

TORO.

Count on it.

Evolution™ Series Controller

Controllers

Introducing the next generation in controllers!

With an intuitive interface and exclusive features for “smart” control, the new Toro® Evolution™ is an easy choice for residential and light-commercial applications.

Features & Benefits

Revolutionary Interface

The Evolution™ controller's user interface was designed with the customer in mind. Shortcut buttons provide quick access to standard functions while the advanced menu leverages the experience and knowledge of the irrigation professional, all shown on a graphics display that navigates similar to many modern consumer electronic devices.

Easy Upgrade to Integrated Smart Control

An optional Smart Connector™ plugs into the timing mechanism, enabling it to wirelessly communicate directly with a number of add-on devices—including a weather sensor, handheld remote, and up to three soil sensors.

Computer-programmable with USB Drive

Simple-to-use software allows you to program everything at a computer. Use a standard USB drive to transfer programming to one or more controllers in a matter of seconds. The USB drive also provides controller logging functionality to save an operation log for diagnostic purposes.



12-station configuration with
(2) 4-station modules



16-station configuration with
(1) 12-station module



Controller Interface

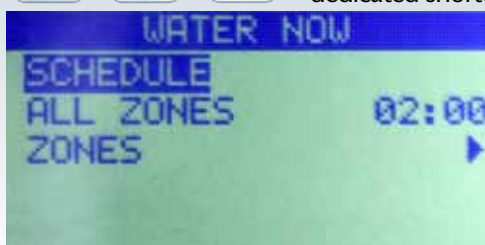
The Evolution controller's interface is a system of informative yet easy-to-understand screens that are quickly accessible using the controller's shortcut buttons.



Standard Functions



The **Standard** menu gives the basic user access to the most fundamental functions of the controller, such as manual watering, setting watering days and start times for a single schedule, and adjusting the amount of irrigation, all directly accessible through dedicated shortcut buttons.



For example, the **Water Now Screen** allows the user to begin watering with as few as just two button presses, with the option of starting a specific schedule, specific zone, or watering all zones in series.



Another example is the **Review Screen**, which is an at-a-glance summary showing which days the controller is going to water in the next seven days for the schedule you select.

Advanced Functions



The **Advanced** menu gives the experienced user access to the full power of the Evolution controller, including the ability to set up multiple irrigation and auxiliary schedules, create custom grow-in schedules, and configure any "smart" add-on devices - all operations that may otherwise overwhelm a basic user.



For example, the **Apply Sensors Screen** allows the user to easily view and configure all the sensors available to the controller, including rain, ET, and soil.



The **Grow In Screen** allows the user to set up a grow-in schedule for a user-defined period of time (up to 90 days), after which the controller will default back to its normal irrigation schedule(s).

Other Examples



The **Home Screen** displays the current time and date, what zones are scheduled to water next, or if currently watering, what zone(s) are currently watering and how much time is remaining, as well as any alerts – in the absence of any alerts, the screen will display "SYSTEM OK."



The **Local Service Message Screen** allows the contractor to input a custom message with their name and contact information into the controller from the software via a USB drive so it is visible to the homeowner when they press the "Help" button.

Smart Connect™ Add-On Devices

Simply plugging the Smart Connector™ into the Evolution controller allows it to communicate wirelessly with a number of add-on devices, providing a great opportunity to upgrade with a number of different water-saving and time-saving options.



Wireless ET Sensor

Uses live temperature and solar measurements as well as historical weather data for your location to calculate the amount of water needed from the irrigation system.



Handheld Remote

Makes maintenance checks a snap, allowing you to run sprinklers or schedules from up to 1000 feet (305 m) away.



Toro® Precision™ Soil Sensor

Up to three soil sensors can be used (one per schedule) to monitor the moisture level in the soil and prevent over- and underwatering. With up to a 500 feet (152,4 m) wireless range, there's no digging required to install.



Software*

Programming can be transferred from your computer to the controller in seconds using a standard USB drive.

*Smart Connector not required for software programming capability.



Evolution™ Series



Dimensions

- 11.25" W x 7.75" H x 4.5" D (286 x 197 x 114 mm)
- Weight: 4.5 lbs. (2 kg)

Electrical Specifications

- Electrical input power:
 - 220 VAC
 - 30 VA maximum
 - CE compliant
- Station output power:
 - 24 VAC
 - 0.75 amps per station maximum
 - 0.75 amps pump/master valve
 - 1.0 amps total load
- Surge Protection:
 - 6.0 KV common mode; 1.0 KV normal mode

Operating Specifications

- 4 to 16 stations, Modular
 - 4 Stations Fixed in base unit
 - 4- and 12-station hot-swappable modules
- One irrigation schedule in the default "standard" mode
- Up to six schedules in "advanced" mode
 - Three irrigation schedules, four start times per schedule
 - One fixed output auxiliary schedule
 - Two virtual auxiliary schedules for wireless control
- Three scheduling choices:
 - Seven-day calendar
 - 1 to 30-day interval with up to seven day exclusions
 - Odd/even days with up to seven day exclusions
- Station run times from one minute to twelve hours
- Cycle and soak by station
- Simultaneous operation of up to three zones
- Monthly season adjust by schedule
- Programmable "no irrigation" water restrictions
- Automatic split cycle when season adjust >100%
- Grow-in schedule settable up to 90 days
- Station-delay from 1 second to 60 minutes
- Pump start delay from 1 to 60 seconds
- Master valve on/off by zone
- Timed water off from 1 to 14 days
- Quick select 30, 60, or 90 second manual run times

Operating Specifications (continued)

- Compatible with normally closed rain sensors
- Review feature to show planned irrigation
- Customizable zone and schedule names
- Automatic short detection for circuit protection
- Advanced diagnostics and alerts including current draw
- Operation of two solenoids per station
- Non-volatile memory does not require battery and holds programming for up to five years
- Status LED provides rapid indication of alerts
- 9V battery-powered timing mechanism for "armchair" programming
- Smart Connector™ upgrades controller for wireless smart or handheld remote control
- Evolution software lets users program on a computer and transfer programming via a USB drive
- Outdoor key-lock cabinet manufactured out of durable UV-resistant plastic
- Indoor model includes internal transformer with wall plug pigtail

Optional Accessories

European Wireless Versions (868 mHz)

- EVO-SC-EU – Smart Connector™
- PSS-SEN-EU – Precision™ Soil Sensor Probe
- EVO-WS-EU – ET/Weather Sensor
- EVO-HH-EU – Maintenance Remote

Warranty

- Five years

Evolution Series Model List

Model	Description
• EVO-4ID-EU	4-station Indoor Controller, 220V, Europe
• EVO-4OD-EU	4-station Outdoor Controller, 220V, Europe
Add-ons and Accessories	
Model	Description
• EMOD-4	4-station Expansion Module
• EMOD-12	12-station Expansion Module
• EVO-SC-EU	Smart Connector™ Europe 868 mHz

Specifying Information

EVO-4XX-YY-ZZ-SC[-EU]				
Description	Cabinet Type	Power	Module	Connector Options
EVO-4	XX	YY	ZZ	-SC or -SC-EU
EVO-4 – Evolution Controller, 4-station Base	ID – Indoor OD – Outdoor	Blank – 120V/60Hz EU – 220V/50Hz	00 – No Modules 04 – One 4-station Module 44 – Two 4-station Modules 12 – One 12-station Module	SC – Smart Connector™, 915 mHz SC-EU – Smart Connector™ Europe, 868 mHz

Example: A 16-station Evolution controller in an indoor cabinet with the Smart Connector would be specified as EVO-4ID-12-SC



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Specifications subject to change without notice. For more information, contact your local Toro distributor.
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