

ESP-TM2 Fixed Station Controller

ESP-TM2 Series Controllers

TECHNICAL SPECIFICATIONS



Rain Bird's ESP Series of controllers has been expanded to offer a contractor grade irrigation controller for residential and light commercial applications. The ESP-TM2 Controller is available in eight models with options for indoor or outdoor applications (4-Station, 6-Station, 8-Station and 12-Station).

EASY TO USE AND INSTALL

The ESP-TM2 Controller is designed to be an easy to use, program-based controller with the familiar ESP user interface, a large LCD screen and universal icons on both the controller overlay and the LCD. The ESP-TM2 Controller requires only two screws for easy wall mounting. For professional installation, it has a guide for ½" or ¾" conduit to run field wires into the unit.

APPLICATIONS

The ESP-TM2 provides flexible scheduling features to accommodate a wide variety of landscape applications. Plus powerful advanced irrigation features that help to meet any type of regional watering restrictions.

FEATURES:

- NEW large back-lit LCD display for improved visibility in low-light and direct sunlight conditions
- Familiar, easy to navigate user interface
- Rain sensor input with bypass capability
- Master valve/pump start circuit
- Nonvolatile (100 year) storage memory
- Electronic diagnostic circuit breaker
- Remote accessory port for Rain Bird approved accessory devices

SCHEDULING FEATURES:

- Program based scheduling with 3 individual programs and 4 independent start times per program for 12 total start times
- Watering schedule options: Custom Days of the week, ODD or EVEN calendar days, or Cyclic (every 1 – 30 days)

ADVANCED FEATURES:

- Manual Watering option for all stations, a single station or an individual program
- Seasonal Adjust applied to all programs or an individual program
- Delay Watering up to 14 days (applies only to stations set to obey Rain sensor)
- Permanent Days Off (for Odd, Even or Cyclic programming)
- Sensor bypass for all programs or for individual stations
- Adjustable delay between stations
- Contractor Default™ Program Save and Restore saved program(s)
- Master Valve on/off by station
- Automatic short detect with station specific alarm messages

OPERATING SPECIFICATIONS:

Station timing

1 minute to 6 hours

Seasonal Adjust

5% to 200%

Max operating temperature

149°F (65°C) - Outdoor
122°F (50°C) - Indoor

CONTROLLER HARDWARE:

- Plastic wall-mount cabinet with door (outdoor models only)
- Indoor only models available in some international markets
- Mounting screws with anchor shields

ELECTRICAL SPECIFICATIONS:

Input required

230V~ (±10%) @ 50Hz

Output

1A @ 24VAC (outdoor models)
.65A @ 24VAC (indoor models and outdoor models sold in Europe)

- Master Valve/Pump Start Relay
- External battery back-up not required. Nonvolatile memory permanently saves the current programming and a 10 year life lithium battery maintains the controllers time and date during power outages.

HOW TO SPECIFY:

Outdoor Models

TM2-4-230V
TM2-6-230V
TM2-8-230V
TM2-12-230V

Indoor Models*

TM214-230V
TM216-230V
TM218-230V
TM2112-230V

*Indoor only units available in some international markets

CERTIFICATIONS

- CE, RCM, IRAM, EAC, ICASA, CMAC, Kvalitet, UkrSEPRO
- IP24 (Outdoor models only)
- WaterSense® certified with up to 30% water savings when installed with Rain Bird LNK™ WiFi Module and WR2 Rain Sensor. Meets EPA criteria for high-performing, water-efficient products.



SPECIFICATIONS:

The ESP-TM2 Controller is a hybrid type combining electromechanical and microelectronic circuitry. The controller shall be capable of fully automatic or manual operation.

The controller shall have 3 independent programs that allow 4 different start times per program. Firmware programming shall automatically stack multiple start times in sequence to prevent hydraulic overload. All programs shall run consecutively.

Watering day schedules shall be: Custom Days of the Week, Odd or Even calendar days and Cyclic (such as every 2 days, or every 3 days, etc.). When the dial is turned to the RUN DAYS position, the display shall indicate the active schedule type (Odd, Even, or Cyclic) for the selected program. Station run times shall range from 1 minute to 6 hours.

The controller shall have a 12-hour AM/PM and/or 24 hour mode clock with a midnight day change over. The controller shall have a 365-day calendar backed up against power interruptions by an internal lithium battery that shall maintain date and time for approximately 10 years.

The controller shall offer Manual Watering options including all stations, any single station or any individual program. When manual watering is triggered, the unit shall ignore the status of a rain sensor (if connected) and re-enable the sensor when manual watering is completed.

The controller shall be capable of bypassing a rain sensor (if connected) for each station independently.

The controller shall have a Seasonal Adjust feature to adjust the run time from 5% to 200% in 5% increments. Seasonal Adjust shall be capable of being applied to all programs simultaneously or to individual programs.

The controller shall have a Delay Watering feature that can override and suspend programmed watering for up to 14 days.

The controller shall have a Permanent Days Off feature that is available for Odd, Even, and Cyclic days programming. A day set to "Permanent Off" shall override the normal repeating schedule.

The controller shall be equipped with a variety of Special Features that can be accessed by turning the dial to the appropriate dial position and then pressing and holding both the left and right arrow (or back and next) keys simultaneously for 3 seconds.

Special Features shall include:

- Set Interstation Delay
- Reset to Factory Defaults
- Rain Sensor Bypass by Station
- Save/Restore Programming
- Set Master Valve By Station

The controller shall provide the ability to clear all programming and reset to factory default settings if desired.

The controller shall provide a method for the operator to save an irrigation schedule into nonvolatile memory for future recall.

The controller shall be capable of operating one 24VAC solenoid valve per station plus a separate master valve or remote pump start relay.

The controller shall operate on 230VAC ($\pm 10\%$) at 50Hz. If connected, a master valve or pump start shall operate on 24VAC at 50Hz.

The controller shall have an electronic diagnostic circuit breaker that can detect if a station has an electrical overload or short circuit condition. The controller shall then bypass the error detected station while continuing to operate all other stations.

The controller shall have a reset button to re-boot the factory default firmware, in case of controller interface "freezing" due to a power surge or interruption of power to the power supply.

The controller shall be upgradeable to an EPA WaterSense approved smart controller without having to replace the cabinet, nor disconnect station modules.

The controller shall provide an option for the installer to run field wires through a $\frac{1}{2}$ " or $\frac{3}{4}$ " wire conduit fitting, allowing for a clean, professional installation.

The controller shall be compatible with Rain Bird's LNK Products, allowing wireless connectivity to the controller.

Suggested accessories for use with this controller:

- LNK2 WiFi Module (wireless connectivity)
- Rain Bird RSD Series Rain Sensors
- Rain Bird WR2 Wireless Rain/Freeze Sensors
- All Rain Bird residential and commercial rotors, valves, nozzles, sprays and drip products

The ESP-TM2 controller shall be manufactured by Rain Bird Corporation in a NAFTA member country.

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