



Weather Reach Application Notes

Toro Sentinel Controller

The WR-7 Weather Reach Receiver can provide the Toro Sentinel controller with ET and rainfall values from the Weather Reach System weather station. When connected to the Toro Sentinel central control system the information can be used throughout the system. The WR-7 ET and rain output is a momentary switch closure, typically set to .01" per closure. Outputs are based on information from regional weather station broadcast via the Weather Reach System. The information is updated with each broadcast. The local Weather Reach Service Provider sets the update frequency, which can be as often as hourly to once per day.

Hardware Requirements

One WR-7 Weather Reach Receiver provides inputs to one Toro Sentinel sensor input terminal. Make the connections across the flow terminals for both the ET and rain input. The flow pulse lasts 3ms to 6ms. The rain pulse (contact closure) lasts 100ms to 200ms (.1 to .2 seconds) to credit rain .01". The ET pulse lasts 1000ms to 4000ms (1 to 4 seconds) to credit ET .01". Everything outside these ranges is rejected.

Wiring

ET - Use a 2-conductor wire to connect the WR-7 "ET Pulse" terminals to the Toro Sentinel flow sensor terminals.

Rain – (if no on-site rain collector is available) – The rain pulse is connected to the same terminals as the ET pulse. In the WR-7 wire 2 jumpers between the ET pulse and the rain pulse outputs.

Toro Sentinel Controller Program Settings

ET & Rain - See Sentinel users guide.

WR-7 System Settings

Version 1

Rain Source = Broadcast
ET Enable Mode = Trigger
Pulse Per Minute = 1
Units per Pulse = .01
ET Pulse Duration = 3.0 seconds
Rain Pulse Duration = .2 seconds
Weather Interrupt = Wind and Temperature as needed

Version 2

Rain Source = Broadcast
Pulse Per Minute = 1
ET Pulse Duration = 3.0 seconds
Rain Pulse Duration = .2 seconds
ET Output = ET Pulse
Weather Interrupt = Wind and Temperature as needed