PRODUCTS & TECHNICAL INFORMATION

CONTROLLERS
SATELLITES
CENTRAL CONTROLS
ROTORS
SPRAYS
AGRICULTURAL SPRINKLERS
VALVES
SENSORS

www.SignatureControlSystems.com
# COMPANY PROFILE
4-5

## CONTROLLERS

### Signature Share Platform
6-7

### BATTERY OPERATED CONTROLLERS

**PRODUCT OVERVIEW** 8-11
- SoloRain® 8010 Series 12-14
- SoloRain® 8020 Series 15
- SoloRain® 8030 Series 16
- SoloRain® 8071 Series 16

### TURF CONTROLLERS

**PRODUCT OVERVIEW** 18-23
- EZ Indoor™ 8120 Series 24
- EZ Pro™ Jr. 8200 Series 25
- EZConnect™ SHARE8250 Series 26
- EZConnectDC™ SHARE8255 Series 27
- EZ Pro™ Jr. 8300 Series 28
- EZ Pro™ 8600 Series 29
- EZ Pro™ SHARE8600 Series 30
- EZ Pro™ SHARE8700 Series 31

### COMMERCIAL SATELLITE CONTROLLERS

**PRODUCT OVERVIEW** 32-37
- Galaxy™/ Constellation®/
- Galaxy™ Decoder/
- Constellation® Decoder 38-39
- Galaxy-RT™ 40
- Galaxy-RT™ Solar 41

### GOLF SATELLITE CONTROLLERS

**PRODUCT OVERVIEW** 42-47
- AuroraLT™/ Aurora®/
- AuroraLT™ Decoder/
- Aurora® Decoder 48-49
- AuroraRT™ 50
- Controller Configurator 51-53

# CENTRAL CONTROL

## COMMERCIAL/TURF

**PRODUCT OVERVIEW** 54-57
- Signature Share - Commercial/Turf SHARE8600 Series 58-59
- eConstellation® Lite/Pro 60-63
- Constellation® Professional 64-65

### GOLF

**PRODUCT OVERVIEW** 66-69
- Signature Share - Golf 70-71
- eAurora® Lite/Pro 72-75
- Aurora® Professional 76-77

### ROTORS

**PRODUCT OVERVIEW** 78-81
- 5500 Series 82-83
- 6000 Series 84-85
- 6500 Series 86-87
- 7000 Series 88-89
- 7500 Series 90-91
- D50 / D55 Series 92-93
- D70 / D75 Series 94-95
- Replacement Internals 96-97

### SPRAYS HEADS

**PRODUCT OVERVIEW** 98-101
- 63X Series 102-103
- 63S Series 104
- Nozzles 105

### VALVES

**PRODUCT OVERVIEW** 106-109
- Quantum Series 110
- 9000 Series 111
- 7900 Series 112
- 9501 Series 113
- 9502 Series 114
- 9515/9520 Series 115
- Quick Coupling Valves 116

### AGRICULTURAL SPRINKLERS

**PRODUCT OVERVIEW** 118-120
- 6700 Series 122
- 1370 & 1973 123

### SENSORS

**PRODUCT OVERVIEW** 124-125
- Sensors 126-127

### HOSE END

**PRODUCT OVERVIEW** 128-131
- Hot Shot / Cool Shot 132
- Fan Shot / Wetting Agent Applicator / Hose Head 133

### TECHNICAL

**FRICITION LOSS CHARACTERISTICS** 134-142
Signature Control Systems

has maintained a continuous presence in the golf and turf irrigation industry since our beginnings in 1907. From manufacturing spray-heads to large golf rotors and residential controllers to today’s most sophisticated irrigation control systems, we hope that you find this catalog demonstrative of what Signature® can provide for your irrigation system.
OVERVIEW

Signature Control Systems, Inc. can trace its roots in the irrigation industry to humble beginnings over 100 years ago. Since then, Signature® has been dedicated to providing the highest-quality products and services in the landscape and irrigation industry.

Signature® is an industry leader in the design and manufacture of turf management systems including intelligent irrigation controllers, site management software, irrigation valves, gear-drive rotors & spray-head products. Thus providing landscape managers, golf course superintendents, as well as property managers’ direct control of their irrigation system, water and energy resources.

To achieve these goals Signature® continues to invest in research and development of new products, product line expansion and manufacturing facilities. We continue to increase our manufacturing capacity of our products in our own factory in the USA and are proud to bring to market a full basket of Professional Irrigation products servicing all industry segments and end users of irrigation products. Whether Installer, Designer, Distributor or End User you will find Signature® can meet and exceed your irrigation requirements.

In recent years, we have successfully staked a claim as an innovative creator of central control systems that range from the basic to the most complex. Today we have expanded controller ranges and with imminent water management legislation you will find Signature’s own intellectual property is well positioned to meet and exceed this legislation.

Further and when appropriate, we have and continue to invest in acquisitions that increase our product breadth and depth. As a result of several acquisitions, Signature® is now a full line manufacturer and supplier to the Irrigation Industry with products that will cover any installation requirement. We are sure that you will be familiar with many of the products you see listed in our catalog and invite you to look at them with the new understanding that Signature® will be supplying the Irrigation Industry for many years to come with innovative solutions.

Brian J. Smith
President and CEO

BACKGROUND

You may think that Signature® is a fairly new name in the irrigation industry… we are not. We can trace our roots in the irrigation industry to 1907 when we started out as the Thompson Manufacturing Co.

Through a series of strategic acquisitions and manufacturing expansion initiatives, Signature® provides a complete array of products and via our channel partners, distributes a complete line of irrigation equipment: battery operated controllers, residential and commercial controllers, golf satellite controllers, central control systems, gear drive rotors, spray head sprinklers, impact sprinklers, control valves, quick coupling valves and moisture sensors.

Signature® is known as a nimble company that can adapt to the changing economies of the world or regional market influences, and is a company driven by several guiding lights that keep us on track to achieve our most important goal—satisfying our customer.

To that end we are market driven, we listen to our customers and make sure any product or service we deliver meets their needs, not just ours.

Signature’s designs are highly respected in the industry and with the emergence of our new design concepts and products, Signature® will certainly play a major role in the future of the irrigation industry.

MAJOR PRODUCT LINES:

Some of the names you may recognize:

- **Signature Share™**
  Web based irrigation controllers

- **Constellation® Galaxy™ & eConstellation®**
  Commercial irrigation satellite control systems

- **EZ Pro™**
  Wall Mount residential & commercial style controllers

- **Aurora® & eAurora®**
  Golf course irrigation satellite control systems

- **SoloRain®**
  Battery operated controllers “No Power … No Problem”®

The Aurora®, Constellation®, and Galaxy™ range of irrigation products are industry recognized as the latest technology in cost effective irrigation. In addition, Signature® has a comprehensive range of commercial and large turf rotors and valves.

Signature® provides management systems in hardwire, radio and telephone configurations including weather station equipment. All Signature Control Systems’ products are compatible for both domestic and international markets.
# BATTERY OPERATED CONTROLLERS

## SoloRain® Applications

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<th>APPLICATIONS</th>
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## SoloRain® Features

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## SoloRain® Applications

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## SoloRain® Features

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<td>9V Alkaline Battery</td>
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<td>1.5 AA Battery (x2)</td>
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<td>Sensor Ready</td>
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**PRODUCT OVERVIEW**

**BATTERY OPERATED CONTROLLERS**

**SoloRain® 8010**
- Single zone valve mounted battery operated controller.
- Single Program
- Operates on one replaceable 9 volt battery for over one year depending on usage.
- Waterproof design tested to IP68, 6 ft (1.8m)
- Installs directly on all Signature® Turf valves and can be fitted to many other valves through the use of adapters.
- Includes three dials for easy programming and flexible programming features.
- 8010 can be purchased mounted on a 7900 series valve (8012).

**SoloRain® 8014**
- Single zone valve mounted battery operated controller.
- 6 Programs
- Operates on one replaceable 3.6 volt lithium battery for several years depending on usage.
- Waterproof design tested to IP68, 6 ft (1.8m)
- Valve adaptors are available for the majority of competitor valve types.
- Compatible with all Signature® valves and can be purchased already mounted to the valve.
- Smart logic provides for current savings giving batteries longer life spans.

**SoloRain® 8014-SR**
- Single zone valve mounted battery operated controller.
- 6 Programs
- Operates on one replaceable 3.6 volt lithium battery for several years depending on usage.
- Waterproof design tested to IP68, 6 ft (1.8m)
- Valve adaptors are available for the majority of competitor valve types.
- Sensor ready for connection to any normally closed, rain, soil moisture, freeze or wind sensors.
- Compatible with all Signature® valves and can be purchased already mounted to the valve.
**SoloRain® 8014-BT**

- Wirelessly connects an irrigation valve to external Bluetooth® devices such as smartphones with Bluetooth®.
- Waterproof design tested to IP68, 6 ft (1.8m)
- Valve adaptors are available for the majority of competitor valve types.
- Works with most manufacture 9V or 12V DC solenoid
- Can have up to 250 ft (76 m) of 18 AWG direct burial wire between the 8020 series controller and the DC solenoid.
- Accommodate normally closed rain, freeze or event sensors.

**SoloRain® 8024C**

- 4 zones, valve box mounted, battery operated controller.
- 3 Programs
- Operates on two replaceable 1.5 volt AA style batteries for in excess of one year depending on usage.
- Waterproof design tested to IP68, 6 ft (1.8m)
- Works with most manufacture 9V or 12V DC solenoid
- Can have up to 250 ft (76 m) of 18 AWG direct burial wire between the 8020 series controller and the DC solenoid.
- Accommodate normally closed rain, freeze or event sensors.

**SoloRain® 8030**

- Single zone, remote programmable, valve mounted battery operated controller.
- 16 Programs
- Operates on one replaceable 9 volt battery for over one year depending on usage.
- Waterproof design tested to IP68, 6 ft (1.8m)
- Programming is accomplished through the 8071 handheld programmer which can be used on unlimited 8030 actuators. The built in memory in the 8071 allows storage of up to 36 different programs.
- Installs directly on to all Signature® Turf valves and can be fitted to many other valves through the use of adapters.
- 8030 can be purchased mounted on a 7900 series valve (8032).

* SCS Share Website System Requirements
  **Supported Browsers (JavaScript Enabled):**
  - Internet Explorer 9+
  - Google Chrome 30+
  - Mozilla Firefox 24+
  - Safari 5+

  **Other Requirements:**
  - Adobe Flash Player
  - Best viewed at 1024 x 768 or higher resolution
BATTERY OPERATED CONTROLLERS

SoloRain®

8010
Programmable Actuator

8012
Programmable Actuator with 7901 Valve

FEATURES

SoloRain® 8010 Series:
• FITS ALL SIGNATURE® TURF VALVES
• Compatible with most valves via adapters
• Single program stand-alone unit includes three dials for easy programming
• Waterproof design in both the programmable actuator and the battery compartment - IP68 tested
• Solenoid and battery compartment are compact and made of durable nylon with protective cover included
• Operates on a single 9 volt Energizer® alkaline battery for one year depending on usage (not included)
• Latching solenoid design uses minimal battery consumption
• Resistant to the hazards of lightning and power surges commonly seen in AC systems
• Programmable clock for real time operation
• Automatic watering up to two times per day
• Watering times from 1-2 minute to 5½ hours
• Manual ON and OFF

SPECIFICATIONS

DIMENSIONS (H X W X D)
4½” (11.5 cm) x 2¾” (7 cm) x 1¾” (4.5 cm)

ELECTRICAL:
One 9V Alkaline Battery (not included)

CERTIFICATIONS:
Part 15 Class B compliant

Enclosure Material: Plastic
Enclosure Type: Outdoor
Enclosure Rating: IP68*
* Self Certified

VALVE COMPATIBILITY CHART

8010/8030/8090DC
Adapter Kit #77440:

| SIGNATURE | 9001, 9002, 9003, 9002, 9011, 9013, 9012, 7901, 7916, 7911, 7917, 7950, 9501FC, 9502, 9515NC, 9520NC, 9515BC, 9520BC, |

| Adapter Kit #77422: |

| TORO: 252 (1.5” 2’’), 220 |
| IRRITROL: 2400, 2600, 2500, 2700, 311, 2623, 300, 700, 100, 216, 623 DPR |
| K-RAIN: 7001, 7200 |

| 1” |
| DOROT |
| GALCON |
| GRISWOLD |

| Adapter Kit #77423: |

| TORO: EZ FLOW, TPV |

| Adapter Kit #77424: |

| RAIN BIRD: DV, DVF, ASV, FTV, JT, TF, PGA, PEB, PESB, GBR, EFB, BPE, BPES |

Used without an adapter kit:

HIT: 100, 200, 300, 500, 800, 8400
SoloRain®  |  BATTERY OPERATED CONTROLLERS

CONTROLLERS

SoloRain®

8014
DuraLife® Valve Actuator

8014SR
DuraLife® Valve Actuator with Sensor Ready

8013E
DuraLife® Valve Actuator with 1” (25,4 mm) 9003 valve

8015 (8015E)
DuraLife® Valve Actuator with 1”(25,4 mm) 7901/7916 valve

8016E
DuraLife® Valve Actuator with 1”(25,4 mm) 9501 valve

FEATURES

SoloRain®
8014 Series:

• FITS ALL SIGNATURE® TURF VALVES
• Long life factory installed lithium battery*. Actual battery life will depend on the number of cycles run per year, valve size, operating pressure, and temperature. The battery is replaceable and is available as a service part.
• LCD displays clock and programming
• Timed manual ON and OFF
• Length of watering time: 1 minute to 12 hours
• Six watering programs available per day
• Mist Cycle available on all 6 programs
• Days of the week, Odd/Even, and Interval scheduling
• Rain Delay is programmable from 1 to 99 days
• Leap year compatible-automatically includes Feb. 29th every four years
• Waterproof design tested to IP68, 6 ft (1.8m)

8014SR

• Two wires on the “SR” version allows any normally open/normally closed sensor to be hooked up to it (switch has to be closed for the 8014 to operate). Sensors can be up to 25 ft (7.5 m) away.

SPECIFICATIONS

DIMENSIONS (H X W X D)

8014, 8014SR: 5½” (14 cm) x 3½” (9 cm)
8013E: 7¾” (18,8 cm) x 5” (12,7 cm) x 3” (7,6 cm)
8015, 8015E: 7¼” (19 cm) x 4” (10,2 cm) x 3½” (8,9 cm)
8016E: 8¼” (20,6 cm) x 5½” (14 cm) x 3½” (9 cm)

ELECTRICAL:

Factory installed 3.6 V Lithium Battery

CERTIFICATIONS:

Part 15 Class B compliant
Enclosure Material: Plastic
Enclosure Type: Outdoor
Enclosure Rating: IP68*

* Self Certified

VALVE COMPATIBILITY CHART

SoloRain® 8014 and 8020 DC ADAPTERS*

Model 77467

ALL HARDIE/IRRITROL VALVES
SIGNATURE:
7937, 7987, 7938, 7988, 7904, 7914, 7925, 7927, 7928, 7937, 7938, 7987, 7998.
TORO: EZ FLOW, TPV
K-RAIN: 7001, 7200, 7200

Model 77468

RAINBIRD:
PEB, DV, DVF, ASVF, EFB, GB, PGA, PESB, BPE, BPES

Model 77481

WEATHERMATIC:
ALL WEATHERMATIC VALVES

Model 77516

HUNTER:
ALL HUNTER VALVES

TORO:
252 (1.5" - 2"), 220

* Sold separately. No adapter required on the following Signature Valves:
7901, 7911, 7916, 7917, 9001, 9002, 9003, 9011, 9012, 9013, 9501, 9502, 9513BC, 9515NC, 95280BC, 9520NC.
This is a partial list; please contact Signature for further details.

* Battery life will vary depending on environmental conditions. Test results have shown 2 - 3 years of battery life

www.SignatureControlSystems.com
Signature’s commitment to technology leadership is demonstrated in a valve actuator with available Bluetooth® option that permits a user to manually control a valve or download irrigation programs via a standard low-power wireless communication path to an irrigation valve.

**FEATURES**

**SoloRain® 8014-BT**

- Fits all Signature® TURF VALVES
- Wirelessly connects an irrigation valve to external Bluetooth® devices such as smartphone’s with Bluetooth®.
- Compatible with Signature Share™ App’s for convenient programming and control.
- Bluetooth communication is accessible up to 10 meters (~30 ft.) from the actuator in all directions, and the ability to enable the Bluetooth communication link is password protected.
- Reliable communications via Frequency Hopping Spread Spectrum (FHSS), enables a reliable communication link, designed for most field installation environments.
- Standard programming functionality.
- Timed manual ON and OFF
- Length of watering time: 1 minute to 12 hours
- Six watering programs available per day
- Mist Cycle available on all 6 programs
- Days of the week, Odd/Even, and Interval scheduling
- Rain Delay is programmable from 1 to 99 days
- Leap year compatible—automatically includes Feb. 29th every four years
- Battery powered with two (2) AA standard-style batteries. Battery life is dependent on operational cycles per year, valve size, operating pressure, and temperature.
- Waterproof design tested to IP68, 6 ft (1.8m)

**SPECIFICATIONS**

**DIMENSIONS (H X W X D)**

8014-BT: Ø“ (15 cm) x 3.6” (9 cm)

**ELECTRICAL:**

Factory installed dual AA battery’s

**CERTIFICATIONS:**

Part 15 Class B compliant

Enclosure Material: Plastic
Enclosure Type: Outdoor
Enclosure Rating: IP68*

* Self Certified

**VALVE COMPATIBILITY CHART**

**SoloRain® 8014, 8017 & 8020 DC ADAPTERS**

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<tr>
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* Sold separately. No adapter required on the following Signature Valves: 7901, 7911, 7916, 7917, 9001, 9002, 9003, 9011, 9012, 9013, 9501, 9501FC, 9502, 9515BC, 9515NC, 9520BC, 9520NC. This is a partial list; please contact Signature for further details.

* Battery Life will vary depending on environmental conditions and usage. Test results have shown 2-3 years of battery life.
SoloRain® Controllers

8024C
4 zone controller only

8020DC
Latching Solenoid
(12 VDC 7/8" - 24 threads)

8090DC
Latching Solenoid
(9 VDC ¾" - 20 threads)

SoloRain® Controllers

8024C
4 zone controller only

8020DC
Latching Solenoid
(12 VDC 7/8" - 24 threads)

8090DC
Latching Solenoid
(9 VDC ¾" - 20 threads)

Features

SoloRain® 8024 Series:
- Fits all Signature® Turf Valves
- Available in 4 zone
- Three start times per program (9 total start times)
- Three independent programs
- Length of programmable watering time (1 min to 3 hr 59 min per zone)
- Four scheduling options to suit the need of plant material or to comply with watering restrictions (days of the week, 1-30 day interval, true odd/even)
- Leap year compatible (automatically includes February 29th)
- 0-200% Water budget programming
- Three test cycles (manual open, cycle, and 3 min test)
- Color coded label, wires make wiring/zone identification quick and easy!
- Can have up to 250 ft (76 m) of 18 AWG direct burial wire between the solenoid and the 8024 Series Controller (Must use waterproof design connectors for splice or your warranty is void) waterproof design tested to IP68, 6 ft (1.8 m).
- Long life battery*
- Operates RainBird® & Hunter® DC latching Solenoids (makes for an easy controller replacement)

Accessories

8020P
8020 Series Mounting Plate

8020S
8020 Series Mounting Stake

8020GC
8020 Series Waterproof Connectors

Specifications

Dimensions (H x W x D)
4 ¼” (10.8 cm) x 3 ¼” (8.25 cm)

Electrical:
Two AA Alkaline Batteries (not included)

Certifications:
Part 15 Class B compliant

Enclosure Material: Plastic
Enclosure Type: Outdoor
Enclosure Rating: IP68*
* Self Certified

Valve Compatibility Chart

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<tr>
<td>Signatur 7901, 7911, 7916, 7917, 9001, 9002, 9003, 9011, 9012, 9013, 9501, 9501FC, 9502, 9515BC, 9515NC, 9520BC, 9520NC</td>
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<table>
<thead>
<tr>
<th>Model 77468</th>
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<tbody>
<tr>
<td>Rainbird PEB, DVB, PGSB, EFB, PESB, BPE, BPE</td>
</tr>
<tr>
<td>Weathmatic ALL WEATHERMATIC VALVES</td>
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<tr>
<td>Hunter ALL HUNTER VALVES</td>
</tr>
<tr>
<td>Model 77516</td>
</tr>
<tr>
<td>Toro 252 (1.5” - 2”), 220</td>
</tr>
</tbody>
</table>

*Sold separately. No adapter required on the following Signature valves: 7901, 7911, 7916, 7917, 9002, 9003, 9011, 9012, 9013, 9501, 9501FC, 9502, 9515BC, 9515NC, 9520BC, 9520NC.

Battery life will vary depending on environmental conditions. Test results have shown 2-3 years of battery life.
BATTERY OPERATED CONTROLLERS

**SoloRain®**

**8030**
Remote Programmable Actuator

**8032 (8033)**
Remote Programmable Actuator with 1” (25.4 mm) 7901/7916 valve

**8071**
Programmer Plus console

*Note: Versions in parenthesis feature BSP threading for international use*

### FEATURES

**SoloRain® 8030 Series:**
- **FITS ALL SIGNATURE® TURF VALVES**
- Compatible with most valves via adapters
- Solenoid and 9V battery compartment are compact and made of durable nylon construction
- Programming interface through cord connection to the model 8071 Programmer control console
- Waterproof design tested to IP68, 6 ft (1.8m). [Note: Removal of Programmer Socket Protection Cap wet environments, voids the waterproofing claim and potential for warranty]
- Latching solenoid design uses minimal battery consumption

**SoloRain® 8071:**
- Independent programming of an unlimited number of 8030 series actuators
- Up to 16 irrigation start times per actuator
- 14-day programming calendar
- Built-in memory allows storage of up to 36 different irrigation programs
- Downloadable transfer of programs individually or to a group of actuators
- Memory is retained for 2 minutes during battery change
- Four line LCD display for easy menu guided programming
- User can choose between five languages for operation

### SPECIFICATIONS

**DIMENSIONS (H X W X D)**
- 8030: 4½” (11.5 cm) x 2¾” (7 cm) x 1¾” (4.5 cm)
- 8032: 7” (17.8 cm) x 4¾”w (12 cm) x 2¾” (7 cm)
- 8071: 9½” (25.1 cm) x 5¼” (13.3 cm) x 1¼” (3.2 cm)

**ELECTRICAL:**
- One 9V Alkaline Battery (not included)

**CERTIFICATIONS:**
- Part 15 Class B compliant
- Enclosure Material: Plastic
- Enclosure Type: Outdoor
- Enclosure Rating: IP68*
  * Self Certified

**VALVE COMPATIBILITY CHART**

**8010/8030/8090DC (¾” – 20 Threads 9VDC)**
Adapter Kit #77440:

| SIGNATURE | 9001, 9003, 9002, 9011, 9013, 9012, 7901, 7916, 7911, 9501, 9501FC, 9502, 9515NC, 9520NC, 9515BC, 9520BC |

**Adapter Kit #77422:**

| TORO: | 252 (1.5” 2”), 220 |
| IRRITROL: | 2400, 2600, 2500, 2700, 311, 2623, 300, 700, 100, 216, 623DPA |
| K-RAIN: | 7001, 7200 |

| BERMAD | |
| DOROT | |
| GALCON | |
| GRISWOLD | |

**Adapter Kit #77423:**

| TORO: EZ FLOW, TPV |

**Adapter Kit #77424:**

| RAIN BIRD: DVF, DVF, ASVF, TVF, PGA, PEB, PESB, GBR, EFB, BPE, BPES |

**Used without an adapter kit:**

| HIT: | 100, 200, 300, 500, 800, 8400 |

- Easy to program with large LCD display and simplified four rubber button keypad with audio “beep” response
- Impact-resistant plastic housing
- Operates on one 9 volt alkaline battery
- Programmable 12 or 24-hour clock with synchronizing function
- Watering times from one minute to 24 hours in one minute increments
- Manual START and STOP function
- Program review
- Rain ON/OFF capability
CONTROLLERS

Hardware
- EZ Pro
  - 8600 Live
- EZ Connect
  - 8250W
  - 8255W
  - 8255S
  - 8018S
  - 8017N
  - 8020DC
  - 8028S

Software
- iOS
  - iPhone
    - Standard
    - Smart Water Management
  - iPad
    - Standard
    - Smart Water Management
- Web Subscription
  - EZ Pro Live
    - Daily ET Download
  - 5-Day Weather & ET email
## TURF CONTROLLERS

### APPLICATIONS

<table>
<thead>
<tr>
<th></th>
<th>EZ Indoor 8120</th>
<th>EZ Pro™ Jr. Indoor 8200</th>
<th>EZ Pro™ Jr. 8300</th>
<th>EZ Pro™ 8600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
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<td>Programs</td>
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<td>Zones</td>
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### WEB BASED APPLICATIONS

<table>
<thead>
<tr>
<th></th>
<th>EZ Pro™ SHARE8600</th>
<th>EZ Pro™ 8700</th>
<th>EZConnect™ 8250W</th>
<th>EZConnect™ DC 8255S</th>
<th>EZConnect™ DC 8255W</th>
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### FEATURES

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<tr>
<th></th>
<th>EZ Pro™ SHARE8600</th>
<th>EZ Pro™ 8700</th>
<th>EZConnect™ 8250W</th>
<th>EZConnect™ DC 8255S</th>
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<tr>
<td>Programs</td>
<td>16</td>
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<tr>
<td>Zones</td>
<td>8, 12, 16, 20 &amp; 24</td>
<td>8, 12, 16, 20 &amp; 24</td>
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</table>
PRODUCT OVERVIEW

CONTROLLERS

**EZ Indoor™ 8100**
- Available in 4 and 6 zones.
- Dual program, multiple start times and schedule options.
- Capable of 6 hours of run time per zone.
- Simple to budget water by program.
- A single long life lithium battery stores programs even without power connected and keeps the correct time and date for up to one year.
- Resettable fuse for short circuit zone protection.
- External transformer.
- Rain sensor compatible with use of a normally closed sensor.
- Smart Water Port™ for future upgrades.

**EZ Pro™ Jr. 8200**
- Available in 4, 6 and 9 zones.
- Three programs, multiple start times and schedule options. The 8200 series is capable of 5 hours 59 minutes of run time per zone.
- 1.0 Amp self resetting fuse for short circuit zone protection.
- The 8200 series comes in an indoor plastic cabinet with an external transformer.
- This series is packed with many advanced water management features such as global water budgeting, water budgeting by month, event days and a built in sensor input.

**EZ Pro™ Jr. 8300**
- Available in 4, 6, 9, and 12 zones.
- Three programs, multiple start times and schedule options. The 8300 series is capable of 5 hours 59 minutes of run time per zone.
- Lithium battery backup stores programs without AC power or AA batteries.
- 1.0 Amp self resetting fuse for short circuit zone protection.
- The 8300 series comes in an indoor / outdoor weather resistant plastic cabinet with an internal transformer.
- This series is packed with many advanced water management features such as global water budgeting, water budgeting by month, event days and a built in sensor input.

**EZ Pro™ 8600**
- Available in 8, 12, 16, 20, and 24 zones.
- Three programs, multiple start times and schedule options. The 8600 series is capable of 9 hours 59 minutes of run time per zone.
- Nonvolatile memory stores programs without AC power or AA batteries.
- 1.0 Amp self resetting fuse for short circuit zone protection.
- The 8600 series comes in an indoor / outdoor weather resistant plastic cabinet with an internal transformer.
- This series is packed with many advanced water management features such as global water budgeting, water budgeting by month and a built in sensor input.

**EZ Pro™ SHARE8600**
- Remote / Local switch to toggle between Signature Share™ and front control panel of SHARE8600 series.
- Available in 8, 12, 16, 20, and 24 zones.
- Sixteen programs, multiple start times and schedule options.
- The SHARE8600 comes in an indoor / outdoor weather resistant plastic cabinet with an internal transformer.
- 1.25 Amp self resetting fuse for short circuit zone protection.
- Current Sensing for Solenoid Fault Detection (Opens and Overloads)
- Either GSM and CDMA data connections available
- This series is packed with many advanced water management features such as global water budgeting, water budgeting by month and a built in sensor input.
**EZ Pro™ 8700**

- Available in 8, 12, 16, 20, and 24 zones.
- Sixteen programs, multiple start times and schedule options.
- The 8700 series comes in an indoor / outdoor weather resistant plastic cabinet with an internal transformer.
- 1.25 Amp self resetting fuse for short circuit zone protection.
- Current Sensing for Solenoid Fault Detection (Opens and Overloads)
- Ethernet connectivity; connects directly to internet via local area network.
- No complex keypad or display; simple operation via Smart Phones or web based applications.
- Integrates to other Signature® products to expand the control network, ideal for remote control of battery operated Share compatible controllers.
- Built in expansion port for communication module for smart sensor integration.
- Multiple Programs via web interface
- Operates on 110/220/240VAC plug in transformer power.

**EZConnect™ 8250 Series**

- Signature Share™ web based ET controller
- 12-zone 24VAC output.
- Twelve programs, multiple start times and schedule options.
- Indoor modular controller.
- 1 Amp self resetting fuse for short circuit zone protection
- Ethernet connectivity; connects directly to internet via local area network.
- No complex keypad or display; simple operation via Smart Phones or web based devices.
- Two open/close sensor ports.
- Data port for smart sensors
- Operates on 110/220/240VAC plug in transformer power.

**EZ ConnectDC™ 8255 Series**

- Signature Share™ web based ET controller
- 6-zone 12VDC output.
- Twelve programs, multiple start times and schedule options.
- Indoor modular controller.
- Connects directly to Signature Share™ cellular network out of the box.
- Immediately connects to Signature's Share™ platform of products.
- No complex keypad or display; simple operation via Smart Phones or web based devices.
- Two open/close sensor ports.
- Data port for smart sensors
- Operates on 110/220/240VAC plug in transformer power.

**EZ ConnectDC™ 8255S**

- Signature Share™ web based ET controller
- 6-zone 12VDC output.
- Twelve programs, multiple start times and schedule options.
- Indoor modular controller.
- Connects directly to Signature Share™ cellular network out of the box.
- Integrates to other Signature® products to expand the control network, making it ideal for remote control of other DC or battery operated valves or controllers.
- Either GSM and CDMA data connections available
- This series is packed with many advanced water management features such as global water budgeting, water budgeting by month and a built in sensor input.
- Central control ready. Just install the Share™ communications module and control your controller from anywhere in the world using SCS-Share.com.

* SCS Share Website System Requirements
  
  **Supported Browsers (JavaScript Enabled):**
  - Internet Explorer 9+
  - Google Chrome 30+
  - Mozilla Firefox 24+
  - Safari 5+
  
  **Other Requirements:**
  - Adobe Flash Player
  - Best viewed at 1024 x 768 or higher resolution
CONTROLLERS

**EZ Indoor™**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Country Code</th>
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</thead>
<tbody>
<tr>
<td>8124*</td>
<td>4 zone</td>
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</tr>
<tr>
<td>8126*</td>
<td>6 zone</td>
<td></td>
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</tbody>
</table>

* A country code is required after model number:
  - ‘AU’ - Australia
  - ‘ES’ - Spain
  - ‘FR’ - France
  - ‘IT’ - Italy
  - ‘PT’ - Portugal
  - ‘US’ - English

**FEATURES**

- Stacking start times
- Two independent programs
- Three start times per program
- Simple to budget water by program
- Smart Water Port™ for future upgrades
- True calendar clock (Leap year compatible)
- Scheduling options:
  - Odd/Even
  - Interval, 1-30 days
  - 7-day Calendar
- Zone run times from one minute to 6 hours
- Long life Lithium battery keeps correct time and date for up to 1 year
- Resettable fuse for short circuit zone protection
- Manual test with manual advance feature
- Rain sensor compatible

**SPECIFICATIONS**

**DIMENSIONS (H X W X D)**

5¾” (14.6 cm) x 4½” (11.5 cm) x 1½” (3.8 cm)

**Cabinet:**
- Enclosure Material: Plastic
- Enclosure Type: Indoor
- # of zones: 4, 6

**ELECTRICAL:**

**USA & Canada**
- INPUT: 120V AC, 60 Hz
- OUTPUT: 24V AC, .50 Amp

**International**
- INPUT: 230V AC, 50 Hz
- OUTPUT: 24V AC, .50 Amp

**CERTIFICATIONS:**
- Part 15 Class B compliant
**EZ Pro™ Jr.**

**8204 (8274*)**
- 4 zone

**8206 (8276*)**
- 6 zone

**8209 (8279*)**
- 9 zone

* A country code is required after model number:
  - ‘AU’ - Australia
  - ‘ES’ - Spain
  - ‘FR’ - France
  - ‘IT’ - Italy
  - ‘PT’ - Portugal

**FEATURES**

- Stacking start times
- Three independent programs
- Three start times per program
- True calendar clock (Leap year compatible)
- Scheduling options: Odd/Even; Interval 1-30 days; 7-day Calendar; Event Day
- Zone run times from one minute to 5 hours 59 minutes
- Programmable delay between zones, 1 second to 30 minutes
- Quick push button rain sensor bypass
- Cycle test, Manual test with manual advance
- Two AA alkaline batteries keep correct time and date for 5 years
- Input and output surge protection
- 1.0 Amp self resetting polyswitch for short-circuit zone protection

**WATER MANAGEMENT FEATURES**

- Event days per program - Blocks any day from irrigating
- Water budget option reduces or increases watering 0 to 200 percent
- Advanced water budget to set water budget for each month of the year; per program 0 to 200 percent

**SPECIFICATIONS**

**DIMENSIONS (H X W X D)**
- 7" (17.8 cm) x 5 7/8" (14.3 cm) x 2" (5.1 cm)

**Cabinet:**
- Enclosure Material: Plastic
- Enclosure Type: Indoor

**# of zones:**
- 4, 6, 9

**ELECTRICAL:**
- **8204 to 8209:**
  - INPUT: 120V AC, 60 Hz
  - OUTPUT: 24V AC, .83 Amp

- **8274 to 8289:**
  - INPUT: 230V AC, 50 Hz
  - OUTPUT: 24V AC, .83 Amp

- Two AA alkaline batteries (not included)

**CERTIFICATIONS:**

- Part 15 Class B compliant
CONTROLLERS

**EZConnect™**
**SHARE8250 Series**
Ethernet Based Residential Controller

**Accessories**
- Sensor Expansion Module
- Upgrade for Intelligent watering and ET download.
- EZ Connect comms module

**SPECIFICATIONS**

**DIMENSIONS (H X W X D)**
7” (17.8 cm) x 5½” (14.3 cm) x 2” (5.1 cm)

- **Cabinet:**
  - Enclosure Material: Plastic
  - Enclosure Type: Indoor
- **# OF ZONES:**
  - 12

**ELECTRICAL:**
- **USA & Canada**
  - INPUT: 120V AC, 60 hz
  - OUTPUT: 24V AC, .83 Amp
- **International**
  - INPUT: 230V AC, 50 hz
  - OUTPUT: 24V AC, .83 Amp

**CERTIFICATIONS:**
- Part 15 Class B compliant

**FEATURES**
- No complex keypad or display; simple operation via Smart Phones, web based devices or iOS applications
- Stacking start times
- Twelve independent programs
- Twenty four events per program
- True calendar clock (Leap year compatible)
- Scheduling options:
  - 12-month calendar
  - Odd/Even
  - Interval (1-31 days)
- Zone run times from one minute to 11 hours 59 minutes
- Cycle test, Manual test with manual advance
- Input and output surge protection
- 1.0 Amp self resetting polyswitch for short-circuit zone protection
- Two sensor inputs: Moisture sensor; Flow sensor; Temperature sensor; Rain Sensor; Wind sensor
- Two expansion ports
- On board 10Mbit Ethernet port for wired network connection, or integrate 3rd party adapters for wi-fi or power line connectivity.
- Remote access via the Web

**WATER MANAGEMENT FEATURES**
- Advanced water budget to set water budget for each month of the year, per program 0 to 200 percent
- Conventional time based watering scheduling as well as Smart Watering and ET-based scheduling capabilities.

**EzConnect Accessory features**
- Sensor Expansion Module
- Upgrade for Intelligent watering and ET download.
- EZ Connect comms module
**EZConnectDC™ SERIES | CONTROLLERS**

### FEATURES

- Signature Share™ web based ET controller
- 6-zone 12VDC output.
- Indoor controller.
- Twelve independent programs
- Compatible to Signature Share™ platform as well as remotely controlled via iOS devices or SmartPhones.
- Integrated data modem allows for immediate connection to Signature’s Share network, out of the box.
- Integrated short-haul data radio to communicate to any Share access point controllers. Only on SHARE8255S MODELS.
- No complex keypad or display; simple operation via Smart Phones, web based devices, or iOS applications.
- Two digital pulse or switch sensor ports for integration of flow monitoring or rain sensors.
- Operates on 110/220/240VAC plug in transformer power.

### WATER MANAGEMENT FEATURES

- Advanced water budget to set water budget for each month of the year, per program 0 to 200 percent
- Conventional time based watering scheduling as well as Smart Watering and ET-based scheduling capabilities.

### SPECIFICATIONS

**DIMENSIONS (H X W X D)**

7” (17.8 cm) x 5½” (14,3 cm) x 2” (5,1 cm)

**Cabinet:**
- Enclosure Material: Plastic
- Enclosure Type: Indoor

**# OF ZONES:**

6

**ELECTRICAL:**

**USA & Canada**
- INPUT: 120V AC, 60 Hz
- OUTPUT: 24V DC, .50 Amp

**International**
- INPUT: 230V AC, 50 Hz
- OUTPUT: 24V DC, .50 Amp

**CERTIFICATIONS:**
- Part 15 Class B compliant
CONTROLLERS

**EZ Pro™ Jr.**

- **8304 (8374*)**
  - 4 zone
- **8306 (8376*)**
  - 6 zone
- **8309 (8379*)**
  - 9 zone
- **8312 (8382*)**
  - 12 zone

* A country code is required after model number:
  - ‘AU’ - Australia
  - ‘ES’ - Spain
  - ‘FR’ - France
  - ‘IT’ - Italy
  - ‘PT’ - Portugal

**FEATURES**

- Lithium battery back-up stores programs without AC power or AA batteries
- Stacking start times
- Three independent programs
- Three start times per program
- True calendar clock (Leap year compatible)
- Scheduling options: Odd/Even; Interval 1-30 days; 7-day Calendar; Event Day
- Zone run times from one minute to 5 hours 59 minutes
- Programmable delay between zones, 1 second to 30 minutes
- Quick push button rain sensor bypass
- Cycle test, Manual test with manual advance
- Two AA alkaline batteries keep correct time and date for 5 years
- Input and output surge protection
- 1.0 Amp self resetting polyswitch for short-circuit zone protection

**WATER MANAGEMENT FEATURES**

- Event days per program - Blocks any day from irrigating
- Water budget option reduces or increases watering 0 to 200 percent
- Advanced water budget to set water budget for each month of the year, per program 0 to 200 percent

**SPECIFICATIONS**

**DIMENSIONS (H X W X D)**

8” (20.3 cm) x 10” (25.4 cm) x 4” (10 cm)

**Cabinet:**

- Enclosure: Plastic Wall Mount
- Enclosure Type: Outdoor
- Enclosure Rating: IP24*

* Certified

**# of zones:**

- 4, 6, 9, 12

**ELECTRICAL:**

**8304 to 8312:**

- **INPUT:** 120V AC, 60 Hz
- **OUTPUT:** 24V AC, .83 Amp

**8374 to 8382:**

- **INPUT:** 230V AC, 50 Hz
- **OUTPUT:** 24V AC, .83 Amp

Two AA alkaline batteries (not included)

**CERTIFICATIONS:**

Part 15 Class B compliant
**CONTROLLERS**

**EZ Pro™ SERIES | CONTROLLERS**

**EZ Pro™**

8608 (8678*)
- 8 zone

8612 (8682*)
- 12 zone

8616 (8686*)
- 16 zone

8620 (8690*)
- 20 zone

8624 (8694*)
- 24 zone

* A country code is required after model number:
  - 'AU' - Australia
  - 'ES' - Spain
  - 'FR' - France
  - 'IT' - Italy
  - 'PT' - Portugal

**SPECIFICATIONS**

**DIMENSIONS (H X W X D)**
9” (22.9 cm) x 12” (30.5 cm) x 5” (12.5 cm)

**Cabinet:**
- Enclosure: Plastic: Wall Mount
- Enclosure Type: Outdoor
- Enclosure Rating: IP24*
  * Self Certified

**# of zones:**
- 8, 12, 16, 20, 24

**ELECTRICAL:**
- 8608 to 8624:
  - INPUT: 120V AC, 60 Hz
  - OUTPUT: 24V AC, 1.25 Amp

- 8678 to 8694:
  - INPUT: 230V AC, 50 Hz
  - OUTPUT: 24V AC, 1.25 Amp

Two AA alkaline batteries (not included)

**CERTIFICATIONS:**
- Part 15 Class B compliant

**FEATURES**

- Non-volatile memory stores programs without AC power or batteries
- Two AA batteries keep correct time for one year
- Stacking start times
- Pump start programmable by zone
- Programmable Rain Delay to 99 days
- Three independent programs
- Four start times per program
- Three scheduling options to suit the needs of plant material or to comply with watering restrictions (7 day calendar, 1-30 day interval, true odd/even)
- Leap year compatible
- Water budget option reduces or increases watering 0-200 percent
- Advanced water budget to set water budget for each month of the year
- Three test cycles (Manual test with manual advance feature, Cycle test, 3-minute test)
- Programmable run times from one minute to 9 hours 59 minutes
- Poly-fuse self resetting circuit protection
- This controller has a built-in sensor port.

**WATER MANAGEMENT FEATURES**

- Water budget option reduces or increases watering 0 to 200 percent
- Advanced water budget to set water budget for each month of the year, per program 0 to 200 percent
- Conventional time based watering scheduling as well as Smart Watering and ET-based scheduling capabilities. (when using Signature Share™)
CONTROLLERS

**FEATURES**

- Remote / Local switch to toggle between Signature Share™ and front control panel of 8600 series.
- Current Sensing for Solenoid Fault Detection (Opens and Overloads)
- Pushbutton for Valve Testing
- Diagnostic LED’s for assessing Device State
- Either GSM and CDMA data connections available
- Up to 1 active outputs plus pump
- Programmable pump prime and purge intervals
- Sixteen independent programs
- Individual Station linking to pump output
- Water Budgeting based on Month
- SHARE8600 is accessible from any internet capable computer anywhere in the world
- Compatible with our Signature Share™ platform as well as remotely controlled via iOS devices or SmartPhones.
- Remotely monitor sites from one location or an infinite number of locations
- All programs are stored in the controller once downloaded, and are available 24/7 on our secure server
- SHARE8600 requires no extensive backups; we handle all upgrades, support and maintenance
- Upgrades are uploaded seamlessly; when you log on they are ready
- Menus are user friendly and intuitive using graphical user interface

**WATER MANAGEMENT FEATURES**

- SHARE8600 uses real-time weather data (ET) and transmits it to each controller
- Smart-Water programming allows the controller to precisely irrigate each micro climate individually by programming all agronomical attributes of the irrigated landscape, saving water, time, and expense
- Eliminates requirement to purchase a weather station or other weather services
- Integrated sensor port can accommodate a rain switch

**SPECIFICATIONS**

**DIMENSIONS (H X W X D)**

9” (22.9 cm) x 12” (30.5 cm) x 5” (12.5 cm)

**Cabinet:**
- Enclosure: Plastic; Wall Mount
- Enclosure Type: Outdoor
- Enclosure Rating: IP24*
  * Self Certified

**# of zones:**
- 8, 12, 16, 20, 24

**ELECTRICAL:**

**USA & Canada**
- INPUT: 120V AC, 60 Hz
- OUTPUT: 24V AC, 1.25 Amp

**International**
- INPUT: 230V AC, 50 Hz
- OUTPUT: 24V AC, 1.25 Amp

Two AA alkaline batteries (not included)

**CERTIFICATIONS:**

Part 15 Class B compliant

---

Note:

Data rates may apply given site geography, region of the world and Local Service Providers.
FEATURES

- Current Sensing for Solenoid Fault Detection (Opens and Overloads)
- Pushbutton for Valve Testing
- Diagnostic LED’s for assessing Device State
- Either GSM and CDMA data connections available
- Up to 2 active outputs plus pump
- Programmable pump prime and purge intervals
- Sixteen independent programs
- Individual Station linking to pump output
- Programmable Current Min and Max per Station
- Optional RF Interface for future expansion of wireless sensors and actuators
- Water Budgeting based on Month
- SHARE8700 is accessible from any internet capable computer anywhere in the world
- Compatible with our Signature Share™ platform as well as remotely controlled via iOS devices or SmartPhones.
- Remotely monitor sites from one location or an infinite number of locations
- All programs are stored in the controller once downloaded, and are available 24/7 on our secure server
- SHARE8700 requires no extensive backups; we handle all upgrades, support and maintenance
- Upgrades are uploaded seamlessly; when you log on they are ready
- Menus are user friendly and intuitive using graphical user interface

WEATHER-BASED IRRIGATION SCHEDULING (ET) [OPTIONAL SERVICE]

- SHARE8700 uses real-time weather data (ET) and transmits it to each controller
- Smart-Water programming allows the controller to precisely irrigate each microclimate individually by programming all agronomical attributes of the irrigated landscape, saving water, time, and expense
- Eliminates requirement to purchase a weather station or other weather services
- Integrated sensor port can accommodate either a rain switch or flow meter. Additional Sensors can be added via an Expansion Port

Note:
Data rates may apply given site geography, region of the world and Local Service Providers.

SPECIFICATIONS

DIMENSIONS (H X W X D)
9” (22.9 cm) x 12” (30.5 cm) x 5” (12.5 cm)

Cabinet:
- Enclosure: Plastic Wall Mount
- Enclosure Type: Outdoor
- Enclosure Rating: IP24*
  * Self Certified

# Of Zones:
8, 12, 16, 20, 24

ELECTRICAL:

USA & Canada
- INPUT: 120V AC, 60 Hz
- OUTPUT: 24V AC, 1.25 Amp

International
- INPUT: 230V AC, 50 Hz
- OUTPUT: 24V AC, 1.25 Amp

CERTIFICATIONS:

Part 15 Class B compliant
COMMERCIAL SATELLITES
CONTROLLERS
## Partial Features List

<table>
<thead>
<tr>
<th>Applications</th>
<th>TURF CONTROLLERS SATELLITES (24VAC)</th>
<th>DECODER CONTROLLERS SATELLITES (2-Wire)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GALAXY™ CONSTITLATION®</td>
<td>GALAXY™ CONSTITLATION®</td>
</tr>
<tr>
<td><strong>APPLICATIONS</strong></td>
<td></td>
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<tr>
<td>Commercial</td>
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<tr>
<td>Municipal</td>
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<td>✓</td>
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<tr>
<td>Sports turf</td>
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<tr>
<td><strong>ENCLOSURE TYPE</strong></td>
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</tr>
<tr>
<td>Wall Mount</td>
<td>✓</td>
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<tr>
<td>Plastic Pedestal</td>
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<tr>
<td>Stainless Steel</td>
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<tr>
<td><strong>NETWORK COMMUNICATION</strong></td>
<td></td>
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<tr>
<td>Stand-Alone Controller</td>
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<td>✓</td>
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<tr>
<td>Peer-to-Peer Communication</td>
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<tr>
<td>Local Sensors</td>
<td>✓</td>
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<tr>
<td>Network Sensing</td>
<td></td>
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<tr>
<td><strong>CENTRAL CONTROL UPGRADEABLE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constellation® Desktop</td>
<td>✓</td>
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<tr>
<td>eConstellation®</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Share™ Network</td>
<td>✓</td>
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<tr>
<td><strong>OTHER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses Decoder Modules</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Uses Valve Modules</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hybrid of Output</td>
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</tbody>
</table>
PRODUCT OVERVIEW
COMMERCIAL SATELLITE CONTROLLER FAMILY

GALAXY™
- The Galaxy™ Satellite Controller delivers the ultimate in power at an affordable price.
- Galaxy™ is designed to operate as a stand-alone controller or as a satellite in a central controlled system.
- Galaxy™ is easy to operate with flexible configuration and communication options.
- Galaxy™ firmware can be upgraded in the field to a fully configured Constellation® version allowing the user full access to our patented Peer-to-Peer networking features.
- Available in several languages.
- All controllers are intelligent and smart; meaning they don’t need constant contact with central computers or expensive software packages to operate.
- Available in both 24VAC or 2-wire configurations or a hybrid of both.
- Ability to communicate over the internet and via SmartPhone technology with Signature® mobile software.

GALAXY-RT™
- The Galaxy-RT™ Satellite Controller operates exclusively in a central controlled environment.
- Immediately connects to Signature’s Share™ platform of products, out of the box.
- No complex keypad or display; simple operation via Smart Phones or web based iOS applications.
- Ability to control via the internet from anywhere without requiring expensive local communications infrastructure.
- Ease of installation makes the Galaxy-RT™ the choice of Contractors.
- Control standard solenoids via 24VAC wiring or 2-wire decoder configurations.

CONSTELLATION®
- The Constellation® Satellite Controller delivers the ultimate in power, ease and value.
- Constellation® is designed to function as a stand-alone controller or as a satellite in a network with or without a central computer.
- No need to have software to operate; intelligent processors store data and operate independently of the network.
- Available in several languages.
- Remotely control any station located on any other controller on the Signature network, via Signature’s peer-to-peer technology.
- Each Constellation® Satellite Controller is like having a central computer in the field for unprecedented control and unparalleled value.
- Constellation® is easy to operate with flexible configuration and communication options.
- Fits every commercial application—from parks, sports complexes, and business parks—to cemeteries, theme parks, HOAs.
- Suitable for hybrid applications where two-wire systems and traditional wired systems coincide.
- Expansion made easy with a modular output design.
DECODE R CONTROLLER FAMILY

GALAXY-RT™ Solar

- The Galaxy-RT™ Solar Powered Satellite Controller operates exclusively from solar power.
- Immediately connects to Signature’s Share™ platform of products, out of the box.
- Remote control via iOS devices such as iPhones® & iPads®.
- No complex keypad or display; simple operation via Smart Phones or web based iOS applications.
- Integrates to other Signature® products to expand the control network, making it ideal for remote control of other DC or battery operated valves or controllers.

Field Decoders & In-Line Surge Protection

- User-defined programmable addresses make it easy to setup and install without any complex equipment.
- User-defined station loading within the controllers allow for compensation for lengthy cable runs or additional decoder installations.
- By using the decoder programmer, change decoder (low power versions) addresses in the field, with ease.
- Field decoders are directly compatible to Signature Share™ platform as well as remotely controlled via iOS devices or SmartPhones.
- Each decoder modulator includes 125-individually programmable stations and each controller, is expandable to 250-stations with the addition of a additional module.
- Ease of installation has made decoders more popular around the world; together with the ease of future expansion by simple splice, install & go.
- Fully encapsulated electronic components making the decoders ready for direct burial.
- Pre-coded addressing eliminates confusion associated with switch-based addressing.
COMMERCIAL SATELLITE CONTROLLERS

FEATURES & BENEFITS

**Constellation® [CON] and Galaxy® [GAL] Satellite Controller’s**
Stand-alone controller’s or network satellites for commercial and sports turf applications

**NETWORK**
Patented true two-way communication (peer to peer) allows an Constellation® Satellite Controller to operate as a stand-alone controller or as part of a satellite network with or without a central computer [CON only]
- Sensor inputs allow satellites to monitor, store and share data from multiple sensors across a network [GAL requires CIU module to share network data].
- Hardwire, Ethernet and radio communications can be used on the same network.
- Cell phone and handheld radios can be used as remotes.
- Backward and forward compatible
- CON network can be monitored and controlled from and at any satellite through Signature’s patented Peer to Peer communication technology, through a central computer with Constellation® desktop software, or via the internet with our eConstellation® web service, or both for that matter.
- Hardwire ready configuration allows for quick and inexpensive installation of communication between satellites.

**SATELLITE CONTROLLER**
- Multilingual user interface
- Enable and disable commands with delay timer
- User-selectable, 12-hour or 24-hour clock format
- Semi-automatic, manual and delayed manual station control
- Global, controller/satellite, program water budgeting from 0-999%
- Open, Overload and short-circuit protection
- User-selectable Water Budget or ET-adjusted control for each irrigation schedule/program
- Master valves (2 N/C and 2 N/O) and local and remote pump capabilities and pump start
- Accommodates up to two sensors and shares an additional 4 sensors across a network [CON only & GAL requires an CIU module to share network data]
- Flow monitoring and reporting of over-flow or under-flow conditions
- Generates alarms, flow and status reports which can be transmitted to a user defined-location and/or stored in the local alarm log.
- Pedestal units can be configured for 96 traditional stations, or 250 decoder addresses (6 valve modules max. within a pedestal)
- Wall-mount units can be configured for 48 traditional stations, or 250 decoder addresses (3 valve modules max. within a wall mount)
- Manages 128 fully independent, customized schedules/programs [GAL has 32 fully independent, customized schedules/programs]
- Each schedule/program has 8 start times and can accommodate up to 48 events; stations can be run in any sequence and you have the capability to run the same station multiple times within the same schedule/program, each with a different run time if needed
- Programs can be linked to start when another program ends—from any satellite on the network [CON only]
- Each schedule/program has 8 start times and can accommodate up to 48 events; stations can be run in any sequence and you have the capability to run the same station multiple times within the same schedule/program, each with a different run time if needed
- Programs can be linked to start when another program ends—from any satellite on the network [CON only]
- Each schedule/program has a completely independent watering calendar which can be All Months, Months, Weeks, Odd/Even or interval up to 99 days
- Virtually unlimited flexibility for specific cycle scheduling/programming
- Multiple repeats and pauses within a schedule/program
- Suitable for hybrid applications where two-wire systems and traditional wired systems coincide

**COMMUNICATIONS OPTIONS**
- Hardwire (Standard)
- Digital Spread Spectrum Radio (License Free) [900 MHz and 2.4 GHz]
- Ethernet Modem

**REMOTE COMMUNICATIONS OPTIONS**
- Handheld Maintenance Radio [VHF]
- Cellular Phone (CDMA and GSM)
- Ethernet Modem

**Note:** Other options available — options vary by location; check with your local distributor.
## COMMERCIAL SATELLITES CONTROLLERS

### Summary Features List

#### COMMUNICATION FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>SATELLITES (24VAC)</th>
<th>SATELLITES (2-Wire)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer-to-Peer Communication</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

#### PROGRAMMING FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>SATELLITES (24VAC)</th>
<th>SATELLITES (2-Wire)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Zones (Wall Mount)</td>
<td>8-48</td>
<td>250</td>
</tr>
<tr>
<td>Number of Zones (Pedestal)</td>
<td>8-96</td>
<td>250</td>
</tr>
<tr>
<td>Remote Master Valve / Pump Starts</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Master Valve / Pump Starts</td>
<td>1 N/O, 4 N/O or N/C</td>
<td>1 N/O, 4 N/O or N/C</td>
</tr>
<tr>
<td>Number of Independent Programs Per Controller</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Start Times per Program</td>
<td>8</td>
<td>8</td>
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<tr>
<td>Multiple Start Types per Program</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Events per Program</td>
<td>48</td>
<td>48</td>
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<tr>
<td>Real Time Flow Sensing</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

#### SENSOR FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>SATELLITES (24VAC)</th>
<th>SATELLITES (2-Wire)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Sensors per Satellite</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Remote Sensors per Satellite</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Sharing of Sensor Data - from Interface Unit</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sharing of Sensor Data - from any Satellite</td>
<td>Coming Soon</td>
<td>✓</td>
</tr>
</tbody>
</table>

### DECODER OPTIONS

#### LOW POWER TYPE

- **CD-111LP:** Low Power Field Decoder; 1- address, 1-solenoid
- **CD-121LP:** Low Power Field Decoder; 2- addresses, 1-solenoid per address

#### STANDARD DECODER TYPE

- **CD-112:** Field Decoder; 1- address, up to 2-solenoids per address
- **CD-122:** Field Decoder; 2- addresses, up to 2-solenoids per address
- **CD-111:** Field Decoder; 1- address, 1-solenoid
- **CD-132:** Field Decoder; 3- addresses, up to 2-solenoids per address
- **CD-142:** Field Decoder; 4- addresses, up to 2-solenoids per address

### 2-WIRE ACCESSORIES

- **ACDEC1:** 125-Zone Decoder Modulator Board
- **ADPROG:** Decoder Field Programmer
- **TWSPK:** Decoder Surge Protection Kit

### CERTIFICATIONS:

- Part 15 Class B compliant

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www.SignatureControlSystems.com
COMMERICAL SATELLITE CONTROLLERS

Galaxy-RT™ Remote Access Point Controller

HOW IT WORKS

- Galaxy-RT™ is an internet-based central control system used for Commercial or Sports Turf Sites.
- Communicates with Galaxy-RT™ irrigation field controllers exclusively using cellular connectivity, and allows management of the controller from anywhere in the world via the internet or smart phone.
- Along with all the advantages of internet-based access to remote irrigation field controllers, Galaxy-RT™ provides a weather-based irrigation scheduling option.
- Location-specific weather data (ET) is delivered daily to irrigation controllers which allow the realization of quantifiable water savings and reduced operational costs.
- Smart watering software via the Signature Share™ platform makes the Galaxy-RT™, a very powerful controller right out of the box. Truly a plug and play controller; no complex radio site surveys or hardwire installation expense. (May require a cellular data plan from your local carrier.)

FEATURES & BENEFITS

REMOTE ACCESS
- Galaxy-RT™ is accessible from any internet capable computer anywhere in the world
- Compatible with our Signature Share™ platform as well as remotely controlled via iOS devices or SmartPhones.
- Remotely monitor sites from one location or an infinite number of locations
- All programs are stored in the controller once downloaded, and are available 24/7 on our secure server

COST EFFECTIVE
- Galaxy-RT™ requires no expensive desktop software purchases or support plans
- Eliminates the need for dedicated irrigation computer and extended service plans
- Abolishes time consuming software upgrades and related programming

EASY TO USE
- Galaxy-RT™ requires no extensive backups; we handle all upgrades, support and maintenance
- Upgrades are uploaded seamlessly; when you log on they are ready
- Menus are user friendly and intuitive using graphical user interface

WEATHER-BASED IRRIGATION SCHEDULING (ET) [OPTIONAL SERVICE]
- Galaxy-RT™ uses real-time weather data (ET) and transmits it to each controller
- Smart-Water programming allows the controller to precisely irrigate each micro climate individually by programming all agronomical attributes of the irrigated landscape, saving water, time, and expense
- Eliminates requirement to purchase a weather station or other weather services

Note:
Data rates may apply given site geography, region of the world and Local Service Providers.

SPECIFICATIONS

DIMENSIONS (H X W X D)

Wall Mount
18” (46 cm) x 14” (36 cm) x 4¼” (36 cm)

CERTIFICATIONS:

Part 15 Class B compliant

Wall Mount Enclosure

Plastic Pedestal Enclosure

Download on the Apple App Store

Download on the Android App Store

Download on the Google Play Store
FEATURES

Galaxy-RT™ Solar

- Signature Share™ web based ET capable controller.
- Operates on Solar power.
- 6-zone 12V DC Latching output.
- Indoor/Outdoor Enclosure, Pole mounted system (optional).
- Connects directly to Signature Share™ cellular network, via Signature® proprietary designed data modem, right out of the box.
- Integrates to other Signature® products to expand the control network, making it ideal for remote control of other DC or battery operated valves or controllers.
- No complex keypad or display; simple operation via Smart Phones, web based devices, or iOS applications.
- Integrated short-haul data radio to communicate to any access point controllers compatible with the Signature Share™ platform. (coming soon)
- Connect to 8018S and 8028S actuators for expanded remote control of far to reach zones. (coming soon)

Note:

* May require site specific solar panel
* Sold as a kit

SPECIFICATIONS

DIMENSIONS (H X W X D)

Wall Mount
18” (46 cm) x 14” (36 cm) x 4¼” (36 cm)

CONTROLLERS
GOLF SATELLITES CONTROLLERS
# GOLF SATELLITE CONTROLLERS

<table>
<thead>
<tr>
<th>Summary Features List</th>
<th>GOLF CONTROLLERS SATELLITES (24VAC)</th>
<th>DECODER CONTROLLERS SATELLITES (2-Wire)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enclosure Type</td>
<td>Golf</td>
<td>Golf</td>
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<tr>
<td>Network Communication</td>
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<tr>
<td>Stand-Alone Controller</td>
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<td>✓</td>
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<tr>
<td>Peer-to-Peer Communication</td>
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<tr>
<td>Hybrid Communication</td>
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<tr>
<td>Wireless Communication</td>
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<tr>
<td>Local Sensors</td>
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<tr>
<td>Network Sensing</td>
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<tr>
<td>Central Control</td>
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<tr>
<td>Upgradeable</td>
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<tr>
<td>Aurora® Desktop</td>
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<td>eAurora®</td>
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<td>Share™ Network</td>
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<td>✓</td>
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<tr>
<td>Other</td>
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<tr>
<td>Uses Decoder Modules</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Uses Valve Modules</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hybrid of Output</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
PRODUCT OVERVIEW

GOLF SATELLITE CONTROLLER FAMILY

**AURORA LT®**
- The **Aurora LT™** Satellite Controller delivers the ultimate in power at an affordable price.
- Aurora LT™ is designed to operate as a stand-alone controller or as a satellite in a central controlled system.
- Aurora LT™ is easy to operate with flexible configuration and communication options.
- Aurora LT™ firmware can be upgraded in the field to a fully configured Aurora® version allowing the user full access to our patented Peer-to-Peer networking features.
- Available in several languages.
- All controllers are intelligent and smart; meaning, they don’t need constant contact with central computers or expensive software packages to operate.
- Available in both 24VAC or 2-wire configurations and a hybrid of both, without the need for Central Software.
- Ability to communicate over the internet and via SmartPhone technology with Signature® mobile software.

**AURORA-RT™**
- The **Aurora-RT™** Satellite Controller operates exclusively in a central controlled environment.
- Immediately connects to Signature’s Share™ platform of products, out of the box.
- No complex keypad or display; simple operation via Smart Phones or web based iOS applications.
- Ability to control via the internet from anywhere without requiring expensive local communications infrastructure.
- Ease of installation makes the Aurora-RT™ the choice of Contractors.
- Control standard solenoids via 24VAC wiring or 2-wire decoder configurations.

**AURORA®**
- The **Aurora®** Satellite Controller delivers the ultimate in power, ease and value.
- Aurora® is designed to function as a stand-alone controller or as a satellite in a network with or without a central computer.
- No need to have software to operate; intelligent processors store data and operate independently of the network.
- Available in several languages.
- Remote control of stations located in remotely located Aurora® controllers from anywhere on the Signature® network, via Signature’s peer-to-peer technology.
- Each Aurora® Satellite Controller is like having a central computer in the field for unprecedented control and unparalleled value.
- Aurora® is easy to operate with flexible configuration and communication options.
- Fits every golf and commercial application—from golf courses, parks, sports complexes, and business parks—to cemeteries, theme parks, HOAs.
- Suitable for hybrid applications where two-wire systems and traditional wired systems coincide.
- Expansion made easy with a modular output design.
DECODE CONTROLLER FAMILY

Field Decoders & In-Line Surge Protection

- User-defined programmable addresses make it easy to setup and install without any complex equipment.
- User-defined station loading within the controllers allow for compensation for lengthy cable runs or additional decoder installations.
- By using the decoder programmer, change decoder (low power versions) addresses in the field, with ease.
- Field decoders are directly compatible to Signature Share™ platform as well as remotely controlled via iOS devices or SmartPhones.
- Each decoder modulator includes 125-individually programmable stations and each controller is expandable to 250-stations with a single expansion module.
- Ease of installation has made decoders more popular around the world; together with the ease of future expansion by simple splice, install & go.
- Fully encapsulated electronic components making the decoders ready for direct burial.
- Pre-coded addressing eliminates confusion associated with switch-based addressing.

* SCS Share Website System Requirements
  Supported Browsers (JavaScript Enabled):
  - Internet Explorer 9+
  - Google Chrome 30+
  - Mozilla Firefox 24+
  - Safari 3+

Other Requirements:
  - Adobe Flash Player
  - Best viewed at 1024 x 768 or higher resolution
GOLF SATELLITE CONTROLLERS

AuroraLT™
Aurora®
AuroraLT™ Decoder
Aurora® Decoder

FEATURES

Aurora® [AUR] and Aurora® LT [ALT] Satellite Controller’s Stand-alone controller’s or network satellites for golf courses

NETWORK
Patented true two-way communication (peer to peer) allows an Aurora® Satellite Controller to operate as a stand-alone controller or as part of a satellite network with or without a central computer (AUR only)

• Sensor inputs allow satellites to monitor, store and share data from multiple sensors across a network (ALT requires AIU module to share network data)
• Hardwire, Ethernet and radio communications can be used on the same network
• Cell phones and handheld radios can be used as remotes
• Backward and forward compatible
• AUR network can be monitored and controlled from and at any satellite through Signature’s patented Peer to Peer communication technology, through a central computer with Aurora® desktop software, or via the internet with our eAurora® web service, or both for that matter
• Hardwire ready configuration allows for quick and inexpensive installation of communication between satellites

SATELLITE CONTROLLER
• Multilingual user interface
• Enable and disable commands with delay timer
• User-selectable, 12-hour or 24-hour clock format
• Semi-automatic, manual and delayed manual station control
• Global, controller/satellite, program water budgeting from 0-999%
• Open, Overload and short-circuit protection
• User-selectable Water Budget or ET-adjusted control for each irrigation schedule/program
• Master valves (2 N/C and 2 N/O) and local and remote pump capabilities and pump start
• Accommodates up to two sensors and shares an additional 4 sensors across a network (AUR only & ALT requires an AIU module to share network data)
• Flow monitoring and reporting of over-flow or under-flow condition
• Generates alarms, flow and status reports which can be transmitted to a user-defined location and/or stored in the local alarm log
• Pedestal units can be configured for 96 traditional stations, or 250 decoder addresses (6 valve modules max. within a pedestal)
• Wall-mount units can be configured for 48 traditional stations, or 250 decoder addresses (3 valve modules max. within a wall mount)
• Manages 128 fully independent, customized schedules/programs (ALT has 32 fully independent, customized schedules/programs)
• Each schedule/program has 8 start times and can accommodate up to 48 events; stations can be run in any sequence and you have the capability to run the same station multiple times within the same schedule/program, each with a different run time if needed
• Programs can be linked to start when another program ends—from any satellite on the network (AUR only)
• Each schedule/program has a completely independent watering calendar which can be All Months, Months, Weeks, Odd/Even or interval up to 99 days
• Virtually unlimited flexibility for specific cycle scheduling/programming
• Multiple repeats and pauses within a schedule/program
• Suitable for hybrid applications where two-wire systems and traditional wired systems coincide

NETWORK COMMUNICATIONS OPTIONS
• Hardwire (Standard)
• Digital Spread Spectrum Radio (License Free) [900 MHz and 2.4 GHz]
• Ethernet Modem

REMOTE COMMUNICATIONS OPTIONS
• Handheld Maintenance Radio [VHF]
• Landline
• Cellular Phone (CDMA and GSM)
• Ethernet Modem

Note:
Other options available — options vary by location; check with your local Signature Regional Manager
## Summary Features List

**COMMUNICATION FEATURES**

<table>
<thead>
<tr>
<th>Feature</th>
<th>SATELLITES (24VAC)</th>
<th>SATELLITES (2-Wire)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer-to-Peer Communication</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**PROGRAMMING FEATURES**

<table>
<thead>
<tr>
<th>Feature</th>
<th>SATELLITES (24VAC)</th>
<th>SATELLITES (2-Wire)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Zones (Wall Mount)</td>
<td>8-48</td>
<td>250</td>
</tr>
<tr>
<td>Number of Zones (Pedestal)</td>
<td>8-96</td>
<td>250</td>
</tr>
<tr>
<td>Remote Master Valve / Pump Starts</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Master Valve / Pump Starts</td>
<td>1 N/O, 4 N/O or N/C</td>
<td>2 N/O, 2 N/C</td>
</tr>
<tr>
<td>Number of Independent Programs Per Controller</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Start Times per Program</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Multiple Start Types per Program</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Events per Program</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Real Time Flow Sensing</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**SENSOR FEATURES**

<table>
<thead>
<tr>
<th>Feature</th>
<th>SATELLITES (24VAC)</th>
<th>SATELLITES (2-Wire)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Sensors per Satellite</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Remote Sensors per Satellite</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Sharing of Sensor Data - from Interface Unit</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sharing of Sensor Data - from any Satellite</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

## DECODER OPTIONS

### LOW POWER TYPE

- **AD-111LP**: Low Power Field Decoder; 1- address, 1-solenoid
- **AD-121LP**: Low Power Field Decoder; 2- addresses, 1-solenoid per address

### STANDARD DECODER TYPE

- **AD-112**: Field Decoder; 1- address, up to 2-solenoid per address
- **AD-122**: Field Decoder; 2- addresses, up to 2-solenoids per address
- **AD-111**: Field Decoder; 1- address, 1-solenoid
- **AD-132**: Field Decoder; 3- addresses, up to 2-solenoids per address
- **AD-142**: Field Decoder; 4- addresses, up to 2-solenoids per address

## 2-WIRE ACCESSORIES

- **ACDEC1**: 125-Zone Decoder Modulator Board
- **ADPROG**: Decoder Field Programmer
- **TWSPK**: Decoder Surge Protection Kit

## CERTIFICATIONS:

- Part 15 Class B compliant

www.SignatureControlSystems.com
FEATUTRES & BENEFITS

REMOTE ACCESS
- Aurora-RT™ is accessible from any internet capable computer anywhere in the world
- Compatible with our Signature Share™ platform as well as remotely controlled via iOS devices or SmartPhones.
- Remotely monitor sites from one location or an infinite number of locations
- All programs are stored in the controller once downloaded, and are available 24/7 on our secure server

COST EFFECTIVE
- Aurora-RT™ requires no expensive desktop software purchases or support plans
- Eliminates the need for dedicated irrigation computer and extended service plans
- Abolishes time consuming software upgrades and related programming

EASY TO USE
- Aurora-RT™ requires no extensive backups; we handle all upgrades, support and maintenance
- Upgrades are uploaded seamlessly; when you log on they are ready
- Menus are user friendly and intuitive using graphical user interface

WEATHER-BASED IRRIGATION SCHEDULING (ET) [OPTIONAL SERVICE]
- Aurora-RT™ uses real-time weather data (ET) and transmits it to each controller
- SmartWater programming allows the controller to precisely irrigate each micro climate individually by programming all agronomical attributes of the irrigated landscape, saving water, time, and expense
- Eliminates requirement to purchase a weather station or other weather services

Note:
Data rates may apply given site geography, region of the world and Local Service Providers.
ENCLOSURE OPTIONS

Plastic Pedestal:
• Black Granite, Green Granite, Gray Granite, Tan

Wall Mount:
• Large (Indoor/Outdoor Mount), Gray Only

Heavy-Duty Stainless Steel:
• Top Opening or Front Opening

SENSOR OPTIONS
Accepts both Pulse (standard) and 4-20mA (optional equipment required) sensors

Pulse Sensors:
• ET Gauge
• Tipping Rain Bucket
• Rain Switch
• Flow Meter
• Frost / Temperature
• Any On/Off or Active/Non-Active

4-20mA Sensors:
• Soil Temperature
• Soil Moisture
• Flow
• Pressure

VALVE MODULE OPTIONS
A style = 16 station (small terminals)
B style = 8 station (large terminals)
C style = 16 station (large terminals, pedestals only)
D style = 125 address decoder

ELECTRICAL

Input Power
• 110/117VAC, 60 Hz or 220/240VAC, 50 Hz
• 0.20 Amps @ 115VAC, 60 Hz (no load)
• 0.80 Amps @ 115VAC, 60 Hz (max. load)

Station Output Power
• 24 VAC (120VA) total
• Station draw: max. 3 solenoids per station.
• 14 stations simultaneously (max. 3.2 Amps)

DIMENSIONS (H X W X D)

Metal Wall Mount
• 18” (46 cm) x 14” (36 cm) x 4¾” (36 cm)

Plastic Pedestal
• 45” (114 cm) x 16” (41 cm) x 115/8” (30 cm)
### Example:
Constellation Signature series controller in a black plastic pedestal with 110 volt transformer, using 16 station small terminal valve modules with premium surge protection, 16 stations with hardwire communications and no remote access. The final part number would be: **CONSPEB1AP016H0**

**NOTE:** Not all combinations are available. Check with your local distributor for details.
## CENTRAL CONTROL

### COMMERCIAL/TURF

<table>
<thead>
<tr>
<th>Summary Features List</th>
<th>iOS Share™</th>
<th>WEB Share™</th>
<th>WEB eConstellation® LITE</th>
<th>WEB eConstellation® PRO</th>
<th>DESKTOP Constellation® Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Applications</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial / Municipal</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>✗</td>
</tr>
</tbody>
</table>

### STANDARD FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>iOS Share™</th>
<th>WEB Share™</th>
<th>WEB eConstellation® LITE</th>
<th>WEB eConstellation® PRO</th>
<th>DESKTOP Constellation® Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote Access from any Internet Computer</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24/7 Availability</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic Software Upgrades</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satellite Firmware Upgrades</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic Data Backups</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET Based Scheduling [Web or W/S]</td>
<td>Web</td>
<td>Web</td>
<td>Web</td>
<td>Web</td>
<td>W/S</td>
</tr>
<tr>
<td>Multi-level Access with Passwords</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real-Time 2-Way Communication</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatible with all EZ PRO® 8600 Series Controllers</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatible with all Galaxy™ Satellites</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatible with all Constellation® Satellites</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatible with Radio Networks</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatible with Hardwire Networks</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatible with Web Based Networks</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatible with Decoder Networks</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### NETWORK SOFTWARE FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>iOS Share™</th>
<th>WEB Share™</th>
<th>WEB eConstellation® LITE</th>
<th>WEB eConstellation® PRO</th>
<th>DESKTOP Constellation® Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual Operation</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rain Shutdown</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Programming</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budget Adjust</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report Generation</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controller Setup</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graphical Map</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Programming</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow Management</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Projected Flow (Dry Run)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
PRODUCT OVERVIEW - COMMERCIAL

Online Central Control (web based)
The eSignature® Series of Online Central Control or Online Management Systems are internet-based central control system for irrigation control and water management. Communicating with remote irrigation field controllers with wireless connectivity, and allows you management of sites from anywhere in the world via the internet.

Along with all the advantages of internet-based access to remote irrigation field controllers, the eSignature® Series of internet-based central control provides optional weather-based irrigation scheduling. Location-specific weather data (ET) is delivered daily to irrigation controllers which allow the realization of quantifiable water savings and reduced operational costs.

SIGNATURE SHARE™
- **Signature Share™** control all Signature® devices that are compatible with the Share platform.
- No need for expensive computers or software to control irrigation controllers.
- Easily connect to your controllers from anywhere.
- Access to every controller function available on the web.
- Smart Watering wizard to quickly guide you to the most efficient watering.

eCONSTELLATION® LITE
- **eConstellation® Lite** is accessible from any internet capable computer anywhere in the world
- Requires no expensive desktop software purchases or support plans
- Eliminates need for dedicated irrigation computer and extended service plans
- Abolishes time consuming software upgrades and related programming

eCONSTELLATION® PRO
- **eConstellation® Pro** flow manages from anywhere and downloads to your satellite network
- Remotely monitor sites—across the city, state, or world—from one location or an infinite number of locations
- All programs and site data are stored in your personal and secure eConstellation® account
- Multi-user environment with multi-level passwords and access controls
Online Central Control (web based continue)

**iOS – iPhone® & iPad® App**

- Control all Signature® devices that are compatible with the Share platform.
- No need for expensive computers or software to control irrigation controllers.
- Easily connect to your controllers from anywhere.
- Access to every controller function available on the web.
- Smart Watering wizard to quickly guide you to the most efficient watering.
- Interface designed specifically for easy use on the go.
- Works on all Apple devices newer than iPhone® 3G and iOS 4.2 +.

**Desk Top Central Control (PC based)**

**Constellation® Professional** software is the classical Personal Computer (PC) based system for irrigation control and water management. It has the capability of Manual Programming, Group Programming and Flow Managed Programming. It works with local Weather Stations and Environmental Sensors for programming and scheduling.

**Constellation® PROFESSIONAL**

- Works with your existing Constellation® network
- Works with hardwire, local radio, or any hybrid version
- Works with traditional valves, decoders, or any combination of the two
- Flow Management: Limits flow within the irrigation system to eliminate the possibility of excessive demand placed on the pumps and piping; Capable of determining the most efficient distribution of water flow within specific limitations set by the operator.

**Constellation® Interface Unit**

- The **Constellation® Interface Unit** is the interface between the Constellation® Desktop Software and the Constellation® controllers in the field.
- All controllers are intelligent and smart; meaning, they don’t need constant contact with central computers or expensive software packages to operate.
- Not just an interface, but also a controller; can operate standard wired 24VAC solenoids or 2-wire decoders operating 24VAC solenoids.
- Available in several languages.
- Remote control of stations located in remotely located Constellation® controllers from anywhere on the Signature® network via Signature’s peer-to-peer technology.
- Perfect for sites that are under construction or the As-Built design is incomplete; program the site via the Interface Unit and once the design is loaded on the desktop, upload all the programs from the field and you are ready.
- Constellation® is easy to operate with flexible configuration and communication options.

* SCS Share Website System Requirements
  * Supported Browsers (JavaScript Enabled):
    - Internet Explorer 9+
    - Google Chrome 30+
    - Mozilla Firefox 24+
    - Safari 5+

* Other Requirements:
  - Adobe Flash Player
  - Best viewed at 1024 x 768 or higher resolution
SIGNATURE SHARE™ - COMMERCIAL/TURF

FEATURES & BENEFITS

REMOTE ACCESS
- SIGNATURE SHARE™ is accessible from any internet capable computer anywhere in the world
- Remotely monitor sites from one location or an infinite number of locations
- All programs are stored in the controller once downloaded, and are available 24/7 on our secure server

COST EFFECTIVE
- SIGNATURE SHARE™ requires no expensive desktop software purchases or support plans
- Eliminates need for dedicated irrigation computer and extended service plans
- Abolishes time consuming software upgrades and related programming

EASY TO USE
- SIGNATURE SHARE™ requires no extensive backups; we handle all upgrades, support and maintenance
- Upgrades are uploaded seamlessly; when you log on they are ready
- Menus are user friendly and intuitive using graphical user interface

WEATHER-BASED IRRIGATION SCHEDULING (ET) [OPTIONAL SERVICE]
- SIGNATURE SHARE™ uses real-time weather data (ET) and transmits it to each controller
- Smart controller functions save water, time, and expense
- Eliminates requirement to purchase a weather station or other weather services
- The addition of a SIGNATURE SHARE™ communications board makes your existing or new SIGNATURE SHARE™ controller live on the web
- SIGNATURE SHARE™ accesses any new or existing SIGNATURE SHARE™ compatible products with the addition of a single communications board

SMART WATERING APPLICATION
- Configure site agronomics to effectively control irrigation.
- Uses state of the art ET tracking data to replenish crop demands.
- By operating in this mode, eliminates the expense and maintenance of remote sensors or weather stations.
- Totally seamless downloading of ER data and together with site data, will only apply the required irrigations needs … not anything more.
- No need for expensive computers or software to control irrigation controllers.

STANDARD WATERING APPLICATION
- Operate the controller from the ease of your iPhone® or iPad® without complicated manuals or frustrations.
- Simple programming tools effectively guide through setup and operation.
- Integrates with optional ET download for automatic updating of programs.
- Web based software means always the most current user interface.
- Available in multiple languages.

HOW IT WORKS
SIGNATURE SHARE™ is an internet-based central control system used with SIGNATURE SHARE™ compatible products. It communicates with SIGNATURE SHARE™ irrigation field controllers using cellular connectivity, and allows management of controller from anywhere in the world via the internet.

Along with all the advantages of internet-based access to remote irrigation field controllers, SIGNATURE SHARE™ provides a weather-based irrigation scheduling option. Location-specific weather data (ET) is delivered daily to irrigation controllers which allows the realization of quantifiable water savings and reduced operational costs. The exciting features of SIGNATURE SHARE™ can be added to all SIGNATURE SHARE™ compatible products, without any changes to the controller other than the addition of a single communications modem board. (May require a cellular data plan from your local carrier)

* SCS Share Website System Requirements
  - Supported Browsers (JavaScript Enabled):
    - Internet Explorer 9+
    - Google Chrome 30+
    - Mozilla Firefox 24+
    - Safari 5+
  - Other Requirements:
    - Adobe Flash Player
    - Best viewed at 1024 x 768 or higher resolution
SIGNATURE SHARE™ - COMMERCIAL/TURF

USAGE EXAMPLE: SIGNATURE SHARE™ — Single User / Single Site

SIGNATURE SHARE is accessible from any internet capable computer anywhere in the world

iPhone, iPad, Android
Desktop/Laptop: MAC & PC

Tech Support

USAGE EXAMPLE: SIGNATURE SHARE™ — Multiple Users / Multiple Sites

Remotely monitor sites from one location or an infinite number of locations

iPhone, iPad, Android
Desktop: MAC & PC
Laptop: MAC & PC

Tech Support
eCONSTELLATION® LITE/PRO

HOW IT WORKS

eConstellation® is an internet-based central control system for use with Constellation® and Galaxy™ Series controllers. It communicates with remote irrigation field controllers using wireless connectivity, and allows management of controller from anywhere in the world via the internet. Along with all the advantages of internet-based access to remote irrigation field controllers, eConstellation® provides a weather-based irrigation scheduling option. Location-specific weather data (ET) is delivered daily to irrigation controllers which allow the realization of quantifiable water savings and reduced operational costs.

The exciting features of eConstellation® can be added to all Constellation® and Galaxy™ Series controllers and networks without any changes to the controller other than the addition of a single communications modem board. (May require a cellular data plan from your local carrier.)

USAGE EXAMPLE: eConstellation® — Single User / Multiple Controller Site

eConstellation accesses any new or existing Constellation network system with the addition of a single eConstellation modem.
**FEATURES & BENEFITS**

**REMOTE ACCESS**
- eConstellation® is accessible from any internet capable computer anywhere in the world
- All programs and site data are stored on our secure server and available 24/7
- Remotely monitor sites - across the city, state, or world - from one location or an infinite number of locations
- All programs and site data are stored in your personal and secure eConstellation® account
- Multi-user environment with multi-level passwords and access controls
- Operate on iOS Share

**COST EFFECTIVE**
- eConstellation® requires no expensive desktop software purchases or support
- Eliminates need for dedicated irrigation computer and extended service plans
- Abolishes time consuming software upgrades and related programming
- Billing is available in annual or monthly installments
- For seasonal users, access fees are waived during “off” months

**EASY TO USE**
- eConstellation® requires no extensive backups; we handle all upgrades, support and maintenance
- Upgrades are uploaded seamlessly; when you log on they are ready
- Menus are user friendly and intuitive using graphical user interface
- On-screen help menus provide user with detailed instructions for simple set-up and fast launch
- Online trouble shooting to read alarms, events, and flow meters

**WEATHER-BASED IRRIGATION SCHEDULING (ET) [OPTIONAL SERVICE]**
- eConstellation® uses real-time weather data (ET) and transmits it to each controller in your network
- Smart controller functions save water, time, and expense
- Eliminates requirement to purchase a weather station or other weather services
- Removes any vandalism and maintenance issues with weather stations and sensors
- Irrigate using ET from installation of first controller

**HIGH PERFORMANCE:**
- eConstellation® accesses any new or existing Constellation® network system with the addition of a single eConstellation® modem
- Enjoy the same power and performance of your Constellation® networks with no hardware modifications
- Only one access point is required in each Constellation® network
- Hardwire, radio, fiber optic or Ethernet communications can be combined on the same network
- Flexible programming operates lighting, fountains, security gates and locks, etc
- The addition of an eConstellation® web modem makes your existing or new Constellation® network on the web
- eConstellation® accesses any new or existing Constellation® controller network with the addition of a single GPRS modem

**FLOW MANAGEMENT (PRO VERSION ONLY):**
- All the features of Lite PLUS the ability to flow manage your site
- Optimizes water usage over multiple controller site
- Checks to see that watering fits within water window
- Graphical representation of flow for ease of verification
- Irrigation is easily scheduled to meet complex watering parameters
**eCONSTELLATION® LITE**
**eCONSTELLATION® PRO**

**USAGE EXAMPLE:** eConstellation® — Multiple Users / Multiple Controller Sites with Multiple Satellites

- **eConstellation** accesses any new or existing Constellation network system with the addition of a single **eConstellation** modem.

- Remotely monitor sites - across the city, state, or world - from one location or an infinite number of locations.

- Multi-user environment with multi-level passwords and access controls.

- eConstellation requires no extensive backups; we handle all upgrades, support and maintenance.

[www.eConstellation.com](http://www.eConstellation.com)
Only one access point is required in each Constellation network.

SITE A: Hardwire Communication Network

SITE B: Radio Communication Network

SITE C: Hybrid Communication Network
(Combines both Hardwire and Radio communication)

Works with traditional valves and field decoders (even when both are connected to the same satellite)
**CONSTELLATION® PROFESSIONAL**

**HOW IT WORKS**

**Constellation® Professional** is the traditional-type of central control system for use with Constellation® and Galaxy™ Series controllers. It communicates with remote irrigation field controllers using hardwire, local radio (900MHz or 2.4 GHz Digital Spread Spectrum), Ethernet, and allows management of satellite controllers from one irrigation computer with irrigation software resident on the computer. The features of Constellation® Professional can be added to all Constellation® and Galaxy™ Series controllers and networks without any changes to the controller or network. All that is required is (a) an Interface Unit located in close proximity to the irrigation computer to facilitate the field connection, or (b) an Ethernet connection and Ethernet modem in one of the Satellite controllers in the Constellation® network.

Constellation® Professional provides weather-based irrigation scheduling option using a local weather station. ET data is delivered daily to irrigation controllers which allow the realization of quantifiable water savings and reduced operational costs.

**USAGE EXAMPLE: Constellation® Professional — Single User / Multiple Controller Site**

- **Interface Unit**
- **Networked Satellite Controllers**

**Hardwire Communication**

- **Valve**
- **Sensor**

*Multiple networking options combining Hardwire and Radio communication are available*
FEATURES & BENEFITS

NETWORK COMMUNICATION – UNLIMITED OPTIONS
Communication options for Constellation® Networks include hardwire, local radio (900 MHz and 2.4 GHz digital spread spectrum radio), cellular phone, Ethernet, fiber-optics, Wi-Fi and others. (Not all options are available in all areas. Contact your local dealer for options available for your specific area.)

CENTRAL COMMUNICATION – STANDARD AND REMOTE OPTIONS
Communications options between the central irrigation computer and the Constellation® satellite controllers include all those listed above PLUS the ability to access the network from anywhere in the world where you can get an internet connection from your computer.

SHARE PLATFORM
Integrates peripheral products such as sensors, battery actuated valves into the system, making a vast network of control options. Merges the power of peer-to-peer to smart valves and improved water management. Reduces installation costs by reducing the amount of copper & trenching. Powerful cross-pollination abound with integration of Signature Share™ platform for future expansion opportunities.

NETWORK MONITORING – ROBUST INTELLIGENCE
The Constellation® network monitors itself continuously and can make use of six sensor inputs per satellite controller (2 direct; 4 indirect). The satellite controllers can monitor and adjust to flow, rain (on/off), rain fall adjustments, wind, moisture, temperature or virtually any other sensor to adjust and take action in real time… without the need for the central computer to even be on.

SOFTWARE FEATURES (PARTIAL LIST)
• Graphical User Interface
• Weather station monitoring for automated ET-adjusted irrigation schedule
• Automated ET (with optional equipment)
• Flow Management
• Event Calendar Scheduling
• Manual station control
• Dry Run and monitor irrigation water windows
• Operates lighting, fountains, security gates, etc.
• English and metric units
• Multilingual instructions

REMOTE OPTION
Untether your control! Move to a laptop and an Ethernet modem in one of your Constellation® network satellite controllers and use your computer anywhere in the world where you can get to the Internet. STANDARD!

CONTROL FEATURES
Irrigation cycles are easily scheduled to meet varying and complex watering requirements. Cycles can be scheduled with some of the following:
• Standard Start Times
• Stop Times
• Link Start Times
• Water Days
• Intervals
• Program Specific Water Budget
• Controller Specific Water Budget
• Sequential or Parallel Start Event Operation
• Automatic ET Control
• Sensor Starts or Stops or Pauses

OTHER FEATURES
Self-monitoring feature finds open/short circuits, activates alarms/pagers, and shuts down automatically if necessary. Hardwire and radio communications can be used on the same network
Independent programming allows control of each station in any sequence, with multiple repeats and pauses.
True two-way communication between central controls and satellites.

REMOTE TECHNICAL SUPPORT
High-speed technical support from the factory via an internet connection.
## Summary Features List

<table>
<thead>
<tr>
<th>APPLICATIONS</th>
<th>iOS Share™</th>
<th>WEB Share™</th>
<th>WEB eAurora® Pro</th>
<th>DESKTOP Aurora® Professional</th>
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<tr>
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### STANDARD FEATURES

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### SOFTWARE FEATURES

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<tr>
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<th>WEB eAurora® Pro</th>
<th>DESKTOP Aurora® Professional</th>
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PRODUCT OVERVIEW - GOLF

Online Central Control (web based)

The eSignature® Series of Online Central Control or Online Management Systems are internet-based central control system for irrigation control and water management. Communicating with remote irrigation field controllers with wireless connectivity, and allows you management of sites from anywhere in the world via the internet.

Along with all the advantages of internet-based access to remote irrigation field controllers, the eSignature® Series of internet based central control provides optional weather-based irrigation scheduling. Location-specific weather data (ET) is delivered daily to irrigation controllers which allow the realization of quantifiable water savings and reduced operational costs.

Standard Watering Application

- Easily operate your controller from your iPhone® or iPad® from anywhere, web based operation with no complicated manuals.
- Simple programming tools effectively guide through setup and operation.
- Integrates with optional ET download for automatic updating of programs.
- Web based software means always the most current user interface.
- Available in multiple languages soon.

Smart Watering Application

- Configure site agronomics to effectively control irrigation.
- Uses state of the art ET tracking data to replenish crop demands.
- Operating in this mode, eliminates the expense and maintenance of remote sensors or weather stations.
- Totally seamless downloading of ET data and together with site data, will only apply the required irrigation needs … Nothing more..
- No need for expensive computers or software to control irrigation controllers.

eAURORA® LITE

- eAURORA® Lite is accessible from any internet capable computer anywhere in the world
- Requires no expensive desktop software purchases or support plans
- Eliminates need for dedicated irrigation computer and extended service plans
- Abolishes time consuming software upgrades and related programming
Online Central Control (web based continue)

**eAURORA® PRO**
- **eAURORA® Pro** flow manages from anywhere and downloads to your satellite network
- Remotely monitor sites—across the city, state, or world—from one location or an infinite number of locations
- All programs and site data are stored in your personal and secure eAurora® account
- Multi-user environment with multi-level passwords and access controls

**Central Control (PC based)**
**AURORA® Professional** software is the classical Personal Computer (PC) based system for irrigation control and water management. It has the capability of Manual Programming, Group Programming and Flow Managed Programming. It works with local Weather Stations and Environmental Sensors for programming and scheduling.

**AURORA® PROFESSIONAL**
- Works with your existing Aurora® network
- Works with hardwire, local radio, or any hybrid version
- Works with traditional valves, decoders, or any combination of the two
- Flow Management: Limits flow within the irrigation system to eliminate the possibility of excessive demand placed on the pumps and piping; Capable of determining the most efficient distribution of water flow within specific limitations set by the operator.

**AURORA® Interface Unit**
- The **Aurora® Interface Unit** is the interface between the Aurora® Desktop Software and the Aurora® controllers in the field.
- All controllers are intelligent and smart; meaning, they don’t need constant contact with central computers or expensive software packages to operate.
- Not just an interface, but also a controller; can operate standard wired 24VAC solenoids or 2-wire decoders operating 24VAC solenoids.
- Available in several languages.
- Using Signature’s patented peer-to-peer technology you can control stations anywhere on you site remotely.
- Perfect for sites that are under construction or the As-Built design is incomplete; program the site via the Interface Unit and once the design is loaded on the desktop, upload all the programs from the field and you are ready.
- Aurora® is easy to operate with flexible configuration and communication options.
SIGNATURE SHARE™ - GOLF
**USAGE EXAMPLE: SIGNATURE SHARE™ — Single User / Single Site**

SIGNATURE SHARE is accessible from any internet capable computer anywhere in the world.

*WaterSense Compliant System*

---

**USAGE EXAMPLE: SIGNATURE SHARE™ — Multiple Users / Multiple Sites**

Remotely monitor sites from one location or an infinite number of locations.

*WaterSense Compliant System*
eAURORA® LITE/PRO

**HOW IT WORKS**

eAurora® is an internet-based central control system for use with Aurora® and AuroraLT™ Series controllers. It communicates with remote irrigation field controllers using wireless connectivity, and allows management of controller from anywhere in the world via the internet. Along with all the advantages of internet-based access to remote irrigation field controllers, eAurora® provides an weather-based irrigation scheduling option. Location-specific weather data (ET) is delivered daily to irrigation controllers which allow the realization of quantifiable water savings and reduced operational costs. The exciting features of eAurora® can be added to all Aurora® and AuroraLT™ Series controllers and networks without any changes to the controller other than the addition of a single communications modem board. (May require a cellular data plan from your local carrier.)

**USAGE EXAMPLE: eAurora® — Single User / Multiple Controller Site**

eAurora® LITE

eAurora® PRO
FEATURES & BENEFITS

REMOTE ACCESS
- eAurora® is accessible from any internet capable computer anywhere in the world
- All programs and site data are stored on our secure server and available 24/7
- Remotely monitor sites - across the city, state, or world - from one location or an infinite number of locations
- All programs and site data are stored in your personal and secure eAurora® account
- Multi-user environment with multi-level passwords and access controls

WEATHER-BASED IRRIGATION SCHEDULING (ET):
- eAurora® uses real-time weather data (ET) and transmits it to each controller in your network
- Smart controller functions save water, time, and expense
- Eliminates requirement to purchase a weather station or other weather services
- Removes any vandalism and maintenance issues with weather stations and sensors
- Irrigate using ET from installation of first controller

COST EFFECTIVE
- eAurora® requires no expensive desktop software purchases or support
- Eliminates need for dedicated irrigation computer and extended service plans
- Abolishes time consuming software upgrades and related programming
- Billing is available in annual or monthly installments
- For seasonal users, access fees are waived during “off” months

HIGH PERFORMANCE:
- eAurora® accesses any new or existing Aurora® network system with the addition of a single eAurora® modem
- Enjoy the same power and performance of your Aurora® networks with no hardware modifications
- Only one access point is required in each Aurora® network
- Hardwire, radio, fiber optic or Ethernet communications can be combined on the same network
- Flexible programming operates lighting, fountains, security gates and locks, etc
- The addition of an eAurora® web modem makes your existing or new Aurora® network on the web
- eAurora® accesses any new or existing Aurora® controller network with the addition of a single GPRS modem

EASY TO USE
- eAurora® requires no extensive backups; we handle all upgrades, support and maintenance
- Upgrades are uploaded seamlessly; when you log on they are ready
- Menus are user friendly and intuitive using graphical user interface
- On-screen help menus provide user with detailed instructions for simple set-up and fast launch
- Online trouble shooting to read alarms, events, and flow meters

FLOW MANAGEMENT (PRO VERSION ONLY):
- All the features of Lite PLUS the ability to flow manage your site
- Optimizes water usage over multiple controller sites
- Checks to see that watering fits within water window
- Graphical representation of flow for ease of verification
- Irrigation is easily scheduled to meet complex watering parameters
eAURORA® LITE/PRO

**USAGE EXAMPLE:** eAurora® — Multiple Users / Multiple Controller Sites with Multiple Satellites

- **eAurora** accesses any new or existing Aurora network system with the addition of a single eAurora modem.

- Remotely monitor sites - across the city, state, or world - from one location or an infinite number of locations.

- Multi-user environment with multi-level passwords and access controls.

- eAurora requires no extensive backups; we handle all upgrades, support and maintenance.

![Diagram of eAurora system](image)

www.eAurora.com
eAURORA® LITE/PRO

SITE A: Hardwire Communication Network

Only one access point is required in each Aurora network

SITE B: Radio Communication Network

Works with traditional valves and field decoders (even when both are connected to the same satellite)

SITE C: Hybrid Communication Network
(Combines both Hardwire and Radio communication)
**AURORA® PROFESSIONAL**

**HOW IT WORKS**

**Aurora® Professional** is the traditional-type of central control system for use with Aurora® and AuroraLT™ Series controllers. It communicates with remote irrigation field controllers using hardwire, local radio (900MHz or 2.4 GHz Digital Spread Spectrum), Ethernet, and allows management of satellite controllers from one irrigation computer with irrigation software resident on the computer.

The features of Aurora® Professional can be added to all Aurora® and AuroraLT™ Series controllers and networks without any changes to the controller or network. All that is required is (a) an Interface Unit located in close proximity to the irrigation computer to facilitate the field connection, or (b) an Ethernet connection and Ethernet modem in one of the Satellite controllers in the Aurora® network.

Aurora® Professional provides weather-based irrigation scheduling option using a local weather station. ET data is delivered daily to irrigation controllers which allow the realization of quantifiable water savings and reduced operational costs.

**USAGE EXAMPLE: Aurora® Professional — Single User / Multiple Controller Site**

> Multiple networking options combining Hardwire and Radio communication are available
FEATURES & BENEFITS

NETWORK COMMUNICATION – UNLIMITED OPTIONS
Communication options for Constellation® Networks include hardwire, local radio (900 MHz and 2.4 GHz digital spread spectrum radio), cellular phone, Ethernet, fiber-optics, Wi-Fi and others. (Not all options are available in all areas. Contact your local dealer for options available for your specific area.)

CENTRAL COMMUNICATION – STANDARD AND REMOTE OPTIONS
Communications options between the central irrigation computer and the Aurora® satellite controllers include all those listed above PLUS the ability to access the network from anywhere in the world where you can get an internet connection from your computer.

NETWORK MONITORING – ROBUST INTELLIGENCE
The Aurora® network monitors itself continuously and can make use of six sensor inputs per satellite controller (2 direct; 4 indirect). The satellite controllers can monitor and adjust to flow, rain (on/off), rain fall adjustments, wind, moisture, temperature or virtually any other sensor to adjust and take action in real time… without the need for the central computer to even be on.

SOFTWARE FEATURES (PARTIAL LIST)
- Graphical User Interface
- Weather station monitoring for automated ET-adjusted irrigation schedule
- Automated ET (with optional equipment)
- Flow Management
- Event Calendar Scheduling
- Manual station control
- Dry Run and monitor irrigation water windows
- Operates lighting, fountains, security gates, etc.
- English and metric units
- Multilingual instructions

REMOTE OPTION
Untether your control! Move to a laptop and an Ethernet modem in one of your Aurora® network satellite controllers and use your computer anywhere in the world where you can get to the Internet. STANDARD!

CONTROL FEATURES
Irrigation cycles are easily scheduled to meet varying and complex watering requirements. Cycles can be scheduled with some of the following:
- Standard Start Times
- Stop Times
- Link Start Times
- Water Days
- Intervals
- Program Specific Water Budget
- Controller Specific Water Budget
- Sequential or Parallel Start Event Operation
- Automatic ET Control
- Sensor Starts or Stops or Pauses

OTHER FEATURES
Self-monitoring feature finds open/short circuits, activates alarms/pagers, and shuts down automatically if necessary. Hardwire and radio communications can be used on the same network.
Independent programming allows control of each station in any sequence, with multiple repeats and pauses.
True two-way communication between central controls and satellites.

REMOTE TECHNICAL SUPPORT
High-speed technical support from the factory via an internet connection.
<table>
<thead>
<tr>
<th>APPLICATIONS</th>
<th>5500</th>
<th>6000</th>
<th>6500</th>
<th>7000</th>
<th>7500</th>
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**PRODUCT OVERVIEW**

### 5500

- The 5500 Pro series rotors are constructed of high impact plastic and all internal metal parts are made of stainless steel.
- ¾” (2 cm) inlet
- No tools are required to adjust the arc from 40° – 360° by using the easy to use Click-Set disc.
- This series comes with 4 interchangeable nozzles with a discharge range between 0.5 – 2.5 GPM (0,11 – 0,57 m³/hr).
- All models come with a rubber protective cap and an optional vandal resistant retaining screw.
- The built in slip clutch protects the gears and motor from damage when adjusting for a part circle. If the rotor is manually moved out of position it will automatically reset to the defined pattern.
- NIR² (Nozzle Insertion / Radius Reduction) eliminates the need to remove the cap while fine tuning the radius and inserting the nozzle.
- 5500 comes in various styles: shrub head version, heavy duty stainless version, 12” (30,5 cm) high pop version, anti-drain valve (ADV) version and the standard version.

![5500 image](5500.png)

### 6000

- The 6000 Pro series rotors are constructed of high impact plastic and all internal metal parts are made of stainless steel.
- ¾” (2 cm) inlet
- No tools are required to adjust the arc from 40° – 360° by using the easy to use Click-Set disc.
- This series comes with 8 interchangeable nozzles with a discharge range between 1.0 – 9.5 gpm (0,23 – 2,16 m³/hr). There is also a low angle nozzle tree available.
- All models come with a rubber protective cap and an optional vandal resistant retaining screw.
- The built in slip clutch protects the gears and motor from damage when adjusting for a part circle. If the rotor is manually moved out of position it will automatically reset to the defined pattern.
- NIR² (Nozzle Insertion / Radius Reduction) eliminates the need to remove the cap while fine tuning the radius and inserting the nozzle.
- 6000 comes in many various styles: shrub head version, heavy duty stainless version, 12” (30,5 cm) high pop version, anti-drain valve (ADV) version and the standard version.

![6000 image](6000.png)

### 6500

- The 6500 Pro Series 1” (25,4 mm) inlet series rotors are constructed of High impact plastic and all internal metal parts are made of stainless steel.
- No tools are required to adjust the arc from 40° – 360° by using the easy to use Click-Set disc.
- This series comes with 4 interchangeable nozzles with a discharge range between 2.8 – 13.2 gpm (0,64 – 3,00 m³/hr).
- All models come with a rubber protective cap and an optional vandal resistant retaining screw.
- The built in slip clutch protects the gears and motor from damage when adjusting for a part circle. If the rotor is manually moved out of position it will automatically reset to the defined pattern.
- NIR² (Nozzle Insertion / Radius Reduction) eliminates the need to remove the cap while fine tuning the radius and inserting the nozzle.
- 6500 comes in various styles: heavy duty stainless version with anti-drain valve (ADV), High speed rotation and the standard version with ADV.
**7000**
- The 7000 Pro Series 1” (25.4 mm) inlet series rotors are constructed of High impact plastic and all internal metal parts are made of stainless steel.
- The arc will adjust from 40° – 360° by using the easy to use Click-Set disc.
- This series comes with 6 interchangeable nozzles with a discharge range between 5.6 – 19.6 gpm (1.27 – 4.45 m³/hr).
- All models come with a rubber protective cap.
- The built in slip clutch protects the gears and motor from damage when adjusting for a part circle. If the rotor is manually moved out of position it will automatically reset to the defined pattern.
- NIR² (Nozzle Insertion / Radius Reduction) eliminates the need to remove the cap while fine tuning the radius and inserting the nozzle.
- 7000 comes in two styles: heavy duty stainless version with anti-drain valve (ADV) and the standard version with ADV.

**7500**
- The 7500 Pro Series 1” (25.4 mm) inlet series rotors are constructed of High impact plastic and all internal metal parts are made of stainless steel.
- The arc will adjust from 40° – 360° by using the easy to use Click-Set disc.
- This series comes with 6 interchangeable nozzles with a discharge range between 9.4 – 27.5 gpm (2.13 – 6.24 m³/hr).
- All models come with a rubber protective cap.
- The built in slip clutch protects the gears and motor from damage when adjusting for a part circle. If the rotor is manually moved out of position it will automatically reset to the defined pattern.
- NIR² (Nozzle Insertion / Radius Reduction) eliminates the need to remove the cap while fine tuning the radius and inserting the nozzle.
- 7500 comes in two styles: stainless version with anti-drain valve (ADV) and the high speed stainless version with ADV.

**D50/D55**
- A full 4-inch pop-up clears tall turfgrass for even coverage.
- Stainless-steel riser resists damage and vandalism.
- Special design eliminates blow-by and reduces pressure loss to improve system performance.
- Dual-direction flushing protects internals from debris and ensures positive pop-up/down.
- Radius can be adjusted up to 25 percent for best coverage.
- Quick lock design allows internals to be serviced from the rotor’s top.

**D70/D75**
- A full 4-inch pop-up clears tall turfgrass for even coverage.
- Stainless-steel riser resists damage and vandalism.
- Special design eliminates blow-by and reduces pressure loss to improve system performance.
- Dual-direction flushing protects internal from debris and ensures positive pop-up/down.
- Radius can be adjusted up to 25 percent for best coverage.
- Quick lock design allows internal to be serviced from the rotor’s top.
RESIDENTIAL ROTORS

**SPECIFICATIONS**

**OPERATING RANGE:**
- 20-65 psi (1.4 – 4.5 bar) (5500, 5501)
- 25-65 psi (1.7 – 4.5 bar) (5505, 5512)

**MAXIMUM PRESSURE:**
- 75 psi (5.2 bar)

**DISCHARGE:**
- 0.5 to 2.5 gpm (0.11 – 0.57 m³/hr)

**SPRAY TRAJECTORY:**
- 13°

**POP-UP HEIGHT:**
- 4” (10 cm) (5500, 5505)
- 12” (30.5 cm) (5512)

**BODY HEIGHT:**
- 7½” (19 cm) (5501)
- 7¾” (19.7 cm) (5500, 5505)
- 16¾” (42 cm) (5512)

**EXPOSED CAP DIAMETER:**
- 1½” (4.7 cm)

**CAP DIAMETER:**
- 2½” (7.3 cm)

**TYPE OF CAP:**
- Rubber with locking screw

**INLET SIZE:**
- ¾” (19 mm) female (NPT and BSP)

**SCREEN MESH:**
- .045 sq. in. (1.14 mm²) /1150 micron

**ADV MODELS:**
- Holds back up to 10’ (3 m) difference in elevation

**# PER BOX:**
- 10 (5512)
- 20 (5500, 5500RW, 5501, 5505)

---

**5500**
- 5500-Pro

**5500RW**
- 5500-Pro for Reclaimed Water

**5501**
- 5500-Pro Shrub-Head

**5505**
- 5500-Pro with stainless steel riser and ADV

**5512**
- 5500-Pro 12” (30.5 cm)
- High-Pop, with ADV

---

**Accessories**

**6090**
- Lavender Cover

**6096**
- Wrench

**6099**
- Anti-drain valve (not shown)

---

Radius reduction adjustment hole

Pull-up slot
FEATURES

- Bayonet protective cap.
- NIR² feature (Nozzle Insertion/Radius Reduction) on all models eliminates the need to remove the cap for nozzle adjustments.
- Four interchangeable Acu-Cover nozzles ranging from 0.5 to 2.5 gpm (0.11 – 0.57 m³/hr).
- 5512 Pro pops up a full 12” (30.5 cm). Ideal for shrubs and ground cover areas, at the base of hillsides where risers are not appropriate and where liability is a concern.
- Better pattern coverage than turning down a mid-range gear drive.
- Water lubricated gear motor.
- Click-Set® collars are quick and easy to adjust.
- Continuous 360° rotation or part-circle adjustable 40° to 310°.
- Ratcheting slip clutch protects gears and motor from damage while adjusting turret for part-circle adjustments - wet or dry.
- Wrench, piston clamp and installation instructions included (Model 5501 has no clamp).

5500 PRO SERIES
13° trajectory (Part Numbers - 77577)
Nozzle color

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1 Precipitation rates for square and triangular spacing calculated at 50% of diameter for half-circle operation. Assumes zero wind for precipitation and radius. Adjust for local conditions.
**RESIDENTIAL & COMMERCIAL ROTORS**

### SPECIFICATIONS

#### OPERATING RANGE:
- 20-65 psi (1.4 – 4.5 bar) (6000, 6001, 6002)
- 25-65 psi (1.7 – 4.5 bar) (6005, 6012)

#### MAXIMUM PRESSURE:
75 psi (5.2 bar)

#### DISCHARGE:
1.0 to 9.5 gpm (0.23 – 2.16 m³/hr)

#### SPRAY TRAJECTORY:
25°

#### POP-UP HEIGHT:
- 4” (10 cm) (6000, 6005)
- 12” (30.5 cm) (6012)

#### BODY HEIGHT:
- 7½” (19 cm) (6001)
- 73/8” (18.7 cm) (6000, 6005)
- 167/8” (43 cm) (6012)

#### EXPOSED CAP DIAMETER:
17/8” (4.7 cm)

#### CAP DIAMETER:
27/8” (7.3 cm)

#### TYPE OF CAP:
Rubber with locking screw

#### INLET SIZE:
¾” (19 mm) female (NPT and BSP)

#### SCREEN MESH:
.045 sq. in. (1.14 mm²) /1150 micron

#### ADV MODELS:
Holds back up to 10’ (3 m) difference in elevation

#### # PER BOX:
- 10 (6012)
- 20 (6000, 6000RW, 6000-7, 6001, 6002, 6005)

---

**Accessories**

- **6090** Lavender Cover
- **6096** Wrench
- **6099** Anti-drain valve (not shown)

---

**Signature Pro Series**

Radius reduction adjustment hole

Pull-up slot
FEATURES

- Bayonet protective cap.
- NIR: feature (Nozzle Insertion/Radius Reduction) on all models eliminates the need to remove the cap for nozzle adjustments.
- Eight interchangeable Acu-Cover nozzles ranging from 1.0 to 9.5 gpm (0.23 – 2.16 m³/hr).
- Seven optional low-angle nozzles (13°) for windy areas or for throwing under trees.
- Proven reliability of the water driven gear motor.
- 6012 Pro pops up a full 12” (30.5 cm). Ideal for shrubs and ground cover areas, at the base of hillsides where risers are not appropriate and where liability is a concern.
- Click-Set® collars are quick and easy to adjust.
- Continuous 360° rotation or part-circle adjustable 40° to 310°.
- Ratcheting slip clutch protects gears and motor from damage while adjusting turret for part-circle adjustments - wet or dry.
- Wrench, piston clamp and installation instructions included (Model 6001 has no clamp).

### 6000 PRO SERIES

**25° trajectory (Part Numbers - 77576)**

Nozzle color

### 6095 LOW ANGLE

13° trajectory (optional for 6000 series only)  
(Part Numbers - 6095)

Nozzle color

---

1 Precipitation rates for square and triangular spacing calculated at 50% of diameter for half-circle operation. Assumes zero wind for precipitation and radius. Adjust for local conditions.
**Rotors**

**Operating Range:**
40-75 psi (2.7 – 5.2 bar)

**Maximum Pressure:**
80 psi (5.5 bar)

**Discharge:**
2.8 to 13.2 gpm (0.64 – 3.00 m³/hr)

**Spray Trajectory:**
25°

**Pop-up Height:**
4” (10 cm)

**Body Height:**
8” (20.3 cm)

**Exposed Cap Diameter:**
17/8” (4.7 cm)

**Cap Diameter:**
27/8” (7.3 cm)

**Type of Cap:**
Rubber with locking screw

**Inlet Size:**
1” (25.4 mm) female NPT (6500, 6503, 6505)
1” (25.4 mm) female BSP (6510, 6513, 6515)

**Screen Mesh:**
.045 sq. in. (1.14 mm²) / 1150 micron

**Adv Models:**
Holds back up to 10’ (3 m) difference in elevation

**# Per Box:**
20

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**6500 (6510)**
6500/6510 Standard with ADV

**6500RW (6510RW)**
6500/6510 for Reclaimed Water & ADV

**6503 (6513)**
6500-Pro High Speed Rotation, and stainless steel riser

**6505 (6515)**
6500/6510 Standard with stainless steel riser and ADV

*Note:* Versions in parenthesis feature BSP threading

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**Accessories**

**6090**
Lavender Cover

**6096**
Wrench

**6099**
Anti-drain valve (not shown)
FEATURES

- Bayonet protective cap.
- NIR® feature (Nozzle Insertion/Radius Reduction) on all models eliminates the need to remove the cap for nozzle adjustments.
- Four interchangeable Acu-Cover nozzles ranging from 2.8 to 13.2 gpm (0.64 – 3.00 m³/hr).
- Rubber cap has locking screw (6092) for vandal protection (standard on all units).
- Proven reliability of the water driven gear motor.
- Click-Set® collars are quick and easy to adjust.
- Continuous 360° rotation or part-circle adjustment 40° to 310°.
- Ratcheting slip clutch protects gears and motor from damage while adjusting turret for part-circle adjustments - wet or dry.
- 6503 Pro offers one minute revolution for quick spraying applications.
- Heavy-duty case with stabilizer ribs increases stability even in loose soil.
- Wrench, piston clamp and installation instructions included.

6500 PRO SERIES

25° trajectory (Part Numbers - 77636)
Nozzle color

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<th>Min Radius</th>
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¹ Precipitation rates for square and triangular spacing calculated at 50% of diameter for half-circle operation. Assumes zero wind for precipitation and radius. Adjust for local conditions.

6503/6513 PRO HIGH SPEED

25° trajectory (Part Numbers - 77636)
Nozzle color

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¹ Precipitation rates for square and triangular spacing calculated at 50% of diameter for half-circle operation. Assumes zero wind for precipitation and radius. Adjust for local conditions.
**SPECIFICATIONS**

**OPERATING RANGE:**
40-90 psi (2.7 – 6.2 bar)

**MAXIMUM PRESSURE:**
100 psi (6.9 bar)

**DISCHARGE:**
5.6 to 19.6 gpm (1.27 – 4.45 m³/hr)

**SPRAY TRAJECTORY:**
25°

**POP-UP HEIGHT:**
4½” (11.4 cm)

**BODY HEIGHT:**
9½” (24.1 cm)

**EXPOSED CAP DIAMETER:**
2½” (6.3 cm)

**TYPE OF CAP:**
Rubber with locking screw

**INLET SIZE:**
1” (25.4 mm) female NPT (7000, 7015)
1” (25.4 mm) female BSP (7010E, 7015E)

**SCREEN MESH:**
.045 sq. in. (1.14 mm²) /1150 micron

**ADV MODELS:**
Holds back up to 10’ (3 m) difference in elevation

**# PER BOX:**
10

---

**Accessories**

- **6101**  
  Sod Cup Kit

- **6102**  
  Lavender Cover

- **6097**  
  Wrench
FEATURES

- Bayonet protective cap.
- NIR² feature (Nozzle Insertion/Radius Reduction) on all models eliminates the need to remove the cap for nozzle adjustments.
- Six interchangeable Acu-Cover nozzles ranging from 5.6 to 19.6 gpm (1.27 – 4.45 m³/hr).
- Rubber cap has two locking screws for vandal protection.
- Click-Set® collars are quick and easy to adjust.
- Gear drive may be installed ½” (1.3 cm) below grade.
- Proven reliability of the water driven gear motor.
- Continuous 360° rotation or part-circle adjustable 40° to 310°.
- Heavy-duty case with stabilizer ribs increases stability even in loose soil.
- Ratcheting slip clutch protects gears and motor from damage while adjusting turret for part-circle adjustments - wet or dry.
- Wrench, piston clamp and installation instructions included.

### 7000 PRO SERIES

**25° trajectory (Part Numbers - 77578)**

Nozzle color

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Max Radius</th>
<th>Min Radius</th>
<th>Discharge</th>
<th>Precipitation Rate¹</th>
<th>Nozzle Number</th>
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<tbody>
<tr>
<td>PSI</td>
<td>FT</td>
<td>FT</td>
<td>GPM</td>
<td>BAR</td>
<td>m</td>
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<td>45</td>
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<td>0.64</td>
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<td>90</td>
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<td>50</td>
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</table>

¹ Precipitation rates for square and triangular spacing calculated at 50% of diameter for half-circle operation. Assumes zero wind for precipitation and radius. Adjust for local conditions.
## SPECIFICATIONS

<table>
<thead>
<tr>
<th><strong>OPERATING RANGE:</strong></th>
<th>40-90 psi (2.7 – 6.2 bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAXIMUM PRESSURE:</strong></td>
<td>100 psi (6.9 bar)</td>
</tr>
<tr>
<td><strong>DISCHARGE:</strong></td>
<td>9.4 to 27.5 gpm (2.13 – 6.24 m³/hr)</td>
</tr>
<tr>
<td><strong>SPRAY TRAJECTORY:</strong></td>
<td>25°</td>
</tr>
<tr>
<td><strong>POP-UP HEIGHT:</strong></td>
<td>4½” (11.4 cm)</td>
</tr>
<tr>
<td><strong>BODY HEIGHT:</strong></td>
<td>9½” (24.1 cm)</td>
</tr>
<tr>
<td><strong>EXPOSED CAP DIAMETER:</strong></td>
<td>2½” (6.3 cm)</td>
</tr>
<tr>
<td><strong>TYPE OF CAP:</strong></td>
<td>Rubber with locking screw</td>
</tr>
<tr>
<td><strong>INLET SIZE:</strong></td>
<td>1” (25.4 mm) female NPT (7500, 7503)</td>
</tr>
<tr>
<td></td>
<td>1” (25.4 mm) female BSP (7510E, 7513E)</td>
</tr>
<tr>
<td><strong>SCREEN MESH:</strong></td>
<td>.045 sq. in. (1.14 mm²) /1150 micron</td>
</tr>
<tr>
<td><strong>ADV MODELS:</strong></td>
<td>Holds back up to 10’ (3 m) difference in elevation</td>
</tr>
<tr>
<td><strong># PER BOX:</strong></td>
<td>10</td>
</tr>
</tbody>
</table>

## Accessories

- **6101**
  Sod Cup Kit
- **6102**
  Lavender Cover
- **6097**
  Wrench

---

**7500/7510E**
7500-Pro Standard with ADV

**7500RW/7510ERW**
7500-Pro for Reclaimed Water & ADV

**7503 (7513E)**
7503-Pro High speed rotation, stainless steel riser and ADV

Note: “E” versions (or versions in parenthesis) feature BSP threading
FEATURES

- **NIR² feature** (Nozzle Insertion/RADIUS Reduction) on all models eliminates the need to remove the cap for nozzle adjustments.
- Six interchangeable Acu-Cover nozzles ranging from 9.4 to 27.5 gpm (2.13 – 6.24 m³/hr).
- Rubber cap has two locking screws for vandal protection.
- Click-Set® collars are quick and easy to adjust.
- Gear drive may be installed ½” (1.3 cm) below grade.
- Proven reliability of the water driven gear motor.
- Continuous 360° rotation or part-circle adjustable 40° to 310°.
- Heavy-duty case with stabilizer ribs increases stability even in loose soil.
- Ratcheting slip clutch protects gears and motor from damage while adjusting turret for part-circle adjustments - wet or dry.
- Wrench, piston clamp and installation instructions included.

### 7500 PRO SERIES

#### 25° trajectory (Part Numbers - 77759)

**Nozzle color**

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Max Radius (ft)</th>
<th>Min Radius (ft)</th>
<th>Discharge (gpm)</th>
<th>Precipitation Rate (mm/hr)</th>
<th>Nozzle Number</th>
<th>Pressure</th>
<th>Max Radius (ft)</th>
<th>Min Radius (ft)</th>
<th>Discharge (gpm)</th>
<th>Precipitation Rate (mm/hr)</th>
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<tr>
<td>PSI</td>
<td>FT</td>
<td>FT</td>
<td>GPM</td>
<td></td>
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<td>PSI</td>
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<td>16</td>
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<td>27.5</td>
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### 7503/7513 PRO HIGH SPEED

#### 25° trajectory (Part Numbers - 77579)

**Nozzle color**

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Max Radius (ft)</th>
<th>Min Radius (ft)</th>
<th>Discharge (gpm)</th>
<th>Precipitation Rate (mm/hr)</th>
<th>Nozzle Number</th>
<th>Pressure</th>
<th>Max Radius (ft)</th>
<th>Min Radius (ft)</th>
<th>Discharge (gpm)</th>
<th>Precipitation Rate (mm/hr)</th>
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<tr>
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<td>FT</td>
<td>GPM</td>
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<td>8</td>
<td>310</td>
<td>16</td>
<td>14</td>
<td>27.5</td>
</tr>
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</table>

1 Precipitation rates for square and triangular spacing calculated at 50% of diameter for half-circle operation. Assumes zero wind for precipitation and radius. Adjust for local conditions.
**GOLF - SHORT TO MID RANGE ROTORS**

**SPECIFICATIONS**

**Flange Body Series**

**OPERATING RANGE:**
50-80 psi (3.4 – 5.5 bar)

**MAXIMUM PRESSURE:**
100 psi (6.9 bar)

**MINIMUM PRESSURE:**
40 psi (2.7 bar)

**DISCHARGE:**
11.0 to 31.3 gpm (2.49 – 7.11 m³/hr)

**POP-UP HEIGHT:**
4” (10 cm)

**BODY HEIGHT:**
9¾” (24.8 cm)

**TOP DIAMETER:**
6½” (17.1 cm)

**INLET SIZE:**
1” (25.4 mm) Female NPT, BSP, ACME

**# PER BOX:**
4 x D50C/D50C, D50E/D55E or D50HD55H Series

**Block Body Series**

**OPERATING RANGE:**
50-70 psi (3.4 – 4.8 bar)

**MAXIMUM PRESSURE:**
100 psi (6.9 bar)

**MINIMUM PRESSURE:**
40 psi (2.7 bar)

**DISCHARGE:**
11.0 to 31.3 gpm (2.49 – 7.11 m³/hr)

**POP-UP HEIGHT:**
4” (10 cm)

**CHECK VALVE:**
Holds back up to 15’ (4.5 m) difference in elevation

**BODY HEIGHT:**
9¾” (24.8 cm)

**TOP DIAMETER:**
6½” (17.1 cm)

**INLET SIZE:**
1” (25.4 mm) Female NPT, BSP, ACME

**# PER BOX:**
8 x D50C/D55C, D50E/D55E or D50HD55H Series

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**Accessories**

**D001** Snap ring/pilot valve tool

**D002** Pilot valve key

**D003** 1” valve insertion tool

**D038** Pressure gauge

---

**D50C25A**
1” Full Circle Rotor with Check Valve, ACME

**D50E2570A**
1” Full Circle Rotor; Electric VIH, ACME

**D50H25A**
1” Full Circle Rotor; Hydraulic VIH, ACME

**D50B25A**
1” Full Circle Block Rotor; with Drain Valve ACME

* Pressure Regulation (Electric Model Only)
  60, 70 (Standard Pressure), or 80 PSI
* Inlet thread availability; NPT, BSP, or ACME (standard stocking item)
* Re-Claimed Water Versions Available

**D55C25A**
1” Part Circle Rotor with Check Valve, ACME

**D55E2570A**
1” Part Circle Rotor; Electric VIH, ACME

**D55H25A**
1” Part Circle Rotor; Hydraulic VIH, ACME

**D55B25A**
1” Part Circle Block Rotor; with Check Valve, ACME

**D55XC2514A**
1” X-Series Rotor; with Check Valve, ACME

**D55XE251470A**
1” X-Series Rotor; Electric VIH, ACME

**D55XH2514A**
1” X-Series Rotor; Hydraulic VIH, ACME

* Pressure Regulation (Electric Model Only)
  60, 70 (Standard Pressure), or 80 PSI
* Inlet thread availability; NPT, BSP, or ACME (standard stocking item)
* Re-Claimed Water Versions Available

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**Signature Control Systems, Inc.**

Products & Technical Information

92

[Image]
FEATURES

• A full 4-inch pop-up clears tall turfgrass for even coverage.
• Rolled-over flange keeps turfgrass clear of riser and nozzle.
• Stainless-steel riser resists damage and vandalism.
• Tough, commercial-grade plastic case stands up to punishment.
• Special design eliminates blow-by and reduces pressure loss to improve system performance.
• Dual-direction flushing protects internals from debris and ensures positive pop-up/down.
• Uniform coverage with square or triangular spacing.
• Full-circle and adjustable patterns for maximum flexibility.
• Easy arc adjustment in the field without any tools.
• Nozzle kit offers fully interchangeable nozzles and is included with each rotor.
• Unique manual On/Off control for hydraulic rotors.
• Heavy-duty spring assures positive retraction.
• Radius can be adjusted up to 25 percent for best coverage.
• Compact cartridge design allows for quick and easy repair.
• Quick lock design allows internals to be serviced from the rotor’s top.
• D50/D55 C Models include factory-installed check valve.
• D50/D55 E Models feature electric valve and head.
• D50/D55 H Models are N.O. hydraulically controlled.
• D50/D55 B Compact Models feature factory-installed drain valve.
• D55 X-Series are dual part-circle rotors with adjustable radii.

Note:
• Pressure springs other than the standard, pressure springs as noted above shall be made available upon request and for installation by others. Additional charges will occur.
• Nozzles other than standard will be shipped loose for installation by others.

D50 SERIES

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Pressure</th>
<th>Max Radius</th>
<th>Discharge</th>
<th>Precipitation Rate</th>
<th>Nozzle Number</th>
<th>Pressure</th>
<th>Max Radius</th>
<th>Discharge</th>
<th>Precipitation Rate</th>
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</thead>
<tbody>
<tr>
<td>DI055</td>
<td>70</td>
<td>10.1</td>
<td>0.71</td>
<td>0.82</td>
<td>8 Black</td>
<td>4.1</td>
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<td></td>
<td>60</td>
<td>8.7</td>
<td>0.71</td>
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<td></td>
<td>4.1</td>
<td>11.2</td>
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D55 SERIES

<table>
<thead>
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<th>Max Radius</th>
<th>Discharge</th>
<th>Precipitation Rate</th>
<th>Nozzle Number</th>
<th>Pressure</th>
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<tr>
<td>DI056</td>
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<td>8 Black</td>
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<td>4.1</td>
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* Factory Installed
GOLF - MID RANGE ROTORS

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>OPERATING RANGE:</th>
<th>60-100 psi (4.1 – 6.9 bar)</th>
</tr>
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<tbody>
<tr>
<td>MAXIMUM PRESSURE:</td>
<td>100 psi (6.9 bar)</td>
</tr>
<tr>
<td>MINIMUM PRESSURE:</td>
<td>40 psi (2.7 bar)</td>
</tr>
<tr>
<td>DISCHARGE:</td>
<td>11.0 to 31.3 gpm (2.49 – 7.11 m³/hr)</td>
</tr>
<tr>
<td>POP-UP HEIGHT:</td>
<td>4” (10 cm)</td>
</tr>
<tr>
<td>BODY HEIGHT:</td>
<td>10¾” (27,3 cm)</td>
</tr>
<tr>
<td>TOP DIAMETER:</td>
<td>7½” (19,1 cm)</td>
</tr>
<tr>
<td>INLET SIZE:</td>
<td>1½” (38,1 mm) female NPT</td>
</tr>
<tr>
<td></td>
<td>1½” (38,1 mm) female BSP</td>
</tr>
<tr>
<td></td>
<td>1¼” (31,75 mm) female ACME</td>
</tr>
<tr>
<td>CHECK VALVE MODELS:</td>
<td>Holds back up to 15’ (4,5 m) difference in elevation</td>
</tr>
<tr>
<td># PER BOX:</td>
<td>4</td>
</tr>
</tbody>
</table>

**Accessories**

- **D001** Snap ring/pilot valve tool
- **D002** Pilot valve key
- **D004** 1¼” ACME & 1½” NPT/BSP valve insertion tool
- **D038** Pressure gauge

**D70C50A**
1½” Full Circle Rotor with Check Valve, ACME

**D70E5080A**
1½” Full Circle Rotor, Electric VIH, ACME

**D70H50A**
1½” Full Circle Rotor, Hydraulic VIH, ACME

- Pressure Regulation (Electric Model Only)
  60, 70, 80 (Standard Pressure), 90 or 100 PSI
- Inlet thread availability; NPT, BSP, or ACME (standard stocking item)
- Re-Claimed Water Versions Available

**D75C32A**
1½” Part Circle Rotor with Check Valve, ACME

**D75E3280A**
1½” Part Circle Rotor, Electric VIH, ACME

**D75H32A**
1½” Part Circle Rotor, Hydraulic VIH, ACME

**D75XC3516A**
1½” X-Series Rotor, with Check Valve, ACME

**D75XE351680A**
1½” X-Series Rotor, Electric VIH, ACME

**D75XH3516A**
1½” X-Series Rotor, Hydraulic VIH, ACME

- Pressure Regulation (Electric Model Only)
  60, 70, 80 (Standard Pressure), 90 or 100 PSI
- Inlet thread availability; NPT, BSP, or ACME (standard stocking item)
- Re-Claimed Water Versions Available
FEATURES

- A full 4-inch pop-up clears tall turfgrass for even coverage.
- Rolled-over flange keeps turfgrass clear of riser and nozzle.
- Stainless-steel riser resists damage and vandalism.
- Tough, commercial-grade plastic case stands up to punishment.
- Special design eliminates blow-by and reduces pressure loss to improve system performance.
- Dual-direction flushing protects internals from debris and ensures positive pop-up/down.
- Uniform coverage with square or triangular spacing.
- Full-circle and adjustable patterns for maximum flexibility.
- Easy arc adjustment in the field without any tools.
- Nozzle kit offers fully interchangeable nozzles and is included with each rotor.
- Unique manual On/Off control for hydraulic rotors.
- Heavy-duty spring assures positive retraction.
- Radius can be adjusted up to 25 percent for best coverage.
- Compact cartridge design allows for quick and easy repair.
- Quick lock design allows internals to be serviced from the rotor’s top.
- D70/D75 C Models include factory-installed check valve.
- D70/D75 E Models feature electric valve and head.
- D70/D75 H Models are N.O. hydraulically controlled.
- D75 X-Series are dual part-circle rotors with adjustable radii.

Note:

- Pressure springs other than the standard, pressure springs as noted above shall be made available upon request and for installation by others. Additional charges will occur.
- Nozzles other than standard will be shipped loose for installation by others.
GOLF - SHORT & MID RANGE INTERNAL REPLACEMENTS

**SIGNATURE REPLACEMENT INTERNALS**

- **DI5025**
  D50 Replacement Internal, #25 Blue Nozzle

- **DI50B25**
  D508 Replacement Internal, #25-Blue Nozzle

- **DI5525**
  D55 Replacement Internal, #25-Blue Nozzle

- **DI55B25**
  D558 Replacement Internal, #25-Blue Nozzle

- **DI55X2514**
  D55X Replacement Internal, #25-Blue (Front) / #14-Yellow (Rear)

- **DI7050**
  D70 Replacement Internal, #50-Black Nozzle

- **DI7532**
  D75 Replacement Internal, #32-Yellow Nozzle

- **DI75X3518**
  D75X Replacement Internal, #35-Yellow (Front) / #18-Brown (Rear)

**Rain Bird® REPLACEMENT INTERNALS**

- **DI47R25**
  Rain Bird® 47DR Replacement Internal, #25-Blue Nozzle

- **DI47RX2514**
  Rain Bird® 47DR X-Series Replacement Internal, #25-Blue (Front) / #14-Yellow (Rear)

- **DI51R25**
  Rain Bird® 51DR Replacement Internal, #25-Blue Nozzle

- **DI5025**
  Rain Bird® 50 Replacement Internal, #25 Blue Nozzle

- **DI55B25**
  Rain Bird® 55B Replacement Internal, #25-Blue Nozzle

- **DI55X2514**
  Rain Bird® 55X Replacement Internal, #25-Blue (Front) / #14-Yellow (Rear)

**TORO® REPLACEMENT INTERNALS**

- **DI6734T25**
  1” TORO® 630/730, 660/760 Insert, #25-Blue Nozzle

- **DI6735T25**
  1” TORO® 635/735, 665/765 Insert, #25-Blue Nozzle

- **DI6735TX25**
  1” TORO® 630, 660, 730 & 760 X-Series Insert, #25-Blue (Front) / #14-Yellow (Rear)

- **DI674754T50**
  1½” TORO® 650/750, 680/780 Insert, #50-Black Nozzle

- **DI6785T26**
  1½” TORO® 650/750, 680/780 Insert, #26-Blue Nozzle

**SPECIFICATIONS**

**REPLACEMENTS FOR TORO®**:

- 1” Inlet Bodies
  - **DI6734T Full-circle, DI6735T Part-circle, DI685T Part-circle**
    - Radius: 52’–75’
    - Flowrate: 11.0–35.5 GPM
    - Replacement Upgrades for: TORO® 630, 660, 730, 760 and 830, 860

- 1½” Inlet Bodies
  - **DI674754T Full-circle**
    - Radius: 56’–82’
    - Flowrate: 25.1–66.0 GPM
    - Replacement Upgrade for: TORO® 650, 670, 680, 750, 780
  - **DI6735T Part-circle**
    - Radius: 56’–82’
    - Flowrate: 13.0–35.3 GPM
    - Replacement Upgrade for: TORO® 650, 680, 750, 780
  - **DI674754T Full-circle**
    - Radius: 91’–100’
    - Flowrate: 57.0–66.0 GPM
    - Replacement Upgrade for: TORO® 690

**REPLACEMENTS FOR Rain Bird®**:

- 1¼” Inlet Bodies
  - **DI700R Full-circle, DI750R Part-circle**
    - Radius: 53’–72’
    - Flowrate: 12.5–33.0 GPM
    - Replacement Upgrades for: Rain Bird® 47D, 51D
  - **DI51R Full-circle, DI47R Part-circle**
    - Radius: 53’–72’
    - Flowrate: 12.5–33.0 GPM
    - Replacement Upgrade for: Rain Bird® 47DR, 51DR

*TORO® is a registered trademark of THE TORO COMPANY, Rain Bird® is a registered trademark of Rain Bird Corporation, Inc.*
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*Field Retrofit Option
PRODUCT OVERVIEW

STANDARD MODELS

63XA

STANDARD
- High impact corrosion resistant construction with stainless steel metal components.
- Dome cap design will ensure sand and debris flushes away from the riser to provide for longer life.
- Double lipped wiper seal will help keep debris away from the riser.

63XB

WITH ADV
- The 63XB series comes with all the same great features as the standard 63XA model with the addition of the anti-drain valve (ADV).
- The anti-drain valve (ADV) will prevent low head drainage and prevent flooding or erosion.

63S

- High impact corrosion resistant construction with stainless steel metal components.
- Double lipped wiper seal will help keep debris away from the riser.

- ½” (12,7 mm) bottom inlet is standard on all models.
- All models can be upgraded with an anti-drain valve (ADV) and the new iStop™.
- Standard male thread on the riser.
- All models can be upgraded to use iStop™ with installation of retrofit kit 63XR.

63X

- Wide range of matched precipitation fixed spray.
- Color coded bodies for easy identification.
- Multi-arc nozzles from 8 ft – 17 ft (2.4 m – 5.2 m) radius that can be adjusted from 0° - 360°.

- Wide variety of special pattern nozzles.
- Fixed spray nozzles from 8 ft – 15 ft (2.4 m – 4.6 m) radius in all the various patterns.
ADVANCED MODELS USING iStop™

**63XC WITH iStop™**
- The 63XC series comes with all the same great features as the standard 63XA model with the addition of the new iStop™ feature.
- The new iStop™ saves water by stopping the flow of water on broken or damaged heads as well as stopping the flow of water during nozzle maintenance.

**63XD WITH iStop™ AND PR**
- The 63XD series comes with the iStop™ feature and the addition of a pressure regulating valve.
- The new iStop™ saves water by stopping the flow of water on broken or damaged heads as well as stopping the flow of water during nozzle maintenance.
- The pressure regulator maintains optimum nozzle performance and prevents misting.

**63XE WITH iStop™, PR AND ADV**
- The 63XE series comes with the iStop™ feature, a pressure regulating valve, and a factory installed anti-drain valve (ADV).
- The new iStop™ saves water by stopping the flow of water on broken or damaged heads as well as stopping the flow of water during nozzle maintenance.
- The pressure regulator maintains optimum nozzle performance and prevents misting.
- The anti-drain valve (ADV) will prevent low head drainage and prevent flooding or erosion.
- Will hold back up to 10 ft (3 m) difference in elevation.

**63XR**
- Retrofit any existing 6300 sprayhead with new iStop™.
- Shuts off if riser is broken
- Shuts off if nozzle is removed
- The new iStop™ saves water by stopping the flow of water on broken or damaged heads as well as stopping the flow of water during nozzle change out.
SPRAYS - RES/COM SPECIFICATION

**STANDARD**

- **63XA-02**
  2½” (6.3 cm) Pop-Up Body
- **63XA-04**
  4” (10.2 cm) Pop-Up Body
- **63XA-06**
  6” (15.2 cm) Pop-Up Body
- **63XA-12**
  12” (30.5 cm) Pop-Up Body

**Pre-Installed MAN**

- 2½” (6.3 cm) Pop-up Factory Installed MAN Nozzle
  - **63XA-0212**
  - **63XA-0215**
  - **63XA-0217**
- 4” (10.2 cm) Pop-up Factory Installed MAN Nozzle
  - **63XA-0412**
  - **63XA-0415**
  - **63XA-0417**
- 6” (15.2 cm) Pop-up Factory Installed MAN Nozzle
  - **63XA-0612**
  - **63XA-0615**
  - **63XA-0617**

**WITH ADV**

- **63XB-02**
  2½” (6.3 cm) Pop-up
- **63XB-04**
  4” (10.2 cm) Pop-up
- **63XB-06**
  6” (15.2 cm) Pop-up
- **63XB-12**
  12” (30.5 cm) Pop-up

**WITH iStop™**

- **63XC-02**
  2½” (6.3 cm) Pop-up
- **63XC-04**
  4” (10.2 cm) Pop-up
- **63XC-06**
  6” (15.2 cm) Pop-up
- **63XC-12**
  12” (30.5 cm) Pop-up

### SPECIFICATIONS

**OPERATING RANGE:**
- 15-60 psi (1–4.1 bar)
- 20-60 psi (1.3–4.1 bar) ADV models

**OPTIMUM PRESSURE:**
- 30 psi (2 bar)

**MAXIMUM PRESSURE:**
- 60 psi (4.1 bar)

**SEALING PRESSURE:**
- 10 psi (0.7 bar)
- 20 psi (1.3 bar) ADV models

**POP-UP HEIGHT:**
- 2½” (6.3 cm) (63X-02)
- 4” (10.2 cm) (63X-04)
- 6” (15.2 cm) (63X-06)
- 12” (30.5 cm) (63X-12)

**BODY HEIGHT:**
- 3½” (8.9 cm) (63X-02)
- 3¾” (9.8 cm) (63X-04)
- 5½” (15 cm) (63X-06)
- 15” (38.1 cm) (63X-12)

**SHRUB MODEL AVAILABLE**

**FLUSH RATE:**
- 0.2 gpm (0.75 l/min)

**INLET SIZE:**
- ½” (12.7 mm) NPT Female thread

**CHECK HEIGHT:**
- 10 ft (3 m) elevation change

**SCREEN MESH:**
- .045 sq. in. (1.14 mm²) / 1150 micron

**EFFLUENT CAP AVAILABLE**

**# PER BOX:**
- 50
  - 63X-02 Series
  - 63X-04 Series
  - 63X-06 Series
- 25
  - 63X-12 Series

---

**Note:**

- All products are made in the USA.

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**Signature Control Systems, Inc.**

102 Products & Technical Information
WITH iStop™ and PR
63XD-02 2½" (6.3 cm) Pop-up
63XD-04 4" (10.2 cm) Pop-up
63XD-06 6" (15.2 cm) Pop-up

WITH iStop™, PR and ADV
63XE-02 2½" (6.3 cm) Pop-up
63XE-04 4" (10.2 cm) Pop-up
63XE-06 6" (15.2 cm) Pop-up

iStop™ 63XR RETROFIT KITS
63XR-02 2½" (6.3 cm) Retrofit iStop™ Kit
63XR-04 4" (10.2 cm) Retrofit iStop™ Kit
63XR-06 6" (15.2 cm) Retrofit iStop™ Kit
63XR-12 12" (30.5 cm) Retrofit iStop™ Kit

Accessories
6318 Piston Extension
6319 Anti-drain valve (ADV)
6390RWC Identifies reclaimed water site
6300 Shrub Adapter
7300 Adjustable Bubbler
8819 Brass automatic drain valve

iStop™ 63XR RETROFIT KIT
- Shuts off if the nozzle is removed
- Shuts off if the riser is broken at any point above the top level of the cap
- Retrofit any existing 6300 sprayhead with new iStop™

6318 (Not Shown)
- Adds 6" (15, 24 cm) to any series pop-up
- Perfect for landscape areas that need extra clearance
- It threads directly onto the top of the piston and accepts all Signature® spray nozzles

6319
- Anti-drain valve (ADV) helps eliminate low head drainage and puddling. Holds back up to 10 ft (3 m) difference in elevation.

6300
- Adapt from ½" (12.7mm) NPT to a standard female thread spray nozzle

7300
- Provides an umbrella pattern that can be adjusted with a stainless steel set screw
- Bubbler installs on standard ½" (12.7 mm) riser and has a maximum flow of 4.9 gpm (7.6 l/min) at 18" (45 cm) radius

8819
- Prevents underground line breakage due to freezing
- Solid brass body
- Automatically opens when line pressure drops below three psi
- ½” male threads
- 5 year warranty on materials and workmanship

<table>
<thead>
<tr>
<th>Pressure (PSI)</th>
<th>Radius (FT)</th>
<th>Discharge (GPM)</th>
<th>Model</th>
<th>Pressure (BAR)</th>
<th>Radius (m)</th>
<th>Discharge (l/min)</th>
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</table>

1 Radius and flow can be reduced with adjustment screw.
SPRAYS - RESIDENTIAL

**STANDARD**

**63S-03**
3” (7.6 cm) Pop-Up Body

**63S-04**
4” (10.2 cm) Pop-Up Body

*including MAN Nozzle*

2½” (6.3 cm) Pop-up
Factory Installed MAN Nozzle

63S-0312
63S-0315
63S-0317

4” (10.2 cm) Pop-up
Factory Installed MAN Nozzle

63S-0412
63S-0415
63S-0417

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>OPERATING RANGE:</th>
<th>15-60 psi (1–4.1 bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPTIMUM PRESSURE:</td>
<td>30 psi (2 bar)</td>
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<tr>
<td>MAXIMUM PRESSURE:</td>
<td>60 psi (4.1 bar)</td>
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<tr>
<td>SEALING PRESSURE:</td>
<td>Less than 15 psi (1 bar)</td>
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<tr>
<td>POP-UP HEIGHT:</td>
<td>3” (7.6 cm) (63S-03)</td>
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<tr>
<td></td>
<td>4” (10.2 cm) (63S-04)</td>
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<td>BODY HEIGHT:</td>
<td>5½” (13.0 cm) (63S-03)</td>
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<td></td>
<td>6” (15.2 cm) (63S-04)</td>
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<tr>
<td>FLUSH RATE:</td>
<td>0.2 gpm (0.75 l/min)</td>
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<tr>
<td>INLET SIZE:</td>
<td>½” (12.7 mm) NPT Female thread</td>
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<tr>
<td>SCREEN MESH:</td>
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<tr>
<td># PER BOX:</td>
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### NOZZLES

#### 8' (2.4 m) FIXED PATTERN (5° Trajectory - flat)

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<td>FT. R</td>
<td>GPM</td>
<td>Model</td>
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<tr>
<td>30</td>
<td>7</td>
<td>3.8</td>
<td>4.5</td>
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#### 10' (3,1 m) FIXED PATTERN (15° Trajectory - low angle)

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<th>Precipitation</th>
</tr>
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<td>GPM</td>
<td>Model</td>
</tr>
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<td>-----------</td>
<td>---------------</td>
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<td>1.1</td>
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<td>3.6</td>
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#### 12' (3,7 m) FIXED PATTERN (30° Trajectory - low gallowance)

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<th>Precipitation</th>
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<td>GPM</td>
<td>Model</td>
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<tr>
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<td>1.1</td>
<td>1.1</td>
<td>2.9</td>
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#### 15' (4,6 m) FIXED PATTERN (30° Trajectory - standard)

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#### SPECIAL PATTERN

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VALVES
### VALVES

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<tr>
<th>APPLICATIONS</th>
<th>Quantum 9000</th>
<th>7900</th>
<th>9501</th>
<th>9502</th>
<th>9515-9520</th>
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### 1” QCV 7640

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<tr>
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<td>✓</td>
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<tr>
<td>SPORTS TURF</td>
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</tr>
<tr>
<td>RECLAIMED WATER</td>
<td>✓</td>
</tr>
<tr>
<td>1” INLET (25,4 MM)</td>
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</table>
PRODUCT OVERVIEW

**Quantum Series**

- Simple proven design has few moving parts.
- Available with built in pressure regulation.
- Comes in 1” (25.4 mm) — 2” (50.8 mm) Male BSP and NPT models.
- Easy to operate internal bleed system.
- Heavy duty glass filled Nylon construction.

**9000**

- Simple proven design has few moving parts.
- Available with or without flow control.
- Comes in 1” (25.4 mm) NPT, Slip or BSP versions.
- Easy to operate internal manual bleed.
- PVC construction makes gluing a snap with the slip configuration.

**7900**

- Heavy duty glass filled nylon construction.
- Simple proven design has few moving parts.
- Available with or without flow control.
- Comes in 1” (25.4 mm) NPT or BSP versions.
- Bayonet mounted bonnet for quick and easy servicing.
9501

- ¾" (19.05 mm) & 1" (25.4 mm) EZ connect union valve makes installation and valve replacement a snap.
- Heavy duty glass filled nylon construction.
- Available with or without flow control.
- Many ¾" (19.05 mm) and 1" (25.4 mm) fittings available: BSP female, BSP male, Barb, Slip, NPT Female and NPT male.
- Bayonet mounted bonnet for quick and easy servicing.

9502

- 1½" – 2" (38.1 mm – 50.8 mm) EZ connect union valve makes installation and valve replacement a snap.
- Heavy duty glass filled nylon body with a PVC bonnet.
- Many 1½" (38.1 mm) and 2" (50.8 mm) fittings available: BSP female, Slip, NPT Female and Isolation valves.
- Eight stainless steel nuts grip into the bonnet to accommodate for extreme climatic fluctuations.

9515-9520

- 1½" (38.1 mm) and 2" (50.8 mm) combination globe or angle valve.
- Heavy duty glass filled nylon body with a PVC bonnet.
- Eight stainless steel nuts grip into the bonnet to accommodate for extreme climatic fluctuations.
- 200 PSI (13.8 bar) rated for heavy duty applications.

1" QCV 7640

- 1" (25.4 mm) quick coupling valves with rubber covers.
- Available with locking covers.
- Reclaimed water covers.
- Featuring ACME threads for convenient flow control.
VALVES

**D100E**
1” (25.4 mm) electric angle pressure regulated valve NPT MxM

**D150E**
1½” (38.1 mm) electric globe pressure regulated valve NPT MxM

**D150E3**
1½” (38.1 mm) 3-way electric globe pressure regulated valve NPT MxM

**D150H**
1½” (38.1 mm) hydraulic globe pressure regulated valve NPT MxM

**D200E**
2” (50.8 mm) electric globe pressure regulated valve NPT MxM

**D200EB**
2” (50.8 mm) electric globe pressure regulated valve BSP MxM

**D200E3**
2” (50.8 mm) 3-way electric globe pressure regulated valve NPT MxM

**D200H**
2” (50.8 mm) hydraulic globe pressure regulated valve NPT MxM

*EB = BSP*

FEATURES

- High Performance
- Low pressure loss
- Unique snap ring serviceability
- 200 PSI pressure rating
- Common solenoid with valve-in-head (E-models)
- Male pipe threads for strength and high-pressure rating

**Note:**
* Pressure springs other than the standard, pressure springs as noted above shall be made available upon request and for installation by others. Additional charges will occur.

SPECIFICATIONS

**FLOW RATE:**

<table>
<thead>
<tr>
<th>Size</th>
<th>Flow Rate (gpm)</th>
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<tbody>
<tr>
<td>1&quot;</td>
<td>5 - 40</td>
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<tr>
<td>1.5&quot;</td>
<td>30 - 180</td>
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<tr>
<td>2&quot;</td>
<td>30 - 180</td>
</tr>
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</table>

**FACTORY PRESSURE SETTINGS:**

Available in 35, 50, 65 and 80 psi

**STANDARD FACTORY SETTINGS:**

80 psi (5.5 bar)* (see Note)

**SOLENOID:**

24 VAC 50/60 Hz

Inrush Amps: 0.30

Holding Amps: 0.20

**Quantum Series Valve Pressure Loss**

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<thead>
<tr>
<th>PSI Loss</th>
<th>Flow Rate (GPM)</th>
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<tr>
<td>30</td>
<td>5.0</td>
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<tr>
<td>40</td>
<td>8.5</td>
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<table>
<thead>
<tr>
<th>PSI Loss</th>
<th>Flow Rate (GPM)</th>
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<table>
<thead>
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<tr>
<td>6.0</td>
<td>8.0</td>
</tr>
</tbody>
</table>

---

*Note:* Pressure springs other than the standard, pressure springs as noted above shall be made available upon request and for installation by others. Additional charges will occur.
**9001, 9002, 9003 GLOBE VALVE**

9011, 9012, 9013 GLOBE VALVE

### FEATURES

- Directly compatible with SoloRain® series of battery-operated actuators
- Simple, proven design has few moving parts
- Easy-to-use flow control allows tailored adjustments in all job site conditions
- Fully encapsulated solenoid with a stainless steel plunger
- Molded in solenoid seat for tighter tolerance parts
- Manual internal bleed is easy to operate – just twist the solenoid
- Fabric reinforced diaphragm for increased durability
- High grade PVC makes solvent welding an ease with slip configurations
- Six stainless steel phillips head screws
- Flat is added on all slip versions to force glue away from solenoid port, to prevent clogging

### SPECIFICATIONS

**FLOW RANGE:**
Less than 1 to 30 gpm
(0.23 – 6.81 m³/hr)

**MINIMUM PRESSURE:**
10 psi (0.7 bar)

**MAXIMUM PRESSURE:**
150 psi (10.3 bar)

**INPUT:**
24V AC

**INRUSH CURRENT:**
0.50 Amps or less

**HOLDING CURRENT:**
0.23 Amps

**THREADING:**
- NPT (9001, 9011)
- Slip (9002, 9012)
- BSP (9003, 9013)

**DIMENSIONS (l x w x h)**
4½” (10.8 cm) x 37/8” (9.8 cm) x 51/8” (13 cm) (9001, 9011, 9012)

**# PER BOX:**
20

### RECLAIMED WATER SOLENOID

Accessories

**7962**
24V AC 50/60 HZ

**7962RW**
24V AC 50/60 HZ
Reclaimed water solenoid
**VALVES**

**7901 (7916)**
Manual Internal Bleed 1” (25.4 mm) globe

**7911 (7917)**
Manual Internal Bleed 1” (25.4 mm) globe with flow control

*Note: Versions in parenthesis feature BSP threading*

**Accessories**

**7962**
24V AC 50/60 HZ

**7962RW**
24V AC 50/60 HZ
Reclaimed water solenoid

**FEATURES**

- Directly compatible with SoloRain® series of battery-operated actuators
- Body and bonnet made of glass reinforced nylon to prevent leaks and breaks
- Simple valve configuration and design; few moving parts
- Solenoid has stainless steel plunger and spring to prevent corrosion
- Manual internal bleed keeps valve box dry
- Bayonet-mounted bonnet with captured diaphragm for quick and easy servicing
- Fabric reinforced diaphragm for increased durability
- Easy-to-use flow control permits manual adjustment of water flow rate (does not apply to models 7901, 7916)
- **ACCESSORIES**
  7962RW: Reclaimed water solenoid

**SPECIFICATIONS**

| FLOW RANGE: | Less than 1 to 30 gpm (0.23 – 6.81 m³/hr) |
| MINIMUM PRESSURE: | 10 psi (0.7 bar) |
| MAXIMUM PRESSURE: | 150 psi (10.3 bar) |
| INPUT: | 24V AC |
| INRUSH CURRENT: | 0.50 Amps or less |
| HOLDING CURRENT: | 0.23 Amps |
| THREADING: | NPT (7901, 7911) |
| | BSP (7916, 7917) |
| DIMENSIONS (l x w x h) | 4” (10.2 cm) x 2¾” (7 cm) x 5” (12.7 cm) (7901, 7911) |
| | 3¾” (9.5 cm) x 2¾” (7 cm) x 5½” (15 cm) (7931, 7941) |
| # PER BOX: | 20 |

**7901 (7916 BSP) & 7911 (7917 BSP)**
1” (25,4 mm) Globe Valve

<table>
<thead>
<tr>
<th>Flow (GPM)</th>
<th>Pressure Loss (PSI)</th>
<th>Flow (L/min)</th>
<th>Pressure Loss (KPa)</th>
<th>Flow (m³/hr)</th>
<th>Pressure Loss (BAR)</th>
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**7931 & 7941 1” (25,4 mm) Angle Valve**

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<th>Flow (m³/hr)</th>
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</table>
9501 SERIES

9501
Manual Internal Bleed 1” (25.4 mm) union globe

9501FC
Manual Internal Bleed
1” (25.4 mm) union globe with flow control

¾” Fittings  1” Fittings
(19.05 mm)  (25.4 mm)
9501-075BM  9501-100BF
9501-075BR  9501-100BM
9501-075NF  9501-100BR
9501-075NM  9501-100NF
9501-075S  9501-100S

Accessories
7962
24V AC 50/60 HZ

7962RW
24V AC 50/60 HZ
Reclaimed water solenoid

9501-100IN
1” (25.4 mm) Isolation Valve

FEATURES

• Directly compatible with SoloRain® series of battery-operated actuators
• Body and bonnet made of glass reinforced nylon to prevent leaks and breaks
• Manual internal bleed keeps valve box dry
• Bayonet-mounted bonnet with captured diaphragm for quick and easy servicing
• Fabric reinforced diaphragm for increased durability
• Easy-to-use flow control permits manual adjustment of water flow rate (does not apply to model 9501)
• One-piece fully encapsulated glass filled nylon solenoid with a stainless steel plunger
• Plunger is captured with removable retainer for easy cleaning
• High-grade PVC unions located on the inlet and outlet allow maximum versatility of pipe size (¾” (19.05 mm) and/or 1” (25.4 mm) and numerous combinations. Installation and removal of the valve is a breeze!

SPECIFICATIONS

FLOW RANGE:
Less than 1 to 30 gpm
(0.23 – 6.81 m³/hr)

MINIMUM PRESSURE:
10 psi (0.7 bar)

MAXIMUM PRESSURE:
150 psi (10.3 bar)

INPUT:
24V AC

INRUSH CURRENT:
0.50 Amps or less

HOLDING CURRENT:
0.23 Amps

DIMENSIONS (l x w x h)
4½” (10.8 cm) x 3⅞” (9.8 cm) x 5⅞” (13 cm)

# PER BOX:
20

Reading model #’s:
BF= BSP female fitting
BM= BSP male fitting
BR= Barb fitting
NF= NPT female fitting
NM= NPT male fitting
S= Slip fitting

9501-075 SERIES (¾” (19.05 mm) FITTINGS)

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9501-100 SERIES (1” (25.4 mm) FITTINGS)

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### Features

- Directly compatible with SoloRain® series of battery-operated actuators
- Manual internal bleed keeps valve box dry
- Flow Control, standard on all valves, allow adjustment of water flow when needed
- Eight stainless steel ½” (12.7 mm) nuts grip into bonnet for extreme and fluctuating climatic conditions
- One-piece fully encapsulated glass filled nylon solenoid with a stainless steel plunger
- Plunger is captured with removable retainer for easy cleaning
- One-piece fabric reinforced diaphragm for increased durability

- Glass-filled nylon body with eight molded in brass studs, a stainless steel metering rod and high-grade PVC bonnet for heavy-duty applications up to 200 psi (13.8 bar)
- High-grade PVC unions located on the inlet and outlet allow maximum versatility of pipe size (1½” (38.1 mm) and/or 2” (50.8 mm) and fitting combinations (slip and/or threaded). Installation and removal of the valve is a breeze!

### Specifications

- **Flow Range:** 20-200 gpm (4.54 – 45.40 m³/hr)
- **Minimum Pressure:** 15 psi (1.03 bar)
- **Maximum Pressure:** 200 psi (13.8 bar)
- **Input:** 24V AC
- **Inrush Current:** 0.50 Amps or less
- **Holding Current:** 0.23 Amps

### Dimensions (l x w x h)

- 7½” (21.6 cm) x 5½” (14 cm) x 8” (20.3 cm) (globe)
- 11½” (29.2 cm) x 5½” (14 cm) x 5” (12.7 cm) (globe)

### # PER BOX:

- 4 (valve bodies)
- 16 (fittings)
- 4 (isolation valves)

### Flow Loss

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<th>Flow (GPM)</th>
<th>9500 1½ Globe (KPa)</th>
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<th>Flow (L/min)</th>
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9515/9520 SERIES

Accessories

7962
24V AC 50/60 HZ

7962RW
24V AC 50/60 HZ
Reclaimed water solenoid

FEATURES

• Directly compatible with SoloRain® series of battery-operated actuators
• Manual internal bleed is easy to operate – just twist the solenoid
• Flow Control, standard on all valves, allows adjustment of water flow when needed
• One-piece fully encapsulated glass-filled nylon solenoid with a stainless steel plunger: Plunger is captured with removable retainer for easy cleaning
• Manual bleed by rotating solenoid approximately ¾ of a turn counter clockwise
• Eight stainless steel ½” (12.7 mm) nuts grip into bonnet for extreme and fluctuating climatic conditions
• One-piece fabric reinforced diaphragm for increased durability
• 200 psi (13.8 bar) rated valve for heavy-duty applications
• Glass-filled nylon body with eight molded in brass studs, a stainless steel metering rod and high-grade PVC bonnet

SPECIFICATIONS

FLOW RANGE:
9515: 15-150 gpm (3.40 – 34.07 m³/hr)
9520: 15-200 gpm (3.40 – 45.42 m³/hr)

MINIMUM PRESSURE:
15 psi (1,03 bar)

MAXIMUM PRESSURE:
200 psi (13,8 bar)

INPUT:
24V AC

INRUSH CURRENT:
0.50 Amps or less

HOLDING CURRENT:
0.23 Amps

DIMENSIONS (l x w x h)
6¼” (17.1 cm) x 5½” (14 cm) x 8” (20.3 cm) (9515 with plug)
6¼” (17.1 cm) x 5½” (14 cm) x 8½” (21.6 cm) (9520)

# PER BOX:
4

PRESSURE LOSS

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<tr>
<th>Flow (GPM)</th>
<th>9515NC 1½” Globe</th>
<th>9515NC 1½” Angle</th>
<th>9520NC 2” Globe</th>
<th>9520NC 2” Angle</th>
<th>9515BC 1½” Globe</th>
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<th>9520BC 2” Globe</th>
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Quick Coupling Keys

**7640**
Quick Coupling Key
¾” male x ½” female

**7641**
Quick Coupling Key
1” male x ¾” female

Quick Coupling Valves 1”

**7642**
Quick Coupling Valve with Yellow Non-Locking Cover
1” NPT (25.4 mm)

**7642B**
Quick Coupling Valve with Yellow Non-Locking Cover
1” BSP (25.4 mm)

**7643**
Quick Coupling Valve with Yellow Locking Cover
1” NPT (25.4 mm)

**7643B**
Quick Coupling Valve with Yellow Locking Cover
1” BSP (25.4 mm)

**7644**
Quick Coupling Valve with Lavender Non-Locking Cover
1” NPT (25.4 mm)

**7644B**
Quick Coupling Valve with Lavender Non-Locking Cover
1” BSP (25.4 mm)

**7645**
Quick Coupling Valve with Lavender Locking Cover
1” NPT (25.4 mm)

**7645B**
Quick Coupling Valve with Lavender Locking Cover
1” BSP (25.4 mm)

**8649**
QCV Locking Cover Key

Features

Signature® quick coupling valves and keys use ACME® threads for slow and steady flow control instead of immediate on/off. All models feature rubber cover. Optional locking cover available. Optional lavender rubber cover identifies reclaimed water site – molded in “RECLAIMED WATER - DO NOT DRINK”: in English and Spanish. 10 Per Box
AGRICULTURAL SPRINKLERS
### APPLICATIONS

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PRODUCT OVERVIEW

**6700**

- Includes seven color coded nozzles.
- Combination ½” (1.27 cm) & ¾” (1.9 cm) inlet.
- Adjustable from 20° - 360°.
- Spacing from 23’ – 43’ (7 m – 13 m) with a flow rate of 1.5 – 6.3 gpm (5.68 – 23.85 l/min).

**1370**

- Perfect for mounting on risers installs.
- Features ½” (1.27 cm) male threads.
- Includes seven nozzles.
- Adjustable from 20° - 360°.
- Spacing from 23’ – 43’ (7 m – 13 m) with a flow rate of 1.5 – 6.3 gpm (5.68 – 23.85 l/min).

**1973**

- Ideal for riser installs in planting areas.
- ½” (1.27 cm) female threads.
- 40’ (12.2 m) diameter coverage.
- 3.4 – 4.4 gpm (12.8 – 16.6 l/min) flow.
**AGRICULTURAL SPRINKLERS**

### 6700 Pro Impact

### Accessories
- **6701** Lavender Cover
- **8601** Wrench
- **8820** Anti Drain Valve (ADV)

### NOZZLE COLOR CODES
- Red 6
- Beige 12
- Black 7
- Black 7LA
- Blue 8
- Yellow 10
- Yellow 10 LA
- Beige 6
- Black 12
- Black 7
- Black 7 LA
- Blue 8
- Yellow 10
- Yellow 10 LA

### NOZZLE PERFORMANCE CHARTS FOR 6700 and 1370

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### SPECIFICATIONS

- **OPERATING RANGE:** 25-60 psi
- **OPTIMUM PRESSURE:** 40 psi
- **MAXIMUM PRESSURE:** 60 psi
- **PART-CIRCLE RANGE:** 20° - 340°
- **POP-UP HEIGHT:** 3” (7.6 cm)
- **BODY HEIGHT:** 9¾” (23.5 cm)
- **BOTTOM INLET SIZE:** ½” and ¾” (1.27 cm and 1.9 cm)
- **SIDE INLET SIZE:** ½” (1.27 cm)
- **TOP DIAMETER:** 5” (12.7 cm)
- **# PER BOX:** 20

### FEATURES

- Includes seven easily interchangeable, color-coded nozzles and 2 low-angle nozzles.
- No tool is required to change nozzles.
- Heavy-duty plastic case with sturdy, reinforced ribbed design.
- Double-weighted arm for slower rotation and increased distance of throw.
- Powerful reverse action.
- Adjustable arm spring for low-pressure and low-gallonage operation.
- Full-circle or adjustable arc 20° to 340°.
- Distance controller diffuser pin.
- Multi-function, pressure-activated wiper seal.
- Inlet filter screen.
- Combination ½” (1.27 cm) or ¾” (1.9 cm) bottom inlet
- Side inlet ½” (1.27 cm)
- Serviceable through the top of the case.
### FEATURES

**1370**

Beta impact spray heads provide outstanding performance at an affordable price. Made with high impact plastic, they are durable, keeping maintenance to a minimum.

- Includes five easily interchangeable, seven nozzles and 2 low-angle nozzles.
- No tool is required to change nozzles.
- ½” (1.27 cm) male threads
- Non-clog nozzle and straight-through flow design
- Sealed bearing keeps dirt and debris out
- Anti-backsplash arm keeps water off buildings
- Adjust pattern and spray with diffuser pin and exclusive Click-Set® trip collars
- Use 1370’s for riser installations
- Diffuser pin maintains set spray pattern adjustment

**1973**

- Ideal for riser installations in planting areas
- ½” (1.27 cm) female threaded inlet
- Made of high-impact corrosion resistant plastic
- Stainless steel bearing and large orifice nozzle
PRODUCT OVERVIEW

RAIN SWITCH
8501

- Easily installs on any Galaxy™ or Constellation® satellite.
- Includes 25 ft (7.6 m) of 20 AWG two-conductor wire.
- Maintenance-free patented sensing mechanism.
- Automatically shuts off and starts irrigation based on local parameters.

SOIL SENSOR
ANALOG
ACAS1
ACANSC

- Easily installs on any Galaxy™ or Constellation® satellite.
- Includes 10 ft (3 m) of 20 AWG two-conductor wire.
- Maintenance-free patented sensing mechanism.
- Automatically shuts off and starts irrigation based on local parameters.
- Tough polycarbonate construction for direct burial
- 4-20 mA Sensing board required (sold separately).

SOIL SENSOR
NETWORK
ACNS1
ACNS2
ACNS3
ACNS4
ACNS5
ACNS6
ACNS7

- Easily installs on any Galaxy™ or Constellation® or Aurora® satellite (Firmware v6.00+).
- Includes 10 ft (3 m) of 20 AWG two-conductor wire.
- Maintenance-free patented sensing mechanism.
- Automatically shuts off and starts irrigation based on local parameters.
- Tough polycarbonate construction for direct burial.
- Variety of sensing programming parameters
FEATURES

- Unit ready for bracket mount or ½” (12.7 mm) conduit/pipe thread mount at bottom
- Adjusts easily from ⅛” (3.2 mm) to 1” (25.4 mm) rainfall
- Wired for Normally Closed but can be converted to Normally Open
- Supplied with 25 (7.6 m) ft of hookup wire
- Saves unneeded watering
- Designed to be used with low voltage irrigation systems only

SPECIFICATIONS

Soil Sensor:- Analog

ACASI
Soil Moisture Sensor
Analog Output

ACANS
Sensor Card
(required for 4-20mA linear sensors)
(not shown)

FEATURES

- Provides linear measure of soil moisture content
- Works on any Constellation® or Aurora® firmware
**Soil Sensor:- Network**

- **ACNS1** Soil Moisture Sensor
- **ACNS2** Soil EC (Electrical Conductivity) Sensor
- **ACNS3** Soil Temperature Sensor
- **ACNS4** Soil Wetted Front Sensor
- **ACNS5** Soil Moisture, Soil EC
- **ACNS6** Soil Moisture, EC, Temperature
- **ACNS7** Soil Moisture, EC, Temp & Wetted Front Sensor

**FEATURES**

- Can broadcast up to four outputs (soil moisture, EC, soil temperature and wetted front) across the network and trigger any program on any controller in the network to either start or stop based on adjustable targets set in a program for any of the four sensor outputs.
- The firmware allows for the selection of any one output or a combination of the four outputs in one sensor.
- The firmware can be upgraded from the controller without having to dig up the sensor.
- Each controller can have a maximum of 2 1,000 ft runs of 18 AWG 4 conductor / 2 pair wire connecting up to 15 sensors.
- Up to 999 controllers and/or sensors on one network.
- The PRO-Sense design makes it easy to install with little or no soil or root disruption.

**Note:**

*Constellation® or Aurora® Firmware v6.00 or higher required*
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<th>HOT SHOT™</th>
<th>COOL SHOT™</th>
<th>FAN SHOT™</th>
<th>WETTING AGENT™</th>
<th>THE GUZZLER™</th>
<th>HOSE HEAD™</th>
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PRODUCT OVERVIEW

**HOT SHOT™**
- Available in both ¾” and 1” hose thread sizes
- The multi-pattern nozzle is great for jet cleaning equipment to soaking delicate plant material
- Heavy duty aluminum construction
- Lavender nozzles available for non-potable water applications

**COOL SHOT™**
- Available in both ¾” and 1” hose thread sizes
- Provides heavy shower for soaking or heavy irrigating
- Cool Shot Plus includes regulator with on – off control
- Heavy duty aluminum or plastic version available
- Lavender nozzles available for non-potable water applications

**FAN SHOT™**
- Available in both ¾” and 1” hose thread sizes
- Fan Shot Plus includes regulator with on – off control
- Economical High impact plastic construction
- Multiple nozzles available for various pressures
**Wetting Agent Applicator**

- Perfect for applying wetting agents or fertilizers
- Available in both ¾” and 1” hose thread sizes
- Can be installed at the beginning or end of your hose
- Available with the Cool Shot nozzle
- Economical High impact plastic construction

**HOSE HEAD™**

- Turns many sprinkler heads into a hose bib with a 360° swivel
- Includes both ¾” and 1” hose thread fittings
- Adapts from Hunter G60, G70 & G90
- Adapts from Rain Bird Eagle 700 & 900 series
- Adapts from Toro 630, 680, 750, 780, 850, & 880 series
- Adapts from Signature® D50 & D70 series
- Adapts from Signature® 280 Series
HOT SHOT™ FEATURES

Hot Shot™ with Regulator
Multi Pattern Nozzle

If you could only have one nozzle, this would be it. This heavy duty Hot Shot™ sprays hot spots, jet cleans equipment and soaks even the most delicate plant material. The Hot Shot™ is available with a lavender nozzle for use in non-potable applications. The hot shot is available in both ¾” and 1” hose threads.

COOL SHOT™ FEATURES

Cool Shot™ and Cool Shot™ Plus
Shower Head Nozzles

The Cool Shot™ families of nozzles are available in three varieties, the standard Cool Shot™, the Cool Shot™ Plus, and the Cool Shot™ Plus Economy. The Cool Shot’s™ shower pattern is perfect for soaking or heavy watering of all types of plant material. The Cool Shot™ Plus with regulator includes on – off flow control and the Cool Shot™ Plus Economy gives you all the same great features while taking advantage of the cost saving plastic construction. All Cool Shot™ nozzles are available in both ¾” and 1” sizes. All Cool Shot™ nozzles can be ordered with the lavender non-potable water nozzles preinstalled.
Fan Shot™ and Fan Shot™ Plus
The Fan Shot is a slotted fan spray nozzle designed for various flows both with and without regulators. The Fan Shot is available in ¾” and 1” models. All of the color coded nozzles can be purchased on regulated or non-regulated bodies, individually or in a combo kit. Blue = 30 gpm, Red = 20 gpm, Yellow = 10 gpm.

Wetting Agent Applicator
Apply your costly wetting agents or fertilizers evenly and efficiently. This on-off, variable flow control unit connects easily to the beginning or end of your ¾” and 1” hose. It’s also available with a factory installed Cool Shot Nozzle.

Hose Head All-In-One Hose Adapter & Swivel
The Hose Head adaptor is a quick and easy way to convert a standard Rotor into a 360° swiveling hose bib. The Hose Head adapter will allow you to connect a standard 1” or ¾” hose to many Rain Bird, Hunter, Toro and John Deere rotors. Simply remove the internal assembly, install the Hose Head and you’re set. Each Hose head comes with both ¾” and 1” fittings. The Hose Head will work with: Rain Bird G70 series, Hunter G60 G70 G90 G800 series, Toro 630 650 660 680 730 750 760 780 830 850 860 880 series, Signature® D50 D55 D70 D75 series and Signature® 280 series.
### PVC Schedule 40 IPS Plastic Pipe

V(1200, 1220) C = 150
PSI Loss Per 100 Feet of Tube (PSI/100 FT)

#### FRICTION LOSS CHARACTERISTICS

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#### Table of Contents

- PVC Schedule 40 IPS Plastic Pipe
- FRICTION LOSS CHARACTERISTICS

#### Notes

- Velocity of flow values are computed from the general equation:
  \[ V = \frac{408}{d^2} \]
- Friction pressure loss values are computed from the equation:
  \[ h_f = 0.2043 \times \left( \frac{d}{1200} \right)^{1.785} \times \rho_{GPM} \times \frac{V}{d} \]

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**Note:** Shaded areas of chart indicate velocities over 5’ per second. Use with Caution.

www.SignatureControlSystems.com
### PVC Class 125 IPS Plastic Pipe

(1200, 1220) SDR 32.5 C = 150

**Friction Loss Characteristics**

<table>
<thead>
<tr>
<th>Velocity of Flow</th>
<th>f</th>
<th>Pressure Loss</th>
<th>(\frac{V^3}{Q_{av}})</th>
<th>(\frac{n}{100}Q_{av})</th>
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<td>1.25 GPM</td>
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**Note:**
- Shaded areas of chart indicate velocities over 5' per second.
- Use with caution.

**Pressure Loss Equation:**

\[ P = \frac{V^3}{Q_{av}} \]

**Friction Pressure Loss Values:**

\[ h_f = 0.0083 (100n) \frac{Q_{av}}{V^3} \]
### PVC CLASS 160 IPS PLASTIC PIPE

((1200, 1220) SDR 26 C = 150)

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**Flow Chart 1 thru 800**

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<td>0.57</td>
<td>0.85</td>
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<td>1.96</td>
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<td>0.17</td>
<td>0.25</td>
<td>0.40</td>
<td>0.50</td>
<td>0.59</td>
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**P.I.S. Velocity**

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<td>0.17</td>
<td>0.25</td>
<td>0.40</td>
<td>0.50</td>
<td>0.59</td>
<td>0.70</td>
<td>0.85</td>
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**Velocity of Flow values are computed from the general equation:**

\[ V = \frac{Q}{DA} \]

**Friction pressure loss values are computed from the equations:**

\[ h_f = \frac{Q^2}{2gD^4} \]

**Note:** Shaded areas of chart indicate velocities over 5' per second. Use with Caution.
### PVC CLASS 200 IPS PLASTIC PIPE

(1200, 1220) SDR 21 C = 150
PSI LOSS PER 100 FEET OF PIPE (PSI/100 FT)

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<th>Velocity (ft/min)</th>
<th>Flow Rate (GPM)</th>
<th>Pipe Loss</th>
<th>Diameter (IPS)</th>
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Note: Shaded areas of chart indicate velocities over 5' per second. Use with Caution.
### PVC CLASS 315 IPS PLASTIC PIPE

(1200, 1220) SDR 13.5 C = 150  
PSI LOSS PER 100 FEET OF PIPE (PSI/100 FT).

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Note: Shaded areas of chart indicate velocities over 5' per second. Use with Caution.
## Friction Loss Characteristics

For Polyethylene (PE) SDR-Pressure Rated Tube

(2306, 3060, 3806) SDR / 9, 11.5, 15 C = 140
PSI Loss per 100 Feet of Tube (PSI/100 FT)

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Note: Shaded areas of chart indicate velocities over 5 ft per second. Use with caution.

Velocity of flow values are computed from the general equation:

\[ V = \frac{Q}{A} \]

Friction pressure loss values are computed from the equation:

\[ \Delta P = \frac{V^2}{2g} \]

where:

- \( V \) is the flow velocity (ft/s) at the given flow rate (gpm)
- \( A \) is the cross-sectional area of the pipe (in.²)
- \( \Delta P \) is the friction pressure loss (psi)
- \( Q \) is the flow rate (gpm)
- \( g \) is the acceleration due to gravity (32.2 ft/s²)

---

**Additional Information**

1. **FRICTION LOSS CHARACTERISTICS**
2. **TECHNICAL**
3. **Signature Control Systems, Inc.**

---

**Table of Contents**

- Previous
- Next
PIPE FITTINGS
Expressed as Equivalent Footage of Pipe

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The maximum PR values listed below are as suggested by the United States Department of Agriculture. The values are average and may vary with respect to actual soil condition and condition of ground cover.

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FRICTION LOSS CHARACTERISTICS

WATER METERS

AWWA STANDARD PRESSURE LOSS: (PSI)

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Signature Control Systems, Inc.

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