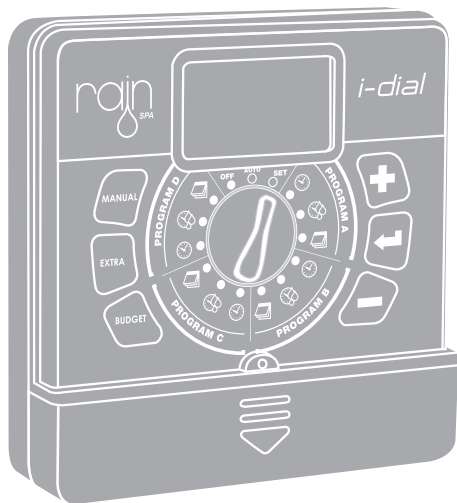




i-dial 24^{Vac}

CONTROLLER

EN. INSTRUCTIONS



— INNOVATIVE IRRIGATION SYSTEMS —

DESCRIPTION

The new controller I-DIAL, available in indoor and outdoor version 4-6-8 stations, is ideal for all residential applications and follows the philosophy to simplicity of programming in 3 RAIN steps: start time, duration and frequency.

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PROBLEM SOLVING

Technical features INDOOR version

- 4 - 6 - 8 stations
 - indoor Model with external transformer
 - Operating 220 VAC 50Hz
 - Outputs 24 Volts AC, 0.8 AMP
 - 4 independent programs
 - 4 start times per program (one for each program)
 - Display of next irrigation
 - Irrigation time from 1 min. 240 min. per station
 - Watering cycles from 4 per day to 1 per week
 - Irrigation program per weekly days or per intervals from 1 to 19 days
 - Seasonal adjustment from 10% to 200%
 - Pump control and master valve (24 VAC out) programmable per station
 - Buffer batteries 2 x 1.5 volt AA alkaline (not included)
 - Output rain sensor programmable per station
 - Function OFF
 - Function Low-battery
 - No permanent memory

Technical features OUTDOOR version

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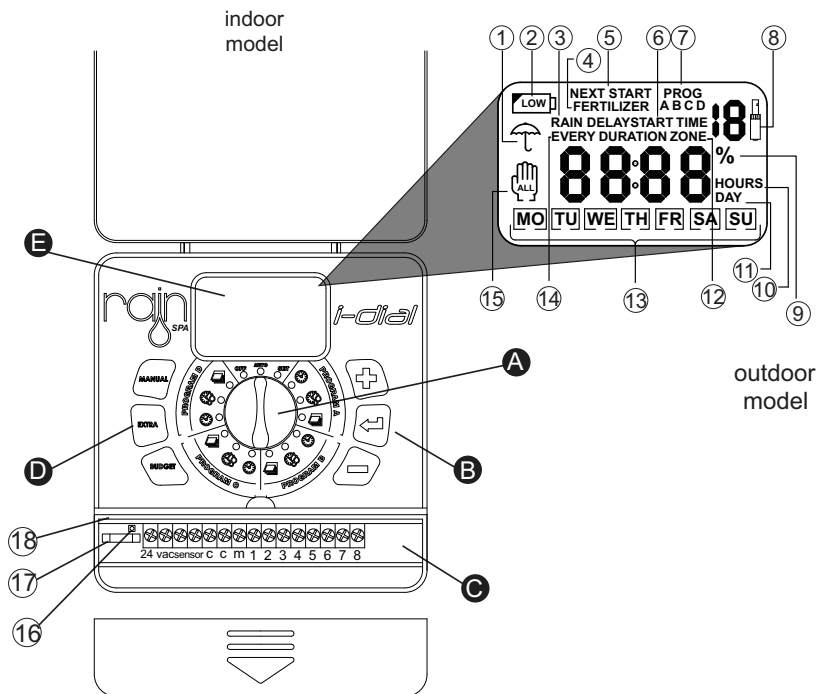
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THE CONTROLLER



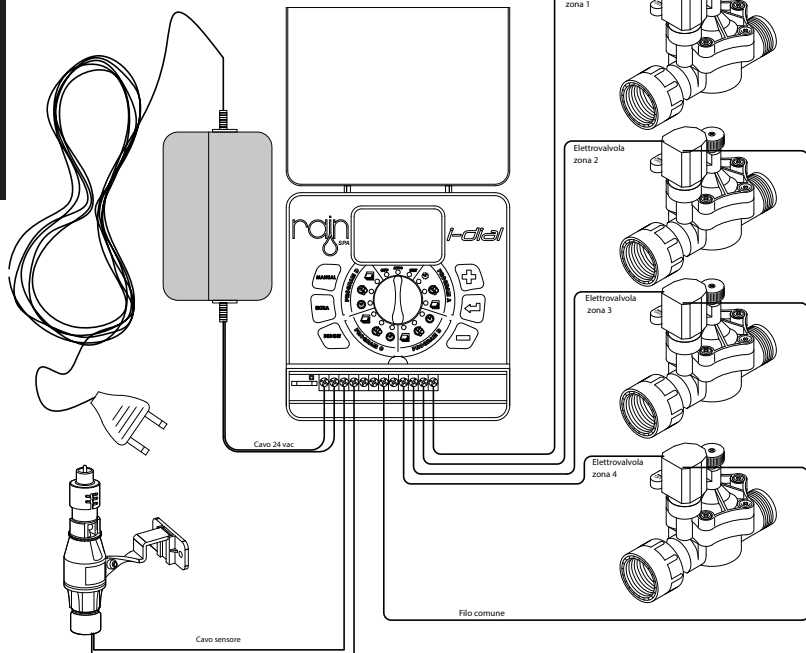
WARNING

The version with the outside transformer must be installed in shelter of weather

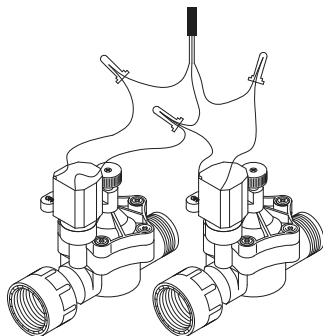
A	Dial
AUTO	When the dial is in this position the controller do the irrigation as programming
SET	When the dial is in this position you can set time and date.
	When the dial is on one of these symbols you can set a start time irrigation
	When the dial is on one of these symbols you can set the watering duration of the indicated sector
	When the dial is on one of these symbols you can set days or the frequency irrigation
B	Programming button
	Increases the selected item flashing in the display
	Confirms values and let continue the programming (ENTER)
	Decreases the selected item flashing in the display
C	Wiring Compartment
24 vac	Cables transformer Input
sensor	Rain sensor input
M	Pump control or master valve Output
1...8	Sector output
16	The button CLEAR eliminates programming

17	Protection fuse 1.0 A
18	button RESET restarts the controller
D	Extra buttons
MANUAL	It allows manual start irrigation
EXTRA	It allows you to personalize the start of pump and sensor
BUDGET	It allows to adjust irrigation times with a percentage
E	Schermo retro illuminato
1	Il sensore pioggia è attivo
2	Le batterie tampone sono scariche
3	E' attiva la funzione ritardo dell'irrigazione
4	Funzione non disponibile
5	Indica la prossima partenza
6	Indica l'ora di partenza
7	Indica i programmi
8	Indica un'irrigazione in corso
9	Indica la regolazione stagionale attiva (budget)
10	Ore
11	Giorno
12	Indica il tempo d'irrigazione
13	Giorni della settimana
14	Indica l'intervallo d'irrigazione
15	Indica l'irrigazione manuale in corso

ELECTRICAL CONNECTIONS



WIRING THE ELECTRIC VALVES

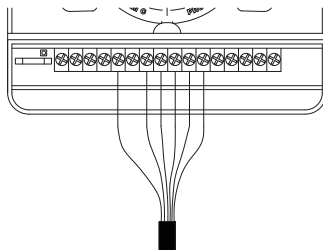


- If the distance between the timer and valves is less than 700 feet (210 M), use WaterMaster® sprinkler wire or 20-gauge (AWG) plastic jacketed thermostat wire to connect the timer to the valves. If the distance is over 700 feet (210 M),
 - use 16-gauge (AWG) wire. Terminals accept up to 14-gauge wire. The wire can be buried in the ground; however, for more protection wires can be pulled through PVC pipe and buried underground. Be careful to avoid burying the wires in locations where they could be damaged by digging or trenching in the future.
 - Each valve has two wires. One wire is to be connected as the common. The common wires for all the valves can be connected together to one common wire

going to the timer. The other valve wire is to be connected to the specific station wire that will control that valve

- All wires should be joined together using wire nuts, solder, or vinyl tape. For additional protection to waterproof connections a WaterMaster® grease cap can be used
- To avoid electrical hazards, only one valve should be connected to each station (Note: Only one wire can be installed into each terminal. If more than two common wires are used in your system, splice several together so only one wire runs into each of the COM terminals. Protect the splice connection with a wire nut.)

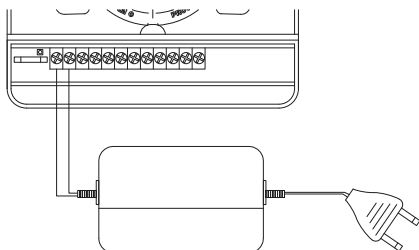
CONNECTING VALVE WIRES TO THE TIMER



- Remove the terminal compartment cover.
- Strip $\frac{1}{4}$ " (6mm) of the plastic insulation off the end of each wire.
- Determine which valve you want to connect to which station. Connect each valve wire to its station terminal (labeled 1-6) by inserting the bare wire fully into the terminal.

- It will be necessary to open the terminal to allow for wire insertion or removal. To do this you will need to use a small phillips head screwdriver.
- Connect the common wire to the terminal labeled "com"

CONNECTING THE TRANSFORMER



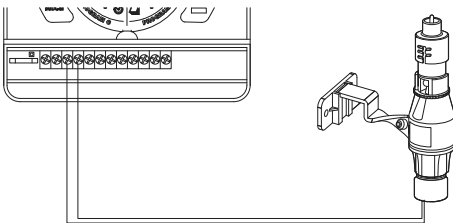
- With the wiring terminal shroud off, find the two terminal holes labeled "24vac". Make sure the transformer is not plugged in. Insert one of the two power leads from the transformer into each terminal.
- It will be necessary to open the terminal to allow for wire insertion or removal. To do this you will need to use a small phillips head screwdriver.
- Plug in transformer

WARNING: DO NOT LINK TWO OR MORE TIMERS TOGETHER WITH ONE

TRANSFORMER.

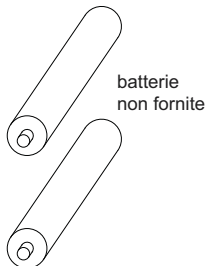
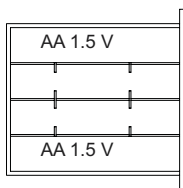
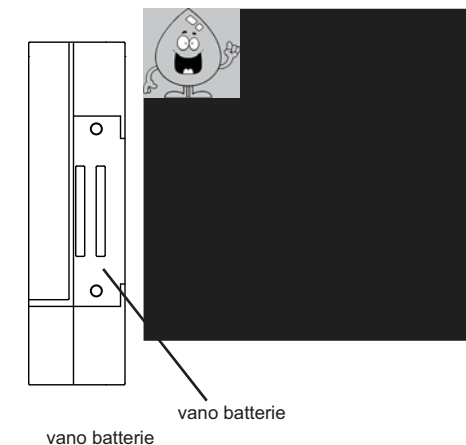
- Slide the shroud back on.

RAIN SENSOR

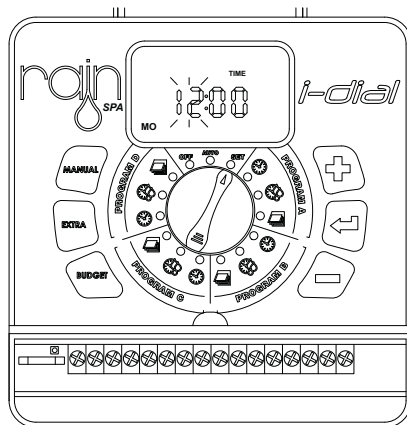


- A rain sensor or other type of micro-switch weather sensor may be connected to the controller. The purpose of the sensor is to stop watering when precipitation is sufficient.

INSTALLING THE BATTERIES



CURRENT TIME AND DAY SETTING



Turn the circular cursor on SET, the time will begin to flash.

Modify the time with the + and - buttons, then press ENTER to confirm and move to the modification of minutes with + and -, press ENTER to confirm and move to the modification of the day of the week with + and - buttons, press ENTER to confirm.

After adjusting the time you can turn the cursor to the right to continue with the watering cycles programming or to the left to return to the auto function.

IRRIGATION PLANNING

The controller I-Dial is equipped with 4 programs (A, B, C, D) completely independent and programmable by following three simple steps.

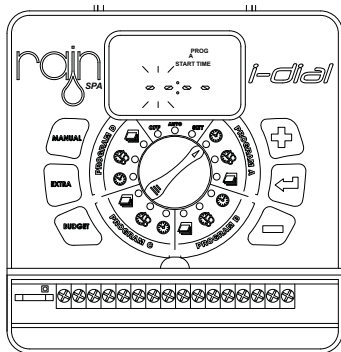
Each program allows a daily start and can be combined with one or more electric valves.

The start time identifies the opening of the first electric valve coupled with the program, the opening of next electric valves will occur sequentially.

Step 1: Start time setting (start time)



start time

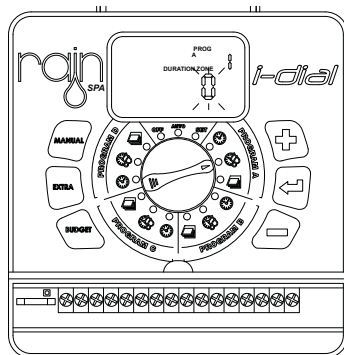


Turn the circular cursor on the symbol START TIME, the start time will begin to flash. Modify the time with the + and - buttons and press ENTER to confirm and move to the modification of minutes with the + and - buttons and press ENTER to confirm.

Step 2: Duration setting for each zones (duration zone)



duration
zone



Turn the dial on the symbol DURATION ZONE, the irrigation time will begin to flash. Modify the minutes of irrigation with the + and - buttons (you can irrigate from a minimum of 1 min to a maximum of 240 min) press ENTER to confirm and move to the change of the area 2. Repeat the procedure for all zones.

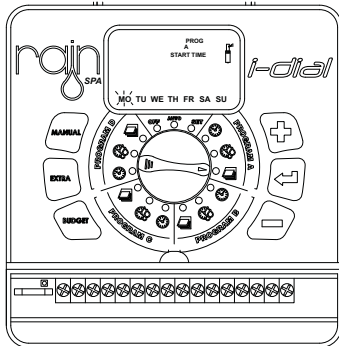


Step 3: watering days setting (watering days)

In this section it will be possible to choose watering days through the selection of the days of the week or through an interval irrigation.



watering
days



Turn the circular cursor on the symbol WATERING DAYS, the message MO will start to flash. Press + to irrigate in the day flashing, press ENTER to continue in the next days press - if you want to deselect a day.

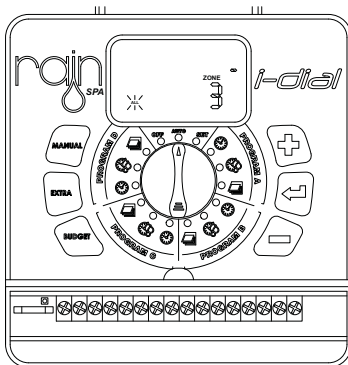
If you want to irrigate in alternate days press EXTRA and select the desired interval with the + and - button and press ENTER to confirm. In this function it is possible to irrigate from once a day to once every 19 days.

MANUAL START

Pressing the MANUAL button you can irrigate without start time setting. This allows you to try the system and its functionality or run an extra irrigation in hot days.



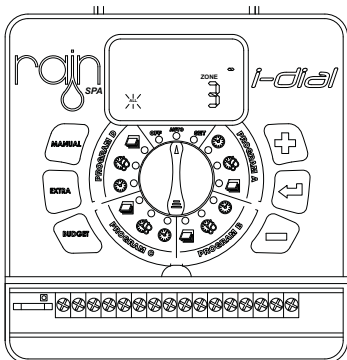
ALL
manual
ALL



Pressing the MANUAL button the writing ALL will start to flash, pressing ENTER button all areas will be open in succession for 3 minutes. (It's not possible to modify the parameter 3 minutes in this function).



manual
zone



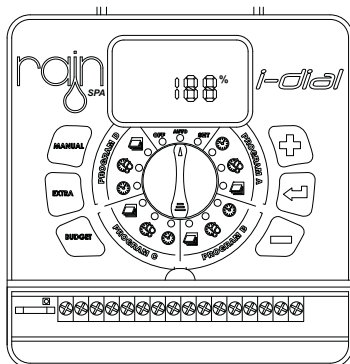
Pressing the MANUAL the written ALL will start to flash, pressing the + button you can set the duration of the manual irrigation of the area 1, press ENTER to confirm and set the duration of the manual irrigation for next areas.

ADDITIONAL FEATURES - BUDGET

The function BUDGET allows to modify simultaneously all irrigation times in percentage. You can change the percentage from a minimum of 10% to a maximum of 200%.



%
budget



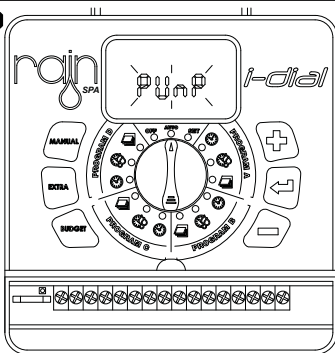
Pressing the BUDGET the written 100 will start to flash and you can change the value with the + and – buttons and pressing ENTER you will confirm the value and return to the home screen.

ADDITIONAL FEATURES - EXTRA

Pressing the EXTRA button it will be possible to modify the function Pump and function SENS. In these two functions you can set the start of the pump or turn on/off the sensor rain for single zone.

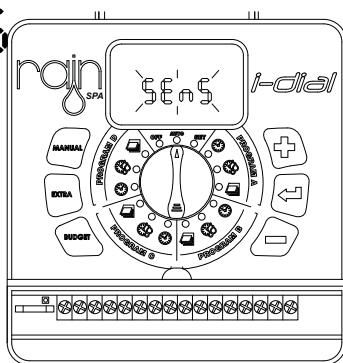


PUMP



Pressing the EXTRA button, the written Pump will begin to flash, press ENTER to access the function, modify with the + or – buttons the word ON/OFF flashing and press ENTER to confirm and move to the next zone. To return to the Initial screen press again EXTRA.

SENS



Pressing the EXTRA button 2 times the written SENS will begin to flash, press enter to access the function, modify with + or – buttons the word ON/OFF flashing and press ENTER to confirm and move to the next zone. To return to the Initial screen press again EXTRA.

PROBLEM SOLVING

Any unauthorized changes of this

Problem	Causes	Solution
The display shows "No AC"	There is no AC power (the programmer is not powered)	Check that the fuse is intact. Check that the transformer is connected properly
The rain sensor does not stop the system	• Rain sensor defective • Stations have been programmed to keep out the sensor	• Verify the operation of the rain sensor and correct cabling system cablatura dell'impianto • Program again the exclusion of the sensor to activate it
The Display is blocked or shows incorrect information	Peak voltage	Reset the programmer
The controller irrigates endlessly	Too many start times have been programmed	Set up again the controller

Warning:
units that are not expressly approved by the responsible for compliance could cancel the right to make use of this equipment

NOTE: This device has been tested and complaint declared with imposed limits on Class B, Part 15 digital devices provided for the FCC Rules.

These limits are designed to provide a reasonable protection against harmful interferences in a residential location.

This equipment generates, uses, and can emit radio frequency energy and, if not used and installed in compliance with the instructions,

may cause an interference to radio communications. However, we cannot exclude that any interferences happen.

If this equipment causes interferences to radio or television reception, which can be determined turning on and off the equipment, the user has to take the following measures to try to eliminate them:

Reorient or relocate the receiving antenna.

- Increase the separation between device and receiver.
- Connect the equipment to a socket of a circuit different from the circuit to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician.

Warning: This device is not designed for use by children or disable people without supervision. Supervise children to avoid that they play with the device.

Caution: Relay activation pump and the main valve

The controller allows you to operate a master valve or a pump during operation of any station. Connect a relay cable * (or master valve) to the “pump” and the other cable to the “common” exit of the controller.

* relay activation of the pump sold separately

Warranty and Declarations

RAIN spa, guarantees its customers that its products will be free from defects in materials and manufacturing for a period of two years from the purchase date.

For a period of two years from the purchase date we replace defective parts free of charge or components that will reveal defects if used in the normal conditions of use and maintenance (requiring proof of purchase).

We reserve the right to inspect the defective part before replacing it.

RAIN spa will not be responsible for any costs or accessories or consequential damages, caused by a defect of the product.

The responsibility of RAIN spa under this warranty is limited only to the replacement of defective components.

To exercise your right to warranty, return the unit to your dealer with a copy of the receipt of payment.