

# Rain Pro Battery Operated Controller



## Instruction Manual English

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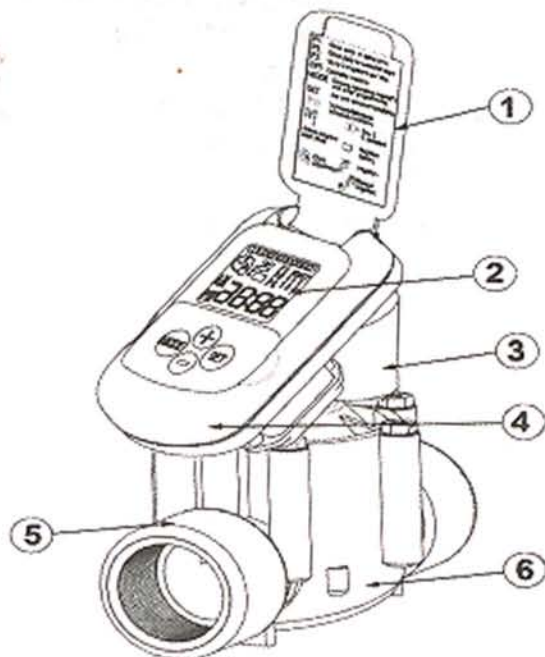
## Getting Started

### Feature

- Up to three operations per day
- Battery powered; no need for electrical hookup
- Easy installation
- Waterproof and weather resistant
- Easy programming

### Parts Identification

1. Top Cover
2. Controller Display
3. Solenoid
4. Controller
5. Water Flow Direction Arrow
6. Hydraulic Valve



## Basic Controller Functions

This section gives a brief description of the Controller buttons. See the following sections for further details.

**MODE** Button: Quick presses of the MODE button turns the controller off, or turns on a specific program (P1, P2, or P3). Longer presses of the MODE button put the Controller in the programming mode.

**SET** Button: Press the SET button to set and advance functions.

**+ -** Buttons: Use the plus/minus buttons to increase and decrease schedule functions.

## Installation

1. Turn off the water supply.
2. Install the valve in the irrigation system. Be sure the arrow on the valve is pointing in the direction of the water flow. The solenoid sleeve on back of the controller may be adjusted to ease installation.
3. Occasionally the valve opens in transit. To ensure that the valve is closed before you open the water supply, first make sure that the Controller is not set to OFF (If it is set to OFF, press briefly on the MODE button and turn it on.) Then press + and SET simultaneously to open, and press – and SET simultaneously to close. You are now ready to program the Controller.
4. Turn on the water supply.

## Manual Operation

To manually open the valve, make sure that the Controller is not set to OFF (If it is set to OFF, press briefly on the MODE button), then press + and SET simultaneously. This will open the valve.

The irrigation will continue until the set run time has passed. If the irrigation duration has been set to zero, the valve will close after one minute. To STOP irrigating, press – and SET simultaneously. This will close the valve

## Programming Overview

This Controller offers 3 different Programs P1, P2, and P3.

Program 1:

Allows 1 Run Time from 1 minute to 11 hours 59 minutes with 1 Start Time, watering every day.

Program 2:

Allows 1 Run Time, one Start Time (the same as P1) but allows the capability of selecting the Day or Days of the week to irrigate.

Program 3:

Allows 1 Run Time with up to 3 start times per day and the capability of selecting the Day or Days of the week to irrigate.

- The Run Time is common for all 3 Programs
- The Start Time is common for P1 and P2.
- P3 requires the Start Times to be set. The controller will operate with only 2 Start Times set if desired.
- The controller has 4 MODES. P1, P2, P3 or OFF. The MODE will be displayed along with the time and day of the week.
- Be sure the MODE you want the controller to Run.
- See "Programming the Controller" instructions in this manual for step by step programming instructions.

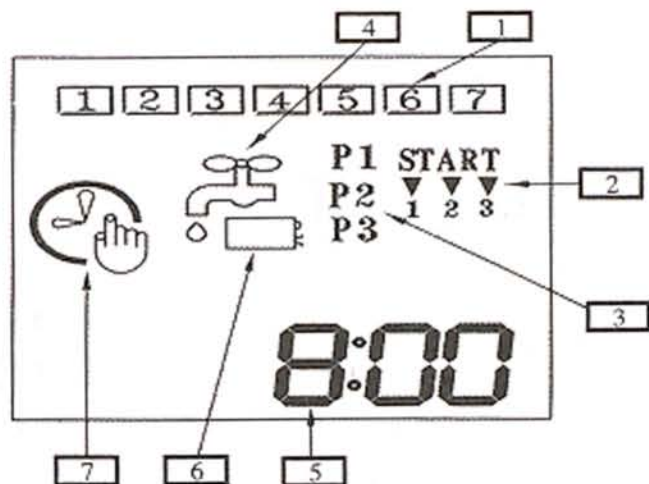
## Programming the Controller

### Meaning of Controller Icons

**Note:** Quick presses of the MODE button turns the Controller off, or turns on the specific program (P1, P2 or P3).

Longer presses of the MODE button put the Controller in programming mode.

1. Irrigating days of the week
2. Program starts
3. Program #
4. Irrigation
5. Clock or Run Times
6. Low battery
7. Time adjustment



Note: You cannot program the controller if it is set to manual operation or if it is set to "OFF". To release from manual operation press – and SET simultaneously. To release from OFF press briefly on the MODE button.

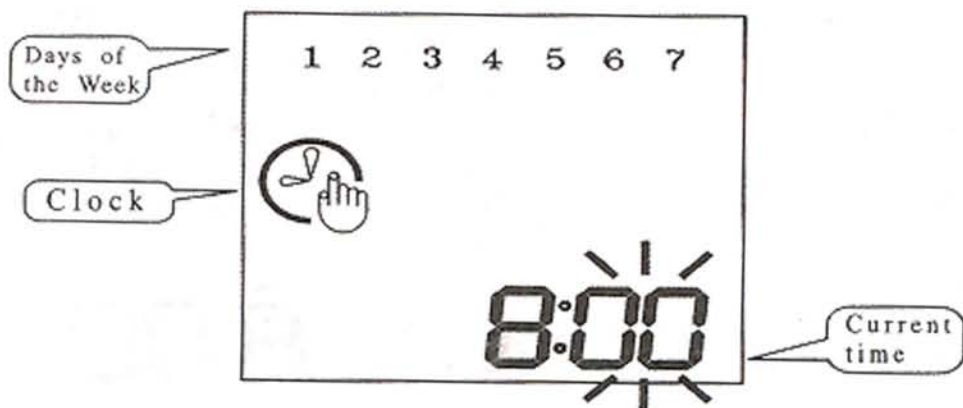
Controller will revert to operating mode after 30 seconds if no buttons are pressed.

## Setting the Clock

If screen is blank, press MODE to activate.

The Clock must be set before programming the Controller.

1. Press MODE for several seconds until the time adjustment icon appears (the minutes will be flashing):



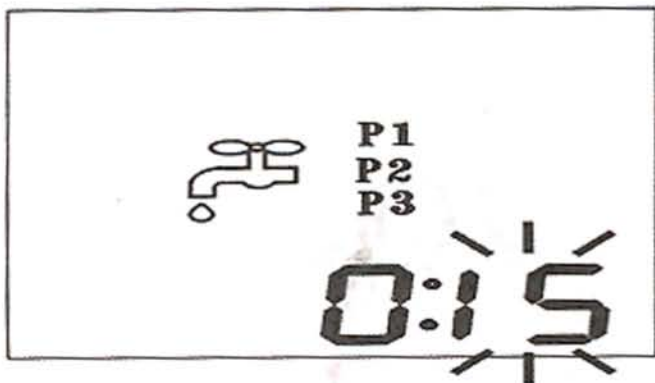
On this screen the numbers represent the current time. This is a 24 hour clock. No A.M. or P.M. is shown.

2. Use the + and the – buttons to adjust the minutes.
3. Press SET to continue.
4. Use the + and the – buttons to adjust the hours.
5. Press SET to continue.
6. Use the + and the – buttons to select the current day of the week. The selected day will flash.
7. Press SET to return to operating mode.

## Setting the Irrigation Run Time

To set duration of all irrigations, you must be in an operating mode (P1, P2, or P3).

1. Press the MODE button until the clock setting screen appears, then press MODE again until the following screen appears (the minutes will be flashing).



On this screen, the clock numbers refer to the amount of time you wish irrigation to continue. Minimum time is 1 minute. Maximum time is 11 hours 59 minutes in 1 minute increments.

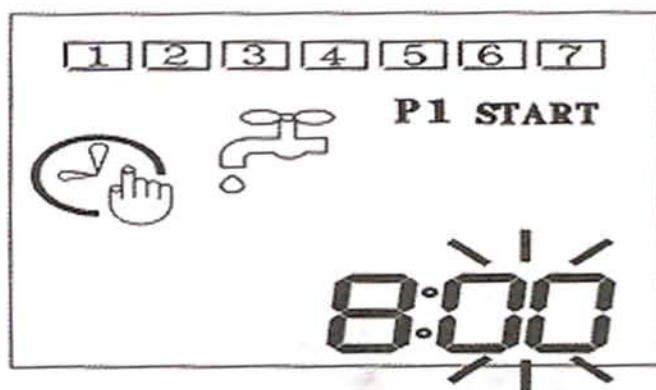
2. Use the + and the – buttons to adjust the minutes.
3. Press SET to continue.
4. Use the + and the – buttons to adjust the hours.
5. Press SET to continue.

## Watering Every Day at a Set Time (P1)

If you would like to irrigate every day at the same time use the program P1:

### Setting the Start Time

After setting the irrigation run time, the following screen appears:



On this screen, the clock numbers refer to the time you wish irrigation to begin.

1. Use the + and the – buttons to adjust the minutes.
2. Press SET to continue.
3. Use the + and the – buttons to adjust the hours.
4. Press SET to return to operating mode (P1 programming is now complete).

### Example

If you wish to irrigate every day at 9:00 in the morning, for 20 minutes: Make sure the clock is set, and you are in an operating mode. Press MODE twice to get to the Duration Time (with the “tap” icon). Set the Duration Time to 0:20. Then set the clock (on the following screen with the “clock face” icon and “tap” icon) to 9:00.

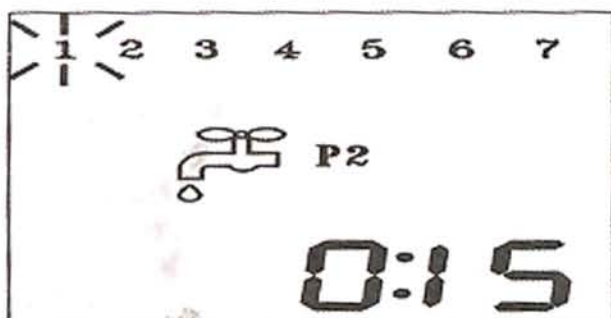
## Watering on Selected Days (P2)

If you would like to irrigate on specific days at the same time use P2 program:

**Note:** Irrigation duration must be set first. **P2** takes the start time directly from **P1**. For instructions on how to set **P1**, see previous instructions.

### Setting the Days

1. To set the days, Press MODE until the Clock Setting screen appears, then press MODE again until the Duration Time (with "tap" icon) appears, then press MODE again until the P1 screen appears, and press once again until the following screen appears:



2. Press SET to reach the day you wish to irrigate. The number (corresponding to the day of the week) will flash.
3. Press + to select that day (the square which appears indicates day is selected).
4. Press - to deselect a day.
5. Press SET until all days are programmed as desired. Current day continues flashing.
6. Press SET to return to operating mode.

## Example

If you wish to irrigate Sunday, Tuesday, Thursday and Saturday at 9:00 in the morning, for 20 minutes: Make sure the clock is set, and you are in an operating mode. Then press MODE twice to get to the Duration Time (with "tap" icon). Set the duration time at 0:20. Then set the clock (on the following screen with the "clock face" icon and "tap" icon) to 9:00. Press MODE to get to the P2 screen, and then select days 1, 3, 5 and 7.

## Watering Up-To Three Times a Day on Selected Days (P3)

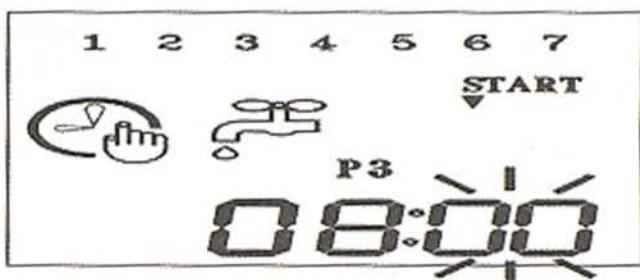
If you need to water more, up-to three times a day, on specific days, use the P3 program.

**Note:** Run time must be programmed first.

## Setting the Start Times

To set start times, you must be in an operating mode (P1, P2, or P3).

1. Press MODE until the clock setting screen appears, press MODE again until the Run Time (with "tap" icon) screen appears, press MODE a third time until the P1 screen appears, press again until P2 appears, then press again until P3 screens appears (The minutes will be flashing).



On this screen, the clock numbers refer to the time you wish the first irrigation (START 1) to begin. The three arrows under START indicate the three different irrigations. As each arrow appears you may program the start time for that particular irrigation.

2. Use the + and the - buttons to adjust the minutes.

3. Press SET to continue.
4. Use the + and the – buttons to adjust the hours.
5. Press SET to continue programming. The arrow now appears under START 2.

### **Setting up a Second and Third Daily Irrigation**

Repeat the above steps for setting the start times of the second and third daily irrigations. After completing setting the start times, the number 1 in the upper left corner will flash indicating that you are now ready to choose the days you wish to irrigate.

### **Choosing the Days**

1. Press SET to move through the days, and reach the day you wish to irrigate. The number (corresponding to the day of the week) will flash.
2. Press + to select that day (the square around the day which appears indicates day is selected).
3. Press – to deselect a day (no square showing).
4. Continue through all the days until day 7 is flashing, then either press SET to return to operating mode or press + to select 7 (if desired) and then press SET.

### **Example**

If you wish to irrigate Sunday, Tuesday, Thursday and Friday at 9:00 in the morning, and at noon, and at 14:00 (2 p.m.) in the afternoon for 30 minutes each time, first make sure the clock is set, and run time is set to 0:30. Then press MODE until the clock setting screen appears, press MODE again until the Duration Time (with “tap” icon) screen appears, press MODE a third time until the P1 screen appears, press again until P2 appears, then press again until the P3 screen appears

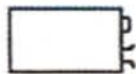
(with the "clock face" icon and "tap" icon). Set 1 to 9:00, Start 2 to 12:00, and Start 3 to 14:00. After setting the irrigation start times, the days at the top of the screen will flash. Set 1, 3, 5 and 6, then press SET when you reach day 7. Make sure a square is around 1, 3, 5 and 6. The square indicated days to run.

## Maintenance and Troubleshooting

### Battery Installation

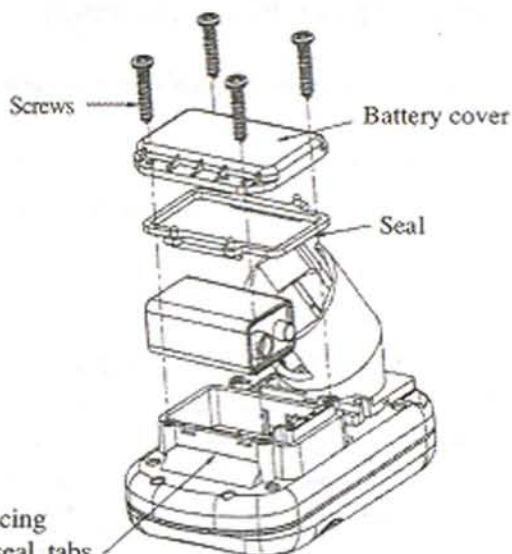
Replace the battery at the start of each irrigation season and when

the low battery icon



appears.

1. Using a Phillips screwdriver, remove the four battery cover screws.
2. Remove the battery cover seal.
3. Replace the battery. Make sure + and – terminals match controller markings.
4. After reattaching the seal, put the cover back, and secure with four screws. Make sure the seal is clean and the screws are evenly tightened.



## Off Season

During the season when you do not need to irrigate press the MODE button quickly until OFF is displayed. DO NOT remove the battery. The Controller is equipped with a back-up battery, and removing the main battery for long periods will cause the back-up battery to discharge.

## Troubleshooting

| PROBLEM                                 | CAUSE                                  | SOLUTION  |
|---|--|---|
| Controller does not irrigate as desired | Water at main water supply is shut off | Check main supply valve   |
|   | Hose cut or blocked                    | Replace damaged section   |
|   | Battery dead                           | Replace battery   |
|   | Controller set on OFF                  | Set controller to desired program   |
|   | Controller improperly programmed       | Check program and clock settings  |
| Blank display                           | Battery dead                           | Replace battery   |
|   | Controller in sleep mode               | Press MODE to activate screen   |
| Water does not turn off                 | Valve blocked by dirt or scale         | Repair valve  |
|   | Valve installed backwards              | Install valve so that the arrow points in the direction of the water flow |