

GreenVation NAS-SS01W9

GreenVation Smart Sprinkler Controller User Manual

Model: NAS-SS01W9

1. INTRODUCTION

The GreenVation Smart Sprinkler Controller is a 16-zone/station irrigation system designed for outdoor gardens, yards, and lawns. It features APP remote control and supports 2.4G/5GHz WiFi connectivity, allowing for dynamic and efficient watering schedules.

This controller helps manage your irrigation system intelligently, aiming to maintain a healthy landscape while optimizing water usage. Key features include:

- **16-Zone Fully Automatic:** Capable of managing up to 16 independent watering zones.
- **Smart Cloud Service:** Control and monitor your system from anywhere using the Smart Life/Tuya app.
- **Innovative Design:** Utilizes historical watering records, weather forecasts, and rain delay features for efficient watering plans.
- **Convenient Plant Care:** Integrates with other smart devices, such as soil sensors, for precise and targeted watering.



Figure 1: GreenVation Smart Sprinkler Controller with its accompanying mobile application interface.

Build A Smart Irrigation System

The Wi-Fi sprinkler controller lets you scientific management of watering
Up To 16 zones of solenoid valves



Figure 2: Overview of a smart irrigation system featuring the GreenVation controller, demonstrating its integration with a home's watering setup and mobile app control.

2. SETUP AND INSTALLATION

The GreenVation Smart Sprinkler Controller is designed for straightforward installation. Follow these steps to set up your device:

2.1. Choose a Location

Select a suitable location for the controller. It can be installed indoors or outdoors, but ensure it is within range of a strong 2.4G/5GHz WiFi signal. Avoid direct exposure to extreme weather conditions if installing outdoors without additional protection.



Figure 3: Guidance on selecting an appropriate installation location, emphasizing WiFi signal strength.

2.2. Wiring the Controller

Before wiring, ensure the power to your existing sprinkler system is turned off. Carefully disconnect and label the wires from your old controller if you are replacing one. The GreenVation controller uses push-button, spring-loaded connectors, requiring no special tools for wiring.

1. Open the controller cover, typically by unscrewing or prying it open with a small screwdriver.
2. Connect the common wire (usually white) to the terminal labeled 'C' or 'Common'.
3. Connect each zone wire to its corresponding numbered terminal (1-16).
4. If using a wired rain sensor or water pump, connect them to the designated terminals. Refer to the diagram below for specific connections.
5. Close the controller cover securely.



Figure 4: Detailed view of the wiring process, showing wires being inserted into the controller's terminals.



Figure 5: Wiring diagram highlighting connections for an optional wired rain sensor and water pump.

2.3. Power Connection

Plug the provided power adapter into the controller and then into a standard electrical outlet. The controller will power on.

2.4. App Download and Pairing

The controller operates via the Smart Life or Tuya app. Ensure your smartphone is connected to a 2.4G or 5GHz WiFi network.

1. Download the "Smart Life" or "Tuya" app from your device's app store (iOS or Android).
2. Register or log in to your account.
3. In the app, tap the '+' icon to add a new device.
4. Select the 'Irrigators (Wi-Fi)' category, usually found under 'Industry & Agriculture'.
5. Follow the in-app instructions to put the controller into pairing mode (typically by pressing and holding a button on the controller until an indicator light flashes).

6. Complete the pairing process.

7. **Important:** After successful pairing, navigate to the device settings within the app and update the controller's firmware to the latest version.



Figure 6: Screenshot of a smartphone displaying the Smart Life app available for download.



Figure 7: Demonstrating how to activate pairing mode on the controller by pressing the designated button.

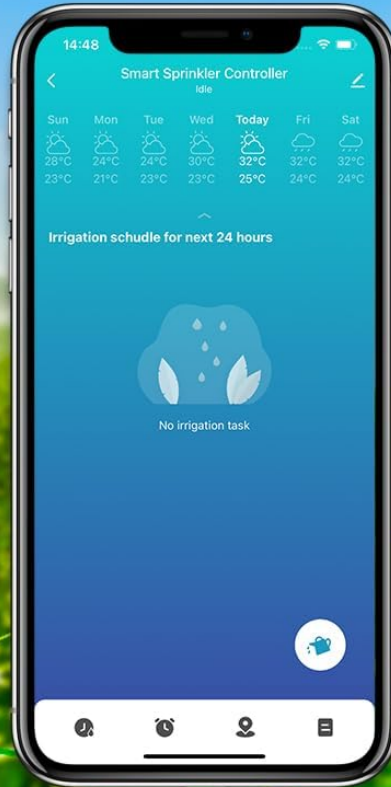
1. Plug existing wires into the Sprinkler Controller



2. Complete setup in the Smart Life or Tuya app



3. Control from anywhere



The maximum distance between the device and the wifi router is 45m.

Figure 8: A visual summary of the installation process: wiring, app setup, and remote control functionality.

3. OPERATING INSTRUCTIONS

Once installed and paired, the GreenVation Smart Sprinkler Controller can be managed entirely through the Smart Life/Tuya app. The app provides various modes and features to customize your watering schedule.

3.1. App Remote Control

The mobile app allows you to monitor and manage your sprinkler system from any location with internet access. You can start, stop, or adjust watering schedules remotely.



APP Remote Smart Control

Set your watering schedules
and Track water usage from anywhere

Figure 9: Remote control functionality demonstrated, showing a user managing their sprinkler system via a smartphone app.

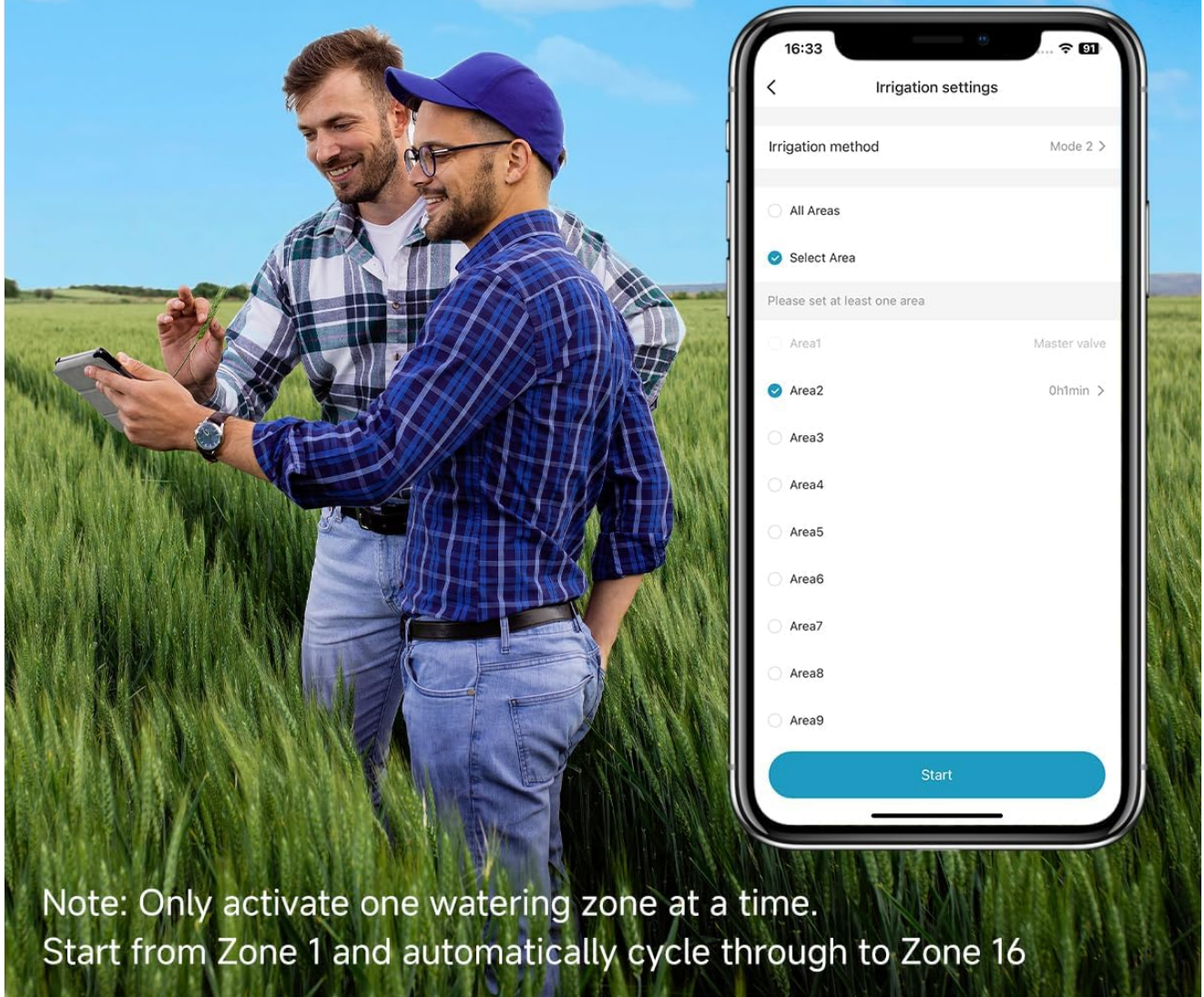
3.2. Setting Watering Schedules

The app offers flexible scheduling options, including Timed Watering Mode, Cyclical Watering Mode, and advanced Irrigation Modes.

Note on Zone Activation: For standard power supply configurations, the controller is designed to activate only one watering zone at a time, cycling through zones 1 to 16 sequentially. If you have an upgraded high-current system, it may support irrigating up to four areas simultaneously. Please refer to your specific model's capabilities.

Schedule your watering plan

Set the duration, areas, and frequency of watering



Note: Only activate one watering zone at a time.
Start from Zone 1 and automatically cycle through to Zone 16

Figure 10: App interface for scheduling watering plans, allowing selection of specific areas and setting durations.

3.2.1. Timed and Cyclical Watering Modes (Standard)

These modes allow you to set specific start times, durations, and days for watering. In standard operation, zones will be watered one at a time.

Standard power supply, Only activate one watering zone at a time.
Start from Zone 1 and automatically cycle through to Zone 16

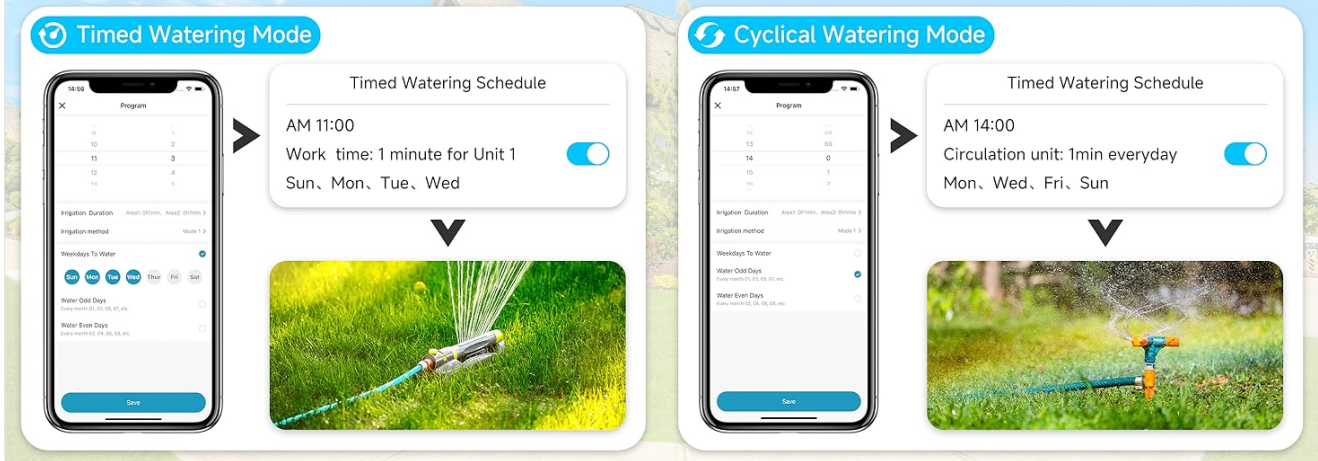


Figure 11: App interfaces for Timed and Cyclical Watering Modes, illustrating single-zone activation for standard power setups.

3.2.2. Timed and Cyclical Watering Modes (Upgraded System)

For systems with an upgraded high-current power supply, these modes can be configured to irrigate up to four areas simultaneously, enhancing watering efficiency.

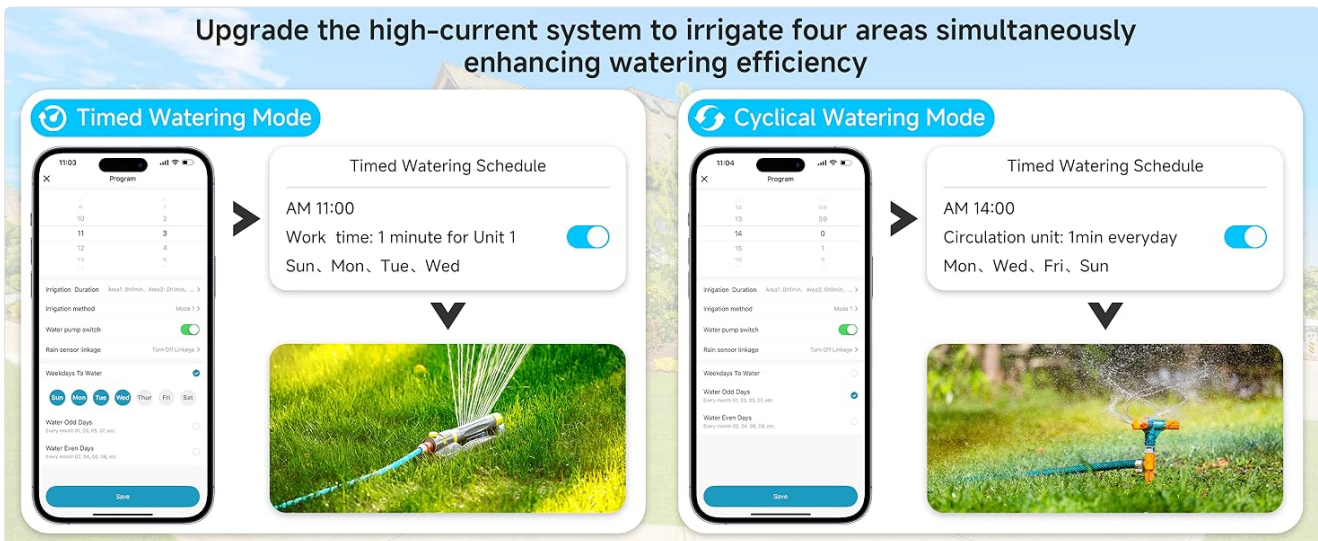


Figure 12: App interfaces for Timed and Cyclical Watering Modes, demonstrating simultaneous watering of multiple zones with an upgraded power supply.

3.2.3. Irrigation Mode 2: Multiple Watering Tasks

This mode allows you to set up to 7 watering tasks. Each task can control 2-3 watering areas and cycle through to the last area. This provides more granular control over specific sections of your landscape.

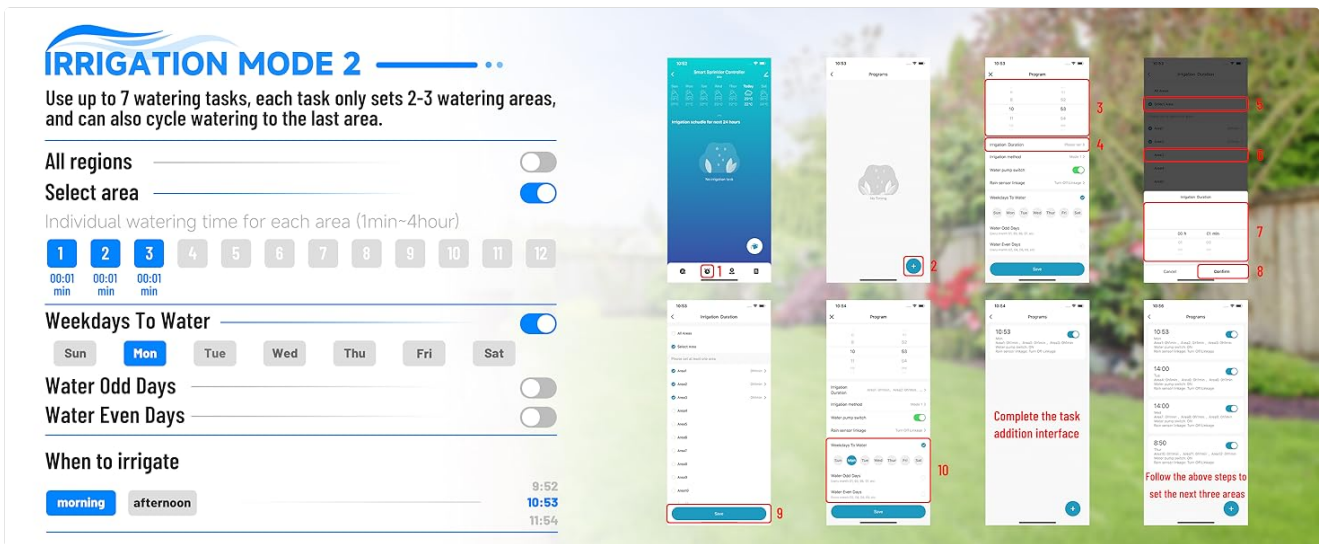


Figure 13: Step-by-step app screenshots guiding users through the configuration of Irrigation Mode 2.

3.2.4. Irrigation Mode 3: Scene-Based Watering

Utilize the 'Scene' page in the app to schedule each watering zone to turn on at a specific time. For each scene, only one zone can be set to water at a time, offering precise control for individual areas.

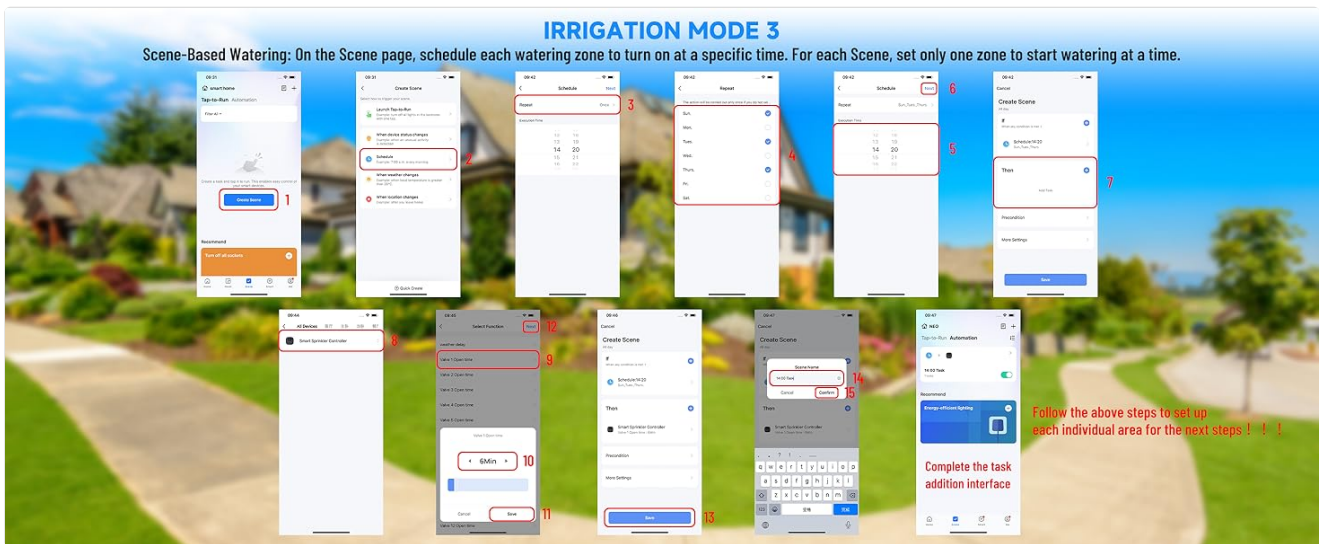


Figure 14: Step-by-step app screenshots guiding users through the configuration of Irrigation Mode 3, focusing on scene-based scheduling.

3.3. Smart Weather Features

The controller integrates with weather forecasts to offer smart adjustments to your watering schedule, helping to conserve water.

- **Rain Delay:** Automatically pauses watering for 24, 48, or 72 hours based on local weather forecasts.
- **Weather-Based Adjustments:** The system can adjust schedules on rainy days or allow you to set a delay before rain is expected.



SMART CHANGES

- Adjust the schedule on rainy days.
- Set a delay or turn off the system before it rains.
- Saving you water while keeping plants healthy.

Figure 15: App interface demonstrating the Smart Changes feature, including weather delay options.

3.4. Irrigation Methods

The controller supports different irrigation methods based on your system's setup:

- **Mode 1 (Parallel Mode):** Zones 1 to 16 are used for rotational watering.
- **Mode 2 (Master-Slave Mode):** Zone 1 acts as the master valve, and zones 2 to 16 are set for rotational watering.

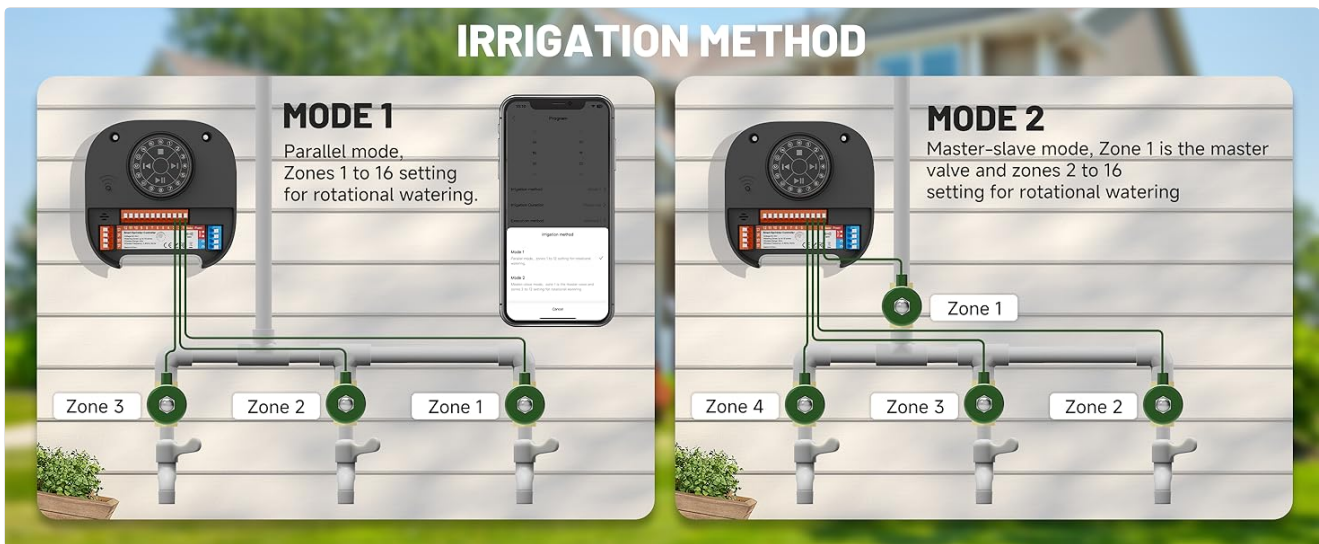


Figure 16: Visual representation of the two primary irrigation methods: Parallel Mode and Master-Slave Mode.

4. MAINTENANCE

To ensure optimal performance and longevity of your GreenVation Smart Sprinkler Controller, consider the following maintenance guidelines:

- **Regular Cleaning:** Periodically wipe down the exterior of the controller with a soft, dry cloth to remove dust and debris. Avoid using harsh chemicals or abrasive cleaners.
- **Firmware Updates:** Regularly check the Smart Life/Tuya app for available firmware updates. Keeping the firmware updated ensures you have the latest features and bug fixes.
- **Wiring Inspection:** Annually inspect all wiring connections to ensure they are secure and free from corrosion or damage.
- **Environmental Protection:** If installed outdoors, ensure the controller is adequately protected from direct sunlight, heavy rain, and extreme temperatures.
- **App Monitoring:** Regularly review your watering history and system status in the app to identify any unusual behavior or potential issues early.

5. TROUBLESHOOTING

If you encounter issues with your GreenVation Smart Sprinkler Controller, refer to the following common troubleshooting steps:

- **Connectivity Issues (WiFi):**
 - Ensure your WiFi network is 2.4G or 5GHz and stable.
 - Verify the controller is within range of your WiFi router (maximum recommended distance is 45m).
 - Restart your router and the sprinkler controller.
 - Attempt to re-pair the device with the Smart Life/Tuya app.
- **"Switch is Faulty" Error:**
 - Check all wiring connections, especially the common wire and individual zone wires, to ensure they are securely seated in the terminals.
 - Inspect the solenoid valves in your irrigation system for any physical damage or blockages.

- Test individual zones manually through the app to isolate the problematic zone.
- **Zones Not Watering:**
 - Confirm the watering schedule is active and correctly configured in the app.
 - Check if a rain delay or smart weather feature has paused the schedule.
 - Verify that the water supply to your irrigation system is turned on.
 - Ensure the wiring for the specific zone is correct and secure.
- **App Functionality Issues:**
 - Ensure the app is updated to the latest version.
 - Clear the app's cache or reinstall the app if persistent issues occur.
 - Note that the "All Area" option in the app may cycle through zones that do not exist if not all 16 zones are wired. Consider creating individual irrigation plans for active zones.
- **Inaccurate Smart Weather:**
 - The Smart Weather feature relies on general weather reports. It may not always perfectly reflect localized rain events. Manual adjustments or delays may be necessary in such cases.

6. SPECIFICATIONS

Feature	Specification
Model Number	NAS-SS01W9
Brand	GreenVation
Number of Zones	16
Connectivity	2.4G/5GHz WiFi
Product Dimensions	6.1 x 2.56 x 10.12 inches (15.5 x 6.5 x 25.7 cm)
Item Weight	2.24 pounds (1.02 Kilograms)
Batteries Required	No
Included Components	Sprinkler controller, Power adaptor, User manual
Display Type	LCD or LED
Manufacturer	SHENZHEN NEO ELECTRONICS CO.,LTD

7. WARRANTY AND SUPPORT

For information regarding product warranty, technical support, or service, please refer to the documentation included with your purchase or contact GreenVation customer support directly. Contact details can typically be found on the manufacturer's website or within the Smart Life/Tuya app's support section.

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