

# IRROMETER

*Optimizing Irrigation... Maximizing Conservation...*

**WORLDWIDE - Since 1951**

*Where  
Irrigation  
Decisions  
Should  
Be Made*



# WATER SWITCH

## WATERMARK Soil Moisture Sensor and Switch



Our basic model is designed to help an existing controller "Get SMART". It connects to the sensor terminal of a controller and suspends irrigation when the soil is moist enough for good plant health. Four set points allow for variations in plant and soil type. The moisture sensor is placed in a representative area of the turf grass which typically requires the most water of all plant materials in the landscape. Scheduling adjustments for other irrigation zones to accommodate their individual water needs can be made at the controller. The WS-1 comes with one sensor, is simple to install and adjust, and requires no seasonal adjustment. Simple on the outside, but smart on the inside, makes the **WaterSwitch** perfect for most basic residential applications!

## What is a SMART Irrigation Controller?

*An irrigation controller is the device that schedules the start and run times of the watering system. With so many variables such as soil and plant type, sun and wind exposure, and sprinkler efficiency present in the typical landscape, programming conventional controllers can be challenging. Inefficient scheduling leads to many problems including poor plant health and water waste. Irrigation efficiency can be improved through the use of a "SMART" timer or irrigation controller. By definition, SMART controllers either estimate or measure depletion of soil moisture.*

*Controllers that estimate the amount of moisture depletion are called "ET" clocks (ET is short for evapotranspiration). SMART Controllers that actually measure moisture depletion use soil moisture sensors. These devices manage irrigation based on*



**Automate your Irrigation Controller  
to Water ONLY When Necessary**

# WATERMARK

## Electronic Module

The WATERMARK Electronic Module is a more advanced version of the WaterSwitch. You might say it is the "SMARTER" brother. While the WS-1 is designed to override the entire controller, the WEM can do that as well as manage a single valve or a group of valves. The WEM is more versatile since it interrupts the valve common ground wire. This provides more flexibility in design and installation. Remote valve locations or problem areas that are difficult to manage can be controlled with the module mounted in the valve box. Multiple valves with similar scheduling needs can also be grouped together and managed as a "hydrozone". Eleven moisture levels allow the user to irrigate based on widely varying plant water requirements and soil types. Two soil moisture sensors, which are placed at different levels in the root zone, are included with the WEM module. Installation is simple for retrofit or new construction. Additional versions of the WEM are available for specialized applications. Contact our technical support team for more information. The WATERMARK Electronic Module is a great way to optimize irrigation and maximize conservation for more elaborate residential and light commercial applications!



### WEM-B Battery Version



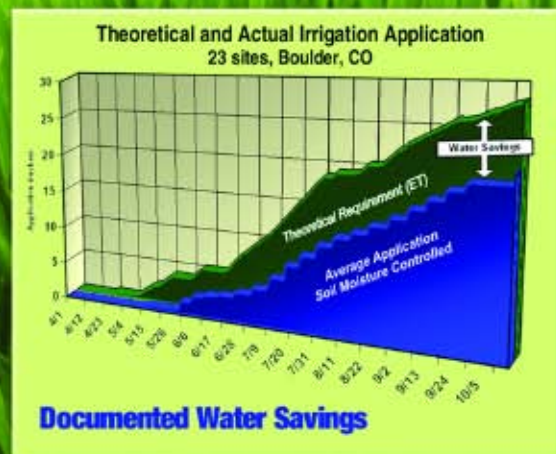
*plant demand. This is the technology that WATERMARK products use to optimize irrigation and maximize conservation, which can easily be added to conventional controllers to make them "SMART".*

*Our moisture sensor is located in the root zone. As the plant's root system consumes soil water, moisture is depleted from the soil (and the sensor) and then replenished during an irrigation or rain event. The sensor signals a control module connected to the irrigation controller so watering is stopped whenever soil moisture is adequate. Moisture settings are adjustable to allow for variations in soil and plant types.*

**For Use with Battery Powered Valve/Controllers with Sensor Connection.**



**WATERMARK Sensors in the Root Zone.**



## **WATERMARK Soil Moisture Manager**

This system is designed to interface multiple WATERMARK Electronic Modules with any 24 VAC irrigation controller for soil moisture automation on residential and commercial applications. Valves are grouped together into hydrozones based on that location's specific irrigation needs. As many as eight independent moisture sensing locations can be managed. Each WEM can be independently adjusted for desired moisture level and will interrupt cycles based on plant demand at that location.

The system can be factory wired and mounted on a back panel for installation in an enclosure, or can be factory wired and mounted in our non-metallic (ABS) or stainless steel enclosures. This flexibility allows the user to specify the configuration based on their application.



*Since saving water while improving plant health is the goal, irrigating to plant demand just makes sense!*

### **Makes Your Controller "SMART"**

- Save Water
- Save Energy
- Reduce Runoff
- Grow Healthier Plants
- Reduce Fertilizer Use
- Protect Groundwater
- Mitigate Pest and Disease Problems



*From the  
makers of the  
world's finest  
tensiometer.*

## Who We Are . . .

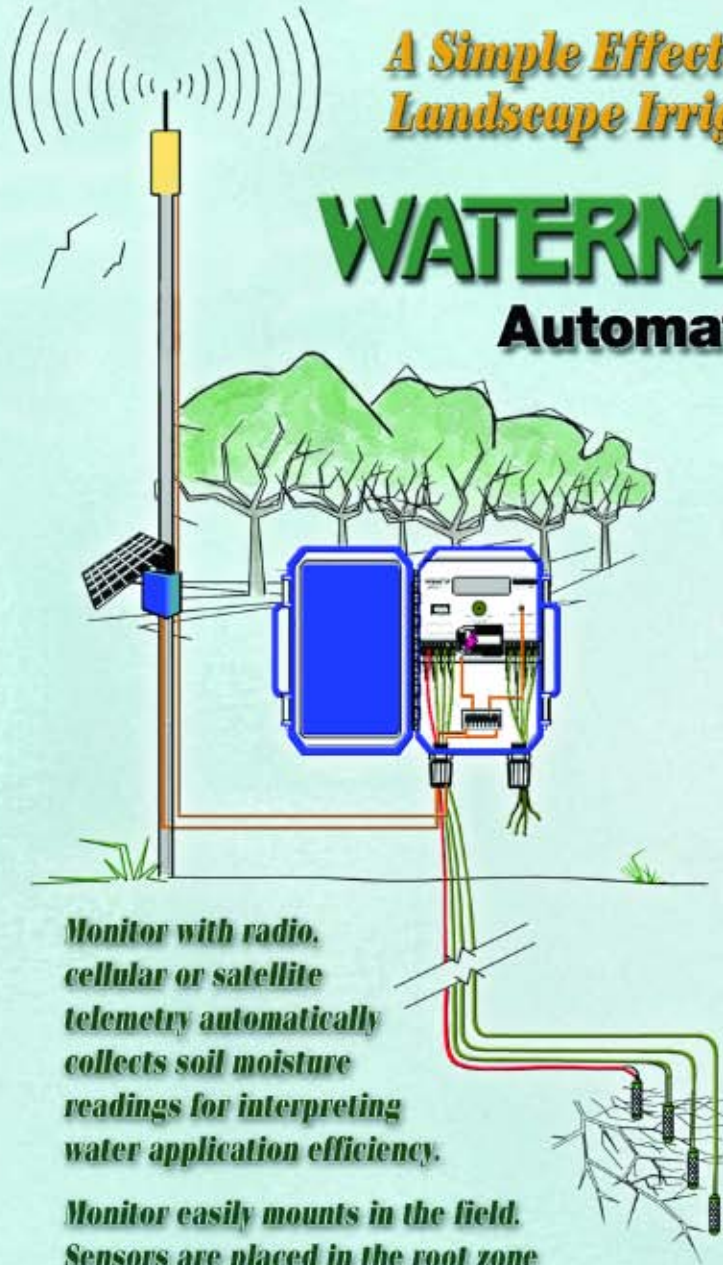
Since 1951, The IRRMETER Company, Inc. of Riverside, California has manufactured soil moisture measurement and control products for optimizing irrigation. From our historical base of providing tools to the Agricultural market for increasing yield and quality while saving water and pumping expense, we have progressed to offering similar solutions for urban irrigation systems with our switching IRRMETERs as early as 1965. With over 40 years of experience in *Smart Watering*, IRRMETER has technology that can assist your efforts to curtail the excessive use of urban irrigation water.

Our WATERMARK technology offers proven solutions for water conservation in landscape and turf irrigation applications, and the WATERMARK Granular Matrix Sensor (GMS) is the best tool for such systems.



*A Simple Effective Way to Monitor  
Landscape Irrigation Water Use*

# **WATERMARK** Manual and Automatic Data Collection



**Monitor with radio,  
cellular or satellite  
telemetry automatically  
collects soil moisture  
readings for interpreting  
water application efficiency.**

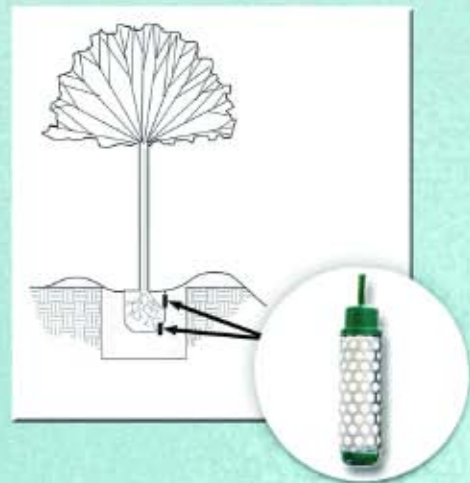
**Monitor easily mounts in the field.  
Sensors are placed in the root zone  
at depths where moisture data is desired.**



Your local Water Authority may have incentives available for your water conservation efforts.



**Hand-held digital meter for manual irrigation scheduling of specimen plantings.**



# **IRR0METER**

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