OPL Mini L

MAINTENANCE AND INSTRUCTION MANUAL **EN**

MANUAL DE INSTRUCCIONES Y MANTENIMIENTO **ES**

OPL Mini L
MAINTENANCE AND INSTRUCTION MANUAL

Peristaltic pump regulated through time control.
Automatically accepts AC voltage range as follows:
Power supply: 100 - 240VAC

1.0 TECHNICAL CHARACTERISTICS

Dimensions (H x W x D): 127mm x 102mm x 113mm (5" x 4" x 4-½")
Max suction height: 1.52m (5 ft)
Consumption: 5 Watts
Fuses: 400mA 250 VAC
Pump flow rate: 8 oz/min.

2.0 OPERATION

This pump is timed and provides easy, user-friendly operation:
The pump is equipped with 2 cables:
Cable 1: power supply (100÷240 VAC).
Cable 2: trigger signal for enabling the dosing cycle (20-240 VAC or 70-240 VAC).
Programming takes place through the keyboard and the display on the pump's front panel.

FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN PERSONAL INJURY OR DAMAGE TO THE EQUIPMENT LEADING TO IMPROPER OPERATION OR PRODUCT FAILURE.

IMPORTANT
Before carrying out any operation on the pump, disconnect the power supply!!

2.1 ELECTRICAL CONNECTIONS

Power the pump using cable with the plug. When this cable is powered, the pump is ON.
If activatin with by direct signal, connect cable 2, identified by the word SIGNAL, to the signal that must start dosing.
Proceed with programming using the keyboard, as described in chapter 3.

When the pump is powered with the switch in the ON position (the display shows the message: on) and the signal is active on the SIGNAL cable or by result of activating the optional remote switch, the pump doses according to the cycle set with the keyboard. The dosing cycle consists of 4 phases:

1. Filter time (5 seconds) fixed. The display shows a mobile "_-" 4 digits long.
2. Programmable delay time (0÷999 seconds). The display shows the message **"deL"**
3. Programmable dosing time (0÷999 seconds). The display shows **"run"**.
4. Programmable lock-out time (0÷999 minutes). The display shows the countdown, which starts from the programmed time and goes to zero. The pump does not dose during the lock-out time, even if it receives another signal on the SIGNAL cable.

3.0 PROGRAMMING

1. Supply Power to the OPL Mini (plug in to standard outlet)
2. Set switch on the side to "Off" position. The display reads "Sby" (Standby)

3.1 PROGRAMMING THE PASSWORD, DELAY, DOSING AND LOCK-OUT TIMES

3.1.1 Enter to programming mode (Note: the first set of numbers in the display are default at 000. You have the option of leaving this set at 000 or entering a 3 digit password which would then be required to enter programming mode in the future).

- Press the PRG key until the display shows **"P—"**.
- Press the PRG key. The red display's first digit begins to blink.
- Press the ▲ key until the blinking digit displays the desired value of access code.
- Press the PRG key. The next digit blinks.
- Press the ▲ key until the blinking digit displays the desired value of access code.
- Press the PRG key. The next digit blinks.
- Press the ▲ key until the blinking digit displays the desired value of access code.
- Press the PRG key. The next digit blinks.
- The green display shows **"1"**.

3.1.2 Programming the delay time

- Place the left side switch in the OFF position (standby). The display shows the message: Sby.
- Enter to programming mode (see par. 3.1.1).
- The green display shows **"1"**.
- Press the PRG key. The red display's first digit begins to blink.
- Press the ▲ key until the blinking digit displays the desired value.
- Press the PRG key. The next digit blinks.
- Press the ▲ key until the blinking digit displays the desired value.
- Press the PRG key. The next digit blinks.
- Press the ▲ key until the blinking digit displays the desired value.
- Press the PRG key. All of the display's digits stop blinking.
- To save the settings, while none of the display's digits are blinking, scroll the menu using the ▲ key until **"Hld"** appears on the display and then press PRG key. The pump returns to standby mode and **"on"** appears on the display.

3.1.3 Programming the dosing time

- Place the left side switch in the OFF position (standby). The display shows the message: Sby.
- Enter to programming mode (see par. 3.1.1).
- Press the ▲ key until the green display shows **"2"**.
- Press the PRG key. The red display's first digit begins to blink.
- Press the ▲ key until the blinking digit displays the desired value.
- Press the PRG key. The next digit blinks.
- Press the ▲ key until the blinking digit displays the desired value.
- Press the PRG key. The next digit blinks.
- Press the ▲ key until the blinking digit displays the desired value.
- Press the PRG key. All of the display's digits stop blinking.
- To save the settings, while none of the display's digits are blinking, scroll the menu using the ▲ key until **"Hld"** appears on the display and then press PRG key. The pump returns to standby mode and **"on"** appears on the display.

3.1.4 Programming the lock-out time

- Place the left side switch in the OFF position (standby). The display shows the message: Sby.
- Enter to programming mode (see par. 3.1.1).
- Press the ▲ key until the green display shows "**3**".
- Press the PRG key. The red display's first digit begins to blink.
- Press the ▲ key until the blinking digit displays the desired value.
- Press the PRG key. The next digit blinks.
- Press the ▲ key until the blinking digit displays the desired value.
- Press the PRG key. The next digit blinks.
- Press the ▲ key until the blinking digit displays the desired value.
- Press the PRG key. All of the display's digits stop blinking.
- To save the settings, while none of the display's digits are blinking, scroll the menu using the ▲ key until "**Hld**" appears on the display and then press PRG key. The pump returns to standby mode and "**on**" appears on the display.

3.1.5 Calibration mode

- Place the left side switch in the OFF position (standby). The display shows the message: Sby.
- Enter to programming mode (see par. 3.1.1).
- Press the ▲ key until the display shows "**5CAL**".
- Press the PRG key, CAL begins blinking.
- While holding a measuring cup or flask under the outlet of the pump, press the ▲ key and release when the pump starts *(display increases the timer)*. Let the pump runs until desired amount of chemical is dispensed then press the ▲ key again to stop. (display shows the dosing time). The **OPL Mini** run time is now programmed. Repeat these steps if new volume is required.
- Press the PRG key the display shows "**5CAL**".
- To save the settings, scroll the menu using the ▲ key until "**Hld**" appears on the display and then press PRG key. The pump returns to standby mode and "**on**" appears on the display.

3.1.6 Changing access code

- Place the left side switch in the OFF position (standby). The display shows the message: Sby.
- Enter to programming mode (see par. 3.1.1).
- Press the ▲ key until the display shows "***o+old access code***".
- Press the PRG key the display shows "***n+old access code***" and the red display's first digit begins to blink.
- Press the ▲ key until the blinking digit displays the desired value.
- Press the PRG key. The next digit blinks.
- Press the ▲ key until the blinking digit displays the desired value.
- Press the PRG key. The next digit blinks.
- Press the ▲ key until the blinking digit displays the desired value.
- Press the PRG key. All of the display's digits stop blinking.
- To save the settings, while none of the display's digits are blinking, scroll the menu using the ▲ key until "**Hld**" appears on the display and then press PRG key. The pump returns to standby mode and "**on**" appears on the display.

3.2 SETUP TRIGGER HI-LO

- Place the left side switch in the OFF position (standby). The display shows the message: Sby.
- Enter to programming mode (see par. 3.1.1).
- Press the ▲ key until the display shows "**4 HI**" or "**4 LO**".
- Press the PRG key and "HI" or "LO" readout will blink.
- Press ▲ key to select if a signal is "**LO**" **(20÷240 VAC)** or "**HI**" **(70÷240 VAC)**.
- Press PRG key and the display stops blink
- To save the settings, while none of the display's digits are blinking, scroll the menu using the ▲ key until "**Hld**" appears on the display and then press PRG key.

Ø The signal trigger has a filter of 5 seconds.

3.3 EXITING FROM PROGRAMMING

To exit programming and return to the main menu, scroll the menu using the ▲ key until "**ESC**" appears on the display. Now press PRG key. The pump returns to standby mode and "**on**" appears on the display. None of the modified settings are saved.

3.4 PRIMING MODE

Press switch in MOM (Momentary) position and keep it pressed for at least 3 seconds, the pump starts running at *maximum speed for 60 seconds* (the message PR will be shown on the display). To stop it , press the MOM switch position again.
Repeat this procedure if additional priming is needed.

3.5 MOTOR STOPPING

In case the motor is excessively overloaded (for ex. a tubing breaks) the pump executes stop/restart motor cycles (the stop time increases at every STOP: 0.5 sec . → 10 sec.) to avoid the overheating of the same pump.
During the motor stop the display visualizes: "**1Alr**"

4.0 DISPLAY

As soon as the pump is powered, the display shows "**8888**" for approximately 0.3 seconds, during which the pump runs a check:
If the parameters cannot be read properly from EEPROM, the display shows "**FAIL**" and the pump remains on standby.
The default parameters can be reset using the ▲ key (pressed for 4 seconds). The default parameters are:

Delay time = 005
Dosing time = 055
Lock-out time = 000
Trigger signal = HI
Calibration = CAL
Old password = 000

After the default parameters have been reset, these parameters can be modified from the programming menu (see chap. 3).

5.0 ACCESSORY

A remote console - **(Code #9900700110)** - is available for operating the switch manually.