

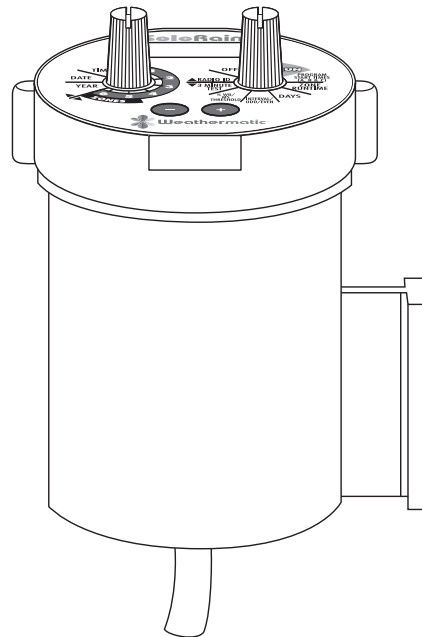
# SoloRain®

## 8024 DC Series

Battery Operated Valve Controller

Controller Models

80424C



**Owner's Manual**





## Introduction

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Thank you for selecting Weathermatic's SoloRain™ battery operated valve controller. This unit has the latest technology and will provide many years of reliable service.

Please read the following instructions carefully to get familiar with important precautions, programming, operation, and installation instructions.

NOTE: In our efforts to continually improve and update our products, features and specifications in this manual may change without notice.

This controller is not intended for use by young children or the infirm without supervision. Young children should be supervised to insure they do not play with this appliance.

If the supply cord is damaged it must be replaced by the manufacturer, an authorized service agent or a similarly qualified person in order to avoid a hazard.

U.S. Patent No. 6,314,340

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## Help Desk

**Online:** support.weathermatic.com  
**Email:** support@weathermatic.com  
**Telephone:** 888-484-3776



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go to web-based help.

**www.weathermatic.com**

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## 1.0 Getting Acquainted With Your SoloRain Controller

### 1.0 Getting Acquainted With Your SoloRain Controller

#### 1.1 Controller Features

- Three start times per program (9 total start times)
- Three independent programs
- Stacking start times
- Length of programmable watering time (1 minute to 3hr 59min per zone)
- Four scheduling options to suit the needs of plant material or to comply with watering restrictions (days of the week, 1-30 day interval, true odd/even)
- Leap year compatible-automatically includes Feb 29th every four years
- 0-200% Watering Budget per program
- LCD display
- Easy Select & Adjust™ programming
- Three test cycles (manual open, cycle, and 3 minute test)

#### 1.2 Electrical Specifications

Powered by 2 standard Energizer Alkaline AA batteries.

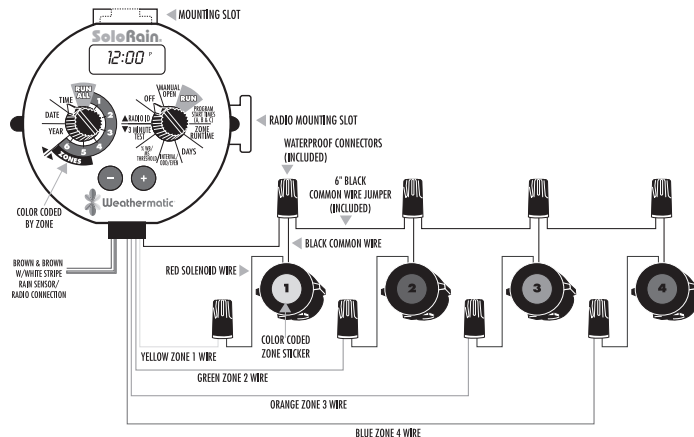
#### 1.3 Technical Data

- Operating temperature range 32° to 120°F
- Dimensions 4.25" H x 3.25" W
- Battery cover screw dimensions 3 x 10mm
- Made of ABS plastic construction
- Operating pressure: 7 to 150 PSI
- Protective cover included

### 2.0 Installing the SoloRain Controller

Replace the AC solenoid and bleed collar (if one exists) with the 8020 DC solenoids. Do not over tighten.

Use the wiring diagram below to wire the 8020 battery operated controller with the DC solenoids.



Use either the mounting plate or stake to mount the 8020 in the valve box. The 8020 DC solenoids fits the Signature valve models 7900 1" series, 9000 1" series, and the 9500 1 1/2" and 2" series. Adapters are available for most other manufacturers vavles.

STAKE

PLATE



## 2.1 Connecting a Rain/Freeze/Wind Sensor

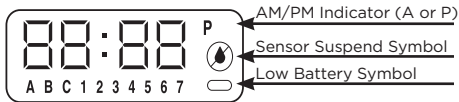
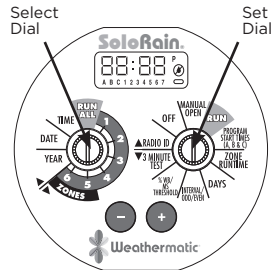
The 8024 is equipped to operate with any sensor with normally-closed leads. To install a sensor, follow the supplied wiring diagram.

**NOTE:** If no sensor will be used the sensor leads of the 8020 must be connected to each other (as supplied).

## 3.0 Programming the Controller

To access the control panel, remove the protective cover from the 8024 SoloRain. Squeeze the side tabs and lift off the cover. Always replace the cover for added protection.

Use the + / - buttons to scroll through available options.



## 3.1 Setting the Time and Date

The 8024 defaults to the 12-hour clock mode.

To change to the 24-hour mode, turn the left dial to any of these three positions: YEAR, DATE, or TIME. Then press the + and - buttons simultaneously to switch back and forth between 12hr mode and 24hr mode. Once in 24hr mode the A.M./P.M. indicator will disappear and the date will also be in Day:Month format.

### 3.1.1 Set Current Time

With the Set dial in any position, turn the Select dial to TIME. Use the + and - buttons to adjust to the current time. P.M will be indicate by a "P" in the display and an A to indicate A.M. only in 12hr mode.

### 3.1.2 Set Current Date

With the Set dial in any position, turn the Select dial to DATE. Use the + and - buttons to scroll to the correct date. When the 8024 is in 12-hour default mode the left digit represents the month and the right digit represents the day. When the 8020 is set in 24hr mode the left digit represents the day and the right digit represents the month.

### 3.1.3 Set Current Year

With the Set dial in any position, turn the Select dial to YEAR. Use the + and - buttons to scroll to the current year.

**NOTE:** When date and year are selected, the day of the week is automatically set. The 8020 SoloRain is leap year compatible.

### 3.2 Setting a Watering Schedule

The 8020 SoloRain can be programmed to run 3 programs with up to 3 start times per program. This means you can start and stop the watering from 1 to 9 times in a 24-hour period (or 2 to 18 times if you have the Water Budget feature set to 110% or greater). To set a watering schedule follow the steps below in order. Note: To select a different program (A,B,C) press the + and - buttons simultaneously until you reach the program of your choice.

#### 3.2.1 Set Program Start Times (A, B, C)

Turn the Set dial to the PROGRAM START TIME position and the Select dial to the RUN ALL position. The program and the start time number will be shown on the bottom left corner of the LCD. To scroll between the different programs and start times press the + and - buttons simultaneously until you reach the program and start time of choice. After you have selected your program use the + and - buttons to adjust to the desired start time.

To delete a start time, select the position between 11:59p.m. and 12:00a.m. --:-- will appear on the LCD indicating that there is no start time.

#### 3.2.2 Set Zone Run Time

Turn the Set dial to the ZONE RUNTIME position and the Select dial to the zone position you want to change. Use the + and - button to adjust the runtime for that zone.

**NOTE:** The RUNTIME applies to all start times within a program.

#### 3.2.3 Set Schedule

The controller has three scheduling options. You may only choose one of the following settings per program (days/interval/odd/even).

##### 3.2.3.1 Set DAYS

DAYS, or daily, lets you choose which days of the week you want to water (i.e., Monday, Wednesday, Friday only).

The controller default is set to run daily. To select the days you want your program to run, turn the Set dial to the DAYS position and the Select dial to the RUN ALL position.

The day of the week is indicated by a number. For example, 1 = Sunday and 7 = Saturday. Use the + button to select a day for watering and the - button to deselect that day for watering. Once a selection is made the controller will advance to the next day.

**NOTE:** On the LCD the letter "Z" will indicate zone reference.

##### 3.2.3.2 Set INTERVAL/ODD/EVEN DAYS

To enable watering schedule for interval/odd/even days, turn the Select dial to the INTERVAL/ODD/EVEN position and the Set dial to the RUN ALL position. The default is "--", which means that there is no interval/odd/even schedule enabled. Press the + or - button to select the schedule of your choice.

INTERVAL waters every X number of days (from 1 to 30 days) (i.e., water every 3 days, waters every 10 days, etc.). A value of 1 in an interval schedule means to water every day. When using

the interval option, you have the flexibility to tell the controller what day to start the interval program on (up to 30 days out).

To water on an interval use the + / - buttons to choose the number days you would like to water.

ODD/EVEN tells the controller to water on either the odd or even days of the month (i.e., the controller will water on the 31st and the 1st when an ODD schedule is chosen).

An "O" or "E" will be illuminated on the left hand side of the LCD to indicate Odd or Even schedule. Use the + or - button to select "O" to water every Odd day or "E" to water every Even day.

### 3.2.3 Set % Water Budget

Turn the Set dial to the % WATER BUDGET and the Select dial to the RUN ALL position. The default is set at 100%, which means that the 8024 will water for 100% of the time you entered in the Zone Runtime position. To adjust the watering percentage press the + or - button until you have selected the percentage of your choice for that program. At or above 110%, the program will run as a split cycle, which means it will run each zone for 1/2 of its scheduled time and then run the remaining 1/2 after the last zone has completed its cycle. For example, if you set a zone runtime for 10 minutes and set the watering budget for 200%, you will actually water for 20 minutes in two 10 minute intervals, which is a split cycle.

## 4.0 Running Your Controller

### 4.1 Run Your Scheduled Watering Program

You can choose to run up to all four zones or select any one of the four zones. Turn the SELECT dial to the zone of your choice or RUN ALL to run all zones. Turn the SET dial to the RUN position.

### 4.2 Manually Running Your Controller

Turn the SET dial to the MANUAL OPEN position and the SELECT dial to the zone you want to open manually. The LCD display will flash 10 minutes of run time. There is a 30-second delay to open or close the valve. You can adjust the desired run time from 1 minute to 3 hours 59 minutes by using the + and - buttons.

To return to automatic operation, turn the SET dial and the SELECT dial to their original positions before you started to run the zones manually. The manual operation that you selected will finish and the timer will return to automatic operation as scheduled.

### 4.3 Running the Controller on Cycle

Turn the SET dial to the MANUAL OPEN position and the SELECT dial to the RUN ALL position. The LCD display will flash the 1st zone runtime. There is a 30-second delay to open or close the valve. You can select which program you want to run by pressing the + and - buttons simultaneously until you reach your desired program.



To return to automatic operation, turn the SET dial and the SELECT dial to their original positions before you started to run the zones manually. The manual operation that you selected will finish and the timer will return to automatic operation as scheduled.

### 4.4 Running the Controller on a 3 Minute Cycle

Turn the SET dial to the 3 MINUTE TEST position and the SELECT dial to the RUN ALL position. This will run all zones that have a runtime in any program for 3 minutes.

To return to automatic operation, turn the SET dial and the SELECT dial to their original positions before you started to run the zones manually. The manual operation that you selected will finish and the timer will return to automatic operation as scheduled.

### 4.5 Clearing All Scheduled Programs

Turn the SET dial to the OFF position and the SELECT dial to the RUN ALL position. Press the + and - buttons simultaneously and hold for 3 seconds. The LCD screen will go blank indicating that all scheduled programs have been cleared. When you release the buttons the time will reappear.

### 4.6 Turning the Controller Off

To discontinue watering when the timer is in operation or to prevent automatic operation, turn the SET dial to the OFF position. To return to automatic operation, return the SET dial to the RUN position.

## 5.0 Maintenance

### 5.1 Battery Replacement

The two Alkaline AA batteries are replaceable. Remove the four screws that are located on the bottom of the unit. Replace the two batteries making sure you place them in the correct polarity position. Then carefully replace the battery cover and the four screws.

**NOTE:** Make sure not to get any water in the battery housing as you are replacing the batteries. To seal the battery cover properly, all 4 screws must be used.

### 5.2 Plunger Cleaning

To clean the plunger and plunger tube gently remove the plastic plunger retainer with needle-nosed pliers. Clean debris from the plunger and plunger tube. Then replace the plunger retainer.



**6.0 Troubleshooting the Controller**

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Valve not operating	Debris in valve	Clean valve
Valve not operating	Debris in plunger	See 5.2 Plunger Cleaning
LCD is not working	Dead battery	Replace with a new battery
Flashing battery symbol appears	Low battery	Replace with a new battery

**WARRANTY****Limited Warranty**

Weathermatic, Inc. warrants all electronic products to be free of defects in material and workmanship for a period of two (2) years from the original date of purchase. In the event of such defects, Weathermatic will repair or replace, at its option, the product or the defective part. This warranty does not extend to damage to a Weathermatic product or part resulting from accident, misuse, alteration, neglect, abuse, improper installation or normal wear and tear, or to exterior appearance and color. This warranty extends only to the original user of the Weathermatic product. If defect arises in a Weathermatic product or part within the warranty period, you should contact your installing contractor, Weathermatic retailer, distributor, or Weathermatic. Weathermatic may, at its option, require that the product or part be returned to a Weathermatic service point or your retailer or distributor. Weathermatic will determine whether the claimed defect is covered by the warranty. If coverage is found, the product will be repaired or replaced. Please allow 4 to 6 weeks for completion of repairs or replacement and return of the product or part. If a product or part is replaced, the replacement is warranted only for the remainder of the original product or part warranty period.



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