

RAIN BIRD

ESP-9V Battery-Operated Controller

User Manual

Introduction

Thank you for choosing Rain Bird's ESP-9V Battery-Operated Controller. The ESP-9V is designed to provide worry-free automatic irrigation in the absence of AC power or in areas where installing new field wires is not practical.

Operation and Setup

Contractor Rapid Programming™

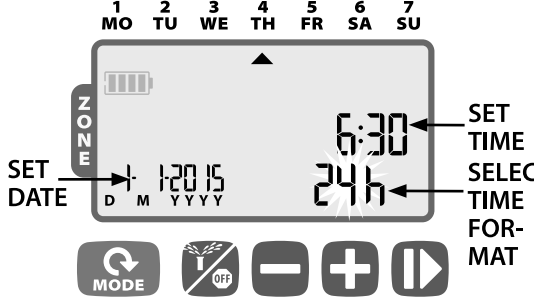
At initial programming, the controller automatically copies the start times and watering days from Zone 1 to all other zones.

NOTE: If multiple zones have the same or overlapping watering times, the controller will water the zones in sequence (multiple zones will not run at the same time).

NOTE: Changes to a zone's schedule made after initial programming will only affect the zone being modified.

NOTE: You may re-activate the Contractor Rapid Programming™ feature by resetting factory defaults.

Set Date & Time
Press the MODE button until the Set Date & Time screen is displayed.



Press **+** or **-** to set the time format (12 hour or 24 hour); then press **▶**.

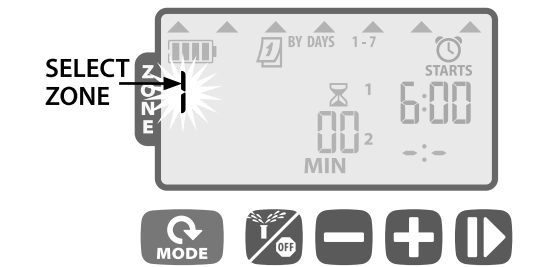
Press **+** or **-** to set the hour (ensure that AM/PM setting is correct when using 12 hour format); then press **▶** to set the minutes; then press **▶**.

Press **+** or **-** to set the year (YYYY); then press **▶** to set the day (D), then month (M). If 12 hour format is selected, the date format will be shown as M/D/YYYY.

Set Irrigation Schedule

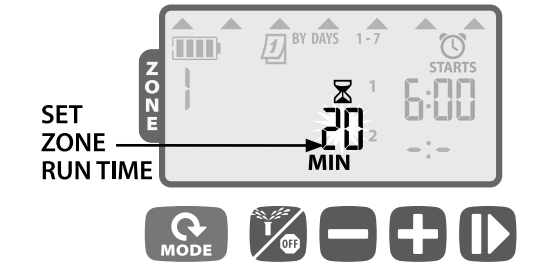
Press the MODE button until the Set Irrigation Schedule screen is displayed.

1. Select Zone



Press **+** or **-** to select the Zone Number; then press **▶**.

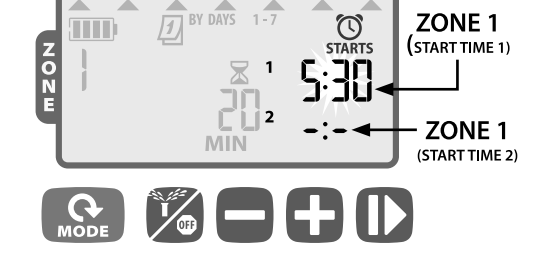
2. Set Zone Watering Run Times



Press **+** or **-** to set the Run Time (in minutes); then press **▶**.

NOTE: Run Times can be set between 1 to 240 minutes.

3. Set Zone Watering Start Times



Press **+** or **-** to set the 1st Start Time for the selected Zone (set to 06:00 by default); then press **▶**.

Press **+** or **-** to set the next Start Time, or press **▶** again to advance to Set Watering Days.

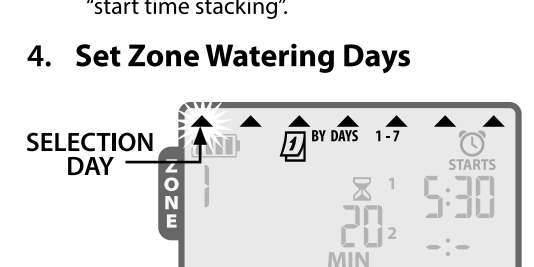
REPEAT to set additional Start Times, up to six for that Zone.

NOTE: Adjustments are set in 10 minute increments.

NOTE: To remove a Start Time, press **+** or **-** until **OFF** is displayed. **OFF** is just before 0:00 or 12:00 AM.

NOTE: The controller will not water multiple zones at the same time. If two or more zones have the same (or overlapping) start times, the controller will wait until the first zone is finished watering before starting the rest of the zones in sequence. This method is called "start time stacking".

4. Set Zone Watering Days



Press **+** (to enable) or **-** (to disable) the blinking Selection Day. The cursor will automatically advance to the next Selection Day.

REPEAT to set each day of the week as desired.

REPEAT Steps 1-4 for additional Zones as desired.

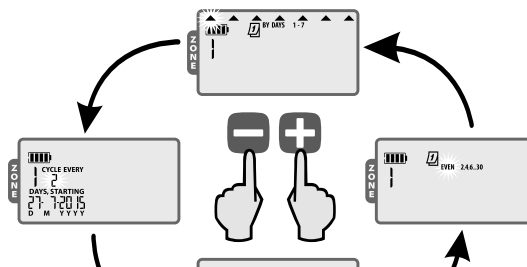
When programming is complete, press the **MODE** button until the **AUTO RUN** screen is displayed.

Watering Day Options

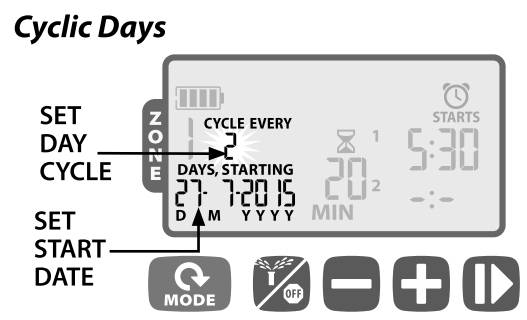
Additional Watering Day options are also available:

- Cyclic Days** (1-30)
- Odd Days** (will NOT water on the 31st of the month)
- Even Days**

To change zone's watering day type, simply pressthe **+** and **-** buttons at the same time while setting Zone Watering Days.



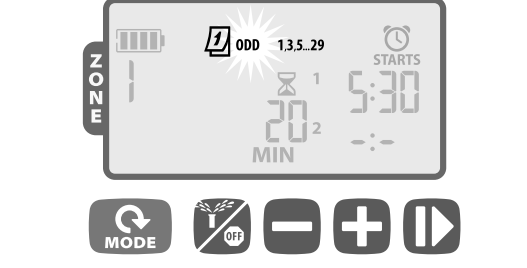
Cyclic Days



Press **+** or **-** to set the number of days in the watering cycle; then press **▶**.

Press **+** or **-** to set the next Watering Day; then press **▶**.

Odd Days / Even Days



When **ODD 1,3,5...29** (or **EVEN 2,4,6...30**) is blinking, press **▶**.

NOTE: ODD schedules will not water on the 31st of the month.

Auto Run

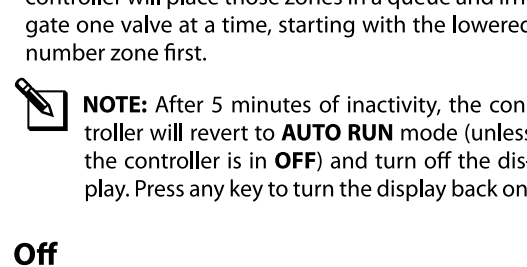
Press the MODE button until the AUTO RUN screen is displayed.

In **AUTO RUN** mode, the ESP-9V will irrigate each zone per its programmed schedule. If any zones are scheduled to run at the same time and day, your controller will place those zones in a queue and irrigate one valve at a time, starting with the lowest number zone first.

NOTE: After 5 minutes of inactivity, the controller will revert to **AUTO RUN** mode (unless the controller is in **OFF**) and turn off the display. Press any key to turn the display back on.

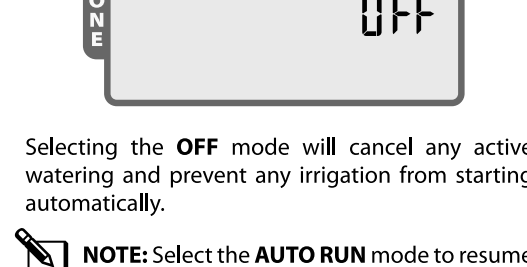
Off

Press the OFF button until the OFF screen is displayed.



Selecting the **OFF** mode will cancel any active watering and prevent any irrigation from starting automatically.

NOTE: Select the **AUTO RUN** mode to resume normal operation. Programmed irrigation schedules will NOT run if the controller is left in **OFF** mode.



NOTE: If you intend to stop automatic irrigation only for a few days, we suggest you use the "Delay Watering" feature described in page 10.

NOTE: To re-initiate watering, press the **OFF** button again to return to **AUTO RUN** mode.

Troubleshooting

Problem
No Display

Possible Cause
Display is in sleep/power save mode. Batteries are dead.

Possible Solution
Press any key to wake up display. Replace batteries.

Automatic irrigation not starting

Automatic irrigation started but no watering occurs

Controller is watering more than expected

***Manual Watering ALL is not watering some zones or isn't available as an option**

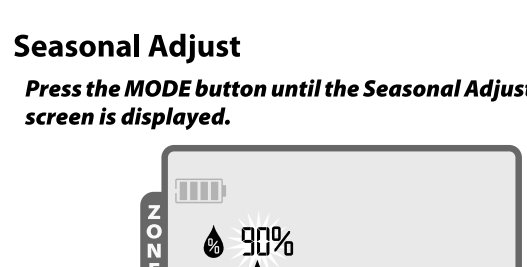
One-touch Manual Start

Water ALL zones immediately according to their previously scheduled run times.

With the controller in **AUTO RUN** mode, press and hold **▶** for 3 seconds to begin watering all zones that have a programmed runtime.

Seasonal Adjust

Press the MODE button until the Seasonal Adjust screen is displayed.



The **SEASONAL ADJUST** mode allows you to increase or decrease the run times for all zones by a certain percentage (10% to 200%).

Press **+** or **-** to increase or decrease the setting.

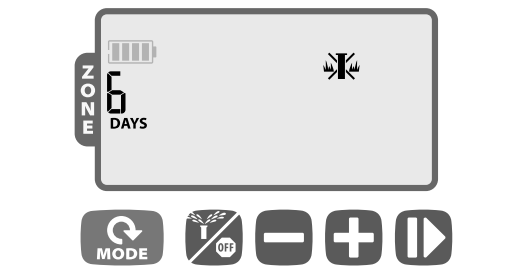
NOTE: **SEASONAL ADJUST** applies to ALL automatic watering.

Special Features

Delay Watering

Delay automatic irrigation for up to 9 days.

Press the **MODE** button until the **AUTO RUN** screen is displayed. (Unit must NOT be watering.)



Press and hold **▶** for 3 seconds, then press **+** or **-** to select the number of DAYS to delay irrigation, up to 9 days.

To cancel, press **-** until DAYS is set to 0. (Controller will revert to **AUTO RUN**.)

NOTE: **SYMBOL** and **DAYS** remaining are displayed while Rain Delay is in effect.

Contractor Default Save

Save irrigation schedules for future retrieval.

Press the **OFF** button until the **OFF** screen is displayed.

Press and release both **OFF** and **▶** buttons at the same time.

The "OFF" symbol will flash briefly to confirm schedules are saved.

Contractor Default Restore

Restore previously saved irrigation schedules.

Press the **OFF** button until the **OFF** screen is displayed.

Press and release both **+** and **▶** buttons at the same time.

The "OFF" symbol will flash briefly to confirm schedules are restored.

Factory Default Restore

Restore the controller's factory default settings.

CAUTION
All programmed irrigation schedules currently stored in memory will be lost. However, Contractor Default settings remain stored in separate memory and are not affected by Factory Default Restore, and can be recalled after restoring Factory Defaults.

Press the **MODE** button until the Seasonal Adjust screen is displayed.

Press and release both **OFF** and **▶** buttons at the same time.

NOTE: ODD schedules will not water on the 31st of the month.

NOTE: After 5 minutes of inactivity, the controller will revert to **AUTO RUN** mode (unless the controller is in **OFF**) and turn off the display. Press any key to turn the display back on.

NOTE: Select the **AUTO RUN** mode to resume normal operation. Programmed irrigation schedules will NOT run if the controller is left in **OFF** mode.

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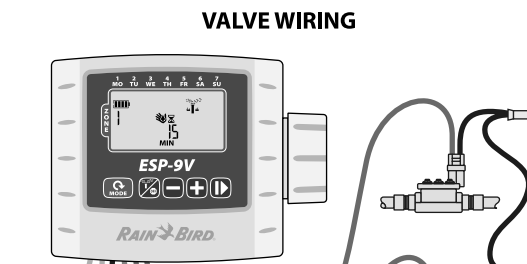
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Installation

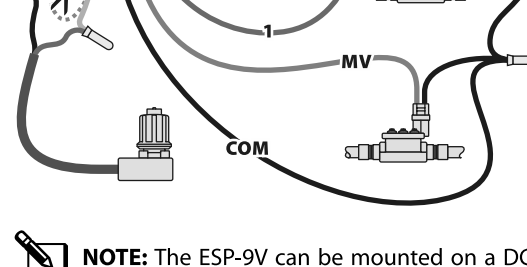
Valve Wiring

Wires may be extended up to 100 feet (30 meters) (18 AWG, 0.75 mm² minimum wire size) from the controller. All wire connections should be made using appropriate water-proof splice kits (not provided).

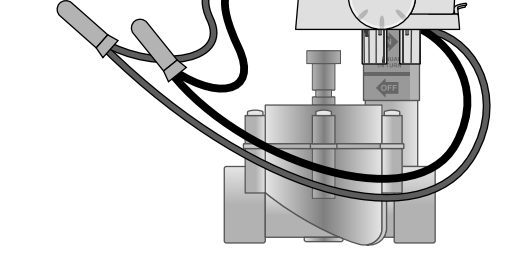
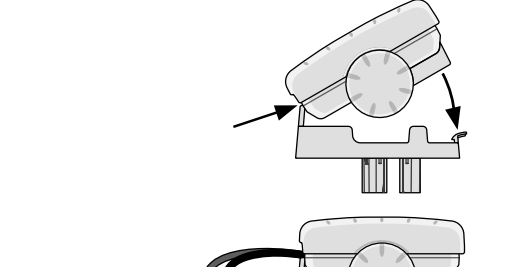
▶ Attach the black wires from each solenoid to the black (common) wire(s) on the ESP-9V.
▶ Attach one red wire from each solenoid to the appropriate zone wire on the ESP-9V.
▶ Connect an optional Master Valve.



NOTE: The ESP-9V can be mounted on a DC latching solenoid using the included solenoid bracket, or on a wall using the optional wall-mount bracket (Model: 9VMOUNT).



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Batteries

The Rain Bird ESP-9V uses two alkaline 9-Volt batteries to operate. Your controller will function using either one or two 9-Volt batteries. Under normal conditions, the expected life is 1 year for a single battery and two years when using two 9-Volt batteries.

Replacing Batteries

Remove the battery compartment cap.

Install one or two 9-Volt alkaline batteries on the battery clips provided.

Re-install the battery compartment cap.

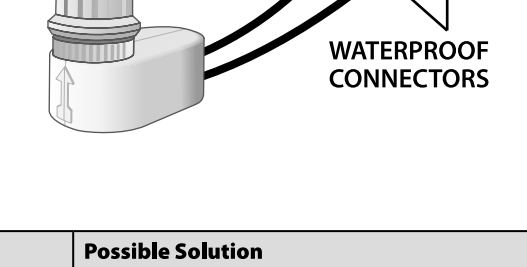
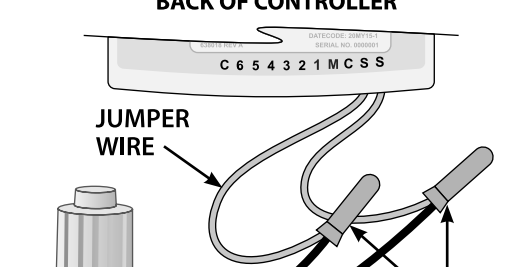
NOTE: Do not mix new batteries with old ones. Doing so could reduce the battery life and cause the controller to stop working prematurely.

Optional Rain Sensor

Cut the yellow loop in half and remove about 1/2" of insulation.

NOTE: Cut the yellow wire loop only when installing a rain sensor.

Connect the sensor to the terminals with water-proof connectors.



Troubleshooting

Problem
No Display

Possible Cause
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Possible Solution
Press any key to wake up display. Replace batteries.

Automatic irrigation not starting

Automatic irrigation started but no watering occurs

Controller is watering more than expected

***Manual Watering ALL is not watering some zones or isn't available as an option**

One-touch Manual Start

Water ALL zones immediately according to their previously scheduled run times.

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Español

