

IQ™ v2.0 Central Control Software and Software Feature Packs

IQ v2.0 Central Control Software offers state-of-the-art command and control features in an easy to learn and use interface. IQ provides advanced water management features saving money and time. IQ Software has modular satellite controller capacity and features. Purchase only what you need today and upgrade as your needs change in the future.

Applications

IQ provides remote programming, management, and monitoring of ESP-LX Series Controllers from the computer in your office. 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 and supports both ESP-LX Series traditionally wired and 2-wire decoder controllers.

IQ v2.0 Software Package

The IQSTARTCD Base Software Package provides 5-satellite controller capacity and a basic set of features. IQ software satellite controller capacity can be upgraded in 5-satellite increments with the IQ5SATSWU Upgrade to any total satellite capacity required. Advanced features are available in IQ Software Feature Packs. Feature Packs include a bundle of related features that expand the capabilities of the IQ Base Software Package.

IQ Base Software and Feature Packs include 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.

Recommended Computer Requirements

- Operating System: Windows® XP or 7 32-bit
- Processor: Intel I5-540M or equivalent
- RAM Memory: 3 GB
- Available Hard Disk Space: 10 GB
- CD-ROM Drive: 8X speed minimum
- Display Resolution: 1024 x 768 minimum
- 56K Flex Phone Modem (Phone communication)
- Network Connection (for Ethernet, WiFi, GPRS communication)
- Serial Port or USB to Serial Adapter (for Direct Connect and External Modem communication)

Base Software Package Features

- Software 5-satellite controller capacity upgradable in 5-satellite increments
- IQNet 5-satellite capacity upgradable in 5-satellite increments
- Compatible with ESP-LXM & ESP-LXME traditionally-wired and ESP-LXD 2-wire decoder controllers
- 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

Additional 5-Satellite Capacity Upgrade

- IQ Software and IQNet satellite controller capacity can be upgraded in 5-satellite increments
- Additional capacity is added through a purchased software activation keycode

IQ Feature Packs

- Feature Packs are enabled through a purchased software activation keycode
- Feature Pack features are enabled for all sites and satellites in the IQ Software

Advanced Communications Feature Pack

- Automated satellite Synchronize & Retrieve Logs and Weather Source Retrieve Weather Data communication
- Satellite IQ Call-in™ (satellite initiates communication, NCC-PH Phone Cartridge only)
- Automated Email Alarm/Warning and Satellite Station Run Time Reports

Advanced Programming Feature Pack

- 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)

Advanced ET Feature Pack

- 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 WSPROLT Weather Station
 - Rain Bird WSPRO2 Weather Station
- 4 ET Checkbooks per satellite controller
- Export to Microsoft Excel® for customized reports

Advanced Flow Sensing Feature Pack

- 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)

How To Specify

IQ V2.0 SOFTWARE & FEATURE PACKS

IQSTARTCD:	Base Software Package, 5-Satellite Capacity
IQ5SATSWU:	Software 5-Satellite Capacity Upgrade
IQ5SATNCCU:	IQNet 5-Satellite Capacity Upgrade
IQACOMPFP:	Advanced Communications Feature Pack
IQAPGMFP:	Advanced Programming Feature Pack
IQAETFP:	Advanced ET Feature Pack
IQAFSEFP:	Advanced Flow Sensing Feature Pack



Specifications

The irrigation central control system shall be the IQ v2.0 Central Control System™ as hereafter specified and as shown on the drawings. The system shall be fully programmable, providing the operator with absolute and full control of the entire control system. The system shall provide a degree of flexibility such that, in effect, anything that could be done at the satellite controller shall be capable of being done at the central computer.

The system shall have a Windows® graphical user interface (GUI) that allows easy programming and graphical depiction of the satellite controller programming.

The system shall be compatible with the ESP-LXME series traditionally-wired controllers with 1 to 48 station capacity. The system shall also be compatible with ESP-LXD series 2-wire decoder controllers with 1 to 200 station capacity. The system shall have an adjustable satellite controller capacity allowing the customer to expand the system capacity over time.

The system shall allow virtual log-on passwords to administer access privileges to multiple users of the system. The system shall support multiple languages including English, Spanish, French, German, Italian, and Portuguese. The system shall also support user defined date/time, number, and unit formats.

The system shall allow virtual site configurations, allowing the user to group satellite controllers into a site to simplify common adjustments.

The system shall incorporate a satellite controller dry-run feature that graphically depicts the program operation, showing minute-by-minute program activity, expected flow rates, and the programs/stations operating at any point in time.

The system shall incorporate program adjust values for each satellite controller program. The system shall also include a site-level daily or monthly seasonal adjust percentage that adjusts the station run times for all satellite controllers in the site. The system shall also offer site-level daily or monthly ET value adjustments as an alternative to seasonal adjustment percentage.

The software shall utilize IQNCC Network Communication Cartridges to interface with the system controllers. The cartridges shall be available with internal Phone, GPRS/Cellular, Ethernet, & WiFi modems or RS-232 external modem port. The cartridges installed in the controller shall be field configurable as a Direct, Server, or Client Satellite. The Server satellite shall share its IQ central computer communication link with up to 149 Client satellites and be capable of sharing weather sensors and master valves amongst the 150 satellite controllers

The software shall incorporate a site configuration utility that contacts the satellite controller, reports the hardware configuration and retrieves the configuration and programming data. The software shall verify the satellite hardware configuration has not changed each time it contacts the satellite controller. The controller and IQNCC cartridge firmware shall be upgradeable (reflashed) from the system central computer.

The software shall be capable of manually starting a program, test program, or station on any satellite controller. The software shall be capable of overriding the satellite controller Auto/Off dial position and sensor Active/Bypass switch position.

Satellite controllers equipped with flow sensors shall provide a learn flow utility to measure the nominal flow rate of each station. The learn flow rate shall be compared to the actual flow sensor flow rate each time the station operates. A user defined percentage above and below the learned flow rate shall be used to determine if the flow rate is problematic. User defined reactions shall be programmable including a diagnose mode where the cause of the problem flow rate is identified and the problem station or water source is shut off. A manual MV water window shall be provided to automatically open the master valve and account for manual watering flow rates without turning off the flow sensing functions of the satellite controller. Both normally closed and open master valves shall be supported. All flow sensing features shall be programmable through the software.

The system shall offer user definable station-level priorities and a program-level water window. Stations are selected to operate based on their priority with

high priority stations operating first. If a program cannot complete the run time of all stations in the water window the station operation shall be paused and resumed at the start of the next water window.

The system shall provide user definable number of simultaneous station to operate per program and for the whole satellite controller. The combination of these features shall be used to automatically shorten the overall operating time of the satellite controller programs. All features listed shall be programmable through the software.

The system shall offer optional software feature pack to expand the features of the system. Feature packs shall include: advanced communications; advanced programming; advanced ET; advanced flow sensing. The optional features shall be enabled by a keycode.

A system equipped with advanced communication feature pack shall provide automatic communication and email reports. A satellite controller using phone communication shall be capable of initiating communication with the central computer to gather programming changes and sent log data.

A system equipped with advanced programming feature pack shall provide satellite controller PIN-code lock-out and 2-way programming. Each satellite shall have minimum of 5 assigned PIN-codes. Lockout options shall include full or partial lockout. All PIN-codes shall be programmed through the software.

A system equipped with advanced ET feature pack shall provide automatic program adjustment based management allowed depletion scheduling. ET/rain weather sources shall include CIMIS Internet, ETMI Weather Reach, and WSPROLT and WSPRO2 Weather Stations.

A system equipped with advanced flow sensing feature pack shall provide minute-by-minute flow logs in a graph comparing actual flow and projected flow. Actual flow totals shall be included in the automated email reports.

The IQ v2.0 Central Control System™ shall be as manufactured by Rain Bird Corporation.

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The Intelligent Use of Water™
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