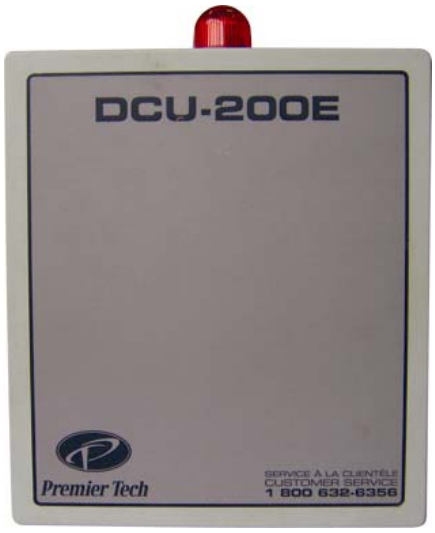
Dosing Control Unit DCU-200I and DCU-200E

Installation Guide and Owner's Manual

*This manual contains useful information about installing and using your **Dosing Control Unit**, as well as the warranty offered by **Premier Tech Aqua (PTA)**. For further information, please do not hesitate to contact our Customer Service Department at **1 800 632-6356**.*

PRODUCT DESCRIPTION



The DCU-200 dosing control unit (DCU-200I for indoor installation and DCU-200E for outdoor installation) regulates the pumping cycles, helping to control peaks in wastewater flow generated by all types of septic systems. PTA's DCU-200 allows the alternate operation of two pumps, with different operating and pause times. This unit can be used upstream from two clusters of **Ecoflo® Biofilters**. The **DCU-200I/E** unit can also be used upstream or downstream from any other type of treatment system requiring a two-way pumping system.

PTA's **DCU-200** series units allow 4 floats (level switches) to be used to better control the system. In order for the regular pumping sequence to be activated, floats FL1 and FL2 (see Figure 1) must be up. The regular pumping sequence goes as follows: pump 1 runs for a time ON_1 and stops for a time OFF_1, pump 2 runs for a time ON_2 and stops for a time OFF_2. The sequence is repeated this way for as long as it is active. This sequence is deactivated when floats FL1 and FL2 are low.

When float FL3 (priority operation) rises, the pumping sequence is modified. In fact, the pause times (OFF_1 and OFF_2) are temporarily set to zero, which allows the pumping to be accelerated. If this condition is maintained for a pre-established time (see operator page #3), the high level alarm is triggered. When float FL4 is high, the very high level alarm is activated. The pump operation and stop times are adjusted using a programmable regulator.

It is also possible to replace floats FL1 and FL2 with a single float. Simply connect the float between Terminals 7 and 11, connect Terminals 7 and 8 using a jumper strap, and connect Terminals 11 and 12. To replace floats FL3 and FL4 with a single float, simply connect the float between Terminals FL3 and FL4, connect Terminals 9 and 13 using a jumper strap, and connect Terminals 9 and 10.

OPERATING INSTRUCTIONS

- **The DCU-200I/E** must remain accessible at all times. In addition, the pumping station regulated by the dosing control unit must remain accessible at all times. Therefore, the pumping station cover must not be buried.
- **The DCU-200I/E** must be placed outside of the tank and above ground or inside the building.
- **The DCU-200I/E is available in an inside version (DCU-200I) or an outside version (DCU-200E). The indoor version may not in any case be used outside.**
- **The DCU-200I/E works with any pump with a voltage of 120 V_{AC} or 240 V_{AC} and maximum intensity of 12 amps (FLA).**

ALARMS

The DCU-200I/E dosing control unit is equipped with audible and visual alarms collected to the high level and very high level floats of the pumping station. If the housing is installed outside of the building, it must be positioned in such a way that it is visible (in accordance with current regulations). If the housing is inside the building, it must be located in such a way that the audible alarm can be heard as soon as it goes off. The following information explains how these alarms work.

OPERATION OF THE ALARM SYSTEM

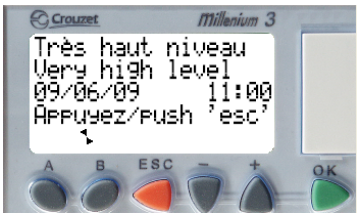
The "Silence/reset/test" button allows you to verify whether the alarm system is working. During a test, the red indicator light should come on and the audible alarm should be heard.

The red indicator light comes on when the water level is abnormally high, or when a float is defective. The system should then be checked to identify the problem. When an alarm is activated, it may be silenced by pushing the button, with the indicator light staying on. There are two different types of alarms:

- Continuous sound, indicating an abnormally high level.
- Intermittent sound, indicating a defective float.

Level 1 Alarm

Level 2 Alarm



Level 3 Alarm

Level 4 Alarm

Level 1: Defective float
- 1 or more floats give a contradictor signal (e.g., FL1 is low and FL2 is high).

Level 2: High level
- The liquid level has reached float 3 and the time to alarm has elapsed (see operator page #3).

Level 3: Very high level
- The liquid level has reached float 4.

Level 4: Defective float and high level
- 1 or more floats gives an erroneous signal and the liquid level has reached float 3 or 4.

Important notes:
- Each alarm is stored in the memory as long as the operator has not pushed the ESC button.
- Only one alarm is stored in the memory at a time.
- If a higher level alarm is triggered, it will override the current defect.
- Even when the "Silence/reset/test" button is pushed, the indicator light stays on as long as the alarm is active.

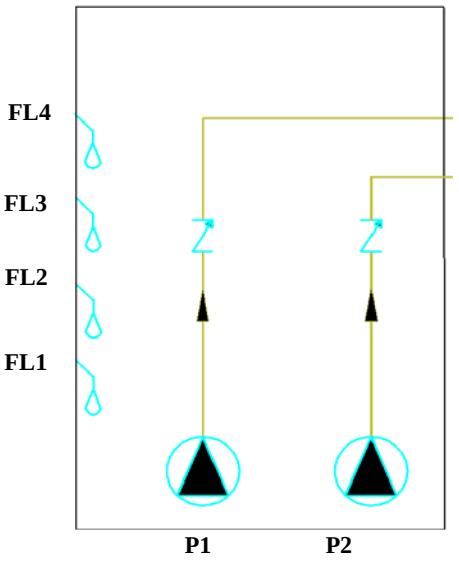


Figure 1 : Pumping Station

OPERATOR PAGES

Page #1: Main screen
- Date (yy/mm/dd).
- Time.

Page #2: Hour totalizer
- P1 = Total run time of pump 1.
- P2 = Total run time of pump 2.

Page #3: Programming of the time between high level detection and alarm activation, and high level totalizer
- 00060s = Time to high level alarm (adjustable).
- Qty = Total quantity of high levels.
- Time = Total high level time.

Page #4: Programming of run time for each cycle
- P1 = Total run time of pump 1.
- P2 = Total run time of pump 2.

Page #5: Programming of stop time for each cycle
- P1 = Stop time for pump 1.
- P2 = Stop time for pump 2.

Operator interface keys:
- A: Forward.
- B: Back.
- ESC: Display programmable relay input and output status.
- -: Move cursor forward or reduce a value.
- +: Move cursor back or increase a value.
- OK: Key to change/save a value.

Factory settings:
- Time to high level alarm: 60 seconds.
- Running time.
  - Pump 1: 1 min 0 sec.
  - Pump 2: 1 min 0 sec.

- Stop time:
  - Pump 1: 29 min 0 sec.
  - Pump 2: 29 min 0 sec.

Operator Page #1

Operator Page #2

Operator Page #3

Operator Page #4

Operator Page #5

CONNECTIONS

WIRES FROM ELECTRICAL POWER SUPPLY

Power supply (power):
- Black wires to Terminals L1 and L2 (240 V).
- Green/yellow wire to ground terminal.

Power supply (control):
- Black wire to Terminal L3 (120 V).
- White wire to Terminal N (neutral).
- Green/yellow wire to ground terminal.

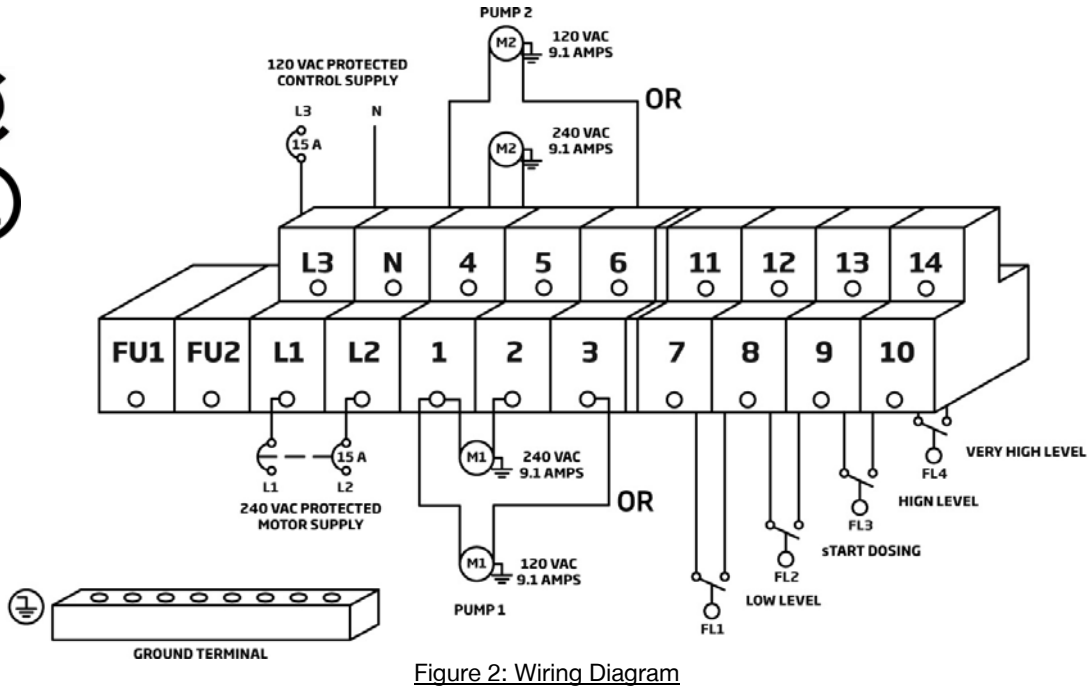


Figure 2: Wiring Diagram

WIRES FROM PUMPING STATION

Pump P1 connections:
- Black wire to Terminal #1.
- Black wire to Terminal #2 **(if pump 240 V).**
- White wire to Terminal #3 **(if pump 120 V).**
- Green/yellow wire to ground terminal.

Pump P2 connections:
- Black wire to Terminal #4.
- Black wire to Terminal #5 **(if pump 240 V).**
- White wire to Terminal #6 **(if pump 120 V).**
- Green/yellow wire to ground terminal.

Float FL1 connections:
- Black wire to Terminal #7.
- White wire to Terminal #11.

Float FL3 connections:
- Black wire to Terminal #9.
- White wire to Terminal #13.

Float FL2 connections:
- Black wire to Terminal #8.
- White wire to Terminal #12.

Float FL4 connections:
- Black wire to Terminal #10.
- White wire to Terminal #14.

PREMIER TECH AQUA

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Certificate of Warranty for Dosing Control Units DCU-200I and DCU-200I/E

1. INTRODUCTION

Premier Tech Technologies Ltd. (hereinafter called "Premier Tech") is proud to offer its customers this Warranty on the **Dosing Control Unit DCU-200I et DCU-200E** (hereinafter called "**DCU-200I/E**").

For the application and interpretation hereof, the term "Customer" shall mean anyone who buys a **DCU-200I/E** (hereinafter called the "Initial Purchaser"), as well as any subsequent purchaser (hereinafter called "Subsequent Purchaser(s)"), pursuant to the provisions of Section 8 of this warranty. "Successor(s)," shall mean any other person considered to have same rights of as the Customer under the law.

2. NATURE OF THE WARRANTY

Premier Tech warrants to its Customer any and all parts of the **DCU-200I/E** (parts and labor) against any manufacturing defect for a period of one (1) year from the date of purchase (proof of date of purchase required) provided the **DCU-200I/E** is installed and operated according to the installation and operating instructions described in the Installation Guide and Owner's Manual.

This contractual Warranty is provided by Premier Tech to its customers in addition to any legal warranties, but is expressly limited to the text of this Certificate.

3. NOTICE

For this Warranty to be valid, the Customer must notify Premier Tech in writing immediately upon the appearance of any indication or sign of an anomaly or irregularity in the design or the operation of the **DCU-200I/E**.

Such notice shall be mailed to Premier Tech at its Head Office at 1, avenue Premier, Rivière-du-Loup, Quebec, G5R 6C1, CANADA, or faxed to (418) 862-6642.

Upon receipt of this notice, Premier Tech shall take any necessary measures to examine the situation and, if necessary, take appropriate corrective measures in accordance with the terms of this Warranty.

4. GENERAL EXCLUSIONS

Nonetheless, the following types of damage or problems are excluded:

a) Any damage or problem caused by a fortuitous event or force majeure, such as, without limiting the generality of the foregoing, earthquake, flood, freezing, hurricane, landslide, explosion or dynamiting, or a rise in the level of the water table;

b) Any damage or problem caused by the fault or actions of a third party;

c) Any damage or problem resulting from faulty installation of the **DCU-200I/E** and/or products located upstream or downstream from the unit;

d) Any damage or problem resulting from any installation, modification, correction, or addition to the treatment system carried out after the installation of the **DCU-200I/E** without prior written approval from Premier Tech;

e) Any damage or problem, if it is shown that the installation and use of the **DCU-200I/E** were not in accordance with the instructions and guidelines described in the Installation Guide and Owner's Manual;

g) Any damage or problem caused by the fault or actions of the Customer or the Customer's Successors.

5. PARTICULAR EXCLUSIONS

It is further expressly understood that the Customer may not carry out or cause to be carried out any repair or inspection of the **DCU-200I/E** sold, 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 this notice, to assess the situation.

If the Client carries out or causes to be carried out repairs, or attempts to repair or to apply corrective measures of any kind whatsoever to the **DCU-200I/E** sold, without the authorization of 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

Premier Tech's liability and obligations regarding any corrective measure carried out or any attempt to correct an indicated problem shall be limited to replacing the defective parts of the **DCU-200I/E** and to supplying the required labor, if applicable, in accordance with Sections 3 and 4.

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 be suffered by the Customer or by any other party concerning the **DCU-200I/E**.

8. TRANSFER OF OWNERSHIP

In the event of transfer of ownership, sales, assignment, or disposition in any way whatsoever of the Customer's property to a third party, this Warranty shall continue to be valid. The person transferring, selling, assigning, or otherwise disposing of the property undertakes to hand over to the Subsequent Purchaser or his Successor the Certificate of Warranty received upon completion of the work, as well as the **DCU-200I/E** Owner's Manual.

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 **DCU200-I/E** and it is found, after inspection, that no such defect or malfunction exists, or that this defect or malfunction is excluded or not covered under the Warranty, a minimum charge of $150.00 plus all direct expenses shall be paid by the Customer and/or the Customer's Successors for the cost of the inspection.

10. INTERPRETATION

The terms of this Warranty shall be interpreted based on 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 other 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 document and/or contract entered into between the Customer and Premier Tech, the terms of this Warranty shall prevail.

12. PURCHASERS AND SUCCESSORS

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