



RAIN BIRD ST80 WiFi Smart Controller User Guide

[Home](#) » [RAIN BIRD](#) » RAIN BIRD ST80 WiFi Smart Controller User Guide

Contents [[hide](#)]

- [1 RAIN BIRD ST80 WiFi Smart Controller](#)
- [2 Troubleshooting](#)
- [3 RESETTING THE CONTROLLER](#)
- [4 Documents / Resources](#)
 - [4.1 References](#)
- [5 Related Posts](#)



RAIN BIRD ST80 WiFi Smart Controller



Troubleshooting

Problem	Potential Issues	Potential Solution
CONNECTION ISSUES		

	<p>WiFi signal strength is low</p>	<p>Verify with your mobile device the WiFi signal has at least two bars of strength at the location of the controller. This can be done in the Rain Bird App by clicking the WiFi Signal Strength icon in your controller settings. Ideally, the controller should have -30 to -60 Received Signal Strength Indicator (RSSI). If needed, boost signal by adding a wireless router or moving controller and router closer together.</p>
	<p>Controller is not connected to mobile device and STATUS on controller interface is blinking blue</p>	<p>The controller needs to be connected to your mobile device for the first time. To connect a mobile device to the controller, launch the Rain Bird App, tap the "Add Controller" icon and follow the on-screen instructions.</p>
	<p>Controller is not connected to mobile device and STATUS on controller interface is solid green</p>	<p>The controller needs to be connected to your mobile device for the first time, or if you have previously connected to the controller from your mobile device but it is still not connecting, you will need reset your WiFi on the controller interface. To reset WiFi, follow the "Reset only WiFi settings back to Quick Pair broadcast mode" instructions in this document.</p>

Connection issues between mobile device and controller

Controller was previously set up in AP Hotspot Mode by another user and the controller interface is blinking alternating red and green, and I want to connect to my WiFi network for the first time

You will need to reset your WiFi on the controller interface. To reset WiFi, follow the "Reset only WiFi settings back to Quick Pair broadcast mode" instructions in this document.

Controller is not connected to a mobile device and STATUS on controller interface is blinking red

Press the PAIRING MODE button on the controller interface and wait for the LED to start blinking blue (if a local network is available) or alternating red and green (if a local network is not available). Launch the setup wizard in the Rain Bird App by tapping the "Add Controller" icon and follow the on-screen instructions.

Controller will not connect to mobile device and Rain Bird App is displaying "Communication Error"

Verify that your virtual private network (VPN) is toggled off in the mobile device settings. Close out of the Rain Bird App and wait approximately 30 seconds before accessing the controller from your mobile device.

	<p>Controller will not connect to mobile device and Rain Bird App is displaying “Communication 503” error</p>	<p>Only a single device can connect to the controller at one time. Close out of the Rain Bird App on all mobile devices and wait approximately 30 seconds before accessing the controller from a single device.</p> <p>Apple iOS and Android require Location Services to be enabled for the Rain Bird mobile app to function correctly. Verify that Location Services is toggled on for the Rain Bird App in your mobile device settings. Close out of the Rain Bird App and wait approximately 30 seconds before accessing the controller from your mobile device.</p>
<p>Controller STATUS automatically switches from WiFi broadcast mode to AP Hotspot broadcast mode</p>	<p>Your local WiFi signal may be down or the signal strength is fluctuating, putting the controller out of range from your router</p>	<p>When a nonexistent or weak WiFi signal to the controller occurs, the controller will automatically switch to AP Hotspot broadcast mode (STATUS alternating red and green) to maintain a connection to your mobile device. The controller will automatically attempt to reconnect to your local WiFi network at specific intervals. When a strong connection to your router is reestablished, the controller STATUS will turn solid green.</p>

WATERING ISSUES

Controller is in automatic or manual watering mode, but the system is not watering	Water source is not supplying water	Verify there is no disruption to the main water line and that all other water supply lines are open and functioning properly.
	Wiring is loose, not properly connected or damaged	Check that wiring is securely connected at the controller and in the field. Check for damage and replace if necessary. Check wiring connections and replace with watertight splice connectors if needed.
	Connected rain sensor may be activated	The Rain Bird App will give indication if a rain sensor is activated. Let the rain sensor dry out or disconnect it from the controller terminal block and replace it with a jumper wire connecting the two SENS terminals.

	<p>Jumper wire connecting the two SENS terminals on the terminal block may be missing or damaged</p>	<p>The controller will not function if the jumper wire is removed and a rain or rain/freeze sensor is not connected. Jumper the two SENS terminals on the controller terminal block by connecting them with a short length of 14- to 18-gauge wire. If a rain sensor is installed, ensure both rain sensor wires are properly seated in the SENS terminals.</p>
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Problem	Potential Issues	Potential Solution
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WATERING ISSUES CONTINUED

<p>Excessive watering</p>	<p>Programs may have multiple watering run days and start times that were set unintentionally</p>	<p>Watering run days and start times apply to the entire program, not individual zones. Programs (A, B or C) only require a single start time to run.</p>
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<p>Watering even after turning the controller off</p>	<p>Issue with one or all the valves or supply lines</p>	<p>Clean, repair or replace the valve. If that does not resolve the issue, contact a licensed contractor.</p>
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<p>Seasonal adjust is not altering the schedule</p>	<p>The controller is not connected to WiFi to make automatic adjustments</p>	<p>Mobile device needs to be reconnected to the controller or connected for the first time and Seasonal Adjust must be toggled to “on” in the program settings. Note that seasonal adjust is set by program and should be properly adjusted in all active programs.</p>
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ELECTRICAL ISSUES

<p>No LEDs are visible</p>	<p>Power not reaching the controller</p>	<p>Verify the power outlet is operational and the main AC power supply is securely plugged in and working properly.</p>
		<p>Verify the orange power supply wires are connected to the controller “24 VAC” terminals.</p>

<p>Controller is frozen and is not responding to manual operations at the controller interface</p>	<p>An electrical surge may have interfered with the controller’s electronics</p>	<p>Press and release the RESET button in the controller wiring bay. This will temporarily disrupt the controller from getting power from the input. If there is no permanent damage, the controller should accept programming and resume normal operation.</p>
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		<p>Unplug the controller for two minutes, then plug it back in. If there is no permanent damage, the controller should accept programming and resume normal operation.</p>
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RESETTING THE CONTROLLER

Reset only WiFi settings back to Quick Pair broadcast mode

(Note: This action will reset WiFi back to factory default settings and cannot be reversed; watering schedules will be retained.)

Hold PAIRING MODES button on the controller interface for approximately five seconds

1. STATUS will turn solid amber
2. Once rebooted, STATUS will blink blue

If you have previously connected to the controller from your mobile device, you will need to first delete the old controller card. The controller can then be reconnected to your mobile device by launching the Rain Bird App, tapping the “Add Controller” icon and following the on-screen instructions.

Reset only programmed watering schedules to factory default settings

(Note: This action will reset all programmed watering schedules back to factory default settings and cannot be reversed; WiFi settings will be retained.)

Simultaneously hold AUTO, OFF and NEXT buttons on the controller interface for approximately five seconds

1. AUTO will blink green
2. OFF will blink red
3. MANUAL will blink green
4. Once rebooted, AUTO will turn solid green
5. STATUS will remain unchanged from the current state

The default program will water each zone for 10 minutes every day until overwritten with a custom program. Additional programs can also be added (if desired) by selecting +PGM. Each program in use should have the desired watering start time(s), run day(s) and duration(s).

Restore the controller to its factory default settings

(Note: This action will reset both WiFi and all programmed watering schedules back to factory default settings, and cannot be reversed.)

Simultaneously hold AUTO, OFF, NEXT and PAIRING MODES buttons on the controller interface for approximately five seconds

1. STATUS will blink amber
2. AUTO will blink green
3. OFF will blink red
4. MANUAL will blink green
5. Once rebooted, AUTO will turn solid green
6. Once rebooted, STATUS will blink blue

If you have previously connected to the controller from your mobile device, you will need to first delete the old controller card. The controller can then be reconnected to your mobile device by launching the Rain Bird App, tapping the “Add Controller” icon and following the on-screen instructions. When paired, watering program(s) will need to be set-up in the Rain Bird App. The default program will water each zone for 10 minutes every day until overwritten with a custom program. Additional programs can also be added (if desired) by selecting +PGM. Each program in use should have the desired watering start time(s), run day(s) and duration(s).

For additional troubleshooting topics, visit: <http://wifi.rainbird.com/knowledge-center>

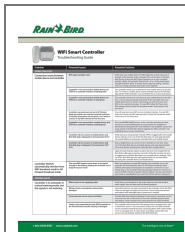
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Documents / Resources



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ST80, WiFi Smart Controller, ST80 WiFi Smart Controller, Smart Controller, Controller

References

- [🌐 Rain Bird Smart Irrigation WiFi Timer](#)
- [🌿 Rain Bird | A Global Irrigation Company](#)