

SiteControl

Modular Central Control For Complex Single Site Commercial Applications

SiteControl provides sophisticated management for virtually any size commercial irrigation project using satellites, decoders or both. With ET-based scheduling, multiple interactive maps and the flexibility to segment the property, the plant types and irrigation product types to suit the Water Manager, SiteControl makes system management simple, fast and intuitive.

Features

Design Flexibility

- Site conditions and user preferences can be taken into account by using decoders, satellites or both.
- Multiple central-to-satellite communication methods are supported.
- Complex multiple sensor inputs, and reactions to them can be implemented.

Expansion Capability

- The central control system can be expanded in phases as the site develops.
- Up to 200 points of connection into individual main lines can be monitored and managed.
- Up to 21,504 irrigation zones can be managed from the central controller.

Ease Of Operation

- Interactive maps can be used to monitor and manage the system.
- Base maps can be generated using GPS coordinates, design software plans or as-builts (requires the use of CAD Importer or similar software) or aerial photographs. Interactive symbols for satellites, valves and sprinklers can be positioned on the base map.
- Areas and distances on the map can be calculated.
- The central controller is constantly online with the field, providing immediate visual confirmation of current status of all irrigation zones, sensors and pump stations.
- Dry run graphs predict future operations allowing the Water Manager to make programming changes in advance.
- Flow graphs display all previous flow and scheduled irrigation.
- Alarm conditions are posted real-time allowing immediate reaction by the Water Manager.
- Advanced diagnostic capability for locating,

troubleshooting and predicting issues with two-wire decoder systems.

- One-touch viewing of all programs scheduled to operate the next day.
- Cost estimator takes into account water and power costs.

Savings

- Water savings through ET-based scheduling and local rainfall accountability using on-site weather stations and tipping rain buckets.
- Water savings through real-time comparison of actual and expected flow with action taken in case of excess flow.
- Labor savings through complete central management and flexible field remote management options.
- Power savings through precise management of pump stations for maximum efficiency.
- Maintenance, repair and replacement savings of pump stations, main and lateral lines, fittings and valves through precise hydraulic management.

System specifications

The computerized central control system shall be the Rain Bird SiteControl as hereinafter specified. It shall be capable of controlling a single site with up to 16 locations or areas. It shall also be capable of controlling up to 7 special areas and 7 irrigation classes, each of which shall be capable of being divided into 5 sub-classes. The control equipment shall include a satellite interface device (TWISAT2 hard wire communication from interface to satellite or TWISATL Link communication from interface to satellite) or a decoder interface device (LDITURF).

The satellite interface device shall control up to 28 channels per wire group. Each channel shall control up to 24 satellite stations. Each satellite greater than 24 stations shall require two channels on the wire group. Each wire group shall control up to 672 satellite stations.

The LDITURF shall be capable of managing up to 500 decoder addresses and up to 1,000 solenoids. Maximum number of solenoids per interface and maximum number of solenoids operational at any one time is a function of specific system design.



Software Specifications

The SiteControl software shall operate in the Microsoft® Windows® system environment. SiteControl shall provide true central control through continuous "on-line" two-way communication between the central computer, the interface unit(s) and their satellites and/or decoders and sensors.

The SiteControl software shall be capable of operating of operating a maximum of 8 TWISAT2's, 2TWISATL's and LDITURF's of any combination.

SiteControl shall be capable of managing 100 programs and 25 schedules within each program. Each program shall have up to 6 start times and each schedule shall have up to 12 start times. The system Water Budget shall be adjustable from 0 to 300% in 1% increments. The program and schedule Water Budget shall be adjustable from 0 to 999% in 1% increments. The Dry Run feature shall predict future irrigation cycles on a minute-by-minute basis.

How To Specify

SCON / ISCON

Models

SCON: SiteControl

ISCON: SiteControl (International)

**please refer to software module options on next page*

Interfaces

(TWI, SDI, LDI ordered separately)

Zone precipitation rates shall be automatically calculated for various rotor and spray products. Flow measurements shall be displayed in US gallons per minute, liters per second or cubic meters per hour.

SiteControl shall be capable of controlling up to 200 master valves and flow sensors supplying individual main lines.

The software shall operate in one of the following 11 languages: English, French, German, Spanish, Swedish, Italian, Portuguese, Korean, Japanese, Chinese (traditional) or Chinese (simplified). Remote field access shall be provided through phone or radio with the Freedom System. The control system shall be bundled with a 1-year Global Support Plan (GSP) (Not available in all markets).

In North America, software is pre-installed on a computer supplied by Rain Bird.

Software Features

- **Automatic ET imports** weather data and accepted rainfall from weather station(s) into the system 7-day weather stack to provide Current Net ET for use with ET-Sensitized schedules.
- **Smart Weather Alarms** provides real-time reaction in the central controller to rain, wind and temperature thresholds at the WSPRO2 weather station(s).
- **Rain Bird Messenger** allows the central controller to report alarm conditions to recipients by page, text message or e-mail.
- **Hybrid** increases system capacity from 1 to 2 TWISAT2, TWISATL or SDI interface devices.
- **SiteControl Plus** supports a maximum of 8 interface devices of any combination are supported.
- **Map Utilities** calculates distance and area on the map; not required to for the design or operation of an interactive map.
- **Smart Sensors** provides the ability to incorporate and react to up to 200 static (on/off) sensors. Smart Sensors also provides Flow-Watch™ reaction to up to 200 flow sensors; not required to read output from the flow sensors.
- **Freedom** supports the FREEDOMFOR Freedom Phone remote control system or the FREERADNSP Freedom Radio remote control system. Requires option Freedom Software Module.
- **Locations** Up to 16 programming locations.
- **Wire Groups** SiteControl supports up to 112 channels on the TWISAT2 and TWISATL.
- **Smart Pump** incorporates the real-time monitoring and management of Rain Bird pump stations into the system.
- **Multiple Weather Stations** supports up to 3 additional weather stations; not required for

the first weather station.

TWISAT(2 or L) Hardware Specifications

The Two-Wire Interface (TWISAT2 or TWISATL) shall be an interface between the central controller and Rain Bird Commercial ESPSAT Series field satellites. When hard wire secondary communication is used between the interface and the satellites the TWISAT2 interface and the ESPSAT2 Series field satellites shall be specified. When Link secondary communication is used between the interface and the satellites the TWISATL interface and the ESPSATL Series field satellites shall be specified.

Features

- The TWISAT(2 or L) operates up to 112 channels per wire group.
- The standard TWISAT(2 or L) has 4 wire groups.
- Each channel controls up to 24 satellites stations. Satellites greater than 24 stations require 2 channels on the same wire group.
- Sensors in hard wire systems consisting of a TWISAT2 interface and ESPSAT2 Series satellites utilize DECPULLR Pulse Decoder for pulsed inputs and DECSENLR Sensor Decoder for switched inputs.
- Each Pulse and/or Sensor Decoder requires a channel on a wire group.
- Sensors in Link systems consisting of a TWISATL interface and ESPSATL Series satellites utilize sensor inputs within the satellite.
- Each ESPSATL Series satellite has two sensor inputs. The use of these inputs does not require channels on a wire group.
- Each Flow Sensor requires a Rain Bird PT322 or PT3002 Pulse Transmitter.
- Each wire group can manage up to 10 sensors, either pulsed or switched.
- UL listed.
- Cabinet is wall-mount drawn steel, seamless with hinged front panel.
- Primary data path (central controller to TWISAT): serial cable.
- Secondary data path (TWISAT to field satellites): hard wire or Link.

Electrical Specifications

TWI Hardwire

- Input: 120VAC ± 10% @ 1.25A 60/50 Hz or 220/230/240VAC ± 10% @ .5A 60/50 Hz
- Output: 2 x 26.5VAC @ .9A 60/50 Hz or 4 x 26.5VAC @ .9A 60/50 Hz
- Circuit breaker: NA (Autoresettable)

TWISATL

- Input: 120VAC ± 10% @ 1.25A 60/50 Hz or 220/230/240VAC ± 10% @ .5A 60/50 Hz

- Output: NA
- Circuit breaker: NA

Dimensions

- Width: 15 ½" (39,3 cm)
- Height: 12 ½" (31,7 cm)
- Depth: 6" (15,2 cm)

Models

120 VAC (60 Hz)

- TWISAT2
- TWISATL

220/230/240VAC (60/50 Hz)

- ITWISAT2
- ITWISATL

Decoder Hardware Specifications

The Large Decoder Interface (LDITURF) shall be an interface between the central controller and Rain Bird Commercial output and sensor decoders. The LDITURF shall manage up to 500 decoder addresses. A decoder address shall be able to activate up to 2 solenoids depending on the output decoder model, the electrical specifications of the solenoid and site specific design considerations. The LDITURF shall be capable of supporting up to 4 wire paths.

The output decoders shall be any combination of FD101, FD102, FD202, FD401 or FD601 decoders. The FD101 shall have 1 decoder address and be able to activate 1 solenoid. The FD102 shall have 1 decoder address and be able to activate 2 solenoids. The FD202 shall have 2 decoder addresses and be able to activate 2 solenoids per address. The FD401 shall have 4 decoder addresses and be able to activate 1 solenoid per address. The FD601 shall have 6 decoder addresses and be able to activate 1 solenoid per address. The FD401 and FD601 shall have built-in surge protection. The LSP-1 Line Surge Protector shall provide surge protection when FD101, FD102 or FD202 output decoders are specified.

Sensor inputs shall be through the SD210 Sensor Decoder. The Sensor Decoder shall be capable of providing switched (on/off), pulsed (flow) or programmable (4 – 20 mA in .08 mA increments or 0 – 10 volts in 50 mV increments) inputs. Each SDITURF or LDITURF shall manage up to 25 Sensor Decoders.

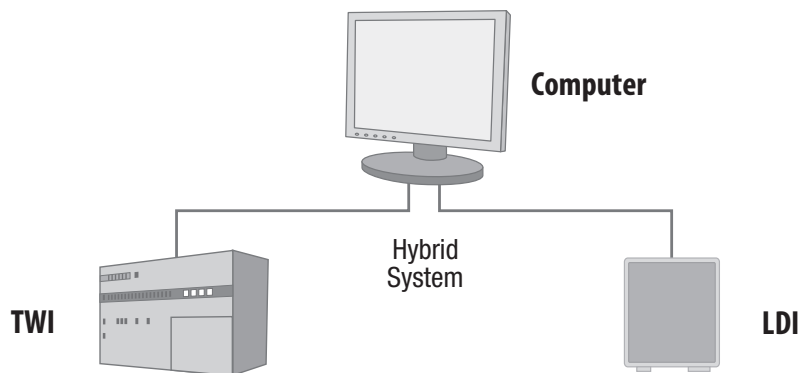
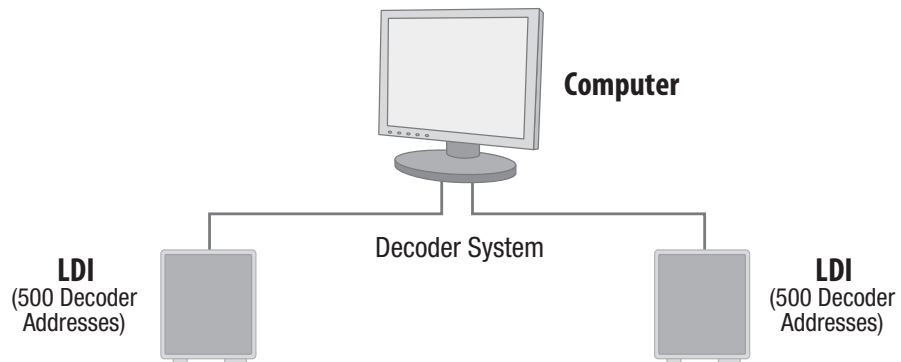
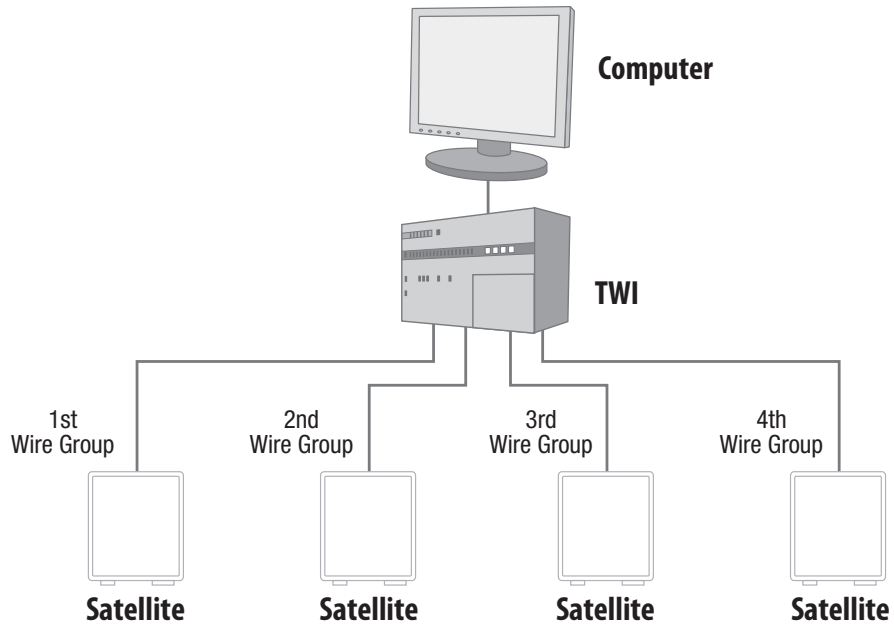
LDITURF Electrical Specifications

North America (External transformer)

- Input: 120VAC ± 10% 60 Hz
- Output: 24 VAC ± 10% 75 VA

International Recommended Specifications (Transformer not supplied)

- Input: 220/230/240VAC ± 10% 50 Hz
- Output: 24VAC ± 10% 75 VA



Dimensions

- Width: 9 ½" (24.1 cm)
- Height: 10 ¼" (26 cm)
- Depth: 4 ¾" (11.1 cm)

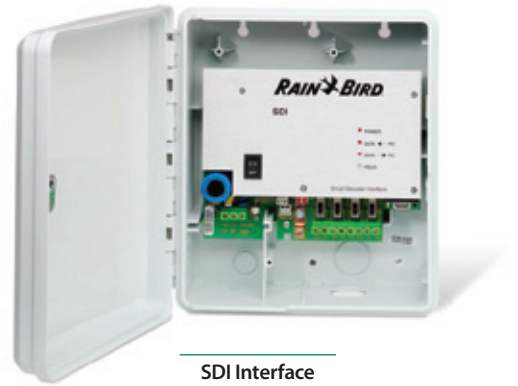
Models

Available in North America only

- SDITURF (with transformer)
- LDITURF (with transformer)

Available in all markets other than North America

- ISDITURF (without transformer)
- ILDITURF (without transformer)



SDI Interface
(LDI not shown)

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The Intelligent Use of Water™
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