ENVIRO CLEAN PRO

DRAINDOSE KOMPACT

USER MANUAL **EN**

DrainDose Kompact

WARNING!

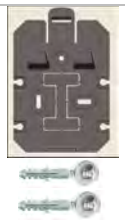
Before carrying out ANY work inside control panel of the DrainDose device, make sure you disconnect the battery pack.

Failure to comply with the instructions contained in this manual could cause injury to people and/or damage to the appliance and the system.

Drain Dose Kompact is a device designed to dispense enzyme-based chemicals into waste systems in order to prevent the buildup of fat. The dosage happens by means of a peristaltic pump driven by a 6 VDC powered circuit board with a motor that activates two rollers to squeeze a peristaltic tube. The device can be programmed to dispense set volumes of chemical at defined intervals.

The unit operates in TIMED mode, in which up to 12 dosing intervals can be programmed, each with a defined starting time, repetition cycle and dosing volume.

1. PACKAGE CONTENT

B: PVC Crystal 4x6 with suction hose (4 m)	**C**: Foot filter (PP riser)	 **E**: Mounting bracket kit (ϕ=6 mm screws)	**G**: Primary button battery CR2032

WARNING!

These products are **DANGEROUS** (I✖A) and require special precautions during use, handling and storage.

- NEVER mix chemical products.
- NEVER allow children or people who have not read this manual to use or tamper with DrainDose or any of its peripheral components (including chemical products).
- ☞ Read this manual carefully before installation and before starting up the device.
- ☞ When using the installation and programming settings indicated in this manual.
- ☞ For all connections refer to the topographical diagram for the control circuit given in this manual.
- ☠ WARNING: Always follow the necessary safety procedures, including the use of adequate protection for the eyes, face, hands, and clothing.
- ☠ WARNING: When installing or carrying out maintenance on this equipment, always disconnect the battery pack.
- ➲ We are constantly striving to improve all our products, and we therefore reserve the right to make changes at any time without notice.
- ➲ Failure to abide by the indications given in this manual may result in injury to people or property damage, or compromise or damage the equipment itself.

2. TECHNICAL FEATURES

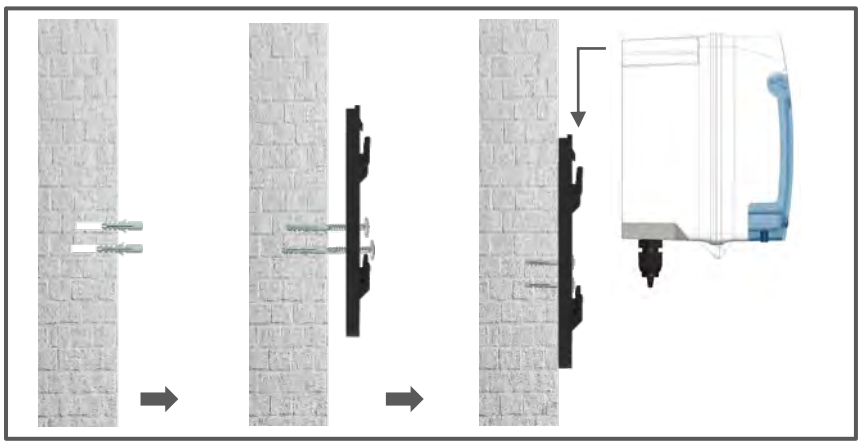
- Power supply available: the unit is available powered by batteries (4 D-cell Battery pack, supplied with the unit)
- Max Flow rate: refer to product label of the specific unit.
- Max back pressure: 1.5 bar (22 PSI)
- Protection of the System: the sealed enclosure on the DrainDose Kompact is highly water resistant and the electronics are protected within the enclosure with IP65 protection rate.
- Dimensions: H 160 x W 150 x D 110 mm
- Weight: 1 Kg (2.2 lbs) without batteries.
- Operating Ambient Temperature: 50 ~ 104°F (10° ~ 40°C)
- Operating Ambient Humidity: up to 95% RH
- Temperature of the liquid to be dosed: 50 ~ 122°F (10° ~ 50° C)
- Typical use environment: indoor

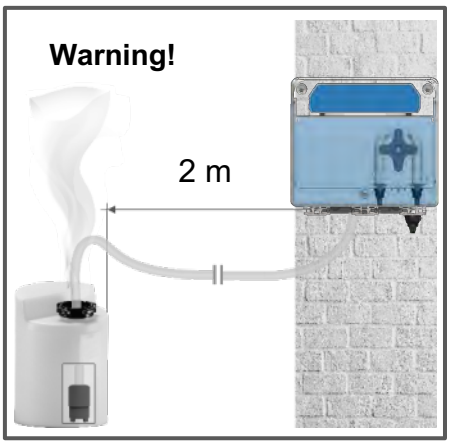
3. MECHANICAL AND HYDRAULIC INSTALLATION

1. Mark the bore holes on the wall
2. Drill Ø 8 mm holes and insert the wall anchors supplied.
3. Mount the bracket to the wall.
4. Hook the device at the top

Mount the suction and discharge lines:

1. Cut off the ends of the hoses so that they are straight.
2. Screw on the cap nut and slide over the hose.
3. Screw in the hose end until it stops over the nozzle.
4. Connect the discharge line to the right- hand hose connection.
5. Connect the suction line to the left-hand hose connection.
6. Tighten up the cap nuts.
7. To do this, shorten the free end of the suction line so that the end hangs just above the container bottom.
8. If necessary, feed a hose line from the leakage fitting to the container.





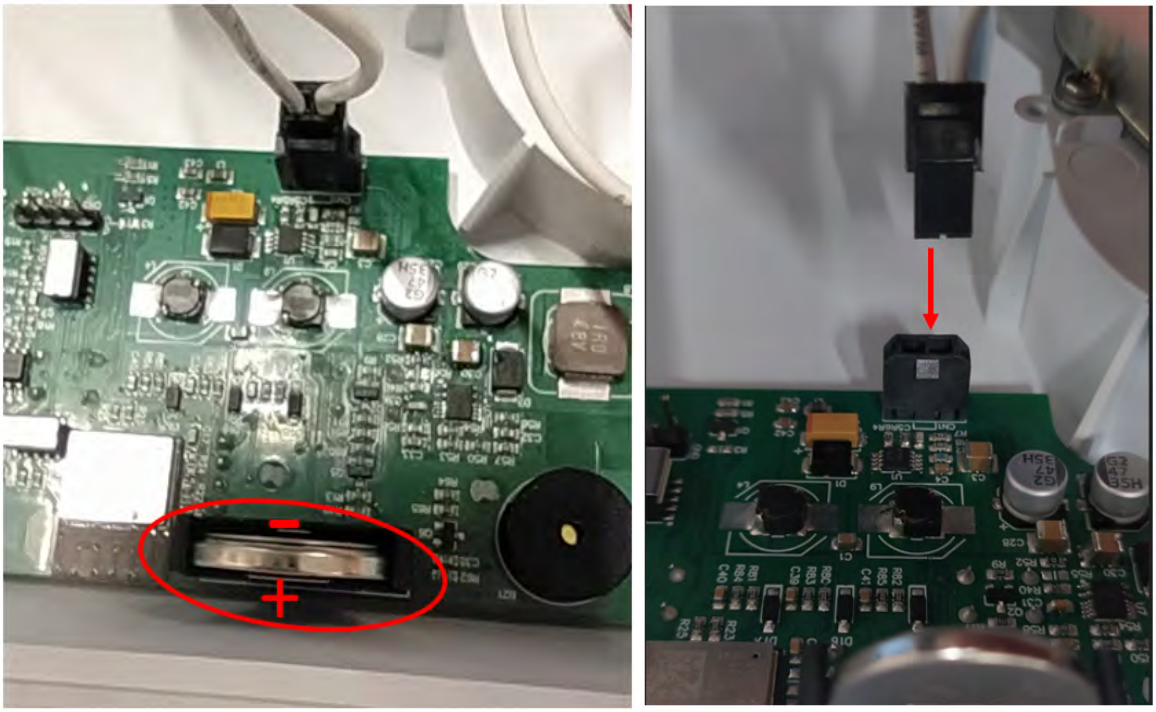
Make sure that the injection pressure is below 1.5 bar

4. ELECTRICAL INSTALLATION

The system is powered only by a battery pack that is placed internally to the unit. Therefore, it doesn't need any electrical connection or any cable to be plugged into.
The only available press gland for cable entry can be used to connect a level probe to detect out of chemical product.

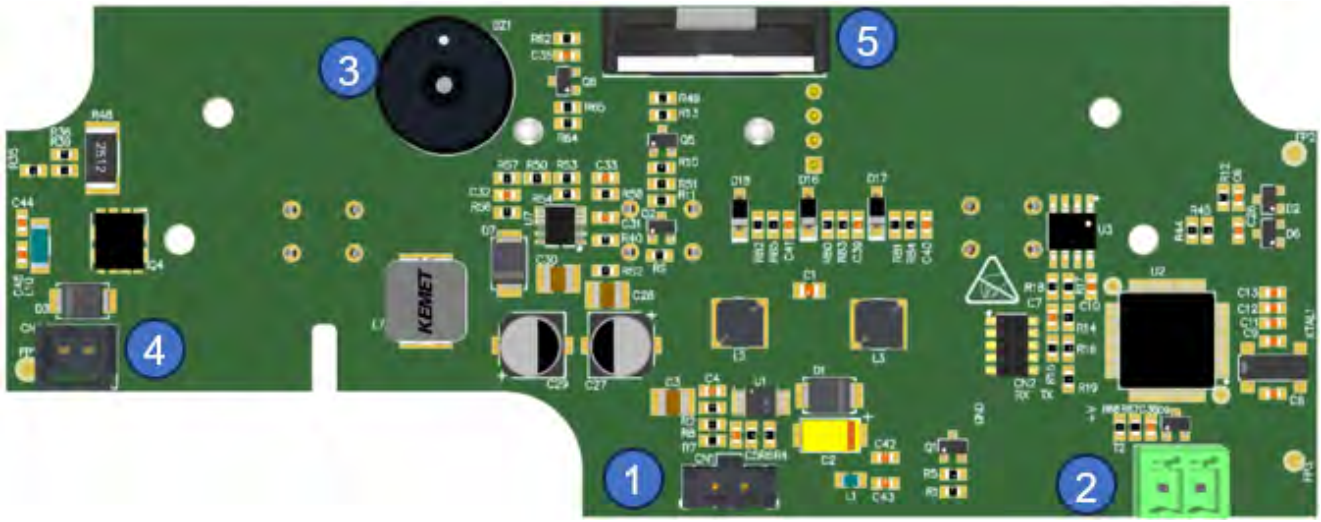
4.1 BUTTON BATTERY INSTALLATION AND BATTERY PACK CONNECTION

1. Open the DrainDose enclosure, at the top middle of the circuit there is the battery slot.



2. Take the button battery contained in the package and insert it in the slot (pay attention to the polarity) to avoid losing date and time when the main battery pack is disconnected or exhausted.
3. Connect the black battery pack cable connector into the housing as in the picture.
4. Screw back the device enclosure.

5. ELECTRICAL CONNECTIONS



Wiring diagram:

1. Input Battery pack connection (6 VDC)
2. Low level input
3. Buzzer
4. Motor connection (output)
5. Backup battery slot

6. CONTROL KEYS

Key	Description
	It's used to access the dosing programs settings (in "timed" dosing mode only) when pressed for 2 seconds. **If pressed quickly when the device is in sleep mode, it wakes the device up.** When the device is "awake", if pressed quickly allows to move through the different visualizations (date and time, battery status, set programs, etc.). During programming, it is used to confirm the current parameter and proceed to the next one.
	DOWN ARROW key: in programming mode, it's used to move through the different options of one menu or to modify the values of a parameter. **If pressed quickly when the device is in sleep mode, it wakes the device up.** In RUN mode, if pressed for more than 2 seconds it is used to execute the pump priming.
	UP ARROW KEY: in programming mode, it's used to move through the different options of one menu or to increment the value of the selected parameter. **If pressed quickly when the device is in sleep mode, it wakes the device up.** In RUN mode, if pressed for more than 2 seconds it is used to execute the calibration of the pump.

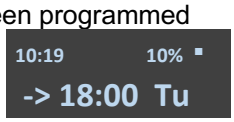
7. PROGRAMMING

VISUALIZATION

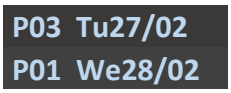
The device goes in “sleep mode” after 30 seconds on NO ACTIVITY (No dosage) or 3 minutes after the last key was pressed.
When one key is pressed the device wakes up. This pressure is not counted as a key press; therefore the device will go to sleep after 30 seconds if no other key is pressed.
In the main display the device shows the current time, the next programmed dosage day and hour and the remaining battery life.
If no dosage intervention has been set, the device shows “No program”.

Pressing ENTER key quickly you can scroll between the different screens’ views.
Different views are:

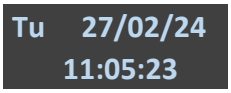
- Nearest dosage activation that has been programmed



- List of ordered dosing programs that have been set, that can be visualized scrolling with DOWN / UP arrows



- Current date and time



- Bigger battery level view

KEYS

Pressing Left key for 2 seconds it is possible to execute the priming of the pump.
Pressing Right key for 2 seconds it is possible to execute the CALIBRATION.
Pressing ENTER key for 2 seconds you can enter the programming mode.
Pressing LEFT key quickly you can silence an alarm.
Pressing RIGHT key quickly you can reset an alarm.

MENU PROGRAMMING

There are 12 dosing programs that can be activated by writing a quantity > 0 in the Quantity submenu.
The first thing to do is to SET the current DATE and TIME.
After that you can program the different dosing programs.
For each dosing program you can program:

- Activation date
- Activation Time
- Quantity
- Repetition

If a program has a repetition = 0, the program will be activated only once.
If there is at least one program that activates while another program is dosing, the last activated program will follow the program that is currently dosing.
All other programs will be recalculated with next activations in the future.
If 2 programs have the same next activation, the dosing program with lower index (P01 > P02) will be the one to be executed, and the other one will be ignored.

> Exit Language	Exit: goes back to the main display
> Language Settings	Language: allows to select different available languages With UP and DOWN buttons, you can select among the different languages (English, Italiano, Deutsch, Francais and Espanol). ENTER to confirm.
> Settings Statistics	With ENTER button you can go into SETTINGS SUBMENU
> Statistics Fw Version	With ENTER button you can access the available statistics: Qty dosed: reports the estimated dosed amount. Activations: reports the number of activations of the device
> Fw Version	Pressing ENTER, it shows the Fw code and revision of the device

SUBMENU SETTINGS

Enter PSW 0000	When entering the Settings submenu, the system requires to insert the programmed password (Default is “0000”)
> Back P01 [1..12]	Back returns to the Main Menu
> P01 [1..12] Set Date	Pressing Enter you can access the programming of the Program 1, pressing DOWN ARROW you can scroll to different dosing programs and access each program. Scrolling with DOWN ARROW up to 12 you can go to the next option
> Set Date Set Clock	Pressing ENTER you can set the current date and day of the week, i.e. Set Date Tu 27/02/24
> Set Clock Password	Pressing ENTER you can set the time of the day, i.e. Set Clock 9:47:00 NOTE: the device will ask to SAVE or NOT the setting
> Password Reset	With ENTER you can change the default password to access the settings menu New PSW 0000
> Reset	With ENTER you can access the RESET submenu, where you can decide to Reset Statistics only, Reset Programs Only or Reset ALL. The system will ask for a confirmation once pressed one of the options

SUBMENU PROGRAMS

It is possible to set up to 12 dosing programs, with different activation times, quantities, and cycles.

> Back Activation	Back returns to Settings Menu
> Activation Quantity	Activation allows to select the Day of the week for the first activation of the dosage and the Hour and Min at which the device will activate, i.e. Mo 8 : 00 Day Hour Min If the system is already programmed to dose at a certain day and time that comes before this one, it will ask if to set this new time as next dosage.
> Quantity Repetition	Pressing Enter you can insert the Quantity to be dosed at every cycle in milliliters, i.e. 5.0 Quantity (ml)
> Repetition View Next	With ENTER you can set the repetition cycle of the dosage for the current program in Days Hours and Minutes, so you can define if the system must dose every day, or every hour or every 20 minutes and so on 1 00 00 Days Hours Mins
> View Next	View Next allows to see the next programmed dosage of the device, i.e. Tu 5/03/24 8:00

PUMP CALIBRATION

From the visualization menu, press the right key for 2 seconds.
The pump calibration procedure will be accessed.

Calib
Yes

The calibration procedure will start for 15 seconds.

Quantity
25.0ml

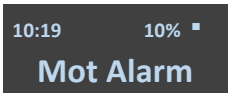
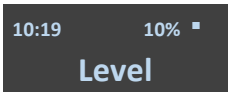
After that it will be possible to modify the nominal value of 25.0 ml proposed by the device.
The new value will be used for calculating the dosing amount and for the statistics.

PUMP PRIMING

From the visualization menu, press the left key for 2 seconds.
The pump priming procedure will start a countdown for 60 seconds.

Priming
60s

8. ALARMS

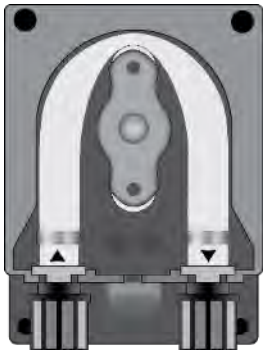
	If, during the dosage, the motor is blocked for 3 times (excessive current absorption is detected), an alarm will be generated. On the display the message beside will be shown. The buzzer will sound intermittently. The motor will be stopped until the alarm is reset with RIGHT button. The alarm can be silenced with LEFT button.
	If the level input is active (short-circuit pin 1 and 2 on the connector T2 LEVEL) an alarm will be generated. On the display the message beside will be shown. If the dosing is active the pump will be stopped. The buzzer will sound intermittently. The alarm can be silenced with LEFT button. This allows the user to connect the unit to a level probe to signal when the chemical canister is empty.

Battery warning

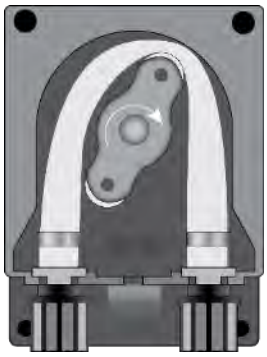
For the models working with the battery pack power supply:
If the battery power value goes under 5%, on the first row of the display, in the right side of the display the symbol of the battery will be blinking: in this condition the device will not execute any dosage, as the dosage would not be consistent (not enough voltage will be provided to the motor), therefore it will be necessary to replace the battery pack.

9. HANDLING

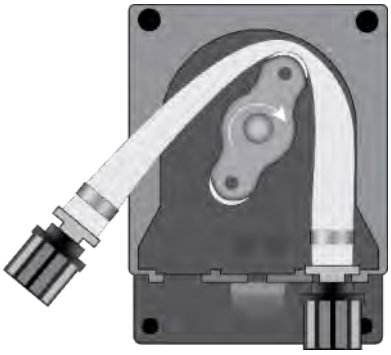
Hose replacement:



Open the pump's lid and release the hose by pulling the left connector upward.



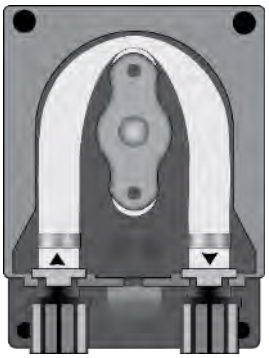
Position the roller at 7h05, turning it in the direction of the circular arrow.



Completely release the left connector, holding it taut towards the outside, and turn the roller in the direction of the circular arrow so that the hose is freed up to the right connector.

Position the roller at 7h05, turning it in the direction of the circular arrow.

Insert the left connector into the relative housing and pass the hose under the roller's guide. Turn the roller in the direction of the circular arrow, simultaneously accompanying the hose into the pump's head, until the right connector is reached.



Close the pump's lid and press its surface hard so that it is properly locked into place.

10. TROUBLESHOOTING

a. Pump will not activate:

- Check pump output terminals for loose screws and disconnected wires.
- Check for proper voltage across motor terminals.
- Check for obstruction in pump head.
- Check the program time, the quantity and the clock time.

b. Pump runs too slowly:

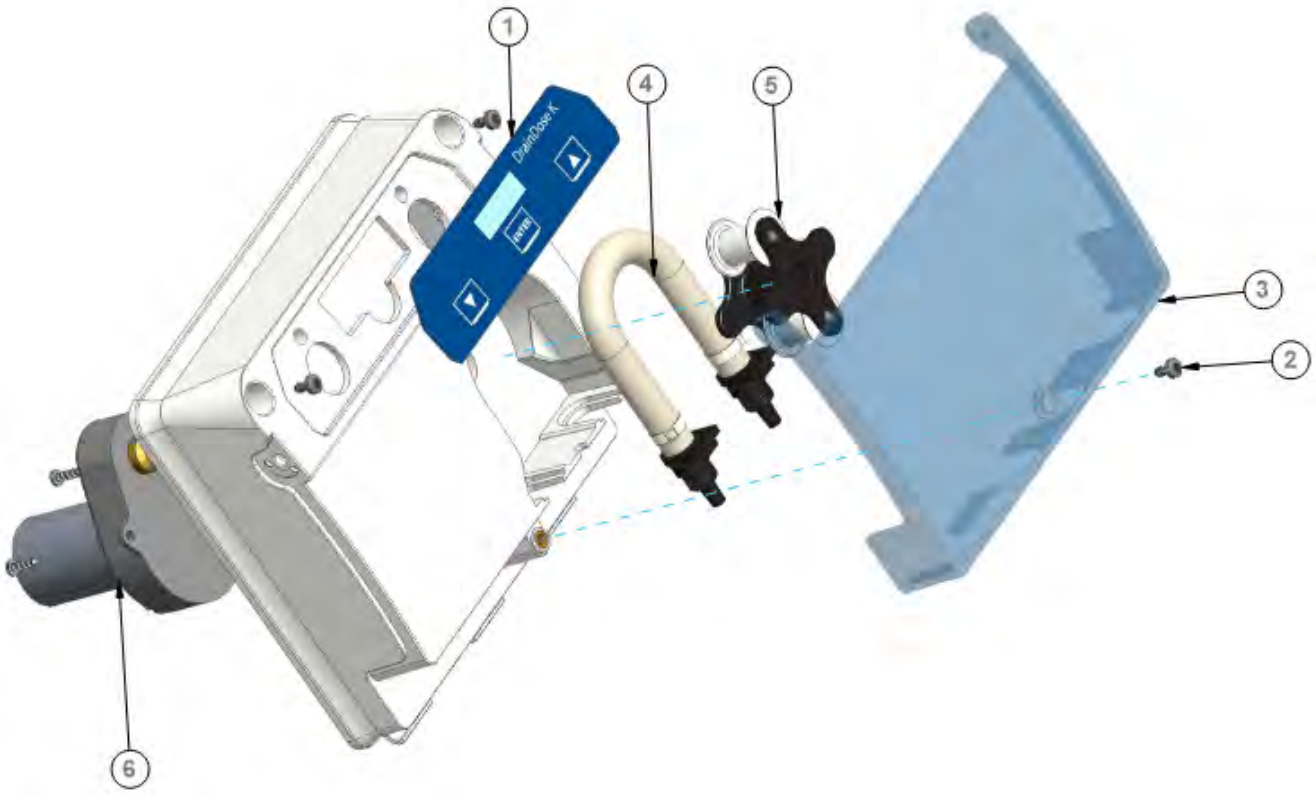
- Check roller block for binding.

- Check for lubrication on squeeze tube.
- Check pump settings to verify if the parameters are correct.
- Check battery charge status.

c. Loss of pump prime:

- Check pickup line for any holes or air leaks.
- Check squeeze tubing in pump for any cracks or pin holes.
- Check suction and delivery tubing to verify if there is any deterioration.

11. SPARE PARTS



ID	CODE (EU VERSION)
1 – frontal label (5 pieces)	RIC0153846
2+3 – frontal cover	RIC0153701
4 – squeeze tube	9900090057
5 – rollers assembly	RIC0151016
6 – motor assembly with cable	RIC0153844
7 – main CPU board	RIC0153845
8 – Battery pack	RIC0153846