

Retrofitting for the Future: Changing Systems for Changing Times



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The industry is changing, and retrofitting is quickly becoming the name of the game. With thousands of systems looking for a facelift, irrigation professionals have the opportunity to provide their existing clients with better functioning, highly efficient systems and expand their customer base by demonstrating the benefits of an upgrade.

Worldwide drought is still rampant and unavoidable. Proposed solutions such as desalination plants and reclaimed water, while slowly gaining popularity and industry acceptance, have not provided the level of reprieve needed to offset the tragedy of the big picture. Profoundly bountiful, water scarcity has caused governments across the globe to mandate sweeping restrictions, regulating water use from laundry to lawns.

As an industry, it is our responsibility to realize these solutions and act on them. For new installations, proper design and installation are imperative: no hardscape should be watered needlessly; varying terrain should be properly addressed to avoid runoff; and tall grass, groundcovers, or shrubs should not block or deflect water.

But with fewer new installations, retrofitting has become the irrigation professional's most valuable asset. Restricted watering schedules have homeowners lamenting browned lawns and contemplating artificial turf. However, with the appropriate products and proper adjustments, any yard can go green, while saving your customer money.



Hunter Demo Bag (top) and Hunter Site Kit

When it comes to revitalizing older residential irrigation systems, the MP Rotator is king. This revolutionary multi-stream rotor offers matched precipitation rates, outstanding uniformity, and reduced runoff, all resulting in an incomparable water efficiency increase of up to 30% over traditional spray sprinklers. With a wide variety of choices in the MP line, any spray system can be customized perfectly to meet the needs of any lawn, to create a highly efficient solution.

The Solar Sync, Hunter's simple ET system, controls your controller. Your

clients will no longer need to worry about turning their systems on or off when the weather is disagreeable. With constantly changing weather conditions, proper scheduling and maintenance of controller settings and times is a necessary but often difficult task. During rain showers or freezing temperatures, the Solar Sync signals to the controller to shut down sprinklers until conditions return to normal. When the temperature changes, Solar Sync will adjust the programmed run times to apply the correct amount of water to meet conditions.

Other useful retrofitting products include our blue nozzles, to retrofit PGP's as far back as 1982 for superior mid-range and close-in coverage; the new Pro-C (Conventional), for cost-efficient, fixed-station control; and the Professional Landscape Dripline, for even, consistent watering in shrub areas.

Hunter also now offers various marketing tools for you to use to promote retrofitting to new and potential customers. Site Inspection Sheets are comprehensive forms to help you and your employees guide customers through the inspection process, highlighting any recommendations for the repair or upgrade of the system.

Inspect a system thoroughly with the Site Kit and provide a customized evaluation. The Kit includes an MP Rotator pressure gauge, Irri-tool, Roam remote, marker flags, and other items. Or use the Demo Bag to show customers exactly which products will be right for them. The bag is designed to hold the Pro-C/PCC, Solar Sync, Drip Zone Kit, PGP Ultra, MPR-40, RZWS, Roam remote, and a PLD sample.

Other great marketing tools include door hangers, creatively worded to generate customer interest in retrofitting; customizable postcards with your company logo and information; and yard signs to draw attention to your customers' recently upgraded systems. >>



Hunter Pitot Gauge



New Name, Same Performance

Hunter has taken the best and improved it! The I-31 is now the I-25 Ultra, and the I-41 is now the I-40 Ultra. Why the Ultra? As we have done for many years, we listened to our customers and integrated many of the features first introduced with the now successful I-35.

These great benefits include: Part-circle and full-circle operation in a single rotor for easier use; automatic arc return to ensure the nozzle turret rotates back to the intended coverage area if accidentally turned outside of the setting; and a non-strippable, vandal-proof drive mechanism, which allows the internal gears to be forced to any position without damage.

All features are available in both the 10 cm and 15 cm pop-up models for shorter and taller turf varieties, and the I-25 can be found in both plastic and stainless steel risers. Rest assured that the great nozzle performance you are accustomed to is still there, as that has not changed. Most importantly, you can now update your older rotors as the models will easily retrofit into bodies as far back as 1993. Purple rubber covers are available for use on reclaimed water. And don't forget to add the letter "B" to the end of model numbers for BSP threads. >>



I-40

I-25

Hunter®

I-CORE

Redefine irrigation intelligence. Hunter's new I-Core brings your irrigation system to a whole new level. Designed for demanding commercial and high-end residential applications, the full-featured I-Core is easy to use, easy to install, and easy to program, with a variety of new features that make it first class.

Modular Means More

Available in plastic or metal in both wall mounted cabinet and pedestal versions, all in a versatile modular design, the controller is expandable from 6 to 42 stations with ICM-600 6-station modules for a broad range of choices to meet all of your customers' needs.

Flow-Sensing Capable

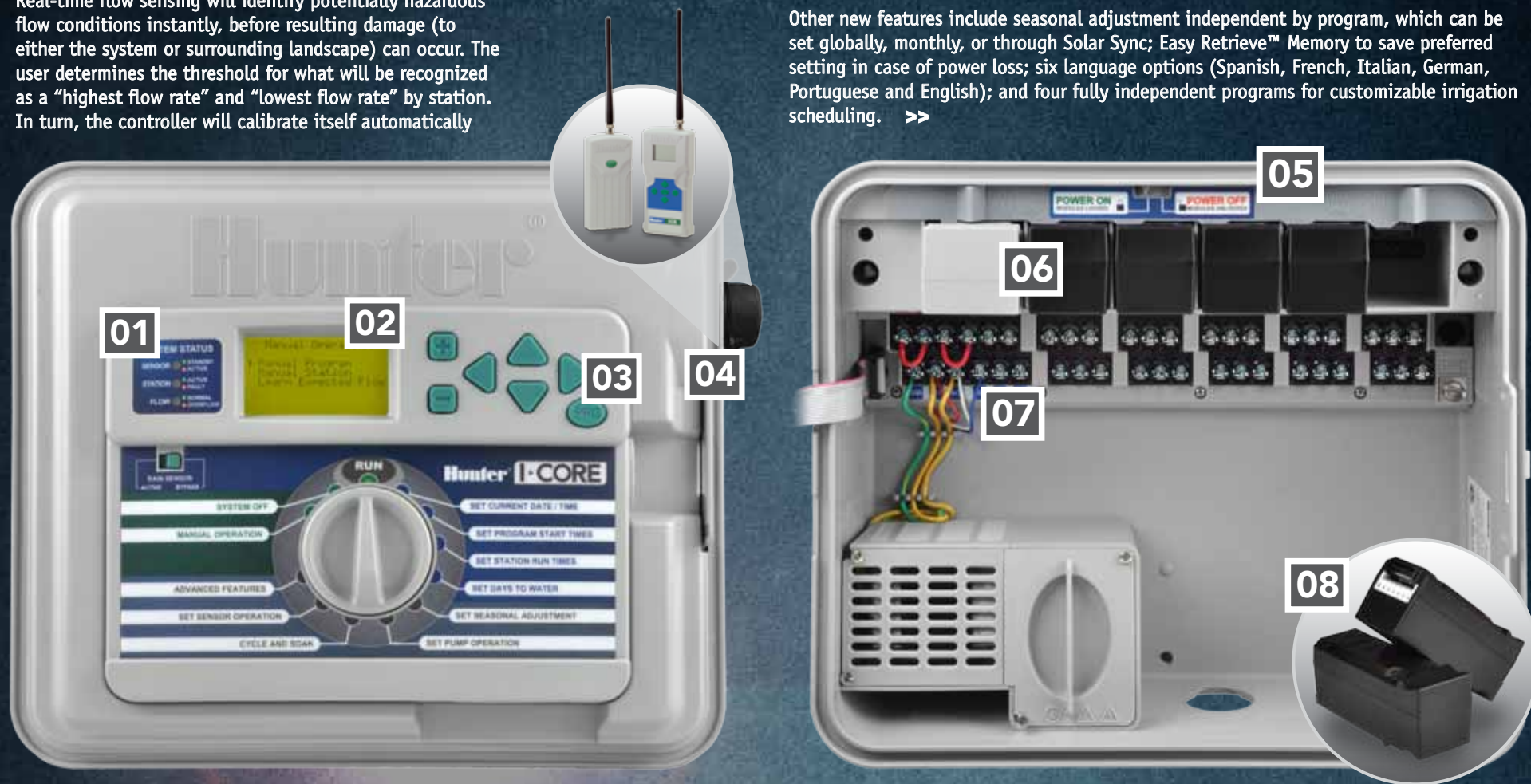
Real-time flow sensing will identify potentially hazardous flow conditions instantly, before resulting damage (to either the system or surrounding landscape) can occur. The user determines the threshold for what will be recognized as a "highest flow rate" and "lowest flow rate" by station. In turn, the controller will calibrate itself automatically

to identify any flow below or above these pre-determined limits to be an incorrect flow condition. When the limits are exceeded, the I-Core shuts off that part of the system. To bring real-time flow sensing to the I-Core, simply add the HFS and the corresponding FCT sensor body your piping requires.

I-Core's evolutionary modular design allows station modules to be removed without detaching any field wiring from the controller, making service and installation quick and effortless. Enhanced programming features along with fully programmable, multiple sensor capability, increase end-user efficiency.

Flow monitoring provides overflow protection and flow totaling to minimize the potential for water waste. With Cycle and Soak and Water Window Manager™, the I-Core is powerful tool for regulating irrigation use.

Other new features include seasonal adjustment independent by program, which can be set globally, monthly, or through Solar Sync; Easy Retrieve™ Memory to save preferred setting in case of power loss; six language options (Spanish, French, Italian, German, Portuguese and English); and four fully independent programs for customizable irrigation scheduling. >>



01 I-Core's unique Diagnostic Dashboard™ provides the user with a quick and comprehensive status of the entire system and sensors in real time, the only controller in its class to offer this degree of monitoring.

02 Boasting a bold, backlit graphic display, the I-Core is easy to read meaning it is just as easy to program.

03 Why change a good thing? The I-Core is new, but the programming is not. So you'll be familiar with the process when first setting up the controller.

04 Fitted with a factory-installed SmartPort®, the controller is remote-control ready. It's also compatible with all of Hunter's sensors, including the HFS Flow Sensor, Rain-Clik™, and Wind-Clik®, and the innovative Solar Sync.

05 Sliding the Power Lock turns the controller's power on or off. This permits the addition or removal of output modules and locks the modules into place in the power on position.

06 Hunter's innovative module design allows the modules to be removed without having to adjust or remove any wires.

07 Multiple sensor capability: Two sensor inputs for plastic model and three for metal. Sensors are programmable by station.

08 Fully customizable to fit your varying needs. I-Core modules are available in 6-station increments. The modules include multiple levels of surge protection for high lightning areas.

Always Go Pro: Pro-Spray® Nozzles

Hunter Industries Pro-Spray® Nozzles are a collection of spray nozzles available in the most popular arc patterns or in adjustable arc models. These nozzles feature the popular female-threaded design for compatibility across most brands.

“The Pro-Spray name has come to stand for our customers’ assurance of unsurpassed quality and performance in a professional-grade spray head body,” said John Wascher,



Hunter spray head product manager. “Now, the name also guarantees the same high standards for spray nozzles.”

The result of extensive field-testing and testing against competitive units, the Pro-Spray nozzles provide best-in-class performance. The spray patterns of the Pro-Spray nozzles feature precise edges, the result of a consistent trajectory from all sides that assures uniform coverage across the entire pattern. The nozzles also minimize wind drift by emitting at the optimum droplet size: large enough to avoid the problems of misting, small enough to provide nice, even distribution. And the pressure-regulating feature of the Institutional Spray increases efficiency significantly for areas with high pressure—over 3.4 bars.

Increasingly popular with many irrigation professionals, the Pro-Spray Fixed Pattern nozzles are professional-grade spray head nozzles that work well and look great. Be it full-circle, half-circle or quarter-circle or others, fixed angle configurations receive uniform distribution from all sides.

For all those in-between angles, Pro Adjustable nozzles are the best choice along a curving sidewalk, a meandering flowerbed or other special landscape installation, challenging angles demand nozzles that adjust to their surroundings. They offer the best results of just about any adjustable arc nozzle in the industry.

“**W**e conducted blind comparison tests of our nozzles versus competitor units with contractors around the world. This helped us confirm the superior performance of the Pro-Spray nozzles,” said Wascher. “Contractors consistently reported better coverage, better spray pattern, and better results with these new nozzles compared to their current brand.”

Six radius ranges (1.5 m, 2.4 m., 3.0 m, 3.7 m, 4.6 m, and 5.2 m) are available in the fixed pattern style, and seven radius ranges (1.2 m, 1.8 m, 2.4 m, 3.0 m, 3.7 m, 4.6 m, and 5.2 m) for the adjustable nozzles—check out the feature on the back page about the new 1.2, and 1.8 m nozzles. All Pro-Spray nozzles include a radius adjustment screw for fine tuning and feature Hunter’s color-coding system for quick and easy radius identification. The color-coding allows for easy sorting and storage of nozzles and permits easy field observation of the nozzles installed in each project. >>



XC hybrid Stainless

The XC Hybrid is available in a stainless steel version, for tougher weather protection and increased security.

Now you can easily safeguard your controller from the elements and from vandals with the strength of steel. Protect all the features of your investment: A 365-day calendar; three independent programs (each with four start times); global seasonal adjustment; station controlled sensors; ‘Easy Retrieve’ memory backup; and on-board, non-volatile memory. Tough on the outside. Smart on the inside.

Hunter Industries’ XC Hybrid Controller brings you the power without the plug, operating DC latching solenoids with battery power. Prepared to weather the outdoors, the XC Hybrid Stainless Steel comes in the popular 6- and 12-station models. And the use of six C batteries means a longer life, from two to four years, up to twice that of the standard XC Hybrid. Small residential areas, parks, gardens, roadway medians and roundabouts are ready for the XC Hybrid Stainless Steel. >>



Hunter®

Conserve Water Simply With Eco-Rotator and MP Rotators

What is This?

How much water do the MP Rotator or Eco-Rotator conserve over standard spray heads in a turf zone? This example demonstrates how to calculate water savings and gives you the information needed to help your customers choose a better irrigation system for their property.

Example Sprinkler Zone

A 125 square meter turf area. Plant water requirements: 25 mm per week

Sprinkler Type	Precipitation Rate (mm/hr)	Total Zone Flow Rate (l/m)
Traditional Spray Heads: 4.6 m nozzle (#15)	41	84
Eco-Rotator (ECO-04-2090) or MP Rotator Sprinklers (MP2000-90)	16*	34

* slightly higher because of radius reduction



A 125 square meter turf area.

How To Calculate Water Usage

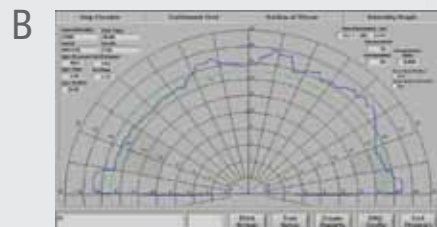
1 Calculate Uniformity

The DU (Distribution Uniformity) is calculated either in a lab or in the field using auditing principles.

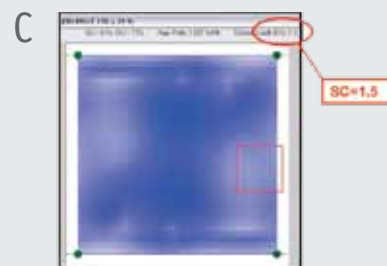
Uniformity:
Spray Zone DU = 53% Rotator DU = 79%



Sprinklers undergo testing in the Precipitation Analysis Lab.



An automated test system identifies exactly where water falls.



A densogram is produced to illustrate water distribution.

2 Calculate the Irrigation Water Requirement

Divide the plant water requirement by the DU:

$$\text{Sprays: } \frac{25 \text{ mm/wk}}{53\%} = 47 \text{ mm/wk}$$

$$\text{Rotators: } \frac{25 \text{ mm/wk}}{79\%} = 32 \text{ mm/wk}$$

3 Calculate the Weekly Watering Time

Divide the irrigation water requirements by the precipitation rate:

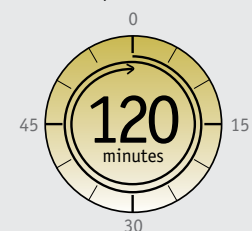
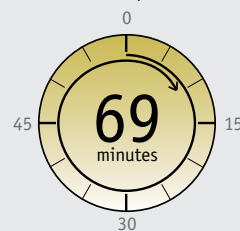
$$\text{Sprays: } \frac{47 \text{ mm}}{41 \text{ mm/hr}} = 1.15 \text{ hrs}$$

$$\text{Rotators: } \frac{32 \text{ mm}}{16 \text{ mm/hr}} = 2 \text{ hrs}$$

Convert to minutes:

$$1.15 \times 60 = 69 \text{ min/wk}$$

$$2 \times 60 = 120 \text{ min/wk} *$$



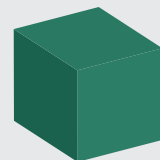
* longer run time due to lower application rate

4 Calculate Total Water Required For The Week

Multiply the weekly run time by the total l/min for the zone:

$$\text{Sprays: } 69 \text{ min} \times 84 \text{ l/min} = 5,796 \text{ l/wk}$$

$$\text{Rotators: } 120 \text{ min} \times 34 \text{ l/min} = 4,080 \text{ l/wk}$$



What This Means For You

The superior uniformity of the MP Rotator and Eco-Rotator over spray nozzles helps conserve over 1,700 liters per week on just one zone. >>



Hunter[®]

PRO ADJUSTABLE NOZZLES - 4A and 6A

We've got you covered: From 5.2 meters now all the way down to 1.2 meters, the best in the game, Hunter's Pro Adjustable Nozzles, just got better. The new 4A (1.2 meters) and 6A (1.8 meters) nozzles are joining the team. In a tough spot? Now any of the seven nozzles is ready to work for you, from standard angles to more challenging applications like hillside topography or curved flowerbeds. The 4A and 6A boast features such as:

- Adjustable angles from 0 to 360 degrees
- Crisp, well defined edges
- Even distribution pattern
- Simplified inventory

So with no tools required, these nozzles are ready for the field.

So why wouldn't you go Pro? >>

