“We recommend Maxicom™ to our clients because the system is the most efficient and effective method for controlling individual zones within complex irrigation systems. Maxicom™ analyzes weather conditions from the previous 24 hours and adjusts the amount of water needed for the conditions and for each specific zone. Our clients reap the benefits – lower costs for labor and water, plus healthier plants and turf.”

Ellen Beighley, President
Irrigation Management Systems

Water Saving Tips

- Maxicom®, SiteControl, and IQ™ Systems provide fully-automated ET (evapotranspiration) adjustment of irrigation programs for maximum water savings.

- Maxicom™ and IQ™ Systems provide the tools to efficiently water dozens or even hundreds of irrigation systems across multiple remote sites from a single computer.

- Maxicom™ and IQ™ FloWatch™ utility monitors and records real-time flow and automatically diagnoses and eliminates flow problems caused by broken pipes, vandalism or stuck valves.
## Major Products

<table>
<thead>
<tr>
<th>System Name</th>
<th>IQ™ v2.0</th>
<th>SiteControl</th>
<th>Maxicom ™</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Type</td>
<td>Modular multi-site control system</td>
<td>Modular single site control system</td>
<td>Multi-satellite control system</td>
</tr>
<tr>
<td>Traditionally wired or two-wire decoder</td>
<td>Works with both</td>
<td>Works with both</td>
<td>Traditionally wired</td>
</tr>
<tr>
<td>Typical applications</td>
<td>Multi-site management with modular features, ideal solution for water managers, schools, parks, corporate campuses and transportation departments</td>
<td>Single site management with modular features, ideal for large resorts, cemeteries, shopping centers, theme parks and sports stadiums</td>
<td>Multi-site commercial or industrial irrigation applications, ideal for municipalities, school districts, homeowner associations and park and recreation departments</td>
</tr>
<tr>
<td>Number of sites/system</td>
<td>999</td>
<td>1</td>
<td>200+</td>
</tr>
<tr>
<td>Local and/or remote site control</td>
<td>Local and remote</td>
<td>Local</td>
<td>Local and remote</td>
</tr>
<tr>
<td>Upgradeable to central control</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Maximum number of simultaneous stations per site/system</td>
<td>5 per ESP-LXME</td>
<td>8 per ESP-LXD</td>
<td>3,584 per site</td>
</tr>
<tr>
<td>Number of ET (weather) sources</td>
<td>100</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Program adjustments by ET</td>
<td>Yes</td>
<td>Yes with optional Automatic ET Software Module</td>
<td>Yes</td>
</tr>
<tr>
<td>Program adjustments by percentage</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Programming by volume/gallons</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Number of programs</td>
<td>4 per satellite</td>
<td>100 total per system</td>
<td>999 per CCU</td>
</tr>
<tr>
<td>Flow management capabilities</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Flow monitoring/recording capabilities</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>High-flow shutdown</td>
<td>Mainline and laterals</td>
<td>Mainline only</td>
<td>Mainline and laterals</td>
</tr>
<tr>
<td>Low- or zero-flow shutdown</td>
<td>Mainline and laterals</td>
<td>No</td>
<td>Mainline and laterals</td>
</tr>
<tr>
<td>Alarms/warnings</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sensor input and manual bypass</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Number of weather sensor inputs</td>
<td>One per ESP-LXME</td>
<td>Four per ESP-LXD</td>
<td>Up to 200 sensor inputs per system</td>
</tr>
<tr>
<td>Number of flow sensor inputs</td>
<td>Four per ESP-LXD</td>
<td>Up to 200 sensor inputs per system</td>
<td>Up to 6 (two wire) or 20 (Link) per CCU</td>
</tr>
<tr>
<td>Software/password log-on protection</td>
<td>Yes</td>
<td>N/A</td>
<td>Yes</td>
</tr>
<tr>
<td>Remote control capabilities</td>
<td>Yes, LIMR Remote</td>
<td>Yes, Freedom System</td>
<td>Yes, Freedom System</td>
</tr>
<tr>
<td>Cycle+Soak™</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Water window by program/schedule</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Computer included with software</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Computer programming</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>24/7 system monitoring</td>
<td>No</td>
<td>Yes, by the computer</td>
<td>Yes, by the CCU</td>
</tr>
<tr>
<td>24/7 communication &amp; feedback</td>
<td>No</td>
<td>Yes, computer to satellites and decoders</td>
<td>CCU to satellite</td>
</tr>
<tr>
<td>Remote site telephone, cellular, radio, Ethernet, Wi-Fi communication</td>
<td>All</td>
<td>No</td>
<td>All</td>
</tr>
<tr>
<td>Automatic remote site communication</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Satellite controllers or decoders</td>
<td>ESP-LXME or ESP-LXD Satellites</td>
<td>ESP-SAT Satellites or FD-Series Decoders</td>
<td>ESP-SAT or ESP-SITE Satellites</td>
</tr>
<tr>
<td>Modular station capacity</td>
<td>ESP-LXME: 8-48 ESP-LXD: 50-200</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Number of site/system interfaces</td>
<td>N/A – No interfaces required</td>
<td>8</td>
<td>&gt;200</td>
</tr>
<tr>
<td>Number of satellites/system</td>
<td>16,000+</td>
<td>896</td>
<td>&gt;5,600</td>
</tr>
<tr>
<td>Number of satellites/site interface</td>
<td>Up to 150 satellites per IQNet</td>
<td>Up to 112 per TWI</td>
<td>Up to 28 per CCU</td>
</tr>
<tr>
<td>Number of satellite stations/site</td>
<td>ESP-LXME: Up to 7,200 per IQNet ESP-LXD: Up to 30,000 per IQNet</td>
<td>ESP-LXME: Up to 7,200 per IQNet ESP-LXME: Up to 21,504 per system</td>
<td>Up to 672 per CCU</td>
</tr>
<tr>
<td>Number of decoder addresses per site</td>
<td>Up to 30,000 per IQNet</td>
<td>Up to 4,000</td>
<td>N/A</td>
</tr>
<tr>
<td>Spreadsheet style interface</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Interactive map interface</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>GPS, CAD, SHP, BMP Import</td>
<td>N/A</td>
<td>Yes</td>
<td>BMP, PDF, JPEG</td>
</tr>
<tr>
<td>Valve control: stations or decoders</td>
<td>Both</td>
<td>Both</td>
<td>Satellite stations only</td>
</tr>
<tr>
<td>Estimated/actual water use report</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Event recording (station operation)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Projected operation (dry/run) capability</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Supported by Global Services Plan</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Can also manage lighting and security systems</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
IQ™ v2.0 Central Control Software

Modular Multi-Site Central Control

Features

- Perfect irrigation control solution for parks departments, school districts, property managers, landscape maintenance contractors, and water managers
- IQ can manage small single-controller sites as well as large multi-controller sites and supports both ESP-LX Series Traditionally Wired and 2-Wire Decoder controllers
- IQ Software provides 5-satellite controller capacity that can be upgraded in 5-satellite increments with IQ5SATSWU upgrade to any total satellite capacity required
- IQ Software includes a context-sensitive help system. Click on the help icon available in most screens and be taken directly to the help topic feature you are using. The software offers multiple language, date/time, and units support allowing the user to interface with the software in their primary language. User selectable languages include English, Spanish, French, German, Italian, and Portuguese
  - Site, satellite, and station names
  - Programming in seconds, minutes, and hours
  - Daily or Monthly Seasonal Adjust % or ET station run time adjustments by site
  - Dry-Run™ Graphical Program Review
  - User initiated Synchronize and Retrieve Logs communication
  - Manual Program, Test Program, Station starts
  - Detailed logs and reports
  - Satellite PIN-Code Protection (4-digit PIN-Code required to make programming changes at the satellite)
  - Satellite 2-Way Programming (changes made at the satellite can be viewed and accepted in the IQ software)
  - Copy/Move Satellite Utility (copy or move a satellite to another site)
  - Automated satellite Synchronize & Retrieve Logs and Weather Source Retrieve Weather Data communication
  - Satellite IQ Call-in™ (satellite initiates communication, NCC-PH Phone Cartidge only)
  - Automated Email Alarm/Warning and Satellite Station Run Time Reports

Options

- Retrieves minute-by-minute flow logs from flow sensor-equipped ESP-LXMEF and ESP-LXD Satellite Controllers
- Flow Logs vs. Projected Flow Graphical Report (identifies which programs & stations were running at any point in time)
- Actual Flow Totals added to Satellite Station Run Time Report (included in Automated Email Reports)
- Automated MAD (Management Allowed Depletion) Irrigation Scheduling adjustments
- Software uses Irrigation Association terminology and formulas
- ET/Rainfall Weather Sources include: CIMIS Internet Service (California only), ETMI ET Manager Weather Reach Service (North America only), Rain Bird® WS-PRO LT Weather Station, Rain Bird® WS-PRO2 Weather Station
- 4 ET Checkbooks per satellite controller
- Export to Microsoft Excel® for customized reports
- IQ Global Weather: Receive weather data through the internet for automatic ET adjustments

How To Specify

IQ V2.0 SOFTWARE

IQADVCECD: 5-Satellite Capacity with advanced feature packs included
IQ5SATSWU: Software 5-Satellite Capacity Upgrade
**IQ NCC Network Communication Cartridge**

Upgrades any ESP-LX Series Controller to an IQ Central Control Satellite Controller

**Features**

- IQ is the perfect irrigation control solution for parks departments, school districts, property managers, landscape maintenance contractors and water managers. IQ can manage small single-controller sites as well as large multi-controller sites. IQ NCC cartridges are compatible with the ESP-LXME Controller with 1- to 48-station capacity and ESP-LXD Decoder Controller with 1- to 200-station capacity
- IQ NCC cartridges are initially configured through a setup wizard provided in the ESP-LX Series Controller IQ Settings dial position. Communication setting parameters are configured through the IQ software or the NCC Configurator Software designed for netbook/laptop use on the job site

**Direct Satellites**

- Single controller sites would use an IQ NCC cartridge configured as a Direct satellite. A Direct satellite has an IQ central computer communication connection but no network connections to other satellites in the system

**Server & Client Satellites**

- Multi-controller sites would use one IQ NCC cartridge configured as a Server satellite and the other NCC cartridges configured as Client satellites. The Server satellite has an IQ central computer communication connection and shares this communication connection with the Client satellites through high-speed data cable or radios. The communication connection between Server and Client satellites is called the IQNet™
  - Satellites on a common IQNet can share weather sensors and master valves
  - Server and Client satellites using high-speed data cable for IQNet communication require installation of an IQ CM Communication Module. Server and Client satellites using radio communication for IQNet communication require installation of an IQSS-RADIO radio. Each cartridge kit includes cables to connect the NCC cartridge to connection module and/or radio

**IQ NCC 3G Cellular Cartridge**

- Includes embedded 3G/Cellular Data Modem with antenna connector
- Includes internal antenna for plastic controller enclosures (optional external antenna available for metal case controller enclosures)
- Requires Cellular data service plan with static IP address from Cellular Service Provider
- Available with 1st year of communication service included. Cartridge with included communication service not offered in all areas

*NOTE: Wireless communication devices require a wireless site survey (Models: IQNCC-GP, IQNCCWF, IQSS-RADIO)*

**IQ NCC-EN Ethernet Cartridge**

- Includes embedded Ethernet Network Modem with RJ-45 port
- Includes RJ-45e patch cable (requires LAN network static IP address)

**IQ NCC-WF WiFi Cartridge**

- Includes embedded WiFi Wireless Network Modem with antenna connector, and internal antenna for plastic controller enclosures (requires LAN wireless network static IP address; optional external antenna available for metal case controller enclosures)
- WPA/WPA2 encryption supported

**IQ NCC-RS RS232 Cartridge**

- Includes RS-232 Port for IQ Direct Cable or External Modem communication connection to the IQ central computer, and external modem cable (IQ Direct Cable provided with IQ Software Package)
- Used for Direct or Server Satellite applications requiring direct cable connection or external modem (radio or other 3rd-party device) communication with the IQ central computer, and for Client Satellite applications requiring IQNet high-speed data cable or radio communication with the Server Satellite

**IQ FSCM-LXME Flow Smart Connection Module**

- Provides IQNet high-speed data cable connections for ESP-LXME Controller
- Includes Flow Smart Module and Base Module functions
- Replaces standard ESP-LXME Base Module

**IQ CM-LXD Connection Module**

- Provides IQNet high-speed data cable connections for ESP-LXD Controller
- Installs in ESP-LXD 0 (zero) module slot

**IQ SS-Radio Radio Modem**

- Provides IQNet wireless radio communication between Server and Client satellite controllers
- Can also be used with the IQ NCC-RS RS232 Cartridge for IQ central computer to Direct or Server satellite radio communication
- Includes power supply and external antenna (programming software and cable provided separately)
SiteControl
A Full-Featured Central Control System for Single Site Applications

Features
- Advanced Graphical Tracking: Maps generated by GPS technology or AutoCAD recreate your site. Interactive mapping and on-screen graphics show your complete site with location of individual valves and sprinklers allows you to measure and calculate areas from your map.
- Smart Weather™ is designed to take complete advantage of Rain Bird’s most advanced line of weather stations, tracks ET and rainfall via a weather station and reacts to current weather conditions based on user-defined options. Advanced warning system accepts user-defined sensor thresholds. System operator is immediately alerted if thresholds are exceeded.
- RainWatch™ uses tipping bucket rain can(s) to detect and suspend irrigation while measuring rainfall. When rain stops, irrigation resumes with run times reduced according to measured rain.
- Minimum ET—allows setting minimum ET threshold values for irrigation to take place. Promotes deep watering for optimum turf conditions.
- Automatic ET automatically adjusts run times in relation to fluctuations in Evapotranspiration (ET) values.
- Remote System Control allows you to take control of your system and operate SiteControl from anywhere on your site using the Rain Bird FREEDOM System. Phone (landline or cellular) or radio communication options.
- Hybrid System operates Satellite Controllers and/or Two-Wire Decoders.
- SiteControl Plus operates four Large Decoder Interfaces (LDI), each capable of operating up to 1,000 solenoids with Hybrid system, can further expand capabilities by combining Two-Wire Decoder and/or Satellite Controller options up to four total interface devices.

Superior Monitoring and Scheduling
- Flo-Graph™ allows visibility of real-time graphics with individual station information presented in colorful charts.
- Flo-Manager™ balances system demands and maximum capacities with efficiency helping to lower water demand, reduce system wear and tear and save energy.
- Cycle + Soak™. Better control the application of water on slopes and in areas with poor drainage.
- QuickIRR™ Quick and easy method to build irrigation schedules and programs based on your parameters.

Other Features
- Up to 200 points of connection
- Up to 200 pulse sensors
- Water usage logs
- Station run-time logs
- Posted and dry run logs
- ET spreadsheet
- 1 year Global Service Plan included

Models
- SCON: Desktop PC with SiteControl software, includes 1 year Global Support Plan (GSP)

Software Module Options
- Smart Weather
- Rain Bird Messenger (for Smart Weather)
- Automatic ET
- Hybrid Module
- Smart Sensor
- Map Utilities
- Freedom
- 8 Additional Locations
- Additional Wire-Path (2nd)
- Additional Wire-Path (3rd)
- Additional Wire-Path (4th)
- SiteControl Plus
- Smart Pump
- MI (Mobile Interface)

Global Service Plan (GSP)
- Visit rainbird.com/gsp/index.htm for more information.
SiteControl Hardware

TWI Satellite Interface
- Allows real-time, two-way communication between SiteControl Central Controller and field satellites
- Allows use of advanced in-field capabilities of ESP-SAT two-wire or LINK versions
- Modular capacity can grow with the site

Two-Wire Decoder Interface
- Allows real-time, two-way communication between SiteControl Central Controller and decoders
- Connects the powerful capabilities of SiteControl with the ease of installation and security of a two-wire decoder system
- System can be set up and expanded according to project needs

ESP-SAT Satellite Controller
- 12, 24, 40 Stations Satellite Controller
- Field Satellite Controller for Maxicom® or SiteControl Central Control systems
- The power of an advanced water-management tool, in an easy-to-use package
- All the features and stand-alone capabilities of the Rain Bird ESP-MC Controller line

Spread Spectrum Radio
- Frequency hopping to avoid interference
- Reduced cost of ownership, no FCC license required
- No FCC restrictions on antenna height (User should check local laws)
- Radios can be set up as repeater to achieve great distances and overcome obstacles

Ethernet Devices
- Use Ethernet networks to:
  - Communicate from Central Control Computer to CCUs, SiteSats, TWIs and weather stations
  - Communicate from CCU and TWIs to ESP-Sats

Freedom for Central Control
- Uses standard telephone interface
- Single cellular phone can control entire central control system
- Standard land-line telephones can also control system

WS-PRO Weather Stations
- Scientific accuracy sensors located three meters above the ground for added vandal-resistance
- Powerful, internal micro-logger for climatic data collection, logging and analysis, constant communication with weather sensors, and storage of 30 days of data
- Rugged yet lightweight metal construction;

Sensor-Pulse Decoders
- Complete feedback system
- Extends central control system versatility
- Color-coded wire leads for ease of installation
- Programmable address codes for individual operation

RAINGUAGE Rain Sensor
- Accurate rain counter switch counts rainfall in 1/100th inch increments
- Heavy-duty metal construction
- Mounting bracket
- Debris screen

ANEMOMETER Wind Sensor
- Accurate wind speed measurement for high-wind shutdown or interrupt of irrigation programs
- Heavy-duty metal mounting bracket
- Requires PT322 or PT3002 Pulse Transmitter for use with Maxicom® System

Maxi Interface Boards
- Upgrades an ESP-MC Controller (wall mount or pedestal) to an ESP-SAT or ESP-SITE Satellite Controller
- No additional enclosures or external wiring required
- Installs on stand-offs on controller output board

MSP-1 Surge Protection
- Protects central control components from electrical surges on a two-wire communication path
- Can be installed in satellite or CCU pedestal or in valve box in conjunction with MGP-1 (Maxicom® Grounding Plate)

MGP-1 Surge Grounding Plate
- Provides a mounting location for MSP-1 or other grounding wires directly to a grounding rod or pipe
- Installed on grounding rod or pipe
Maxicom®

Multi-Site Central Control Ideal for Large Commercial Systems

System Features
- Maxicom® Central Controller Package comes with Maxicom® software, pre-configured computer, Global Service Plan (GSP), and training
- Control hundreds of ESP-SITE-SAT Satellites (single controller sites) and Cluster Control Units (CCUs) which can each control up to 28 individual ESP-SAT Satellite Controllers on multi-controller sites
- Monitor dozens of Weather Sources including WSPRO2 Weather Stations, ET Managers, or rain counting sensors (Rain gauge)
- Freedom Remote Control allows manual operation of system through a cellular phone or radio
- Multiple log and water usage reports are generated automatically to track system operation and water savings

Water Management Features
- Cross satellite schedule operation; 999 separate schedules per CCU provides precision watering of areas and microclimates
- ET Checkbook™ manages Evapotranspiration (ET) and automatically adjusts Satellite Controller station run-time or day cycle intervals to match the landscapes water requirements
- FloManager™ manages the total flow demand placed on the water source(s), optimizing both the available water and watering window
- FloWatch™ monitors flow sensors at each water source, records flow, and automatically reacts to problem flows by shutting down the effected portion of the system (individual valve or mainline)
- RainWatch™ monitors rain counting sensors, records rainfall, and automatically reacts to rainfall by interrupting irrigation, waiting to see how much rain has fallen, and determines if the irrigation should be resumed or cancelled

Operational Features
- Communication Control Engine automatically sends updated programming to sites before watering begins and retrieves logs after irrigation is completed; manual operation can be performed at any time
- Start day cycles: Custom (day of the week), Odd/Even, Odd31, or Cyclic and include Event Day Off Calendar scheduling
- Station run-times programmable from 1 minute to 16 hours
- Cycle + Soak™ optimizes water application to soil infiltration rate, reducing runoff and puddling
- Control non-irrigation functions such as lighting, fountains, door locks and gates

Maxicom® Communications Options
- Central Controller to CCU: Phone, direct connect, radio, cellular, network (Ethernet, Wi-Fi, fiber-optics)
- CCU to ESP-SAT2: Two-wire path
- CCU to ESP-SATL: Radio, MasterLink, network (Ethernet, Wi-Fi, fiber-optics)

Global Service Plan (GSP)
- Visit rainbird.com/gsp/index.htm for more information.

Models
- MC2GOLD1: New System - Desktop PC with Maxicom software, includes 1 year Global Support Plan (GSP)
- GSPMCPL3: Current GSP Or Expired GSP Subscribers, Desktop PC with Maxicom software, includes 3 Years Platinum Plus Global Support Plan
- GSPMXPPCIA: Current GSP Subscribers, Desktop PC with Maxicom software, based on 3 Year Platinum Plus Global Support Plan, includes year 1 GSP, requires year 2 and 3 GSP to be purchased separately (M95543A2)
- GSPMXPPCIM: Current GSP Subscribers, Desktop PC with Maxicom software, based on 3 Years Platinum Plus Global Support Plan, includes month 1 GSP, requires month 2 - 36 GSP to be purchased separately (M95544M2)
- GSPMXPPNIA: New GSP or Expired GSP Subscribers, Desktop PC with Maxicom software, based on 3 Years Platinum Plus Global Support Plan, includes year 1 GSP, requires year 2 and 3 GSP to be purchased separately (M95541A2)
- GSPMXPPNIM: New GSP or Expired GSP Subscribers, Desktop PC with Maxicom software, based on 3 Years Platinum Plus Global Support Plan, includes month 1 GSP, requires month 2 - 36 GSP to be purchased separately (M95542M2)
- MC2UPG: Maxicom Upgrade Software - CD Only, upgrade existing Maxicom 1.X, 2.X and 3.X system to latest Maxicom Version
Maxicom® Hardware

Cluster Control Unit CCU Interface
- Runs real-time operations of a site consisting of up to 28 satellites
- Adapts station sequence to changing conditions for maximum efficiency
- Instantly responds to unexpected conditions and sensor inputs

ESP-SAT Satellite Controller
- 24, 40 Stations Satellite Controller
- Field Satellite Controller for Maxicom® or SiteControl Central Control systems
- The power of an advanced water-management tool, in an easy-to-use package
- All the features and stand-alone capabilities of the Rain Bird ESP-MC Controller line

ESP-SITE-SAT Satellite Controller
- 24, 40 Stations Satellite Controller
- Combines power of a Cluster Control Unit (CCU) with capabilities of a single ESP-Satellite controller for small Maxicom® sites
- Advanced water-management tool, in an easy-to-use package
- All the features and stand-alone capabilities of the Rain Bird ESP-MC Controller line

Spread Spectrum Radio
- Frequency hopping to avoid interference
- Reduced cost of ownership, no FCC license required
- No FCC restrictions on antenna height (User should check local laws)
- Radios can be set up as repeater to achieve great distances and overcome obstacles

Ethernet Devices
- Use Ethernet networks to:
  - Communicate from Central Control Computer to CCUs, SiteSats, TWIs and weather stations
  - Communicate from CCU and TWIs to ESP-Sats

Freedom for Central Control
- Uses standard telephone interface
- Single cellular phone can control entire central control system
- Standard land-line telephones can also control system

WS-PRO Weather Stations
- Scientific accuracy sensors located three meters above the ground for added vandal-resistance
- Powerful, internal micro-logger for climatic data collection, logging and analysis, constant communication with weather sensors, and storage of 30 days of data
- Rugged yet lightweight metal construction

Sensor-Pulse Decoders
- Complete feedback system
- Extends central control system versatility
- Color-coded wire leads for ease of installation
- Programmable address codes for individual operation

RAINGAUGE Rain Sensor
- Accurate rain counter switch counts rainfall in 1/100th inch increments
- Heavy-duty metal construction
- Mounting bracket
- Debris screen

ANEMOMETER Wind Sensor
- Accurate wind speed measurement for high-wind shutdown or interrupt of irrigation programs
- Heavy-duty metal mounting bracket
- Requires PT322 or PT3002 Pulse Transmitter for use with Maxicom® System

Maxi Interface Boards
- Upgrades an ESP-MC Controller (wall mount or pedestal) to an ESP-SAT or ESP-SITE Satellite Controller
- No additional enclosures or external wiring required
- Installs on stand-offs on controller output board

MSP-1 Surge Protection
- Protects central control components from electrical surges on a two-wire communication path
- Can be installed in satellite or CCU pedestal or in valve box in conjunction with MGP-1 (Maxicom® Grounding Plate)

MGP-1 Surge Grounding Plate
- Provides a mounting location for MSP-1 or other grounding wires directly to a grounding rod or pipe
- Installed on grounding rod or pipe
WS-PRO Weather Stations
Maxicom² (WS-PRO2 only), SiteControl, IQ™ (WS-PRO2 and WSPROLT)

Features
• Scientific accuracy sensors located three meters above the ground for added vandal-resistance
• Powerful, internal micro-logger for climatic data collection, logging and analysis, constant communication with weather sensors, and storage of 30 days of data
• Rugged yet lightweight metal construction
• Self-diagnostic test mechanisms: internal moisture, battery voltage level, test port for local sensor check, and simple-to-service sensors and internal components
• State-of-the-art weather software calculates ET values, stores daily and historic ET values, monitors and displays current weather conditions, and graphically displays weather parameters

SiteControl Features
• WS-PRO2 and WS-PRO-LT Weather Station compatibility is standard for SiteControl v3.0 or later software
• SiteControl can interface with up to 6 weather stations
• Automatic communication between Central Controller and Weather Station requires SiteControl Automatic ET Software Module
• SiteControl Smart Weather Software Module enables automatic, user defined reactions to weather events (rain, freeze, high wind, etc.)

IQ v2.0 Features
• WS-PRO2 or WS-PRO-LT Weather stations are compatible with IQ v2.0 or later software with advanced ET Feature Pack (IQAETFP)
• Automatic communication between the IQ v2.0 central and weather station requires the communication feature pack (IQACOMFP)
• Weather data retrieval hourly or custom retrieval times up to 5 per day
• IQ can interface with 100 weather stations

Maxicom² Features (WS-PRO2 only)
• WS-PRO2 Weather Station compatibility is standard for Maxicom² v3.6 or later software
• Each site can have its own Weather Station or can share between sites
• Automatic communication standard
• Up to 24 automatic weather data retrievals can be configured per day

Weather Station Sensors
• Air Temperature
• Solar Radiation
• Relative Humidity
• Wind Speed
• Wind Direction
• Rainfall

System Compatibility
• Maxicom² (WS-PRO2 only)
• SiteControl (requires Automatic ET Software Module)
• IQ v2.0 with Advanced ET Feature Pack
• ET Manager Weather Reach Server Software

Models
• WS-PRO2-DC Direct Connect model – 2-pair wire connection with Central Controller via short-haul modem
• WS-PRO2-PH Phone Connect model – dial-up phone modem for phone communication with Central Controller
• WS-PRO2-PHS Phone Connect, Solar Power model – dial-up phone modem for phone communication with Central Controller, solar powered
• WS-PRO-LT-SH Short Haul model – 2-pair wire connection with Central Controller via short-haul modem
Spread Spectrum Radio
Maxicom®, SiteControl or IQ™

Features
• Frequency hopping to avoid interference
• Reduced cost of ownership, no FCC license required
• No FCC restrictions on antenna height (User should check local laws)
• Radios can be set up as repeater to achieve great distances and overcome obstacles

Installation Requirements
• Site Survey required prior to ordering and must be submitted with order
• RADTN9MIB mounts directly onto ESP-SAT MIB; RADTN9TWI connects with ribbon cable
• Antenna and antenna cable required (sold separately by Rain Bird Production and Service Center)

Models
• Radios – For IQ Primary & Secondary Communication and For Maxicom and Site Control Primary Communication
  - IQSSRADIO: 900 MHz Spread Spectrum radio – Allows communication between Central Computer and IQ Direct or IQ Server Satellite, and between IQ Server Satellite and IQ Client Satellites. Also can be used for communication between Maxicom Central Computer and CCU or Site Satellite, between Site Control Central Computer and TWI / SDI or LDI, and between a Central Computer and weather station
• Radios – For Maxicom and Site Control Secondary Communication
  - RADTN9MIB: license free wireless radio (902-928 MHz) between CCU and satellites
  - RADTN9TWI: license free wireless radio (902-928 MHz) between TWI and satellites

ANEMOMETER Wind Sensor
Maxicom®, SiteControl, IQ™, ESP-LXME, ESP-LXD

Features
• Accurate wind speed measurement for high-wind shutdown or interrupt of irrigation programs
• Heavy-duty metal mounting bracket
• Requires PT322 or PT3002 Pulse Transmitter for use with Maxicom® System
• Requires PT3002 Pulse Transmitter for use with SiteControl, IQ Systems, ESP-LXME, ESP-LXD

Model
• ANEMOMETER