

Rain Bird® ET Manager™ Series

The Rain Bird ET Manager (ETMi) is a control device that enables weather-based management for irrigation controllers. The ET Manager does this by using current weather conditions to calculate evapotranspiration (ET). The Rain Bird ET Manager uses the ASCE (American Society of Civil Engineers) Certified ET Equation endorsed by the Irrigation Association that recommends the inclusion of all weather parameters to calculate ET. Typically, controllers irrigate on time-based (day, hour, minutes to water) schedules regardless of changing weather and landscape needs, whereas the Rain Bird ET Manager interrupts the controller only allowing it to irrigate when the soil moisture balance reaches user set levels. Managing the soil moisture balance, the ET Manager uses a programmed irrigation amount, and ET minus effective rainfall, to determine when watering is needed. By receiving hourly weather data, the ET Manager can also suspend the controller's watering cycle when wind, freezing or rain conditions exceed user set levels enhancing its ability to save water and reduce runoff. The Rain Bird ET Manager brings weather-based control to virtually any irrigation controller to provide the convenience of automated schedule control while ensuring maximum water savings and helping maintain healthier landscapes.

Features

Universal compatibility

- Compatible with virtually any irrigation controller through the common wire, regardless of the number of stations.
- Provides pulse output of ET to compatible controllers.

Easy to Use

- Large graphical LCD display makes the ET Manager easy to read, program and understand.
- Weather information and graphs are maintained from the last two weeks allowing quick viewing of rain, air temperature, wind speed, relative humidity and ET.
- At-a-glance display shows the current landscape moisture level for valve groups "A" and "B".
- Easy to use intuitive menu allows the user to quickly access programming and system information.
- "A" and "B" indicator lights let the user know whether watering will occur or not.

- An Override button allows the user to quickly override the ET Manager to permit manual watering.

Maximum Flexibility

- Programmable delays for rain, temperature and wind allows irrigation to be interrupted until adverse conditions change.
- Can receive signal to interrupt all irrigation for emergency management or drought restrictions.
- Two independent ET-based irrigation schedules to accommodate differing plant types (ex. turf and shrubs).
- Daily watering window allows non-ET-based controller programs to operate normally.
- Adjusts to any cycle mode (CUSTOM, ODD, ODD 31st OFF, or EVEN).
- Programmable landscape adjustment values based on plant type used to meet site specific watering needs.
- Compatible with Rain Bird WS Pro Weather Station as well as other weather station networks through custom integration.

Reliable Operation

- Power failure backup: A 9-volt alkaline battery is included to keep current time and date during a power outage.
- UL listed; CUL, FCC approved.
- User programmable 12-month historical ET database for backup in the unlikely event that the weather signal is interrupted.
- A yellow LED indicates "Attention" conditions the user should be aware of.
- Settings can be saved and later recalled for system restoration – "Contractor Default".
- Secure password protected system prevents unauthorized program changes.

Healthy Landscape Through Precision Irrigation

- Hourly weather data adjusts the soil moisture balance used to control the watering frequency to meet the actual water needs of the landscape – never over- or under-water again due to unpredictable weather.
- The programmable irrigation amounts correspond to the irrigation controller settings and are linked to the soil moisture balance to allow watering once soil moisture settings are reached.
- Optional tipping rain gauge can be used onsite to replace rain information from the weather station.



- Programmable effective rain settings, based on soil conditions, automatically limit the amount of rain used in the soil moisture balance.

Save time and money

- Quick and easy installation allows users to realize savings and benefits faster.
- Information log reports the date and time of the last watering, number of times watering occurred, and other events to track operation.
- Reduce water costs dramatically through sustained conservation.
- Reduce labor costs – scheduling changes are made automatically based on current weather conditions instead of manual seasonal adjustment.

Dimensions

Width: 5.6 inches (14,2 cm)
 Height: 6.5 inches (16,5 cm)
 Depth: 2.0 inches (5 cm)
 Weight: 15 ounces (435 g)

Models

ETMi: ET Manager Control Device, indoor model only



Operating Specifications

The ET Manager (ETMi) shall have four independent output modes to interface with virtually any irrigation controller.

ET ENABLE

The valve common from the sprinkler controller shall be wired to the common input terminal. The connection shall be to the normally closed contacts. When watering is not needed, the relays shall be opened to interrupt the common circuit for valve groups A and/or B.

ET ENABLE A THEN B

A programming feature that modifies the ET Enable output method to restrict valve group A and B watering to separate days. In the event the irrigation schedule exceeds the watering window for one day, alternating days shall allow watering to be spread over 2 days. Valves connected to valve group A shall water one day, then valve group B waters the next day. All other program features shall be the same.

ET & RAIN PULSE

ET and rain data shall be passed to a compatible host irrigation controller or control system using a "pulse" method. A dry contact switch closure shall represent 0.01" of ET or rain. The relays shall be normally open.

ET PULSE AND WEATHER INTERRUPT

ET data shall be passed to a compatible host irrigation controller or control system using a "pulse" method. A dry contact switch closure shall represent 0.01" of ET. The relays shall be normally open.

A second relay shall provide a sensor interrupt to prevent watering if any one of the three weather interrupt conditions occurs: rain, freezing conditions, or high wind. The relay shall be normally closed.

Programmable schedule options

Available watering days can be limited to accommodate site needs. The look-ahead fea-

ture may allow watering the day before a non-available watering day.

1. ODD day watering (per program)
2. EVEN day watering (per program)
3. CUSTOM (weekly schedule)
4. ODD 31st off (per program)

Electrical Specifications

- Power Supply: 12 to 30 Volts AC or 12 to 35 Volts DC
- Operating Temperature Range: 5° F - 149° F (Radio reception operating temperature: 32° F - 122° F)
- Terminal Wire Gauge: 14 to 26 awg
- Ground Lug Wire Gauge: 10 to 18 awg
- Serial Communication: TTL 1x6 Header
- Optional External Antenna Connection: BNC Female, 930 MHz, 50 ohm
- Rain Gauge Sensor Voltage: 3.3 Volts DC
- Battery Backup: 9-volt alkaline battery included for programming under batter power and maintaining program current time and date during power outages
- Three year warranty

Technical Specifications

The ET Manager (ETMi) shall be a control device for a sprinkler controller, and shall be adaptable to most sprinkler controllers. It shall be programmable to site-specific conditions to manage landscape watering based on hourly weather conditions.

The ET Manager (ETMi) shall be programmable to the required Signal Provider Code in order to receive messages from the Weather Reach™ Signal Provider (WRSP). The user shall be able to enter a weather region code number that corresponds to the desired weather station data source operated by the WRSP.

The ET Manager (ETMi) shall calculate ET values using ASCE Standardized equation based on weather station input including wind speed, temperature, relative humidity, and solar

energy. Effective rainfall shall be subtracted from ET to calculate a moisture balance.

The ET Manager (ETMi) shall interrupt the 24 VAC common wire suspending irrigation frequency based on user-selectable irrigation amounts.

The ET Manager (ETMi) shall be mounted in close proximity to the irrigation controller; in applications requiring outdoor mounting, the ET Manager shall be mounted in a weather-proof enclosure.

The ET Manager (ETMi) shall operate at 12 to 30 Volts AC or 12 to 35 Volts DC @ 0.22 Amp max and be capable of withstanding a maximum contact load of 4 Amp @ 30 Volts AC maximum.

The ET Manager (ETMi) shall have an integrated override button to permit maintenance and manual watering to occur.

The ET Manager (ETMi) shall have a factory supplied 9-volt alkaline battery to maintain clock time and program memory during a power outage.

The ET Manager (ETMi) shall have programmable settings and records shall be stored in non-volatile memory and be able to be recalled.

The Rain Bird ET Manager Series shall be sold by Rain Bird Corporation.

Optional Accessories

ETMi-ANT: ETMi Remote Antenna Kit*

ETM-RG: Tipping Rain Gauge

ETM-WRSS: Weather Reach Server Software

ETM-PS: ET Manager Programming Software

ETMi-OE: ETMi Outdoor Enclosure

ETMi-TRAN: 120 Volts AC Plug-in Transformer-635640

* ET Manager has a built in antenna. Locations with a weak paging signal may require an external antenna.

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www.rainbird.com

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