

Weather-based irrigation control

A Weather Reach Receiver[™] uses data from highly accurate, local weather stations to calculate the irrigation needs of your landscape. Weather Reach automatically adjusts your irrigation schedule to maintain optimum soil moisture. Weather Reach brings Evapotranspiration (ET) based control to any standard irrigation controller to help you maintain a healthier landscape while conserving water and saving money.

Maintain healthier landscapes

- Plants receive the correct amount of water.
- ET-based control is reliable proven technology.
- Weather Reach is easily programmed to meet site-specific needs.

Conserve water

- Water only when needed based on hourly real-time weather conditions.
- Weather Reach goes beyond typical rain shut-off devices by using measured rain to keep your sprinklers off based on the amount of rain that fell.

Save time and money

- Reduce water costs by only paying for water your landscape actually needs.
- Reduce labor costs - scheduling changes are made automatically based on current weather conditions.
- Eliminate sensor maintenance.
- Wireless communication allows you to install it anywhere.
- Installation is quick and easy.

ET-Based Control of Irrigation Systems

Wind, temperature, humidity and solar energy affect how quickly your landscape will dry out. Weather Reach Receivers use hourly data broadcasts from local weather stations to calculate Evapotranspiration (ET). The calculations are done using the ASCE “Standardized Reference Evapotranspiration Equation” endorsed by the Irrigation Association. To meet site-specific needs Weather Reach ET calculations can be fine-tuned using crop coefficients and landscape adjustment percentage factors to obtain ETc.



Weather-based control module for sprinkler systems.

Weather Reach Control Methods

The Weather Reach Receiver integrates ET with irrigation controllers using any of the following methods:

ET Enable Control - The irrigation requirement is equal to ET minus effective rainfall. The Weather Reach Receiver maintains a moisture balance by accumulating the irrigation requirement. The “common” output of a controller is interrupted until the moisture balance reaches a programmed threshold. Watering only occurs when soil moisture is depleted to an allowable level. The controller is programmed to apply the amount of water needed to refill the soil reservoir. Irrigation frequency is controlled based on ET. Rainfall values measured by an on-site rain gauge or from the local weather station are used to calculate the irrigation requirement. Irrigation is interrupted based on the amount of rainfall. Excessive rain is ignored; the Weather Reach Receiver determines effective rain based on user settings.

Optional Weather Reach control methods:

ET-Pulse – The Weather Reach Receiver creates a switch contact for every 0.01” of ET for compatible ET-based irrigation controllers.

Rain-Pulse - The Weather Reach Receiver creates a switch contact for every 0.01” of rain measured at the weather station for compatible irrigation controllers.

ET- Trigger – When an ET threshold is reached; the Weather Reach Receiver creates a switch contact to signal a compatible irrigation controller that irrigation is needed.

RS-232 – ET and weather data can be directly accessed from the Weather Reach Receiver serial port by compatible irrigation controllers.

Rainfall

Rainfall measurements are available from two sources:

- Local weather station – Rainfall data is included in the weather broadcast.
- On-site – Connect a tipping bucket rain gauge directly to the Weather Reach Receiver.

Weather Interrupt

The Weather Reach Receiver can also suspend irrigation. Three interrupt conditions may be programmed.

- Low temperature
- High wind speed
- Rainfall amount

Weather Display

View the most recent weather information:

- **Rain** — Last 24-hour and 7-day accumulations
- **Air Temperature** — Current, daily high and low
- **Wind Speed** — Current, daily high and low
- **Relative Humidity** — Current, daily high and low
- **ETC** — Last 24-hour, 7-day accumulations, and the current ET Balance

Specifications:

Power Supply*:	12 to 42 VAC or 12 to 60 VDC @ 0.1 A max.
Maximum Contact Load:	5 A @ 50 VAC
Pulse Frequency:	1 or 10 pulses per minute
Pulse Duration:	0.1 to 4.8 seconds
ET Enable:	Separate A & B Threshold settings and contacts
Operating Temp. Range:	-15° to 70°C (5° to 160°F)
Terminal Wire Gauge:	14 to 22 awg
Ground Lug Wire Gauge:	14 to 18 awg
Serial Communications:	RS-232 (RJ45 connector)
Antenna Connection:	BNC Female, 930 MHz
Rain Gauge Sensor Voltage:	3 VDC
Indoor Wall Mount Cabinet:	4.8" H x 5.25" W x 1.5" D

*A power cable (included) connects to the irrigation controller 24 VAC power supply. If needed, a separate power supply is available.

Optional Accessories

Model #	Description
WR-PS	110 VAC Plug-in Power Supply Transformer
WR-ANT-BNC**	External Antenna for WR-7
WR-OE	WR-7 Outdoor Enclosure — Industrial lockable fiberglass NEMA 4X cabinet with 110 VAC outlet. Dimensions: 11-5/8" H x 9-1/2" W x 4-1/4" D
WR-TE525-L30	Texas Electronics® 6" Tipping Bucket Rain Gauge (0.01" tip) w/ 30' Cable
WR-PRG	Pronamic® Tipping Bucket Rain Gauge (1 mm per tip) w/ 30' Cable

**The Weather Reach Receiver has a built-in antenna.

Locations with a weak paging signal may require an external antenna and a 50 Ohm antenna cable with a BNC Male connector (not included).

The Weather Reach Water Management System™

The Weather Reach Water Management System is comprised of two parts. The Weather Reach Receiver provides ET-based control for irrigation systems. Local Weather Reach Signal Providers manage a network of weather stations and broadcast the latest weather data to the receivers using a Motorola Flex paging system. Contact your local Weather Reach Distributor or Irrisoft Inc. for a list of Weather Reach Signal Providers™.

