



LEIT-2 ET™ System

Weather Based
Irrigation Control System

AMBIENT LIGHT POWERED



Innovative Sustainable Technology

DIG is committed to practices that contribute to irrigation and energy efficiency, creating healthy living conditions while maintaining environmentally sound operating and manufacturing practices. We strive to accomplish this through the manufacturing of eco-friendly irrigation products using materials and technology that have minimal volatile emissions and support sustainable irrigation practices. Consistent with our commitment, we've created the LEIT-2ET™ system which features lead-free components, recyclable plastic materials, and is solar powered.



About LEIT-2ET™ Weather Based Irrigation Control System

The award winning DIG LEIT-2ET™ system is a new state-of-the-art, weather based, wireless irrigation control system. The LEIT-2ET™ adjusts irrigation programming according to real time weather information provided locally by DIG's LEIT WWS wireless solar-powered weather station to improve irrigation efficiency. The LEIT-2ET™ system consists of a two-station ambient light (solar) powered irrigation controller with a rain sensor connection, an ambient light (solar) powered weather station and a remote control handset. The LEIT-2ET™ irrigation controller receives and stores weather data from a LEIT WWS weather station once every hour during daytime hours from a distance of up to 350' (100 m) line of sight. The controller uses the weather station data, along with site information programmed by the LEIT RC2ET handset, to calculate the hourly and daily local microclimate evapotranspiration (ET) and automatically adjusts the irrigation schedule for each zone. The weather-based technology is derived from the Irrigation Association's published ET equation, which uses data about local temperature, humidity, solar radiation, wind, rainfall, and soil water depletion to provide a detailed and accurate picture of conditions in the area being irrigated. Using the LEIT-2ET™ system can result in water-saving benefits for any installation, without the need for wires or an expensive power source. The system operates by using ambient light (solar) power, making it one of the most environmentally friendly controllers on the market.



How the LEIT-2ET Weather Based System Works

The LEIT-2ET™ weather based irrigation control system uses local weather and landscape information to adjust irrigation schedules to actual conditions at the landscape site. Most irrigation controllers use a number of programs with preset times and days to control irrigation. The LEIT-2ET™ system can use a preset schedule, or it can use our advanced ET (evapotranspiration) option to modify irrigation schedules depending upon the plants' actual water requirements. Using the LEIT-2ET™ weather based irrigation control system can improve irrigation practices by reducing over watering. When the ET feature is activated using the LEIT RC2ET handset, the LEIT-2ET™ controller starts receiving hourly and daily ET information from the local, on-site weather station. The information transmitted includes temperature, wind speed, humidity, radiation, rainfall, and hourly ET (reference evapotranspiration) including the last 24-hour values. Operating the LEIT RC2ET remote control handset, the user adds additional detailed information on each site zone including soil type, plant category, plant density, microclimate, percentage of slope, irrigation method, irrigation efficiency, flow rates and spacing. This information is transmitted to the LEIT-2ET™ controller, which uses it to determine plant water loss and the total irrigation rate per day needed. With this information along with other factors including depth of irrigation, allowable depletion and soil basic intake rate, the LEIT-2ET™ weather based controller calculates the zone run times and number of cycles as needed. This calculated run time replaces or overrides the program duration that the user set originally. At midnight, the controller performs the daily calculations needed to override or adjust the scheduled irrigation program for each zone, compensating for ET.



Evapotranspiration (ET)

Combines two separate processes including water loss from the soil surface by evaporation and from the plants by transpiration.



Local Weather Data

Multiple weather station sensors provide on-site weather information to help achieve significant water savings.



Versatile Weather Station Mount

The WWS wireless weather station can be mounted on a building, fence post or free standing galvanized pole.



Simple, Easy Programming

A user-friendly interface makes programming easy – all from the palm of your hand. Visits to the controller are not necessary.



Weather Station Capability

The weather stations can provide information to the LEIT-2ET™ controllers to completely stop irrigation if it is raining, freezing or too windy.



Easy Installation with Color Matched Valve Box Mount

Which ever color your valve box, we have a controller mount to match. Typical controller installation is less than 10 minutes.



Communication

Utilizing radio frequency in the ISM band 902-928 MHz (866 Hong Kong, 868 International) the weather station is CE, IC, FCC certified, Australia and Hong Kong compliant.



Valve Adaptability with Unimax™ Solenoid

The S-305DC universal solenoid design with captured plunger insures high efficiency operation. Available adapters allow for installation on nearly all manufacturer's valves.



LEIT WWS - Wireless Weather Station
Transmits ET data hourly to all LEIT-2ET™ controllers within a range of up to 350 ft. (100 m). Monitors and measures humidity level, temperature, wind speed, solar radiation and rainfall.

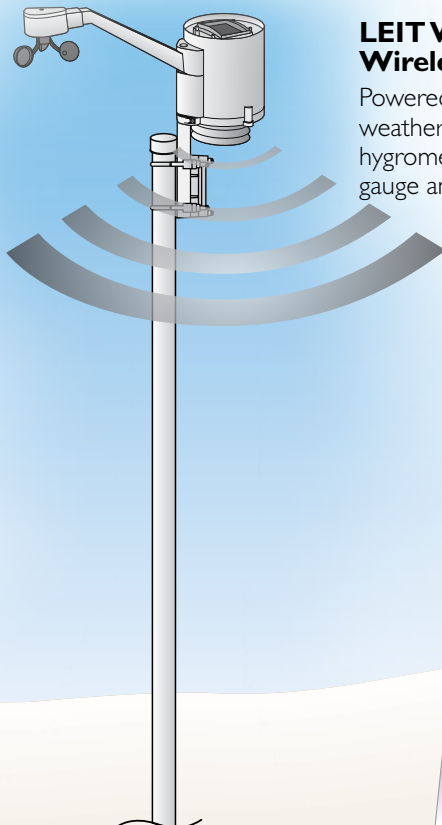


LEIT-2ET™ Irrigation Controller
Receives information from the LEIT WWS weather station and the LEIT RC2ET handset and automatically adjusts the irrigation schedule based on daily weather conditions and site data received. Operates up to two valves.

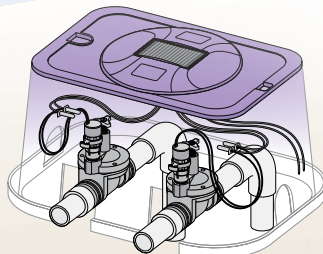
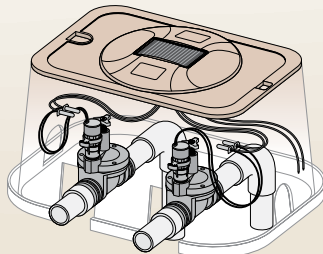
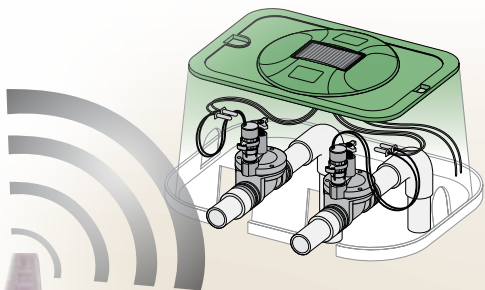


LEIT RC2ET Wireless Handset
Sends all programming data, including site information. Receives all controller function data and provides ET reports. Capable of operating manual runs, manual tests and allows for input of specific landscape criteria such as soil type, irrigation method and plant type for use with ET data sent from the weather station to the LEIT-2ET™ controller.

System Overview



LEIT WWS Wireless Weather Station
Powered by ambient light (solar) the weather station includes thermometer, hygrometer, anemometer, tipping rain gauge and solar radiation meter.



LEIT-2ET™ Irrigation Controller
Two stations, with two-way wireless communication. Powered by ambient light (solar).



LEIT RC2ET Wireless Handset
Programs up to 99 LEIT-2ET™ controllers (198 valves) and receives all controller data, including ET data, from a distance of 350 ft.



True-Wireless Weather Station

LEIT WWS and WWSE Weather Stations

The wireless weather station is an independent, weather-measuring instrument powered by ambient light (solar). Acting as a beacon, the weather station transmits weather data gathered from the surrounding area once an hour during daylight hours to any LEIT-2ET™ controller within 350 ft. (100 m) line of sight.



Wireless Control Handset



LEIT RC2ET

A pocket-sized wireless handset with full programming features. Used to program the LEIT-2ET™ controller by transmitting all programming data including site specific information such as plant type, soil type and irrigation method. The handset receives current up-to-date information from the controller including full reports from up to two months including runtime, rainfall, weather information and ET reports. Capable of operating manual runs, global rain-off and special event off functions.

Wireless Irrigation Controller



LEIT-2ET

A two-station ambient light (solar) powered, weather based, wireless irrigation controller. Two-way wireless communication enables the controller to adjust irrigation programming hourly and daily according to real time weather information provided locally from the on-site LEIT WWS – wireless weather station.



Our PVM (solar) modules are integrated into all LEIT ambient powered products and can contribute to gaining LEED points in both commercial and residential applications.



The lead-free, earth friendly micro-electronic management design incorporates power storage within super capacitors – meaning no batteries to charge, throw away or replace.

Controller Mounting Options

The LEIT-2ET irrigation controller has three mounting options to maximize versatility for any landscape application.



Valve Box Lid



Direct to Valve



Column Mount

Universal DC Solenoid and Valves

DIG's Unimax™ S-305DC solenoid is a magnetic dry latching solenoid designed for use with the LEIT-2ET™ system and can be mounted on most brand name valves using DIG's assortment of threaded adapters sold separately. The S-305DC uses a potted technique for a sealed, waterproof construction and utilizes a captured plunger for reliable operation. A filter is incorporated on the inlet of the plunger cavity to help prevent debris contamination and reduce maintenance. The normal actuation of the S-305DC solenoid is via a bi-directional pulse.



The Unimax™ S-305DC solenoid is available separately or pre-mounted on 3/4 – 2 inch in-line valve.



Available adapters to fit nearly all manufacturer's valves.

