



E-Series[™] Satellite with OSMAC[®] Digital Wireless Paging





with OSMAC® Digital Wireless Paging

The "E" in E-Series stands for: Enhanced. Easy. Economical. Expandable.

Enhanced with many new features. Easy to specify, install, troubleshoot and maintain.

Economical because it's priced right from the start and you buy only *what* you need, *when* you need it.

Expandable to grow as your site conditions change.

You know that your course is like no other. You know every curve, slope, high spot, dry spot, shady stretch and sunbathed expanse. And you also know that a one-size-fits-all irrigation control system never really fits.

That's why we developed E-Series field satellites. They work hand-in-hand with the Toro SitePro[™] or TouchNet[™] central control systems to provide exactly the right solution for *your* unique course.

The E-Series is built on Toro's revolutionary concept of *true* modularity. We want you to be able to do more with fewer products. Modularity means that you have greater design and post-installation flexibility with faster, easier servicing. We started with the most dependable field hardware ever developed—OSMAC[®]—and made it even better.

E-NHANCED

- Paralink vs. serial communication eliminates "Christmas-light" effect for greater reliability.
- Internal antenna for lower profile and small pedestal height.
- Selectable, built-in 120/240-volt power requirements (standard).
- Improved surge protection—lower operating costs.
- Joslyn-line surge protection.
- Buss bar technology for enhanced surge reliability.
- Run 12 solenoids at a time with a pump or 16 without a pump.

E-ASY

- Modular construction makes it easy to install and maintain.
- Wireless communication for limited course disruption, ideal for system upgrades.
- Hand-held radio does not limit satellite installation location.
- Simple programming reduces technical training requirements.
- Colored LEDs make troubleshooting a snap.
- Terminal blocks all on one level.
- Toro patented Hot Post on each 8-output module.
- Fast installation for immediate control.
- Easier to service in a golf environment.



E-CONOMICAL

- More features at a lower cost.
- Utilizes standard automotive fuses in common sizes.
- Built-in self-test capability, reduces troubleshooting and improves efficiency.
- Option of 64 stations (with SitePro) lowers cost per station.

E•XPANDABLE

- 16-48 stations when used with TouchNet and 16-64 stations with SitePro.
- Frequency modules (narrow band) can store up to 4 pre-programmed frequencies to transition from construction to permanent frequencies.
- Modular station count and terminal strips means fast field upgrades as requirements change.
- Current OSMAC customers can easily upgrade to E-Series.

Features

- Electro-Flow[™] simultaneously manages hydraulic and electrical demands in your system for total system efficiency
- A larger station count, offering 48 stations when used with TouchNet central and up to 64 stations when used with SitePro central software
- Synthesized decoder modules that can be reprogrammed in the field—new frequency modules can store up to 4 pre-programmed frequencies to transition from construction to permanent frequencies (narrow band)
- Stainless-steel (painted) and bi-wall plastic cabinet configurations
- 5 terminal-strip options available, depending on application and customer needs
- Run up to 12 solenoids simultaneously (with pump) for a total secondary output of 3.0 amperes (holding) at 24 volts V a.c.
- Selectable 120- or 240-volt input voltage as a standard feature
- Colored LED indicators to confirm 24, 9- and 5-volt power to various boards within the cabinet makes troubleshooting a snap
- LEDs for each station output
- Simple self-testing by sliding a switch, or more in-depth field diagnostics are available (with a 9-pin adapter and laptop-link)—more than 8 separate functions can be verified
- Terminal block positions allow for same-length wire use and faster installation
- Internal antennae allows for a smaller profile cabinet
- Enhanced surge protection lowers operating costs
- Uses automotive fuses that are readily available for serviceability
- Patented Hot Post for each 8-station module
- Made in the USA

Electrical Specifications

- Input power:
 - 120/240 V a.c., 50 or 60 Hz
 - 0.20-0.22 amps, 110-120 V a.c., 60 Hz (no load)
 - 0.86-0.96 amps, 110-120 V a.c., 60 Hz (maximum load)
 - 0.095-0.105 amps, 220-240 V a.c., 50-60 Hz (no load)
 - 0.43-0.47 amps, 220-240 V a.c., 50-60 Hz (maximum load)
- Output power:
 - 24 V a.c.
 - 0.25 amps per station
 - 3.0 amps maximum station load
 - 3.2 amps maximum station load plus pump
- Station draw:
 - 12 solenoids per satellite may operate simultaneously with pump
 - 16 solenoids per satellite may operate simultaneously without pump
- UL approved

Mechanical Specifications

- Dimensions:
 - Plastic cabinet:
 16" W x 39" H x 16" D
 - (41cm W x 99cm H x 41cm D) • Stainless-steel (painted) cabinet:
 - 13" W x 36" H x 13" D (33cm W x 91cm H x 33cm D)
- Shipping weight:
 Plastic cabinet:
 - 32 stations, 68 lbs. (31 kgs)
 - Stainless-steel (painted) cabinet: 32 stations, 80 lbs. (36 kgs)





We created the E-Series satellite using OSMAC technology because of its record of success.

"We were looking for more than a great water delivery system, we needed a product that we could service and support in a high-lightning environment. We have 45 holes of golf and getting control over our irrigation maintenance budget was very important for us. Now that we have the new version of OSMAC (E-Series), we're seeing a big reduction in both the replacement board costs and the labor costs to service the satellites. We've had OSMAC for over 6 years, and the E-Series has all the benefits of OSMAC but now it's easier to work on."

Jerry Coldiron,
 CGCS-Boon Links,
 Lassing Pointe

"E-Series. It's been wonderful for us. We went from 60 satellites, which we programmed manually, to 90 E-Series (satellites), which are central-controlled. We've been able to daily modify, even minor changes—water consumption has been down and the golf course quality has gone up exponentially."

> — Sean Cracaft, Director of Golf, Sun River Resort



EXX X XX X XX Cabinet Description Configuration Output Communication Options E-E-Series 16—16 Stations P--Plastic 6A—Electric N—Narrow Band M0-No Options Stainless Steel M1-Large-Capacity Terminal Satellite 24—24 Stations S-32-32 Stations (Painted) Block w/Standard Surge 40-40 Stations M2--Large-Capacity Terminal 48-48 Stations Block w/Additional Surge 56-56 Stations M3—Large-Capacity Terminal 64-64 Stations Block & Switches M4—Large-Capacity Terminal Block w/Additional Surge & Switches For Example: When specifying a 32-station, Narrow-band E-Series Satellite with OSMAC digital wireless paging, a stainless-steel cabinet, electric output, additional surge protection and a large-capacity terminal block, you would specify: E-32S6ANM2

Specifying Information — E-Series Satellites

Note: Product shipped with 4 pre-programmed synthesized frequency modules (462.2125, 462.4375, 467.2125 and 467.4375). Frequency modules do not need to be ordered separately.

A Tradition of Dependability

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