



ESP-LX Modular Installation Tips

The ESP-LX Modular Controller is the premium modular irrigation controller from Rain Bird which can expand from 8-to-32 stations. Four and eight stations modules are available to add to the controller, allowing you to easily expand the station count. Modules can be added without powering down the controller. The spacious cabinet and quick connect terminal locations make installation a snap. A rich selection of programming features allows you to customize the watering schedule based on the specific requirements of the landscape and the specific needs of the property owner.



Application

- Residential to high-end commercial irrigation sites where there is a potential to expand to 32 stations.
- The ESP-LX Modular Controller can be upgraded for use with the Rain Bird® IQ™ Central Control System which allows for water management at remote sites. For additional information, check our website at www.rainbird.com/landscape/products/central/IQ.htm

Landscape Design Considerations

- Easy modular installation allows expansion from 8-to-32 stations while the unit is powered up. No need to shutoff power to add modules.
- Eight watering start times per program allows for greater versatility in watering schedules for special landscape needs.
- The entire watering schedule can be programmed in the office by the project manager using a 9 volt battery and before being installed on the jobsite by the install team. This prevents logistical mistakes by the install crews who may not understand the watering requirements.
- Master valve is programmable to operate by station.
- Delays between valves are programmable in seconds, minutes or hours to allow for well recovery and slow closing valves.

Tools and Complementary Product

- Philips head screwdriver
- Flat head screwdriver
- Electric drill with wood or masonry bits
- Wire strippers

- Pencil
- Hammer
- No need for electrical junction box when installing unit. Cabinet comes with internal junction box.
- Clear latex caulking for sealing unit.
- Additional modules.

Installation

Mounting the Controller

- Select controller mounting area. Try to select an area where unit will be easily accessible and close to a power source.
- Mount at a height suitable for ease of access post-installation.
- Direct wire exterior model directly to power panel (three strand 12 gauge wire) allowing for separate circuit breaker if required by local electrical code. Ground unit as instructed.
- If you plan to plug into an outdoor outlet using a 'pigtail' cord, plan on using a waterproof outlet cover to protect the outlet, as well as the extension plug.
- If utilizing the 'pigtail' power cord, make sure the cord extends down from the controller and then curves up into the outlet. This technique allows rain water to follow the cord down and then drip off, preventing the water from following the cord directly into the electrical outlet.
- Indoor unit must be located in dry area where moisture will not affect operation. Try not to plug into a CGFI outlet.
- Mark and drill holes as indicated by template using the provided anchors and screws to mount controller onto the wall.
- Level the controller box and seal between the box and wall, using clear latex silicone caulk. This will prevent

moisture from getting into the controller through the mounting holes on the back of the controller. The caulk will also help adhere the controller to the wall.

- Seal all holes on the back of the controller, used or not, to prevent pests from entering the controller and causing possible problems.
- The controller comes with 2 predrilled holes on the bottom of box to accommodate wiring. One is for 120VAC power and one is for zone wiring to the stations. Utilize tight fittings to prevent moisture and pests from entering the unit.
- Run plastic conduit from controller below grade level and run station wires through it. This prevents animals or power equipment from damaging the wire. Paint conduit to prevent sun baking of PVC pipe.
- Use multi-colored wires if possible, if not, mark wires to indicate the station numbers for easier reference later on.
- Program controller as needed and leave a copy of the schedule inside the controller for crew and customer reference.

Programming Features

- Large programming window makes reading and programming simple and allows for programming in seven different languages.
- Contractor Default™ allows easy retrieval of customized default program you save to memory for up to 90 days. Allows you to easily retrieve original program if it has been altered by the customer. Schedule retrieval only takes a matter of seconds. You can also use Contractor Default when over seeding or for new sod installation. You can define the date to automatically retrieve the schedule used to maintain the new grass once sod is established.



- Four separate programs (A, B, C and D - drip) for more flexible watering programming. A slide bar is provided, making program changes easier.
- Eight watering start times per program allows for greater versatility in watering schedules for special needs.
- Programs can be setup as CUSTOM seven day calendar, ODD/EVEN days, ODD-31 or CYCLIC1-31 day intervals.
- Cyclic allows watering from once a day to once every 31 days.
- Calendar-Day-Off allows you to go 31 days ahead to turn off watering days for special events and needs. Automatically resets itself to regular schedule after selected days have passed.
- Seasonally adjust by program or month allowing for increases or decreases in run times during hot or cool weather. Watering times can be quickly adjusted from 1– 300% without the need to reprogram each valve. This feature gives you the ability to schedule automatic adjustments to the watering duration on a monthly basis.
- Cycle and Soak™ programming by station allows total irrigation time to be split into usable cycles, minimizing water runoff.
- Dedicated Rain Sensor Terminals with 24VAC Power Connection enable users to easily connect to a rain sensor. Sensor bypass switch allows the user to override an active sensor. Sensor override by station is also available by programming.

Detecting Wiring Problems

- RASTER™ wiring test lets crew run self diagnostic electrical verification of field wiring and solenoid problems.
- Diagnostic circuit identifies valves with wiring problems while still operating non-affected valves.
- Externally visible warning light alerts maintenance personnel of electrical problems while on screen message informs you of the conditions that are preventing the schedule from running.

Servicing and Maintenance

- Regular programming adjustments due to seasonal weather changes and conditions are required. Spring, summer, fall and winter schedules are usual for many parts of the country, but at a minimum schedules should be set 3 times per year, spring, summer and fall — cool, hot and cool.
- If plugged into a GFI outlet, unit should be checked after any electrical surges to make sure breaker hasn't popped.
- Lithium battery has life expectancy of 10 years, and non-volatile memory will last 100 years so future battery replacement may be needed.

These tips were created by:

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