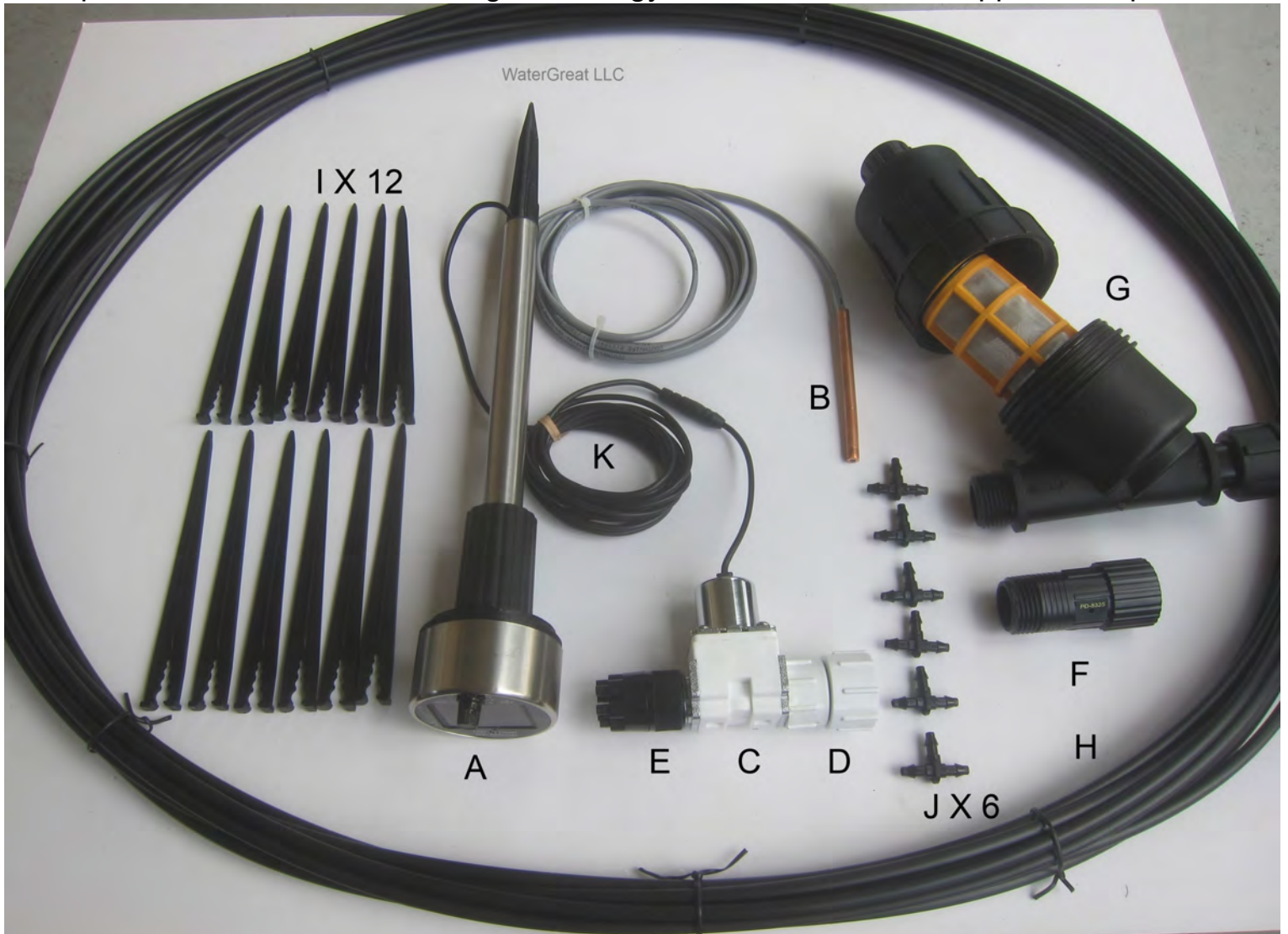


WaterGreat SR-1C™ 12 Plant Watering System Installation

Congratulations on your purchase of the 12 plant watering system using totally automatic solar powered soil moisture sensing technology! Please review the supplied components:



Item	Count	Description
A	1	WaterGreat SR-1 Easy Automated Watering Controller, Solar
B	1	WaterGreat Ruggedized Soil Moisture Sensor
C	1	Commercial Rated 1/2" Water Solenoid Valve
D	1	1/2" Female Pipe Thread to Female Hose Thread Adapter
E	1	6 GPH per outlet - Pressure Compensating - 1/2" FPT x 6 Outlets - 1/4"
F	1	25 PSI Hose Thread Pressure Regulator
G	1	Y Filter Female Hose Swivel x Male Hose 150 Mesh Stainless Steel Screen
H	62	1/4" X 1 foot Poly Micro Tubing (PolyEthylene) (62 feet total)
I	12	Micro Tubing Holder Stake 6" - Multiple sizes .167" to .350" OD
J	6	1/4" Poly Micro Tubing Tee (1 in to 2 out)

WaterGreat SR-1C™ Watering System Introduction

WaterGreat LLC was created by gardeners. We have carefully selected this kit to provide years of satisfactory service. For example, we have provided a stainless steel filter system, and our 24 and 48 plant extensions use Netafim™ drippers, shown by us to be the highest quality available. Our WaterGreat Automatic Watering Controller is designed for years of operation – and we use only commercially rated water solenoid valves. We understand for many of you this is your first drip irrigation system, and we want to start you off right!

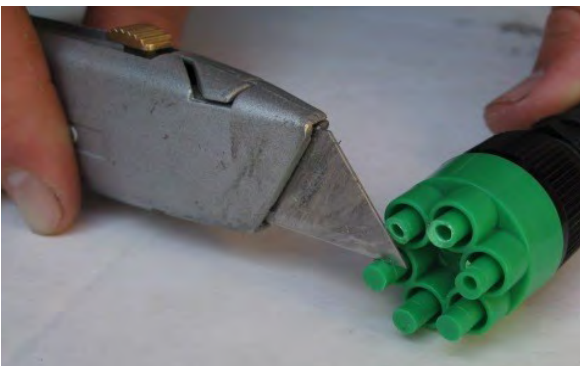
WaterGreat SR-1C™ Garden Layout

1) Plan your layout. This plant watering system is ideal for plant watering for 1 to 12 plants. With 62 feet of tubing you have flexibility, but typically you want to locate all of your plants within 20 feet of each other. Doing so provides the most even watering experience for all of your plants. You will typically water plants that all require the same amount of water each day. For example, you may have six potted plants on your patio. You would simply connect each outlet from [E] above to the 1/4" tubing, and secure it in the pot with the provided stakes [I]. If you wish to water more than six plants, then use the provided Tees [J] and water two plants that are near by using one of the six outlets and splitting them with the tee and equal amounts of tubing to each plant. **See the illustrations below** to get some sample layouts. Please note: This system is easily expandable to allow for 24 or 48 plants by simply adding pressure compensating drippers and additional tees to this system. See <https://watergreat.com> for further details.

Keep these in mind when setting up your tubing:

1. Place the 6 outlet adapter (E) in a central location if possible
2. Try to approximately keep all tubing lengths the same, or close
3. **Always** when using the 'Tee' (J) keep the two outgoing lengths the same
4. Avoid kinks or sharp turns in the tubing
5. Use the stake holders near the outlets of the tubing. Alternately, you can use them any way to make the tubing stay in place or look more attractive.
6. The 6 outlet adapter comes with one hole open. Open only the holes you need, in case you wish to irrigate less than six plant areas.

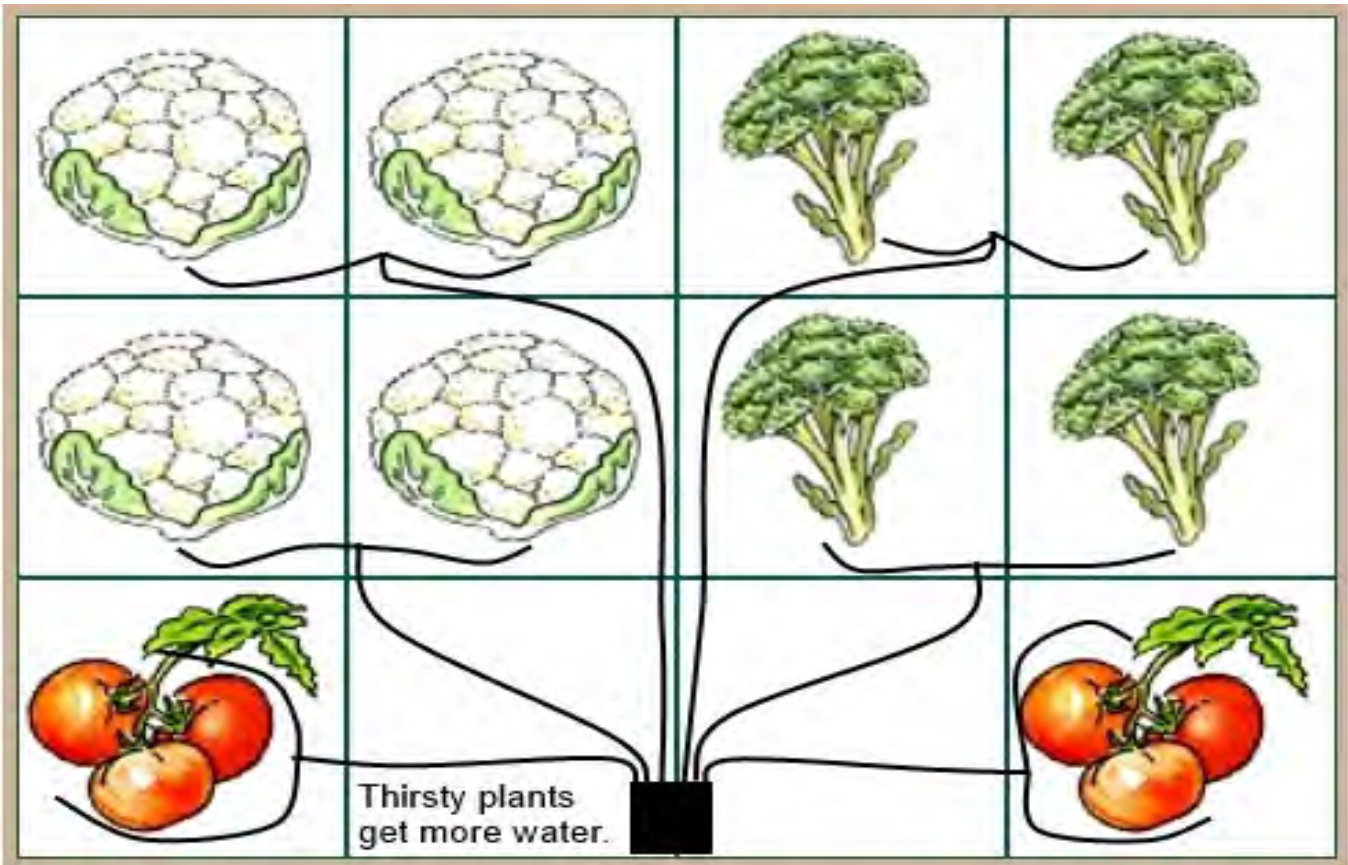
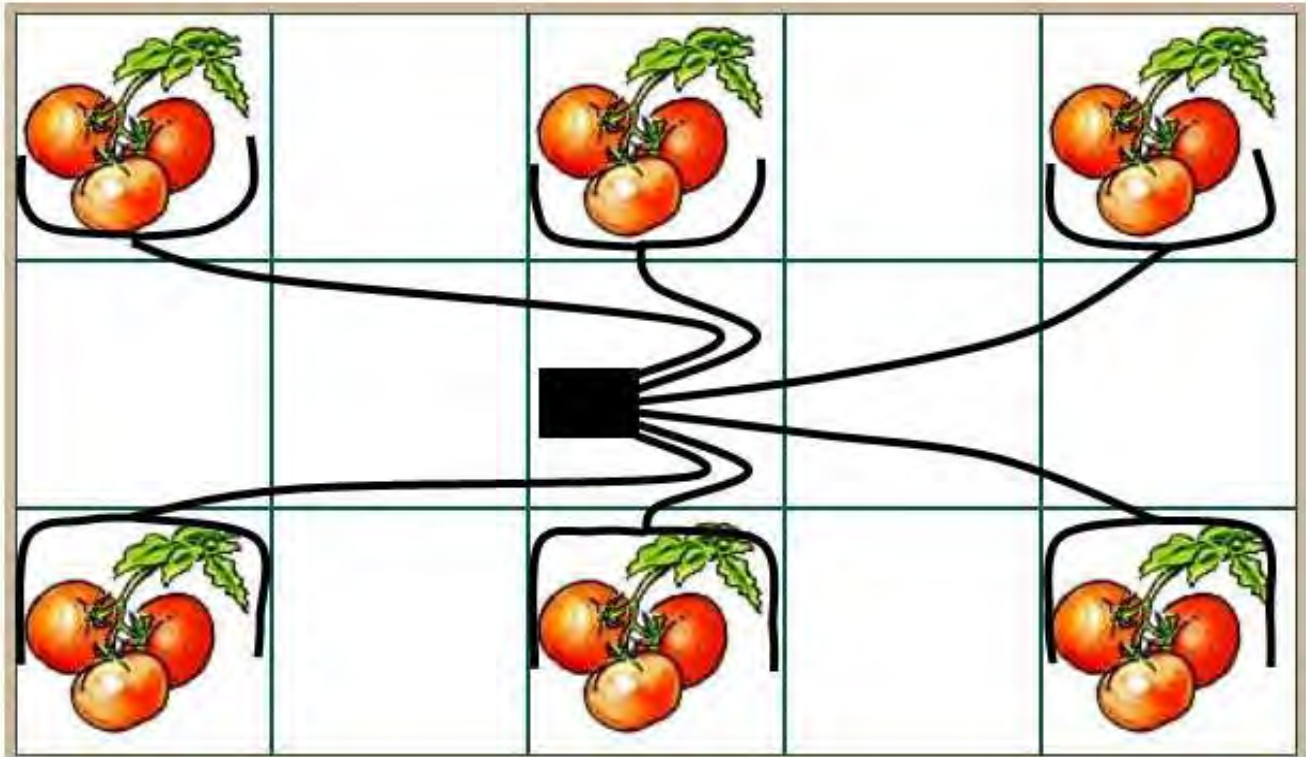
These following illustrations are just a sample. You can use this watering system to water any number of different plants. Mainly, double up the outlets for plants that require more water than others. **ALWAYS** place the moisture sensor be the plant or soil that dries out the quickest. It is better usually to over-water slightly than under water.

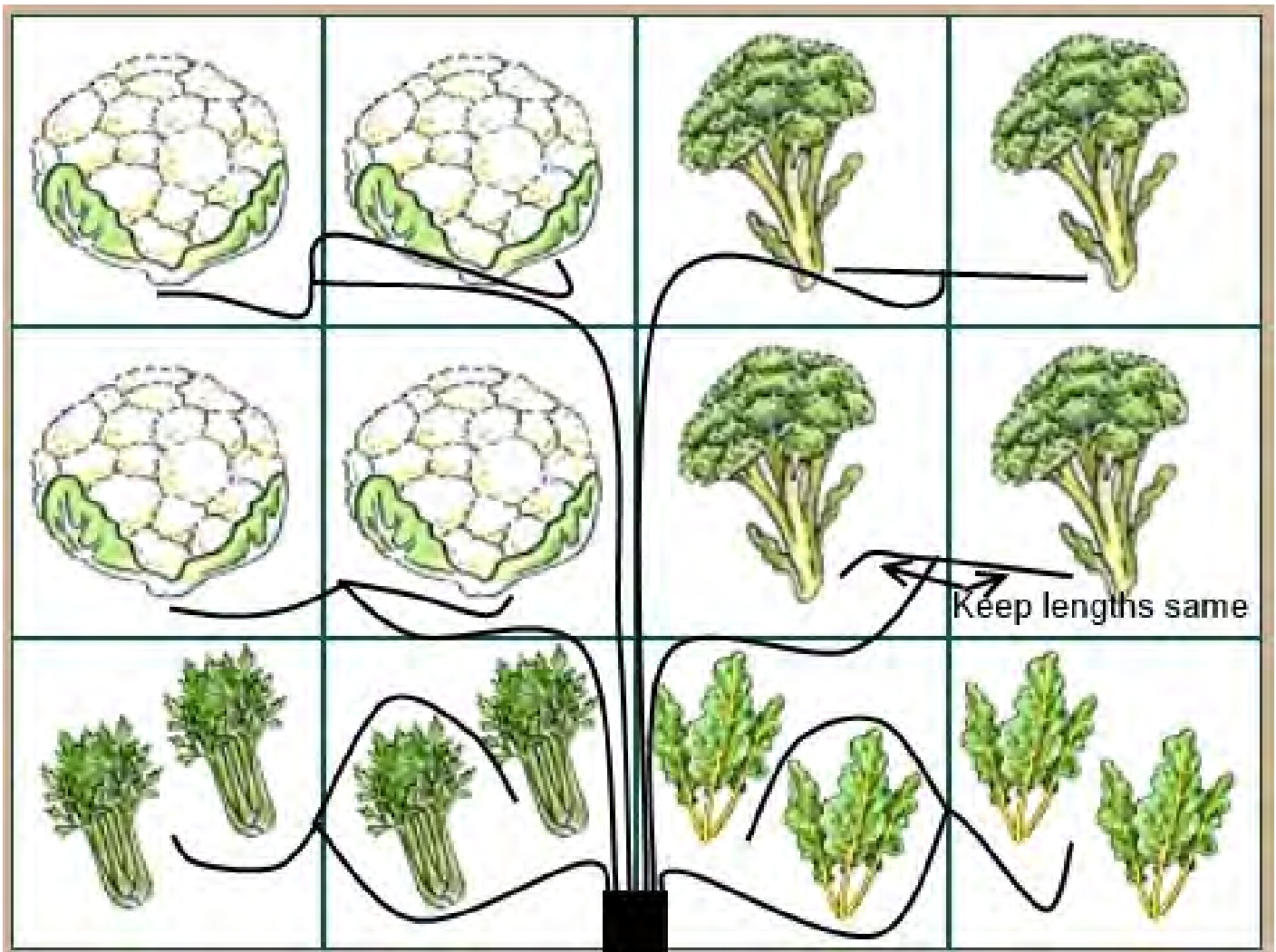
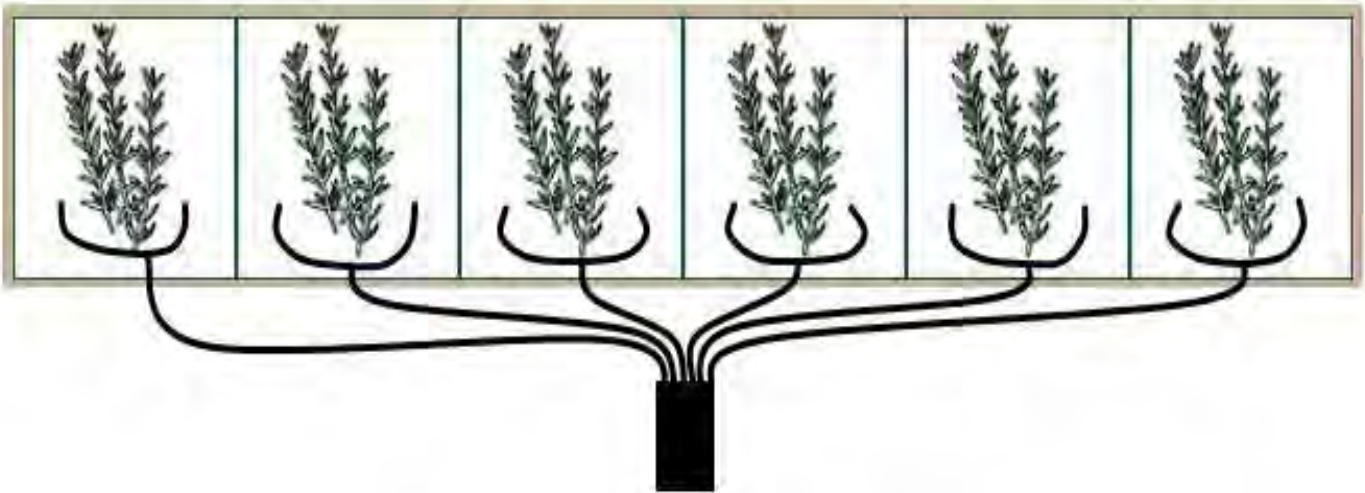


WaterGreat LLC



<https://watergreat.com>





WaterGreat SR-1C™ Valves, Filter and Pressure Regulator



1) Attach the 25 psi pressure regulator [F] to the spigot as shown on left [B].

2) Connect a high quality hose (burst proof or burst resistant) to the output of the pressure regulator as shown. You may hook up the filter and valve shown below directly if your spigot is in the area adjacent to the garden.

3) Connect the “Y” filter with stainless screen [G] to the combined Female Adapter, WaterGreat SR-1 moisture controller + sensor and pressure compensating 6 outlet adapter [A-E] to the male end of the garden hose and position in an area central to the area to be watered.

4) Attach the hoses [H] and tees [J] in a manner according to the provided diagrams above.

5) Use the Tubing Holder Stakes [I] to position the outlet tubes at the root zone of the plants to be watered. Use one or two outlets per plant as shown in the diagrams. If you only wish to water 6 plants or less, it is preferable to still use the tees and put each water outlet to either side of the root zone, although not required.



WaterGreat SR-1™ Installation

This section provides detailed information about setting up the SR-1 series Moisture Sensing Automatic Watering System, its placement and original settings.



1) Attach stake and stainless steel tube to the control assembly **[A]** and place in the ground where the sun shines at least 6 hours a day. Turn knob to below “1” for no watering (as shown in picture below left) until the unit charges in the sun (up to 24 hours).

2) Place the slender sensor rod **[B]** in an area watered by the system, about 5 inches from the watering outlet of one of the tubes. Push the rod into the soil, red dot UP at a slight angle, so that lower tip is about 1 1/2 inches from the surface. It is best to place the sensor in an area that dries the quickest. (Place by the thirstiest plant in the most direct sun.) GIVE THE AREA A GOOD HOSE WATERING AFTER SENSOR INSERTION, WITH EQUAL WATER AT EACH TUBING OUTLET (FOR CALIBRATION).



WaterGreat SR-1 Installation

3) Allow the garden area to absorb the good watering at each outlet overnight, so that the soil is wet but not over-watered.

4) The next day make a note of the number of blinks on the controller. This gives you the current soil moisture reading. Adjust the knob to the same number as the blinks to give good watering. This setting is your set point that the controller will maintain, and is suitable for most plants.

5) Periodically check the soil and plants. Adjust the knob setting up or down as desired for more or less watering. For example, lettuce would require wetter soil, tomatoes are deep rooted and thrive on lower moisture levels.

The controller and system is now completely automatic. In the morning it waters if it needs it for three minutes. Then every four hours it checks it again and waters if needed. The three minute watering provides about 38 ounces of water per outlet for each watering. If you use the 'tees' and split the output of one of the 6 outlets, this will provide about 19 ounces of water per plant each watering. This is the world's easiest to use watering system.

Need a shorter or longer watering time? **SEE ADVANCED INSTRUCTIONS ON THE NEXT PAGE**

What is the basic operation of the system?

The solar panel charges the Lithium Ion battery, and sends a signal to the control module to permit daytime watering. At daybreak and then every 4 hours, during daylight hours, two additional soil moisture level measurements are made. That level is compared with the user set 'desired' watering level. If the desired level is higher than the measured (current) moisture level, a watering cycle begins, turning on the valve for eight minutes. This amount of water prevents over-watering or water dripping through before it can be absorbed. It is possible to increase or decrease this amount of water if needed using the switches on the underside of the assembly. The user adjusts the desired moisture level by turning the knob at the top of the control assembly to raise or lower the desired moisture setting. This is just the same as turning up or down the volume on a stereo. Every twenty seconds, the LED (Light Emitting Diode) will blink and indicates the 'Current' or measured moisture level. At any time a watering cycle is initiated when the knob is turned wetter than the current reading. Watering is stopped manually by turning the knob "down." All the way down stops all watering. At night (1 blink) or if the battery is low (2 blinks) the LED flashes briefly once per minute and the controller goes into a special low power mode.



SR-1™ by WaterGreat™ LLC Limited Two Year Warranty

WaterGreat LLC warrants to its customers that its WaterGreat SR series products will be free from defects in materials and workmanship for a period of two years from the date of purchase. We will replace, free of charge, the defective part or parts found to be defective under normal use and service for a period of up to two years after purchase (proof of purchase required). We reserve the right to inspect the defective part prior to replacement. WaterGreat LLC will not be responsible for consequential or incidental cost or damage caused by the product failure. WaterGreat LLC liability under this warranty is limited solely to the replacement or repair of defective parts. To exercise your warranty, return the unit to WaterGreat LLC with a copy of the sales receipt. **YOU ARE IMPORTANT TO US. We will work with you to provide reduced pricing for any units under five years.**

WaterGreat SR-1™ Advanced Instructions

This document covers Setting the Watering Time, Connecting Wiring, and some basic troubleshooting guides. Contact support@WaterGreat.com if you have inquiries or suggestions for clarifying these procedures.

Setting the Watering Time



8 MINUTE WATERING



1 MINUTE



3MINUTE

WATERING



8 MINUTE



20 MINUTE

WATERING

1) Twist the control head counter clockwise until it hits the stop (a small amount), then separate the control head from the black support housing. The unit will separate showing the switches and terminal strip on the left.

2) Using a fingernail, a pen tip or a small screwdriver select the switches on the red switch panel to the watering time you wish – 8 minutes, 20 minutes or one minute. As shown in the pictures and captions: Switch 1 ON and Switch 2 ON is 3 minutes; Switch 1 ON and Switch 2 OFF is 8 minutes; Switch 2 ON and Switch 1 OFF provides 20 minutes of watering; both switches OFF provides one minute of watering. Note: this is only the watering time that occurs when the SET point (by the knob) is greater than the READING. The reading is shown by the blinking LED that repeats the last measured soil moisture every 20 seconds.

Normally 3 minutes works well. 20 minutes is used when a deep watering is desired, or with the 48 plant extender kit with the ½ gallon per hour drippers or similar. The one minute setting usually used when the three minutes it too much water, such as watering small potted plants.

Removing or Lengthening the Wiring to the Valve

Summary: Consumers will occasionally wish to re-route their valve wiring, or extend it if the 9 ½ feet length is not adequate. Simple take care in removing the wiring, and pay particular attention to keeping the wiring as shown: Red wire (or attached wire tied to the red wire) on the LEFT and the White wire on the right.

If by accident you reverse this wiring you will not harm the system, but the 'ON' and the 'OFF' function of the valve will be reversed. If turning the moisture knob all of the way down turns the valve 'ON' you have reversed the wires.

Notice: This terminal strip uses a small opening and screwdriver. Take care in making sure you re-install the wiring in the proper hole, and when you tighten the wire back make sure that you have good insertion into the hole. Mistakenly shorting the two wires together, such as bare wires of the white touching the red during valve operation will short out the output transistors in the controller, and it will fail. Shorting the wiring is not covered by warranty, so be careful! Always turn the knob all of the way down before working on the wiring.

To extend the wiring, just pay attention to the color coding and carefully remove the existing cable from the drilled hole in the support housing. Purchase additional wiring (at least 22 gauge, preferably larger). Then use an outdoor rated splice to attach the existing cable to your new cable. If needed, you may enlarge the hole in the support housing to fit the new wire. It is not recommended to enlarge the hole much as it may crack the support housing. Most hardware stores sell 22/2 stranded CM plenum type cable that will fit into the existing support housing hole. Do not extend more than 20 feet.



Valve Wiring -Red wire on Left

SR-1™ by WaterGreat™ LLC Support

We at WaterGreat LLC want you to be our customer for life. We will only sell you the same quality product that has proven itself to us as fellow gardeners. As part of this customer relationship, we promise to provide friendly prompt customer support by email, and we'll do our best to answer back within one business day or sooner. Please contact support@watergreat.com for any questions. We also love to hear stories of success and enjoy pictures of happy gardens with this system.

Error codes and Conditions:

<u>LED indication</u>	<i>Condition</i>
One brief blink per minute	Low light condition – normal
Two brief blinks per minute	Low battery – move into sun more or contact support for battery replacement
Three brief blinks per minute	Hardware failure – contact Support
Continuous blinking	Normal first 15 minutes in the morning – then indicating a weak battery if persists. Move into a sunnier area. If problem persists after two days, contact support for a battery replacement.
Poor water flow	Check screen at input to the valve. If clogged, remove stainless housing screws and reverse flush and re-install.
Very low moisture readings (few or no blinks)	Check that sensor is close to the irrigation source, and that the soil appears moist. Reposition the sensor to firm soil near the water source or in the sprinkler pattern.