

ESP-Site Satellite Series Controllers

Maxicom²® Satellite

The ESP-Site Satellite controller is the most versatile satellite controller yet. This controller combines the capabilities of the Cluster Control Unit (CCU) with all the power of an ESP-SAT controller. Powerful enough for large sites yet flexible for smaller applications.

Features

- Combines the function of a Cluster Control Unit (CCU) with an ESP-SAT controller
- Stores and executes schedule instructions from the central controller
- Includes 2 sensor inputs - no decoders required
- Operates up to 40 stations
- Communicates with central controller via telephone, hardwire, radio or fiber-optic cable
- Available in wall mount metal, plastic wall mount, stainless steel pedestal, module kit for existing stainless steel pedestals or upgrade kit for existing ESP-MC or ESP-SAT controllers

Stand-Alone Features

- Four programs with eight start times each allow mixed irrigation applications in a single controller.
- Two master valve terminals, one programmable by station, provide better control.
- 365-day calendar with leap year intelligence for one-time date and time setting.
- Event day off option to set any day of the month as a non-watering day for all programs.
- Programmable rain delay enables system to stay off for specified period with auto-restart.
- Water budget by program provides adjustments from 0-300% in 1% increments.
- Cycle+Soak™ by station allows total irrigation run time to be split into usable cycles, minimizing runoff.
- Sensor override switch with LED to indicate when irrigation is suspended.
- Non-volatile, 100-year memory holds program, date, and time during power outages.
- Automatic fault indication identifies electrical shorts, skips shorted stations, and continues watering remaining program.
- Quick-connect terminal strip speeds installation.
- Universal remote ready: pre-installed connectors for addition of remote products.
- Battery-programmable controller allows for programming prior to installation.

Stand-Alone Operating Specifications

- Station timing: A, B, C, D: 0 to 2 hours in 1-minute increments; 2 to 12 hours in 10-minute increments
- Automatic starts: 32 starts total, eight per program per day
- Programming schedule: 1. ODD day watering per program; 2. EVEN day watering per program 3. CYCLICAL (1 to 99 days, variable per program); 4. Custom day-of-the-week by program
- Test program: Variable 1 to 99 minutes

Central Controller Data Path (Central Controller to ESP-Site Satellite)

- Telephone modem via dial-tone telephone lines
- Telephone modem via cellular telephone system
- Radio modem via radio (point to point)
- Hardwire/direct connection
- Fiber optic cable modem

Electrical Specifications

- Input required: 117 VAC ± 10%, 60Hz (International models: 230 VAC ± 10%, 50Hz)
- Output 26.5 VAC, 2.5A
- Station load capacity: Up to two 24 VAC, 7VA solenoid valves per station (up to 4 stations operating simultaneously) plus a master valve or pump start relay
- Diagnostic circuit breaker skips and indicates stations with overloaded circuits
- Battery backup: 9VDC, NiCad rechargeable for programming under battery power and for maintaining active program-in-progress during a power outage
- Heavy-duty electrical surge protection

Dimensions

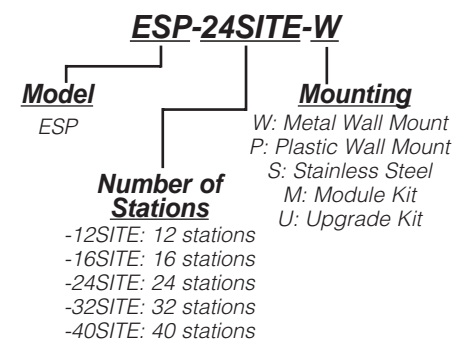
- Wall Mount Metal
 - Width: 11³/₁₆" (28,7 cm)
 - Height: 11¹/₂" (29,2 cm)
 - Depth: 6¹/₂" (16,5 cm)
- Plastic Wall Mount
 - Width: 15³/₄" (40,0 cm)
 - Height: 17" (43,2 cm)
 - Depth: 8³/₈" (21,3 cm)
- SS Pedestal
 - Width: 11¹/₂" (29,2 cm)
 - Height: 30" (76,2 cm)
 - Depth: 11¹/₂" (29,2 cm)
- Module Kit
 - Width: 9¹/₄" (23,5 cm)
 - Height: 10¹/₄" (26,0 cm)
 - Depth: 5" (12,7 cm)



Models

- | | |
|----------------|----------------|
| • ESP-12SITE-W | • ESP-12SITE-S |
| • ESP-16SITE-W | • ESP-16SITE-S |
| • ESP-24SITE-W | • ESP-24SITE-S |
| • ESP-32SITE-W | • ESP-32SITE-S |
| • ESP-40SITE-W | • ESP-40SITE-S |
| • ESP-12SITE-P | • ESP-12SITE-M |
| • ESP-16SITE-P | • ESP-16SITE-M |
| • ESP-24SITE-P | • ESP-24SITE-M |
| • ESP-32SITE-P | • ESP-32SITE-M |
| • ESP-40SITE-P | • ESP-40SITE-M |
| | • ESP-SITEU |

How to Specify





Specifications

The irrigation system controller shall be a Maxicom² Site Satellite. The central computer shall be able to send schedule instructions and receive logs of operation directly from the satellite controller. No other interface will be required. As specified in the drawings and associated documents, communication from the central computer shall be via standard dial-tone telephone, cellular phone, point-to-point radio (450-470 MHz), or direct connection serial cable as a communication link to the central computer.

The controller shall be a single unit containing a telephone modem card (dial-tone telephone or cellular telephone) and an RS-232 serial connection card (radio or direct connect), and the encoder module.

The controller shall be of a hybrid type that combines electromechanical and micro-processor-based circuitry capable of fully automatic and manual operation. The controller will be housed in a weatherproof, lockable, 16-gauge seamless steel cabinet suitable for wall mounting, a plastic NEMA-4 rated wall mount cabinet, or free-standing stainless steel pedestal mounting.

The controller shall operate on a 117 VAC \pm 10% power input and be capable of actuating up to two 24 VAC, 7VA solenoid valves per station plus a master valve or pump start relay. The controller shall be capable of operating four stations plus the master valve simultaneously. Controller output shall be protected against severe electrical surge.

As a stand-alone the controller shall have four separate irrigation programs (A, B, C, & D) which can have different start times, watering days, day cycles, and station timing. Each program shall have eight start times per day.

The controller shall have _____ stations, with each station capable of an operating time of 0 to 2 hours in one-minute increments and 2 to 12 hours in 10-minute increments. Controller station operation shall be of automatic sequential stacking to avoid overlapping operation unless programmed to overlap.

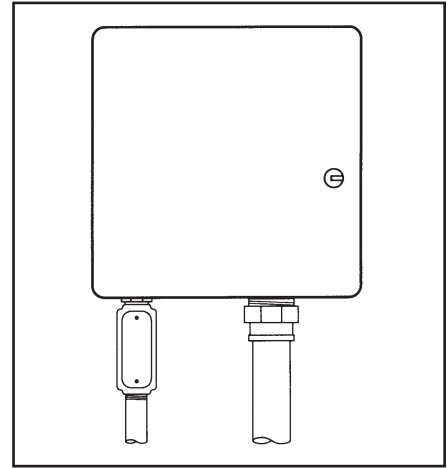
The controller shall have a 365-day calendar with day-of-the-month OFF feature. Programs will run on an ODD/EVEN day cycle, day-of-the-week ON/OFF cycle, or in cycles from 1 to 99 days. In addition, the controller shall have a programmable rain shut-down from 1 to 99 days.

The controller shall have two master valve/remote pump start circuits for use with a master valve to pressurize the system when the irrigation cycle starts or to activate a remote pump start relay to run the pump during the irrigation cycle. One master valve/pump start circuit shall be programmable by station; the other shall function at all times.

The controller shall be capable of being operated manually at any time. A manual single station, a group of stations, or a program can be selected to run for the programmed time without affecting the normal program. This controller shall be capable of running a variable system test program without affecting the normal program.

The controller shall have Cycle+Soak[™] water management software which is capable of operating each station for a maximum cycle time and a minimum soak time to reduce water run-off and puddling. The maximum cycle time shall not be extended by water budgeting.

The controller shall have an internal non-volatile memory which will retain the irrigation program and the programmed date and time for a minimum of 100 years without



power. A 9 VDC rechargeable battery and recharging circuit shall also be included for counting down the program-in-progress during a power outage and shall allow programming of the controller when it is disconnected from the main power supply.

As a satellite the controller shall indicate when it is operating under central control. It shall also display which station and channel is in operation at such time. There shall be a station status indicator light and a master valve status indicator light. These lights will indicate station operation and circuit integrity. An indicator for sensor-stand-alone status will be found on the front panel along with a switch to suspend sensor operation. This indicator and override will work with a sensor wired to the controller's sensor terminals.

The controller shall be as manufactured by Rain Bird Corporation, Glendora, California.

Rain Bird Corporation

Contractor Division
970 West Sierra Madre Avenue, Azusa, CA 91702
Phone: (626) 963-9311 Fax: (626) 812-3411

Rain Bird Corporation

Commercial Division
6991 East Southpoint Road, Tucson, AZ 85706
Phone: (520) 741-6100 Fax: (520) 741-6522

Rain Bird International, Inc.

145 North Grand Avenue, Glendora, CA 91741
Phone: (626) 963-9311 Fax: (626) 963-4287

Rain Bird Technical Service

(800) 247-3782 (U.S. only)

www.rainbird.com

CentralControl@rainbird.com

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