

# CLIMATE LOGIC<sup>™</sup>

## WirelessWeather Sensing System

The weather monitoring system shall be the CLIMATE LOGIC<sup>™</sup> series as manufactured under the Irritrol brand name and installed with compatible irrigation controllers in accordance with manufacturer's instructions. The purpose of the system shall be to automatically reduce water use on cooler days and in cooler months as E.T. (evapotranspiration) decreases and to increase irrigation in warmer weather to meet the watering needs of the plant material as E.T. increases.

**Operation:** The system shall consist of a remote weather sensor/transmitter that wirelessly communicates weather information to a receiver module which shall be connected to the irrigation controller. The weather sensor shall have the capability of detecting the amount of rainfall, set by the user, which will initiate shutdown of irrigation. The weather sensor shall also have a device for monitoring solar exposure and another for air temperature. The weather sensor shall be able to transmit the data from each of the above devices to the receiver module for processing. The module shall also utilize, in its calculations, the 10-year average weather information for the installation site and other formulas provided for upload to the module via insertion of an SD card while setting "LOCATION". The module shall output the processed information as commands to the irrigation controller. System capabilities shall include, but not be limited to, irrigation system shut down because of rain (precipitation level set by user), irrigation system shut down because of cold weather (temperature level set by user) and adjusting the irrigation controller's water budget percentage to the weather data for appropriate running time lengths for each zone or station. The receiver module shall allow the user to do, but not be limited to, the following: insert an SD card with local weather information, enter the postal zip code or latitude to establish location for the irrigation site, to select English or Spanish language support, to select the "dry out" time following system shut down because of rain, to select the cold weather shutoff temperature, to set the PIN number for reception from an optional remote device, to set a water restriction time, to establish communication with the weather sensor, to observe the outside air temperature, to observe the percentage of the hottest month's water budget currently in use, to observe the signal indicator, to observe a bar graph representing earlier dates and automatic water budget selections for them and to bypass the weather sensor. Setup for the system shall require the controller to be programmed for the hottest time of year for the location and zones or stations be assigned to Program A with some controllers allowing additional programs. After establishment of communication between the module and the weather sensor, the weather sensor must be installed outside where it can receive full sun and unsheltered rain fall. Wireless signal range shall be a maximum of 1,000 feet uninterrupted line of sight. Objects or interference may decrease range. One weather sensor shall be capable of communicating with multiple receiver modules.

**Electrical:** The receiver module shall be powered by the controller. The weather sensor shall be powered by a factory-supplied, 9-volt battery. Battery shall be easily accessible for replacement.

**Construction:** The weather sensor shall be constructed of a polymer suitable for outdoor mount in full sun. The receiver module shall be so constructed for weather resistance as to be suitable for indoor or outdoor installation