



# RD500-0 ELECTRONIC CONTROLLER INSTALLATION INSTRUCTIONS



## CAUTION:

- Prior to beginning the controller installation, make sure that it is not plugged into any outlets and has been disconnected from all electrical connections.
- The controller must be installed in a shaded area out of direct sunlight.
- Do not make contact with any components inside the controller other than the green connector.
- Rain Deck recommends consulting with an experienced, licensed electrician at this stage of installation. Rain Deck is not responsible for any damage done to your equipment if you fail to consult with a licensed electrician.

## Tools required:

- ✓ Drill (for mounting controller)
- ✓ #2 Phillips head screw driver
- ✓ Miniature flat head screw driver
- ✓ Wire stripper
- ✓ Wire cutter

## WARNING

**MAX ALLOWABLE CURRENT DRAW PER SOLENOID IS .3 AMPS**



**The Rain Deck Controller must be connected to a supply circuit that is protected by a ground fault circuit interrupter (GFCI).** A GFCI is generally a minimum code requirement. A GFCI is required by most building codes and must be tested before each use. The installer should consult the GFCI manufacturers' instructions for correct installation and operation. All electrical components should be properly bonded per national and local codes.

**ALL ELECTRICAL CONNECTIONS MUST CONFORM TO NATIONAL AND LOCAL ELECTRICAL CODES AND STANDARDS. A QUALIFIED, LICENSED ELECTRICIAN IS REQUIRED TO PERFORM ELECTRICAL CONNECTIONS.**

**DANGER – RISK OF ELECTRICAL SHOCK.** Electrical components for the Rain Deck Controller should be Installed at least 10 feet (3m) away from any splash pad or water surface. All electrical components should be properly bonded per national and local codes. **Do not permit any electrical apparatuses (ie. Radio, TV etc.) within 10 feet (3m) of splash pad surface.**

### **Step 1:**

Mount controller to a vertical surface. This should be a rigid structure or wall.  
(Hardware not provided.)

### **Step 2:**

Remove the 4 Phillips head screws around the perimeter of the front panel.

- Carefully lift the front panel making sure to not pull on the attached wire harness.
- If possible, support front cover without letting it hang from the wires. (Figure 1)

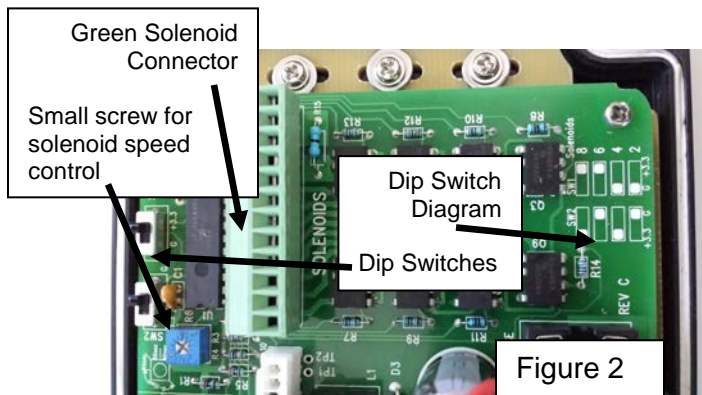


### **Step 3:**

Install the solenoid wires through the sealed plug/nut on the bottom of the box. You will need about 6 inches of wire passed through the box. The nut may need to be loosened to pass the wires through.

### **Step 4:**

Remove the green connector. (Figure 2)



### **Step 5:**

Strip approximately ¼ inch of jacket from each solenoid wire.

### **Step 6:**

Begin installing hot leads on solenoids beginning with #1. (2), (4), (6), or (8) solenoid zones.

### **Step 7:**

Using a sealed wire nut, combine all of the solenoid common wires together with a common wire in the cable bundle (typically white). This will connect to the "C" (common) input on the green connector.

### **Step 8:**

For a fresh water system (or rain diverter valve) you can connect the additional solenoid to an "H" (hot) and "C" (common) input.

### **Step 9:**

Route and plug in the green connector as shown. Ensure that the solenoid wires are not making contact with the circuit board.

### **Step 10:**

Make sure the dip switches match the number of solenoids on your manifold (Figure 2). Follow the dip switch diagram to make the change.

### **Step 11:**

Fasten the sealed plug/nut so that it creates a seal and clamps onto the solenoid wires.

### **Step 12:**

Re-install the front cover and electrical connections.

### **Step 13:**

Leaving the power off to the controller, plug the controller into a GFCI protected outlet or Rain Deck timer box. (RD550-1).

### **Installation is now complete.**

To turn on the RD-500-0 controller, push the power button on and choose a pre-programmed setting labeled A, B, C, and D. A is Random, B is Sequential, C is Random with random amount of zones, D is All On.

Once the RD 500-0 multiple programmed controller has been wired, you may want to test your splash pad and make minor adjustments to the rate of speed between each zone. To do so, locate the small white screw. Adjust by rotating the screw right or left depending on the sequenced speed desired. (Figure 2)