

"LED 100 VR SERIES" CONTROLLER

- Instructions for use and programming



Thank you for using the Rpe® 100 VR Series controller. The LED Series controller is equipped with the most modern and easy to use programming technology.

The following instructions explain how to use the controller; particular attention should be paid to the NOTES which provide important tips.





CONTROLLER SPECIFICATIONS

The controller is able to manage irrigation cycles in time zones between 1 and 72 hours, with start time delays between 10 minutes and 24 hours and run times between 30 seconds and 90 minutes together with the possibility to disable the irrigation cycle.

Features

- Single station programmer.
- Display data using LED's.
- Manual mode for driving the solenoid.
- Programmable start delay between 10 minutes and 24 hours.
- Programmable frequency of irrigation between 1 and 72 hours.
- Programmable run time from 30 seconds to 90 minutes.
- 'OFF' function for disabling irrigation cycles.
- Battery power supply (+9 V) duration for at least one season's operation.
- Low battery shut-down system.
- Low battery power indication by the first three active time LEDs flashing.





INSTALLATION INSTRUCTIONS

The controller is equipped with a threaded union nut for attachment to taps with $\frac{3}{4}$ "male bsp thread; An adaptor will be needed when used with a tap with $\frac{1}{2}$ " male thread.

1. Check that the filter is present within the threaded union nut.
2. Tighten the union nut by hand on the faucet (do not use a spanner).
3. Hand tighten the fitting with the outlet pipe into the $\frac{3}{4}$ "socket of the programmer by hand -do not use undue force.

POWER SUPPLY

The controller is powered by a 9V alkaline battery. The power consumption of the controller should allow the battery to last about a season before replacement becomes necessary: the battery life is dependent on the number of valve actuations and the number of programming cycles.

NOTE: If the battery is removed from the controller, the programmed data will be lost: Re-programming will be necessary both for the cycle times and irrigation cycles. The controller will re-start counting the delay time of the first cycle.





FITTING THE BATTERY AND STARTING THE CONTROLLER

The battery is accessible from the front control panel at the bottom of the housing.

1. To insert the battery, unscrew the front protection cover.
2. Connect the battery -ensure correct polarity is observed.
3. Commence programming the working cycle times.
4. Re-fit the front cover ensuring the seals are located correctly.

NOTE: Before installing the battery, check that there is no water inside the controller.





OPERATING NOTES

1. After inserting the battery all the LEDs on the control panel are illuminated in sequence to verify the system is working correctly.
2. At the same time two pulses are made to ensure the valve is closed initially.
3. After the LED delay test the first cycle time LED will be illuminated.
4. If the monitoring system detects that the battery is low, the fault status is displayed by the flashing of the first three cycle times LEDs: the indication will be repeated three times. All other LEDs will remain off, the function buttons will be disabled and the controller will be blocked until the battery is replaced.
5. During programming the set values can be changed at any time.
6. To reduce power consumption after a minute of inactivity, the LEDs will automatically turn off. To turn on the display press any of the three buttons for three seconds.





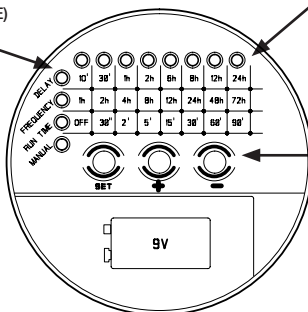
USER INTERFACE

The user interface of the controller consists of three function buttons, four LEDs to indicate functions and eight LEDs for displaying the time currently scheduled. The data interpretation is intuitive: the active function is on the left (indicated by the LED) and its associated value on the right (indicated by the 2nd active LED).

FUNCTION LEDs

- Delay time (DELAY)
- Frequency (FREQUENCY)
- Irrigation duration (RUN TIME)
- Manual (MANUAL)

ACTIVE TIME LEDs



FUNCTION BUTTONS





BUTTON FUNCTIONS

- SET:** Selects the program functions or manual mode. :
DELAY, FREQUENCY, RUN TIME, MANUAL.
- +:** Increases the time or selects valve open in manual mode.
- :** Decreases the time or selects valve closed in manual mode.



LED FUNCTIONS

- DELAY:** Indicates the delay time before the first irrigation cycle run time.
- FREQUENCY:** Indicates the time between irrigation cycles.
- RUN TIME:** Indicates the duration of the each irrigation cycle.
- MANUAL:** Indicates that the manual mode is active which will open or close the valve.





PROGRAMMING THE START DELAY TIME (DELAY)

The start delay time is the lapsed time before the commencement of the first working irrigation cycle. To program the delay time follow the steps below:

1. Press the **[SET]** button until the LED **[DELAY]** lights: the FUNCTION LEDs will change indicating the currently active function.
2. Use **[+]** and **[-]** buttons to select the desired delay time : the active time LEDs will change to show the new value.
3. The set value is stored when the **[+]** or **[-]** buttons are released and is activated at the commencement of the operation cycle.



PROGRAMMING OF IRRIGATION FREQUENCY (FREQUENCY)

The frequency of irrigation is the time between irrigation cycles. To program the frequency of irrigation proceed as follows.

1. Press the **[SET]** button until the LED **[FREQUENCY]** lights: the active time LED will show the time currently set.
2. Use **[+]** and **[-]** to select the desired frequency of irrigation: the active time LED will change to the new time.
3. The set time is stored after the release of the **[+]** or **[-]** buttons





OPERATING NOTES: The frequency of irrigation can be reprogrammed at any time during the irrigation cycle: the new times set will be active from the next watering cycle.

PROGRAMMING OF IRRIGATION DURATION (RUN TIME)

In order to program the duration time of irrigation, proceed as follows:

1. Press the [SET] button until the LED [DURATION (RUN TIME)] lights: the LED will show the time currently set.
2. Use [+] and [-] buttons: The active time LEDs will change to show the new run time.
3. The set time is stored after the release of the [+] or [-] buttons and will be active from next irrigation cycle.

OPERATING NOTES: The irrigation run time can be re-programmed at any time during the irrigation cycle. The new times set will be active from next watering cycle.





PROGRAMMING OF OPERATION CYCLE (RUN)

The insertion of the operating cycle will start the time delay counting, thus enabling the operation cycle of the controller, after setting work times.

To enter operation cycle proceed as follows:

1. Press and hold for three seconds, the [SET] button until double flash of the [DELAY] LED.
2. The double LED flash of [DELAY] button indicates that the irrigation cycle is in operation.

NOTE: After entering the RUN cycle it is not possible to change the start delay time [DELAY]. When the program is activated the LEDs will flash indicating that the controller's irrigation cycle is operational.





MANUAL IRRIGATION (MANUAL)

To enable or disable a manual irrigation proceed as follows:

1. Press the **[SET]** button until the **[MANUAL]** LED is illuminated. The active time LEDs are used to display the current status: continuous scrolling of the active time LEDs indicates that the irrigation is in progress in manual mode (valve open); If the LEDs are off this indicates that manual watering is not active (valve closed).
2. Press the **[+]** button to activate irrigation: scrolling of the active time LEDs indicates that the valve is open (during irrigation).
3. Press the **[-]** to turn off the irrigation: the active time LEDs will switch off to indicate that the valve is closed (no watering in progress).

OPERATING NOTES

- 1) The programmed irrigation times with the controller in manual mode is maintained even when using the function **[MANUAL]**: you can also view or modify cycle times with the controller in manual mode.
- 2) The manual watering time is the one programmed during irrigation duration **[RUN TIME]** The valve will close after the set time and the watering will stop repeated word.

NOTE: If the manual irrigation function is chosen at the delay time of an irrigation program, the controller will close the valve at the end of that set run time.





PRE-SET PROGRAM (DEFAULT)

The controller is delivered with the following pre-set program:

PRE-SET PROGRAM TABLE (DEFAULT)

PARAMETER	POS. 1	POS. 2	POS. 3	POS. 4	POS. 5	POS. 6	POS. 7	POS. 8
DELAY	10 minutes							
FREQUENCY						24 hours		
RUN TIME					15 minutes			





FAULT FINDING

FAULT	CHECK	ACTION
The manual control does not respond	The battery voltage is low (Three LEDs flashing "DELAY", "FREQUENCY", "RUN TIME")	Replace the battery
	The valve is closed	Open the valve
The program does not run	The program has not been saved	Press SET button for five seconds
	The battery is not inserted properly	Check the battery
	The battery voltage is low (Three LEDs flashing "DELAY", "FREQUENCY", "RUN TIME")	Replace the battery
	The valve is closed	Open the valve
The battery runs down quickly	Alkaline battery not used	Use an alkaline battery





END OF SEASON OPERATIONS

Before winter remove the battery and store the controller in a dry place protected from frost.

MADE IN ITALY



Do not dispose with normal household waste



FORM FOR TRACKING PROGRAM SET

Cut the paper along the dotted lines, retain it after noting the stored controller settings.





IRRIGATION PROGRAM SET

DATE: ----- TIME: -----

START DELAY				
FREQUENCY				
DURATION				

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IRRIGATION PROGRAM SET

DATE: ----- TIME: -----

START DELAY				
FREQUENCY				
DURATION				

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IRRIGATION PROGRAM SET

DATE: ----- TIME: -----

START DELAY				
FREQUENCY				
DURATION				

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