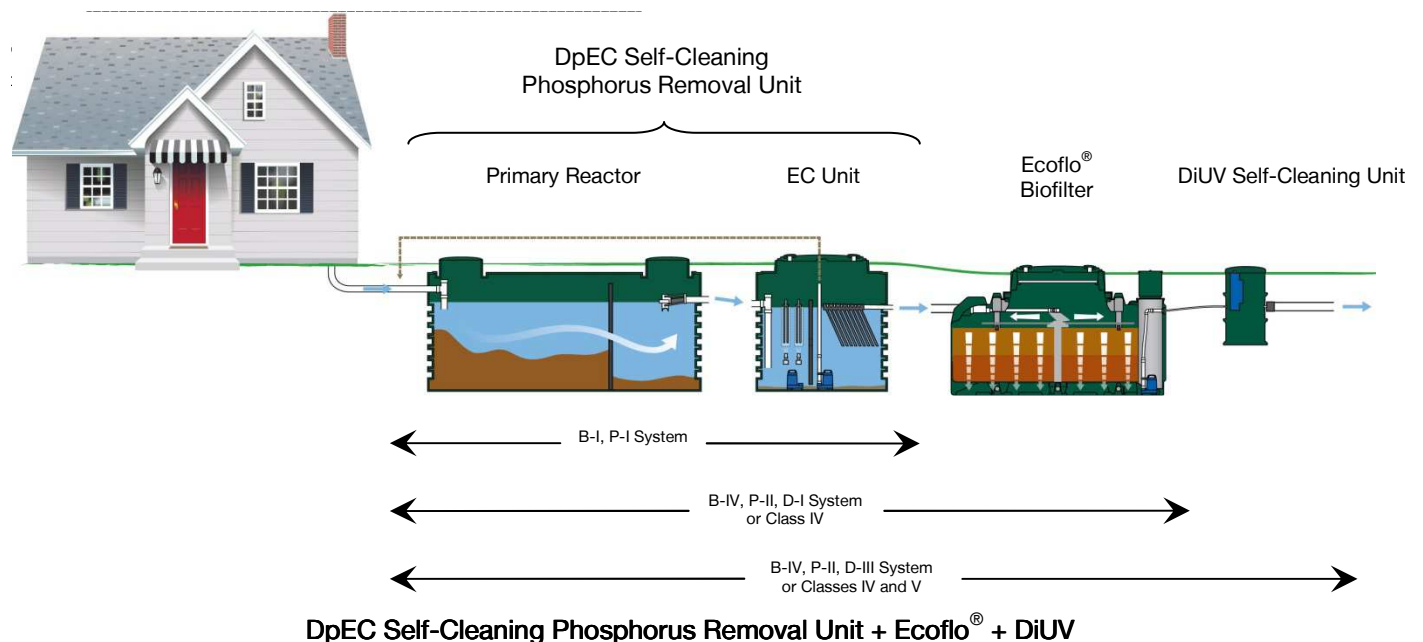
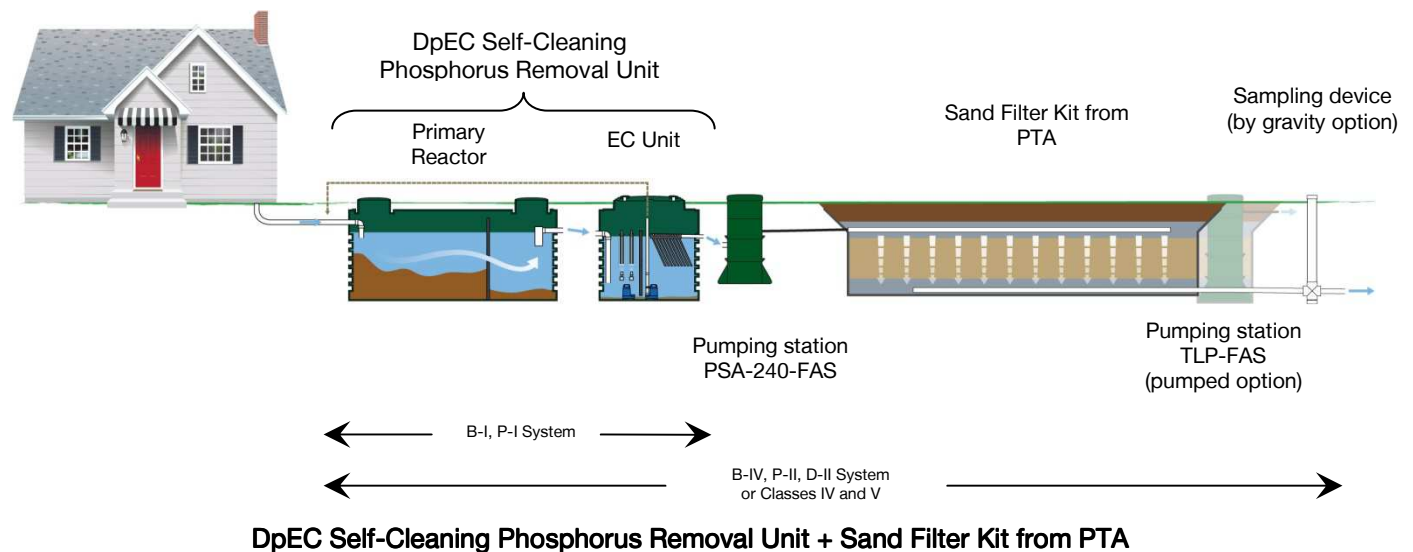
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# 1. Operating Principles

Onsite wastewater treatment systems must respect all applicable local rules and regulations. These systems are specifically designed to treat residential wastewater to a level allowing for the treated effluent to be safely returned to the environment. Typically, an onsite wastewater treatment system is composed of 2 to 3 main treatment steps depending on site constraints: primary treatment, treatment system and, if required, tertiary treatment or polishing.

The treatment systems designed by Premier Tech Aqua are a technological advancement based on phosphorus removal by electrocoagulation. This technology, specially developed to treat wastewater from onsite applications, may be installed upstream of a conventional wastewater system or combined with the Sand Filter Kit from PTA or to an **Ecoflo® Biofilter** with an optional **DiUV Self-Cleaning Disinfection Unit** for the treatment of wastewater from isolated dwellings. In Quebec, such dwellings include residences with a maximum of six bedrooms (single or multi-family homes) as well as all other buildings or infrastructures rejecting wastewater exclusively of comparable nature.

The **DpEC Self-Cleaning Phosphorus Removal Unit** is composed of a Primary Reactor and an EC Unit.



## 1.1. Primary Reactor

The untreated wastewater first makes its way from the dwelling to the Primary Reactor. The Primary Reactor plays the triple role of:

- clarifying the wastewater by letting suspended solids settle to the bottom and retaining floating matter to prevent premature clogging of the system;
- regulating effluent flow discharged in the EC Unit;
- serving as a holding tank for the returning sludge from the EC Unit.

The Primary Reactor is equipped with a flow regulating device in its outlet designed to float atop the retention volume water level to allow a constant outflow to be discharged by gravity into the EC Unit.

## 1.2. EC Unit

The EC Unit is divided into two distinct zones. The **Reaction Zone** (where the Aluminium Electrodes are located) and the **Separation Zone** (where the Lamella Separator is located). The **Reaction Zone** is characterized by a turbulent regime, whereas the **Separation Zone** is operated by a decanting regime. Independence between the two different regimes is ensured by the non water-tight divider baffle. The Separation Zone is equipped with a Lamella Separator and a Sludge Pump that periodically returns the sludge to the Primary Reactor.

### 1.2.1. Reaction Zone

The main components of the Reaction Zone are:

- Two pairs of electrified Aluminium Electrodes (anode and cathode), each housed in a Screen-mesh Cage that allows free water circulation while containing the Self-Cleaning Media around the electrodes. During system operation, the wastewater is mixed with aluminium particles freed from the electrodes. The aluminium-charged effluent from the Reaction Zone then transfers freely to the Separation Zone.
- The cleaning of the electrodes' surfaces relies on an anti-passivation system. Biomass and oxide films that tend to form on the surfaces are continuously cleaned, allowing the electrodes to continue to operate. This anti-passivation system is composed of an Agitating Pump connected to a series of manifolds. Eductors are mounted to each manifold, optimizing the turbulence in the chamber and giving the Self-Cleaning Media sufficient velocity to dislodge all biomass on the electrode's surface.

### 1.2.2. Separation Zone

The main components of the Separation Zone are:

- A Lamella Separator with an equivalent capacity to that of a regular separating tank of 3 m<sup>2</sup>. This technology allows a single tank to be used to accomplish both treatment steps of electrocoagulation and separation, thus reducing the size of the installation. To be discharged, the effluent from the EC Unit must go through the Lamella Separator from the bottom up, abandoning on its way flocs and residues on the lamellae. The separated effluent is then collected in a gutter at the top of the separator and then discharged to the treatment system downstream.
- A second pump, located under the Lamella Separator, is programmed to return the sludge to the Primary Reactor at fixed-time intervals.

The Primary Reactor model PRT-660 combined to the EC Unit model DpEC-090 refer to a complete **DpEC Self-Cleaning Phosphorus Removal Unit** designed to treat up to 1 440 L/d. The EC Unit, model DpEC-090 can handle up to 2 160 liters per day (L/d), meaning 6 bedrooms. However, for this configuration, the primary reactor must be different from the model PRT-660 in order for the system to be able to process up to 2,160 L/day.

Number of bedrooms	Maximum daily flow (L/d)	Number of DpEC Self-Cleaning Phosphorus Removal Unit (DpEC-090)
1	540	1
2	1 080	1
3	1 260	1
4	1 440	1
5	1 800	1
6	2 160	1

### 1.3. Sand Filter Kit from PTA

The Sand Filter Kit from PTA is a wastewater treatment system whose design is based on the replacement of the natural soil layer by a filtering media. The sand filter unit combined with a DpEC Self-Cleaning Phosphorus Removal Unit provides an efficient solution for phosphorus removal and for disinfection.

At the DpEC Self-Cleaning Phosphorus Removal Unit effluent, the wastewater is directed to the Sand Filter Kit by a pumping station to feed the distribution device. The water percolates vertically through the sand bed and then collected by a network of perforated pipes located on the gravel bed at the base of the Sand Filter Kit.

The sand filter allows continuous or intermittent use without requiring any special precautions and without any impact on the quality of the treatment. The owner has no particular action to make to bring the system into operation; the owner only needs to ensure compliance with the operating instructions described below.

The dimensions of the Sand Filter Kit are determined by the number of bedrooms in the residence or by the total daily flow of wastewater coming from the residence and any domestic wastewater coming from any other type of building.

#### 1.3.1. Dimensions of the Sand Filter Kit from PTA

Total daily flow	Number of bedrooms	Length of the Sand Filter	Width of the Sand Filter
1 080 L	2 and less	6,4 m	3 m
1 260 L	3		
1 440 L	4		
1 800 L	5		4,5 m
2 160 L	6		

### 1.4. Triggering System Start-up

The start-up of the **DpEC Self-Cleaning Phosphorus Removal unit** (i.e. the electrification of the Electrodes and Agitating Pump) can be performed two ways. However, two simultaneous conditions must be taken into consideration. Should one of these two conditions not be met, the system will not start. The device will also detect the presence of incoming wastewater.

#### 1.4.1. For a treatment process WITH an Ecoflo Biofilter® or pumping station (i.e.: PSA-240-FAS)

- The Level Float Switch of the EC Unit is in the up position;
- The On-Off Float of the Ecoflo Biofilter® or of the pumping station (i.e.: PSA-240-FAS) downstream of the EC Unit is in the up position.

The system will operate for a period of 2 hours following the last activation of the On-Off Float.

#### 1.4.2. For a treatment process WITHOUT an Ecoflo Biofilter® or pumping station:

The system can also be started by magnetic contact (optional).

- The Level Float Switch of the EC Unit is in up position;
- The magnetic contact detects a movement (i.e.: movement from a tipping bucket).

The system will operate for a period of 30 minutes following the last recorded movement.

## 2. Operating Guidelines

### 2.1. Types of wastewater that can be treated

#### Wastewater Characteristics

The treatment performance of the unit depends of the physicochemical raw wastewaters coming to the treatment chain. These should be typical and balanced in order to be compatible with the biological treatment process and the maintenance of good treatment performance (i.e.: neutral pH, alkalinity and lack of sufficient inhibitory substances).

### By the DpEC Self-Cleaning Phosphorus Removal Unit

Wastewater from domestic sources from an isolated dwelling. These onsite applications, defined as single-family or multi-family dwellings comprised of six bedrooms or less as well as any other building discharging wastewater of a comparable nature.

### By the Sand Filter Kit from Premier Tech Aqua

Treated domestic wastewater must come from a treatment unit including a DpEC Self-Cleaning Phosphorus Removal Unit certified to NQ 3680-910 and / or Can/BNQ 3680-600 standards.

### Filtration system for drinking water

If your residence is equipped with a filtration system for drinking water (i.e.: water softener, greensand filter, etc.), the washing water coming from the backwash of this system should never be directed to the wastewater treatment system as it can affect the operation and performance of the system.

## 2.2. Recommendations

**It is NOT RECOMMENDED to discharge any of the following substances into the treatment system or toilets:**

- Oil and grease (motor oil, cooking oil, etc.);
- Wax and resins;
- Paints and solvents;
- Any kind of petroleum product;
- Any kind of pesticide;
- Any kind of septic tank additive;
- Any kind of toxic substance;
- Anything not easily biodegradable (i.e. coffee beans, cigarette butts, sanitary napkins, tampons, condoms, cotton swab, etc.)



**It is important that anyone using or maintaining the septic installation or property (installer, landscaper, owner, snow removal service, etc.) comply with the following guidelines:**

- Never open or go inside the Primary Reactor or EC Unit.
- Never install the Primary Reactor and the EC Unit in an area where the groundwater table can reach 30 cm (12") from its base (otherwise, drain pipes could be required).
- Never install the Primary Reactor and the EC Unit in clayey soil without taking precautions.
- Keep all lids of the treatment system accessible at all times. NEVER cover them with mulch, dirt or any permanent structure.
- The profile of the lot must be such that surface run off flows away from the septic system.
- Ensure rapid regrowth of vegetation to prevent soil erosion.
- Once the landscaping is completed, all lids must rise 50 mm (2") above the surface of the finished lot. Never cover or bury the access lids of the DpEC Self-Cleaning Unit.
- Limit backfilling above the Primary Reactor to 50 cm (20"). A maximum of one additional 35 cm (14") PST-140 riser by Premier Tech Aqua may be used on the 15 cm (6") PST-060 riser included with the Primary Reactor. The use of any other risers is prohibited.
- Never install an additional riser on the access of the EC Unit. Limit backfilling to 15 cm (6").
- Never exceed the maximum height of 710 mm (28") of riser on the pumping station PSA-240-FAS. Note that the PSA-240-FAS pumping station already has a 150 mm (6") PSR-060 riser.
- Never install an additional riser on the access of the TLP-FAS pumping station.
- Respect the minimum distances prescribed by regulations.
- Never plant a tree within 3 m (10') of the lids.
- The Primary Reactor and EC Unit must be used for disposal of domestic wastewater only.
- Never connect a drain pipe, roof gutter, sump pump or air conditioning drain to your septic system.
- Never discharge water from a spa or pool backwash into any of the components of your septic system.
- Never discharge water from a recreational vehicle (camping trailer, caravan, etc.) into any of the components of your septic system.
- Never use automatic toilet bowl cleaners.
- Never drive vehicles or place objects weighing over 225 kg (500 lb) within 3 m (10') of the lids and notify the persons responsible for the landscaping or maintenance of the property of this restriction.

- Never place any heavy materials (ex: blown snow, embankment/slope) within 3 m (10') of the lids. The overload could damage the system.
- The residence must be equipped with an air vent that is in proper working order and complies with the applicable standards.

By respecting these guidelines, you contribute to the proper operation of your septic system and help prolong the life of your DpEC Self-Cleaning Phosphorus Removal Unit. Failure to abide by these guidelines may, at Premier Tech Aqua's discretion, render the warranty invalid.

### 2.3. Owner's Responsibility

The owner must respect all existing laws and regulations regarding the system's effluent quality and its discharge into the environment. The owner of the wastewater treatment system is responsible for its installation, operation and maintenance.

The system's warranty begins upon purchase. Should the start-up be delayed, it is the customer's responsibility to inform Premier Tech Aqua so that the first maintenance visit (which is included in the purchase price of the system) can be postponed. No request for delayed start-up will be accepted any later than one (1) year after the purchase date without this affecting the product's warranties.

### 2.4. Start-Up

Upon the completed installation of the system, the owner can resume his regular activities with regards to the above mentioned guidelines. It is, however, the responsibility of the owner to verify that all electrical connexions were performed by a certified electrician, and that the alarm box located inside the residence is operational. If the start-up of the system must be performed in cold weather, we recommend contacting the After-Sales Service Department of Premier Tech Aqua at 1 800 632-6356.

### 2.5. Prolonged or Intermittent Absences

The **DpEC Self-Cleaning followed or not by the Sand Filter Kit from PTA** is designed to operate either continuously or intermittently without any intervention being required or impact on treatment quality. However, should your home be uninhabited for a prolonged period or should you need to shut down the residence during the cold season, please contact the After-Sales Service Department of Premier Tech Aqua to obtain the procedure to follow. This will preserve your system for its entire lifetime.

### 2.6. Heavy Weights

Never drive a vehicle or place any objects weighing more than 225 kg (500 lb) within 3 m (10') of the lids. If you are planning some landscaping or any other type of work, make sure to advise those involved so they do not damage your system. Do not let snow (shovelled or blown) accumulate on top of the treatment system. The overload could damage it. Mark or note the location of your system's components.

### 2.7. About your home

Your residence must be equipped with an air vent and all plumbing must comply with all applicable local building code standards. As stated in section **14. Ventilation** of the ***Regulation respecting wastewater disposal systems for isolated dwellings (Q-2, r.22)*** and application for septic tanks, the Primary Reactor must be ventilated by an air duct with a diameter of at least 100 mm (4") or be connected to the air vent of the isolated dwelling being serviced. Premier Tech Aqua strongly recommends using a pipe with a diameter of 100 mm (4") for the air vent.

Any change in the use of your residence or any modification to your septic system must be authorized by the local authorities and Premier Tech Aqua must be informed of the change or modification. If this requirement is not fully met, the warranty for your **DpEC Self-Cleaning Unit and the Sand Filter Kit** will become null and void.

## 3. Alarm System

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### 3.1. Operation

The **DpEC Self-Cleaning Phosphorus Removal Unit is equipped** with an exterior control panel which is connected to an alarm box. This alarm box must be installed inside the residence so it can be heard when it is activated. The following information describes how this system works.

The **green** “IN FUNCTION” indicator is lit when the alarm box is connected to 120V current.

The **red** “ALARM” indicator lights up and an alarm is activated upon the detection of an abnormal situation within the treatment system. There must be a follow up with the proper verifications.

The **“TEST”** button allows you to check if the alarm system is working properly. During a test, the red indicator should light up and an audio alarm should be heard.

The **“SILENCE”** button mutes the audio alarm. However, this does not mean that the situation has been corrected.



**Alarm box to be installed  
inside the residence**

In the event of a power failure, the alarm system continues to function on an emergency 9-volt alkaline battery (not included). Using a rechargeable battery is not recommended.

**NOTE: Replace the emergency battery every 12 months, each time the alarm is activated or following any power failures.** If the battery is weak, the system will beep once every minute. When this occurs, replace the battery.

#### To replace the 9-volt battery:

- Disconnect the alarm box and remove it from the wall (the battery must be inserted on the side of the box).
- Open the cover of the 9-volt battery compartment and replace the battery with a 9-volt alkaline battery.
- Close the cover, reinstall the box on the wall and reconnect it.
- If the alarm is activated, press the “RESET/TEST” button to initialize it.

### 3.2. An Activated Alarm

When an abnormal situation triggers an alarm, you must promptly contact the After-Sales Service Department of Premier Tech Aqua at 1 800 632-6356 in order to identify the source of the alarm. Please note the following information during the installation of your system and have it on hand when contacting the After-Sales Service. You will find this information on the stickers and identification plates of your treatment system.

Primary Reactor      Model: PRT-660  
Serial Number: \_\_\_\_\_

EC Unit      Model: DpEC-090  
Serial Number: \_\_\_\_\_

## 4. Electrical Wiring

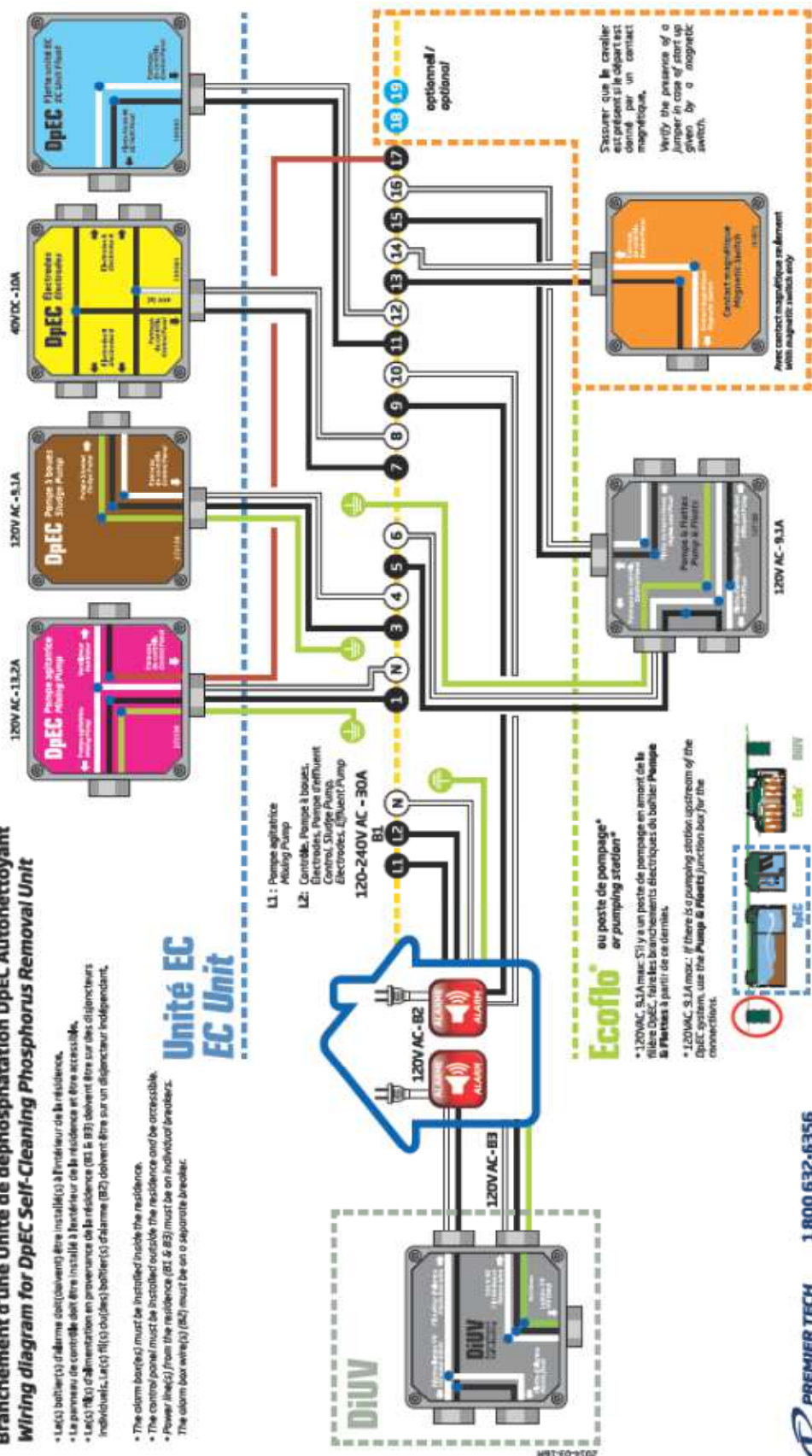
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All electrical connexions must be performed by a **certified electrician** and according to local regulation. Using seal connectors and junction boxes is mandatory.

Use two (2) separate circuit-breakers, one to operate the control panel and the other to connect the alarm box. **No other household appliance should be connected to these circuit-breakers.** They must be used exclusively for the pump and the alarm box.

**Branchement d'une Unité de déphosphatation DpEC Autonettoyant**  
**Wiring diagram for DpEC Self-Cleaning Phosphorus Removal Unit**

- \* L'ACS (boîtier) et le câblage des boîtiers être installés à l'intérieur de la résidence.
  - \* Le panneau de contrôle doit être installé à l'intérieur de la résidence et être accessible.
  - \* L'ACS (Boîtier d'alimentation en provenance de la résidence (RL & RB)) doivent être sur les diploswitchs individuels, LACS (1) ou (2) ou (3) boîtiers) et l'alarme (BZ) doivent être sur un diploswitch indépendant.
- Les alarm box(es) must be installed inside the residence.
- The control panel must be installed outside the residence and be accessible.
- \* Power line(s) from the residence (RL & RB) must be on individual breakers.
  - The alarm box wire(s) (BZ) must be on a separate breaker.

Unité EC  
EC Unit

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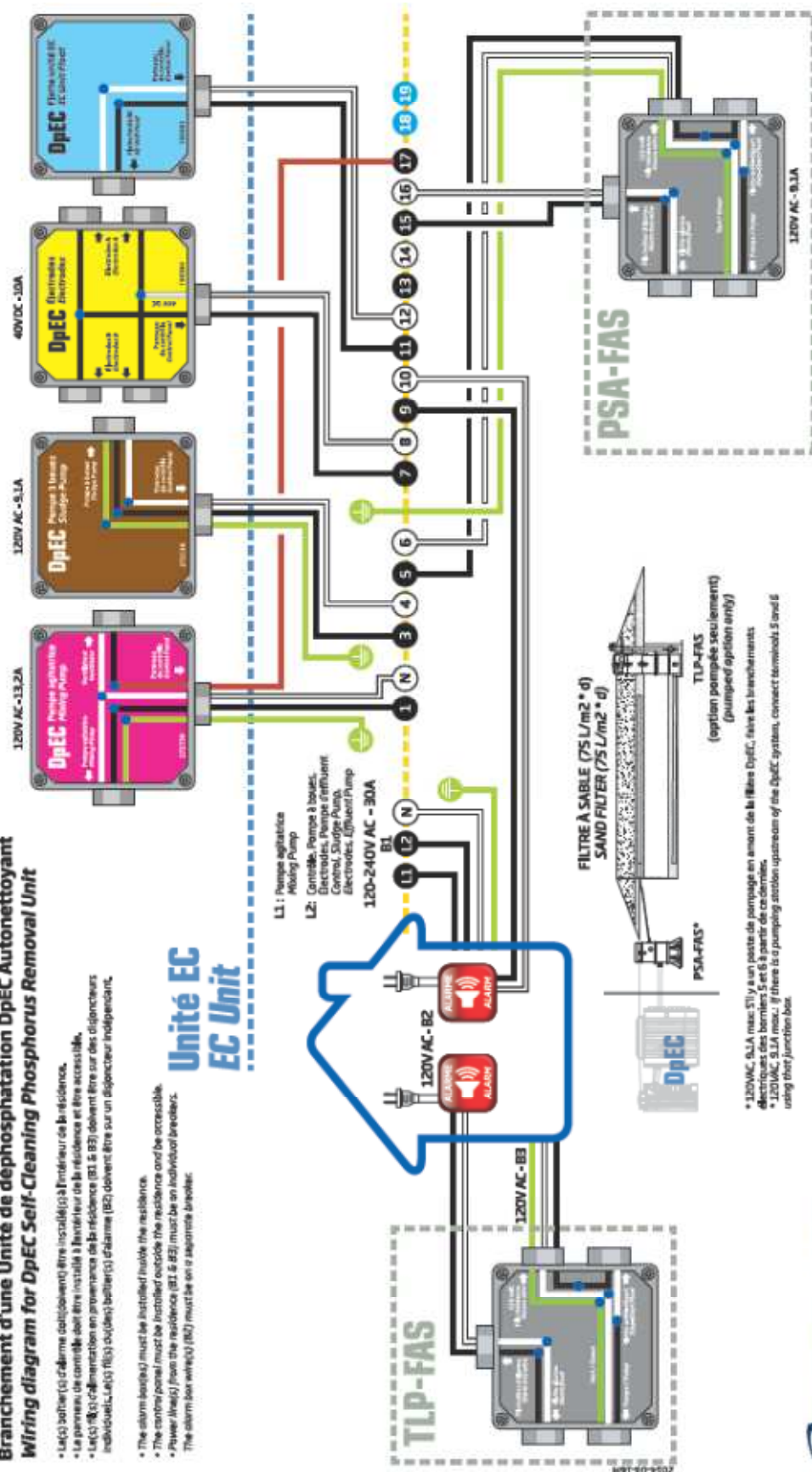


**Branchement d'une Unité de déphosphatation DpEC Autonettoyant**  
**Wiring diagram for DpEC Self-Cleaning Phosphorus Removal Unit**

- Le(s) boîtier(s) d'alarme doit(ont) être installé(s) à l'intérieur de la résidence.
- Le panneau de contrôle doit être installé à l'extérieur de la résidence et être accessible.
- Le(s) fil(s) d'alimentation en provenance de la résidence (B1 à B3) doivent être sur des diligents (uniques). Le(s) fil(s) du/des boîtier(s) d'alarme (B2) doivent être sur un disjoncteur indépendant.

- The alarm base(s) must be installed inside the residence.
- The control panel must be installed outside the residence and be accessible.
- Power/Wire(s) from the residence (B1 & B2) must be an individual breaker.

The alarm box wire(s) (B2) must be on a separate breaker.



**P** **PREMIER TECH**  
AOKA  
1 800 632-6356

## 5. Maintenance

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Regulation governing wastewater disposal systems for isolated dwellings (Q-2, r.22) stipulates in the following articles that,

- **3.3 Maintenance contract:** *The owner of a treatment system referred to in section 11.1, 16.1, 87.7 or 87.13 must have a binding contract with the system manufacturer, the manufacturer's representative or a qualified third person in which it is stipulated that minimum annual maintenance will be performed on the system. The owner of the system must deposit a copy of the contract with the local municipality in which the isolated dwelling or the other building served by the treatment system is situated.*
- **87.16. Installation, use and maintenance:** *Every tertiary treatment system with phosphorous removal, tertiary treatment system with disinfection and the tertiary treatment system with phosphorous removal and disinfection must be installed, used and maintained in accordance with the manufacturer's manuals.*

The regular maintenance of your **DpEC Self-Cleaning Phosphorus Removal Unit** followed or not by a **Sand Filter Kit from PTA** will ensure that your warranty remains valid and that the treatment performances are reached before any effluent is discharged from the system. Premier Tech Aqua strongly recommends that a maintenance visit be done every 6 months, and that, for the entire lifetime of your system. The maintenance visit must be performed by a qualified service technician from the Premier Tech Aqua network of service partners. All of the access lids of your treatment system as well as the control panel, must be accessible to the maintenance technician at all times. We recommend that you keep all invoices and documents returned to you as proof of the regular maintenance of your system.

### 5.1. Primary Reactor

The pumping out of the Primary Reactor must be performed when the sludge contained in the first compartment of the Primary Reactor reaches a level of 70 to 75% of its overall height. Should the measured level justify this procedure, the maintenance technician will advise the owner. It becomes the owner's responsibility to take the appropriate actions: failing to do so may cause your treatment system to fail and its performances to deteriorate.

If your residence is equipped with a garbage disposal system or a disposal pump, we strongly recommend that you empty your Primary Reactor more often. The use of this type of device increases the amount of sludge in the Primary Reactor.

We recommend that you keep proof of the pumping out of your Primary Reactor (invoices) along with this Owner's Manual so as to keep a record of complete treatment system maintenance.

**IMPORTANT:** there are different types of pumping out procedures and they can be divided into two categories, namely a complete pumping out and a selective or partial pumping out. It is mandatory to opt for a complete pumping out of the Primary Reactor. This can be easily verified as the Primary Reactor should be completely empty when the vacuum truck leaves. To ensure a better protection of your system and to receive service pumping out services that are well adapted to your needs, Premier Tech Aqua recommends that you contact a local Premier Tech Aqua service partner to perform the maintenance of your Primary Reactor.

#### 5.1.1. Flow Regulator

Under normal working conditions, such as the ones described in the present document, the Flow Regulator will operate for many years. It must however be cleaned and inspected at every maintenance visit and Primary Reactor pump out.

### 5.2. EC Unit

A local Premier Tech Aqua service partner will perform the maintenance of your EC Unit. This visit has the double purpose of verifying that all the components are operational and if the consumable Aluminium Electrodes need to be replaced. The pumping out of the EC unit **is not** a regular procedure and must be performed only in the presence of a major system malfunction. It is important to remember that a balance is established between the EC Unit and the Primary Reactor, as long as the Sludge Pump operates normally.

### 5.3. Sand Filter Kit from PTA

The maintenance of the Sand Filter Kit is limited to ensuring the proper working of the components of the Pumping Stations (PAS-240-FAS and FAS-TLP).

## 6. Sampling

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As stipulated in the section below of the *Regulation respecting wastewater disposal systems for isolated dwellings (Q-2, r.22)*:

- **87.30.1. Effluent analyses:** *The owner of a tertiary treatment system with disinfection, phosphorous removal or disinfection and phosphorous removal must, at least once per 6-month period, have a sample of the system's effluent analyzed to determine the concentration, if any, of fecal coliforms or total phosphorous. The owner must send the analysis reports within 30 days of their receipt to the municipality in whose territory the treatment system is situated. In addition, the owner must keep the reports for 5 years and make them available to the Minister at the Minister's request.*

The Maintenance Contract Agreement offered by Premier Tech Aqua includes the sampling visit performed every 6 months.

## 7. What to do in case of...

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### 7.1. An activated alarm

If an alarm is activated, and that is it unrelated to a power failure, contact Premier Tech Aqua's After-Sales Service Department so the problem can be identified and corrected.

### 7.2. A prolonged power failure

If a power failure occurring in winter is prolonged, you should take precautions to protect your septic installation against freezing. If you have any questions regarding the restart of your system, contact Premier Tech Aqua's After-Service Department.

### 7.3. Flooding

Certain sites are prone to seasonal flooding or to rises in groundwater levels. This can lead to a malfunction in your septic system or alter the performance of your DpEC Phosphorus Removal Unit, as it would for any septic installation. If this happens, contact Premier Tech Aqua's After-Sales Service Department.

### 7.4. Backflow

Backflow rarely occurs. If this should happen, the Primary Reactor is most likely the cause. Your installer or septic tank pumper can generally take care of the situation.

### 7.5. Odours

Any septic system is likely to generate gas and consequently odors. The position of the air vent, as well as other factors unrelated to the DpEC Self-Cleaning **followed or not by a Sand Filter Kit**, can prevent proper dispersion of septic gases and generate foul odours. If this happens, contact Premier Tech Aqua's After-Sales Service Department for available solutions.

**If you have any questions or comments, please do not hesitate to contact Premier Tech Aqua at 1 800 632-6356.**

Please have the information contained in section 3.2 in hand.



 **1 800 632-6356**  
 418 862-6642  
pta@premiertech.com  
PREMIERTECHAQUA.COM

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The information contained in this document is based upon the latest information available at the time of publication and is designed to provide you with a general introduction to our products. We make no warranties or representations as to its accuracy. We are continually updating and improving our products and reserve the right to amend, discontinue, alter or change specifications and prices without prior notice. Ecoflo® is a brand of Premier Tech Ltd. The Ecoflo® Biofilter is protected under patents: Canada 2 149 202 and 2 499 637, USA 5 618 414 and 7 097 768 and Europe 0 836 585 and 1 539 325. The FDI Disinfection Filter is protected under patent: USA 7 790 035.

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## 8. Warranty Certificate

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### 1. PREAMBULE

Premier Tech Technologies Ltd. (hereinafter called "Premier Tech") is proud to provide its customers with an exclusive wastewater treatment system guaranteed by an innovative warranty. For the application and interpretation of this warranty, "Customer" shall mean the person who has purchased, for a residential installation, a **DpEC Self-Cleaning Phosphorus Removal Unit with or without a Sand Filter Kit (FAS)** (hereinafter called "Initial Purchaser"), as well as any subsequent purchaser (hereinafter called "Subsequent Purchaser(s)"), in accordance with the provisions of Section 8 of this warranty. "Successor(s)" shall mean any other person entitled to exercise the same rights as the Customer under the law.

### 2. NATURE OF THE WARRANTY

The following warranty is conditional to and only applies if the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** has been installed according to the installation, maintenance and operation instructions as described in the Installation Guide and the Owner's Manual.

#### 2.1 The DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)

Premier Tech guarantees the tanks of the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** (parts and labour) as well as all other components, with the exception of the ones stated in Section 2.2 below, against any manufacturing defects for a period of two (2) years from the date of purchase by the Initial Purchaser (proof of purchase required).

#### 2.2. Other components

Premier Tech guarantees the electro-mechanical components (control panel, aluminium electrodes, pumps, floats, magnetic contacts) included with the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** against any manufacturing defects for a period of one (1) year (parts and labor), from the date of purchase by the Initial Purchaser (proof of purchase required).

Premier Tech's conventional warranty is expressly limited to the text of this Warranty Certificate and valid provided that the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** were installed in accordance with applicable regulations and the manufacturer's recommendations.

### 3. NOTICE

For this warranty to be valid, the Customer must notify Premier Tech in writing immediately upon the appearance of any indication of any anomaly or irregularity in the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)**.

Such notice shall be mailed to Premier Tech Head Office at 1, avenue Premier, Rivière-du-Loup, Québec, G5R 6C1, Canada or sent by fax at 418 862-6642.

Upon receipt of this notice, Premier Tech shall analyse the situation and, if necessary, take appropriate corrective measures in accordance with the terms of this warranty.

### 4. GENERAL EXCLUSIONS

The following damages or problems are excluded from the warranty:

- (a) Any damage or problem caused by a fortuitous event or "force majeure", such as, without limiting the generality of the foregoing, an earthquake, a flood, frost, hurricane, landslide, explosion or dynamiting, rise of the groundwater table level;
- (b) Any damage or problem caused by the fault or act of a third party including, without limiting the generality of the foregoing, the execution of landscaping work;
- (c) Any damage or problem arising from a defective installation carried out by a person trained by Premier Tech, or any installation, modification, correction or addition carried out by a person not trained by Premier Tech;
- (d) Any damage or problem arising from any installation, modification, correction or addition to the treatment system carried out after the installation of the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** without the prior written consent of Premier Tech;
- (e) Any damage or problem caused by the use of the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** that does not comply with the applicable regulations and/or with Premier Tech's specifications, as described in the Owner's Manual;
- (f) Any damage or problem, if it is shown that the usage of the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** was not in accordance with the instructions and guidelines described in the Owner's Manual;
- (g) Any damage or problem, if the maintenance of the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** was carried out by a person not authorized by Premier Tech, in accordance with the Maintenance Agreement;
- (h) Any damage or problem caused by an omission or act of the Customer or the Customer's Successors including, without limiting the generality of the foregoing, refusal to allow access to the system for maintenance;
- (i) Any damage or problem, if it is found that the Customer or the Customer's Successors have modified or changed the use of the property serviced by the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** resulting in the alteration of the nature or quality of wastewater being treated and/or that constitutes a violation of the applicable regulations;
- (j) Any damage or problem caused by and/or resulting from the work carried out to access the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** including, without limiting the generality of the foregoing, excavation, snow removal or demolition;
- (k) Any damage or problem resulting from the condition of the site or of the soil and not reported or not properly reported to Premier Tech by the Customer or the person undertaking the site investigation.

### 5. PARTICULAR EXCLUSIONS

It is further expressly understood that the Customer may not carry out or cause to be carried out any repair or verification of the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** sold to him/her, or

attempt to carry out any work or to apply any corrective measures whatsoever to said work, before notifying Premier Tech in accordance with the provisions of Section 3 of this warranty and before Premier Tech has visited the site, within a reasonable time following receipt of said notice, to assess the situation.

If the Customer carries out or causes to be carried out any repairs, or attempts to repair or to apply corrective measures of any kind whatsoever to the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** sold to him/her without a prior authorization by Premier Tech, this warranty shall be considered null and void and Premier Tech shall be considered completely discharged from any and all of its obligations under this warranty.

#### 6. INDEMNITIES AND DAMAGES

In accordance with Sections 3 and 4, Premier Tech's liability and obligations regarding any corrective measure carried out or any attempt to correct an indicated problem shall be limited to the replacement of one or several components of the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** and to supplying the required labour, if applicable.

#### 7. LIMITATION OF LIABILITY

Premier Tech's compensation or indemnification obligation shall be limited to the provisions of Section 6 of this Certificate of Warranty and Premier Tech shall not be held liable for any other damage or loss that may have been suffered or incurred by the Customer or any third party in connexion with the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)**.

#### 8. TRANSFER OF OWNERSHIP

In the event of transfer of ownership, sale, assignment or disposal in anyway whatsoever of the Customer's property to a third party, this warranty shall continue to apply if and only if the Subsequent Purchaser or the Successor confirms, by forwarding the attached "Notice of New Property Owner" to Premier Tech within a reasonable time, that he/she is the new owner of the property, he/she understands and is aware of the content of this Certificate of Warranty and accepts its terms and conditions.

The person who proceeds with the transfer, sale, assignment or disposal in anyway whatsoever of the property undertakes to hand over to the Subsequent Purchaser or the Successor the Certificate of Warranty

provided upon completion of the work, as well as the Owner's Manual and, if applicable, the Maintenance and Environmental Monitoring Program for the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)**.

Failure to abide by the terms and conditions of Section 8 of this Certificate of Warranty may, at Premier Tech's discretion, render it invalid or to be rejected.

#### 9. INSPECTION

The Customer and/or the Customer's Successors shall allow Premier Tech or its duly authorized representatives to carry out all necessary monitoring and inspections, as required, for the implementation of this warranty.

If the Customer and/or the Customer's Successors notify Premier Tech of an alleged defect or malfunction of the **DpEC Self-Cleaning Phosphorus Removal Unit and Sand Filter Kit (FAS)** and that, after an inspection, it is found that no such defect or malfunction exists, or, that such defect or malfunction is excluded from or does not apply to the warranty, a minimum charge of \$150.00 plus direct expenses shall be invoiced to the Customer and/or the Customer's Successors to cover the cost of the inspection.

#### 10. INTERPRETATION

The terms and conditions of this warranty shall be interpreted according to and governed by the provisions of this warranty and the legislation in effect in the Province of Quebec.

#### 11. PRIORITY OF THE CERTIFICATE OF WARRANTY

This warranty supersedes any contract or understanding, written or verbal, entered into between the Customer and Premier Tech. In the event of a contradiction between this warranty and any other documents and/or contracts entered into between the Customer and Premier Tech, this Warranty shall prevail.

#### 12. PURCHASERS AND SUCCESSORS

Subject to the provisions of this Warranty and especially those of Section 8, this warranty shall continue to be valid for Subsequent Purchasers and Successors and shall continue to have full effect until the end of the agreed warranty period provided for in Section 2 of this Warranty Certificate.

## 9. Notice of New Property Owner

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### Notice of New Property Owner

A copy of the present notice must be returned to Premier Tech Aqua

Name of previous owner: \_\_\_\_\_

I, the undersigned: \_\_\_\_\_ hereby declare that I have acquired the property located at  
*Print Name*

\_\_\_\_\_  
*Civic Number*

\_\_\_\_\_  
*Street*

\_\_\_\_\_  
*City*

\_\_\_\_\_  
*Province or State*

\_\_\_\_\_  
*Postal Code*

\_\_\_\_\_  
*Country*

\_\_\_\_\_  
*Phone Number*

\_\_\_\_\_  
*Email Address*

I have read and I understand the warranty provided by Premier Tech Technologies Ltd for the **DpEC Self-Cleaning Phosphorus Removal Unit (and Sand Filter Kit (FAS) if applicable)**. I wish to benefit from this warranty for the remaining period, if any, and from the date of the transfer of ownership, which is: \_\_\_\_\_; I accept to be bound by this warranty and by any and all of the clauses, undertakings and conditions set forth therein; I have had the opportunity to examine the **DpEC Self-Cleaning Phosphorus Removal Unit (and Sand Filter Kit (FAS) if applicable)** and declare myself satisfied with it at the time of this transfer. I ask Premier Tech Technologies Ltd to take note of this transfer of ownership.

Language preference: ☐ English ☐ French

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name of new owner: \_\_\_\_\_  
*(Please print)*