

### PRODUCT OVERVIEW



SmartStorm Irrigation Controller™ is a robust, 10-zone irrigation controller with a built-in web server. It can be controlled over any IP network, including the Internet\* and private networks. The SmartStorm excels in its web interface which can be accessed from any location on a standard web browser using a computer or smart phone, which provides a much larger screen than a typical sprinkler controller's small built-in display. The web interface simplifies creating watering schedules, sensor monitoring, and manually controlling sprinkling systems, making these tasks extremely user-friendly and intuitive, while eliminating the need to reference a users manual each time watering season begins.

Remotely accessing and controlling the SmartStorm through its web interface is incredibly efficient for maintenance and repairs, allowing you to isolate broken equipment (sprinkler heads, pipes, valves, etc.) while in the field/yard, without needing a second technician at the controller, or without needing to go back and forth between the controller and the broken equipment ... Simply turn valves on and off using your smartphone.

Accessing the web interface allows for instant adjustments to the watering program for weather-related issues, or to treat dry/over-watered sections.

Technicians or other personnel who do not have direct access to the SmartStorm's web interface can also manually operate the sprinkling system using a single pushbutton on the SmartStorm to cycle through each station.

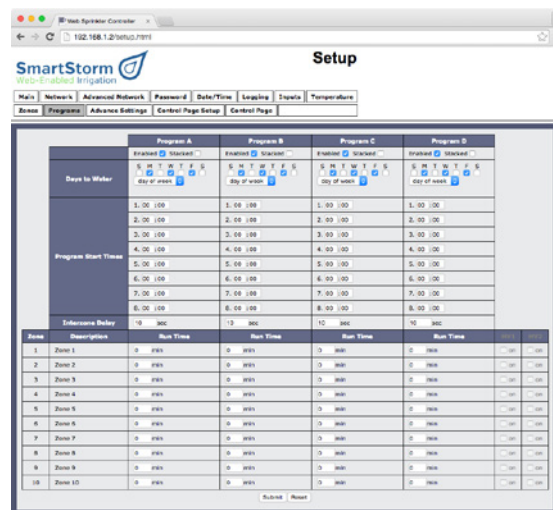
Because water conservation is so important, we've also added the ability to control your irrigation programming based on rainfall and temperature by connecting appropriate sensors.

The SmartStorm is designed to be extremely reliable! Even if you don't have a constant Internet or network connection, SmartStorm Irrigation Controller will continue to run by itself.

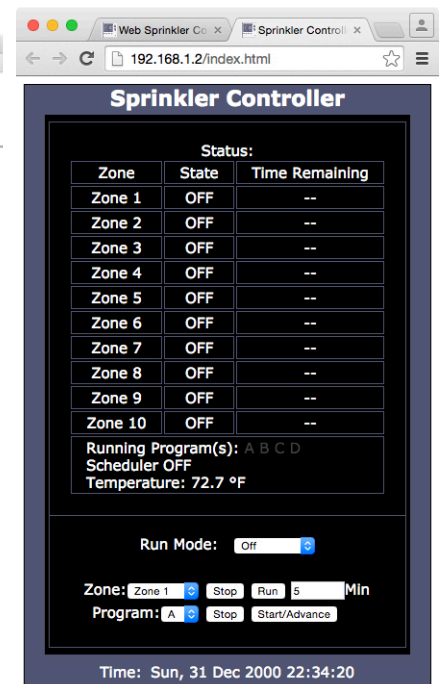
\*Note that accessing SmartStorm remotely over the Internet requires the installer to setup your router to forward incoming requests to SmartStorm.

### Features:

- Easy-to-use web page setup and status monitoring
- 10 Zones - Two of which may be programmed as a master valve/pump
- Two digital inputs for additional control features
- Four individual timing programs
- Programmable delay between stations
- Variable programming schedule: odd day, even day, day of week intervals
- Seasonal water budget
- Temperature triggered shutdown (with optional sensor)
- Logging (event based)
- Real-time clock
- Static or DHCP IP address configuration
- Field updatable
- Removable 14-pin and 5-pin terminal connectors
- Built-in web server provides stand-alone operation (i.e. direct access to unit without using a cloud server; no monthly or annual service fees)



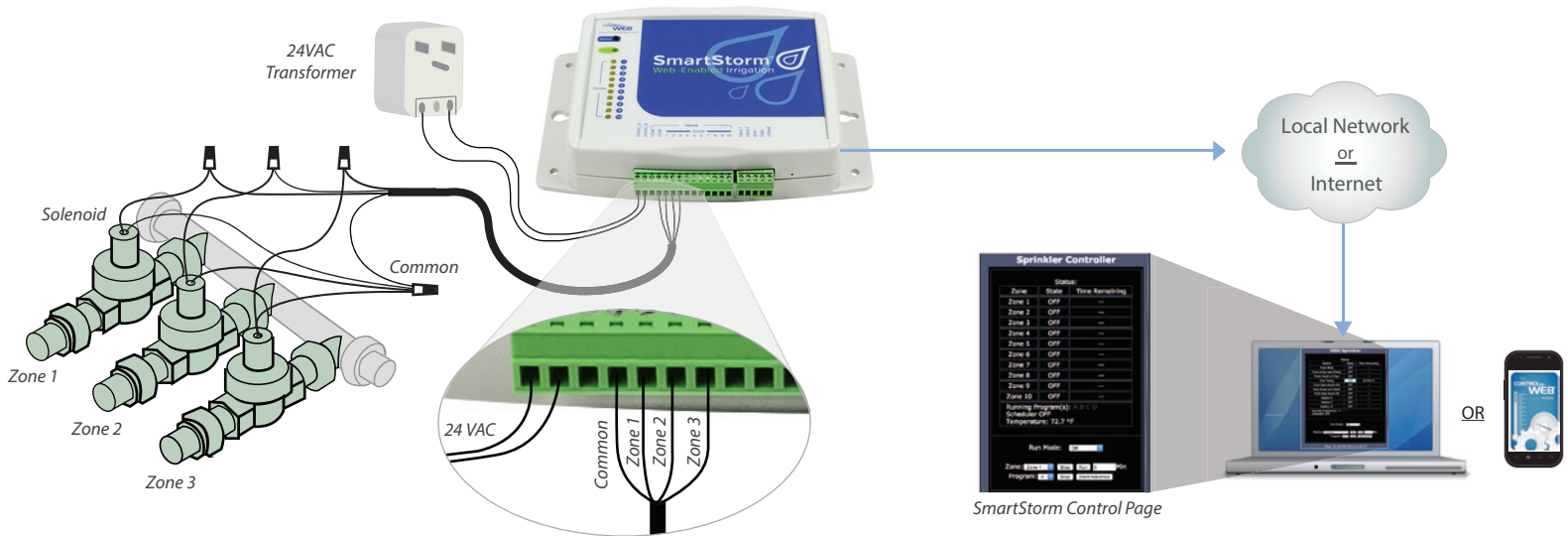
SmartStorm Program Setup Page



SmartStorm Control Page

## APPLICATIONS & SPECS

### SmartStorm Example Wiring Diagram



#### Models:

- X-340-A

#### Electrical

- Input Voltage: 24VAC  $\pm$ 10%, 60Hz
- Input Current: 125mA typ (10Mbps), 180mA typ (100Mbps), plus zone valves.
- Zone Load Capacity: Up to two 24VAC, 7VA solenoid valves
- Internal Fuse: 1.5Amp, 3AG (1/4 x 1-1/4")
- Protection: AC input and each zone output is protected with an internal MOV (metal oxide varistor) over voltage surge protection device
- Program Storage: Nonvolatile memory

#### Operating

- Programming:
  - Easy-to-use web page setup and operation, load
  - Zones can be named, programs are displayed in chart format
- Number of zones: 10 (two zones can be programmed as a master valve or pump)
- Station timing:
  - Four individual programs (A, B, C, D), 1-minute increments up to 254 minutes/station
  - Programmable delay between stations
- Start Time: Eight for each program
- Programming Schedule: Odd day, even day, day of week, variable day cycle
- Seasonal Water Budget: 0 – 200%
- Shutdown: With low temperature or rain
- Logging: Temperature and schedule events are logged to memory

#### Ethernet

- 10 Base-T or 100 Base-T, 8-pin RJ-45 Ethernet

#### Network

- Ethernet IPv4, Static IP address or DHCP
- Supports web browser (HTTP) and XML

#### Remote Services

- REAL-TIME CLOCK
- Manual or NTP (Network Time Protocol) setup
- Automatic daylight savings adjustment
- Battery backup (super capacitor), 30 days min
- Accuracy  $\pm$ 1 minute/month

#### Removable Connectors

- Zones: 14-position, 3.81mm
- Sensor Input: 5-position, 3.81mm

#### Pushbutton & LED Indicators

- Pushbutton: Manually select and activate a specific zone (plus pump if enabled)
- Green LED: Power On
- Yellow LED: Zone 1 thru 10
- Ethernet: Green = Linked, Yellow = Activity

#### Sensor Inputs

- Digital Inputs:
  - Quantity: Two
  - Function: Programmable, rain delay or manual operation
  - Vin Max: +5V, Internal pullup = 47K
  - Vin HI: 2.8V (min), Vin LO = 1.0V (max)
  - Maximum cable length: 50 feet (relay isolation can be used for longer runs)
- Temperature Sensor:
  - Type: Dallas Semiconductor DS18B20 digital 1-wire thermometer
  - Accuracy:  $\pm$ 0.5°C from -10°C to +85°C
  - Max Cable Length: 600 ft (180m)

#### Environmental

- Indoor use or NEMA-4 protected location, Category II, Pollution Degree 2
- Altitude: Up to 2,000m
- Operating Temperature: -40°C to 65.5°C
- (-40°F to 150°F)
- Storage Temperature: -40°C to 85°C
- (-40°F to 185°F)
- Humidity: 5-95%, non-condensing

#### Mechanical

- Mounting: Wall Mount
- Material: Polycarbonate plastic
- Size: 7.56 x 5.06 x 1.54 in. (192.14 x 128.64 x 39.24mm) - not including connector
- Weight: 12.3 oz (348.7 g)

#### Electromagnetic Compliance

- IEC CISPR 22, CISPR 24
- FCC 47CFR15 (Class B)
- EN55024 ITE Immunity (2010)
- EN55022 Emissions (2010)