

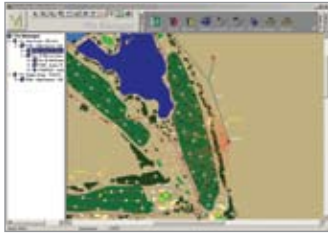
# CENTRAL CONTROL



Rain Bird® Central Control Systems are designed with ease of use in mind. These systems effectively integrate advanced technologies and optional software to arrive at solutions that manage water use responsibly to save money and reduce utility costs, while continually enhancing course appearance and improving playability.

**RAIN** 

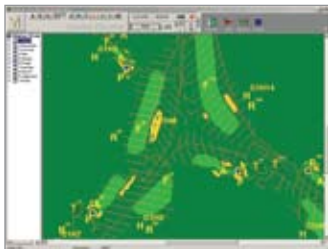
## Rain Bird Offers These Central Control Systems:



Cirrus FloManager®

### Cirrus™

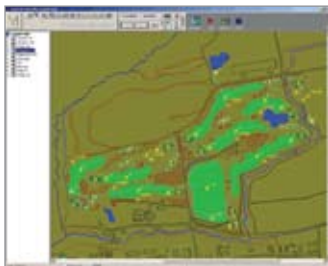
By combining Computer-Aided Design (CAD) with GPS technology, Cirrus™ shows you your course like no other central control system can. With state-of-the-art ET-based scheduling, customized course graphics and multiple mapping options, controlling your irrigation system is fast and easy.



Nimbus II Course Monitor

### Nimbus™ II

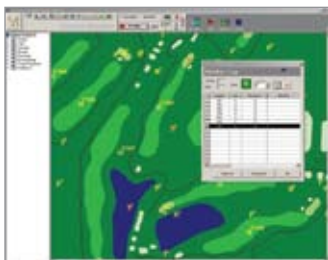
For a superior combination of ET-based scheduling, advanced flow management and Windows-based simplicity, Nimbus™ II is an excellent choice to efficiently control all irrigation applications on up to three individual courses with a maximum of 54 holes.



Stratus II Course Monitor

### Stratus™ II

For easy-to-use, time- or ET-based scheduling, there's really only one choice — Stratus™ II — the one irrigation central control system that combines the point-and-click simplicity of Windows® with intuitive Rain Bird features to control as many as 27 holes.



Stratus LT Map

### StratusLT™

The Rain Bird Start-up Wizard built right into StratusLT™ will have you watering your 18-hole golf course in no time — from the greens to the roughs, clubhouse to driving range — without having to become a computer expert or spend extensive time learning to operate the system. StratusLT now supports ET-based scheduling with WS-PRO LT and a weather software module.



GO System

### GO™/GO200™ NEW

GO™/GO200™ is designed exclusively for the IC field control system. Because GO/GO200 includes Flo-Manager® tables, your system will be up and running in minutes. GO/GO200 uses the same high-performance irrigation engine used by all Rain Bird central controls, which means it offers the highest Water Window Efficiency available.

All too often, superintendents or greens committees purchase a central control system that exceeds the irrigation requirements for their golf course. Before deciding which central control system to purchase, think about the level of control you believe is necessary to maintain course appearance and playability, while reducing water, labor and energy costs. Keep in mind, all Rain Bird Central Controls are backward compatible so upgrading your system as the irrigation needs of your course change is easy and affordable.

*Refer to the chart on the right to compare the features and irrigation management tools provided with each of these systems.*

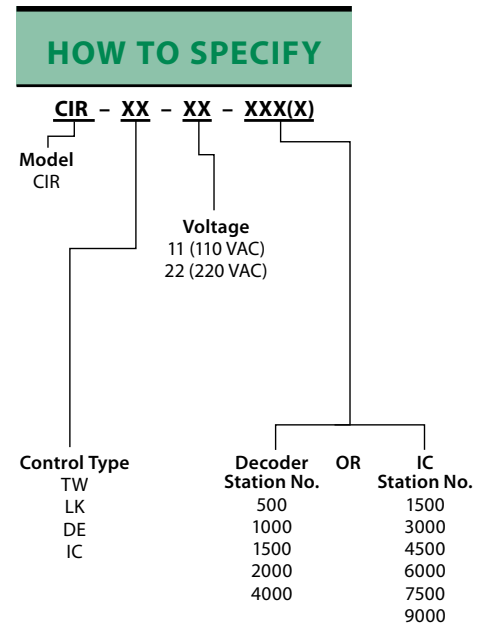
### CENTRAL CONTROL COMPARISON CHART

FEATURES	CIRRUS™	NIMBUS™ II	STRATUS™ II	STRATUSLT™	GO™/GO200™
Real-time decision making	✓	✓	✓	✓	✓
Radio communication option	✓	✓	✓	✓	✓
Works with all Rain Bird satellites	✓	✓	✓	✓	—*
Works with decoders	✓	✓	✓	✓	—*
Works with Rain Bird Integrated Control™ System (ICS)	✓	✓	✓	✓	✓
Works with FREEDOM™ System	✓	✓	✓	✓	✓
Works with Rain Bird® MI Series Mobile Controller	✓	✓	✓	✓	✓
Number of 2-wire satellite wire groups standard	4	4	2	1	—*
Number of IC™ wire groups standard	4	4	1	1	1
Maximum number of interfaces – Hybrid (same or mix)	12	3	2	—	—
Maximum number of 2-wire satellite wire groups – Hybrid	48**	12**	4**	—	—*
Maximum number of 2-wire satellite stations	32,256**	8,064**	2,688†	672	—
Maximum number of wireless satellite stations	32,256**	8,064**	2,688†	672	—
Maximum number of IC™ stations	36,000‡	9,000‡	3,000‡	750	750/200
Number of decoders/solenoids standard	500/1,000	500/1,000	500/1,000	200/400	—
Maximum number of decoder/solenoids – Hybrid	6,000/12,000Δ	1,500/3,000Δ	700/1,400Δ	300/600 with LDI⊖	—
Number of active decoder solenoids	40/LDI	40/LDI	30 with LDI	15 with SDI	—
Maximum number of weather stations	5	5	1	1 (WS-PRO LT only)	—
Maximum number of pump stations	6	6	6	2	2
<b>PROGRAMMING</b>					
Standard/QuickIRR™/SimpleIRR™	✓	✓	✓	✓	✓
Number of courses	3	3	2	1	1
Number of holes	54	54	27	18	18
Number of Flo-Zones™	500	500	500	50	50
Programs	Unlimited	Unlimited	500	250	250
Schedules	50 per program	50 per program	25 per program	25 per program	25 per program
Irrigation programs – active simultaneous	50	50	20	10	10
<b>SOFTWARE FEATURES</b>					
Flo-Manager® - Dynamic Power and Hydraulic Management	✓	✓	✓	✓	✓
Flo-Guard™	✓	✓	✓	✓	✓
ET Management (fully automatic)	✓	Optional	Optional	Optional	—
ET-Based scheduling	✓	✓	✓	✓	—
ET Spreadsheet™ Analysis	✓	✓	✓	✓	—
Rain Bird® MI Series Mobile Controller	✓	✓	✓	✓	✓
Wireless satellite radio diagnostics	✓	✓	✓	✓	—
Comprehensive decoder diagnostics	✓	✓	✓	✓	—
Advanced IC™ diagnostics	✓	✓	✓	✓	—
Real-Time Run Log	✓	✓	✓	✓	✓
Report Generation	✓	✓	✓	—	—
Water Budgeting 0 – 300%	✓	✓	✓	—	✓
Rain Bucket™ – accumulated rainfall	✓	Optional	Optional	Optional	—
Rain Sensor	✓	✓	✓	✓	—
Rain Watch™	✓	✓	✓	✓	—
QuickStart™	✓	✓	✓	✓	✓
Help Screens	✓	✓	✓	✓	✓
Course Monitor™	✓	✓	✓	✓	✓
Hole View	✓	✓	✓	✓	—
Projected flow (Dryrun™)	✓	✓	✓	✓	✓
Graphics – Course View™	✓	✓	✓	✓	—
Import GPS, CAD or Aerial photo	✓	✓	✓	✓	—
Visual Monitoring – Area	✓	✓	✓	✓	—
Visual Monitoring – Station level	✓	Optional	Optional	—	—
Smart Weather™ Alarms	✓	Optional	Optional	—	—
Precipitation Data	✓	✓	✓	✓	✓
Rotor Data	✓	✓	✓	✓	✓
Cycle + Soak™	✓	✓	✓	✓	✓
<b>SOFTWARE MODULES</b>					
Automatic ET	✓	Optional	Optional	Optional	—
Smart Weather™	✓	Optional	Optional	—	—
Additional Weather Stations	✓	Optional	Optional	—	—
Smart Sensors™ with Flo-Watch™	✓	Optional	Optional	Optional	—
Rain Bird™ Messenger™	✓	Optional	Optional	Optional	—
Hybrid – Additional interfaces (same or mix)	✓	Optional	Optional	—	—
The FREEDOM System™	✓	Optional	Optional	Optional	Optional
Map Utilities™	✓	Optional	Optional	Optional	—
Station Layers – Map/Operations	✓	Optional	Optional	—	—
Smart Pump™	✓	Optional	Optional	Optional	—
Additional Wire Groups	✓	✓	Optional	—	—

\*GO™ and GO200™ Centrals operate IC™ systems only \*\*Possible with Hybrid Module and additional MIM™(s) †Possible with Hybrid Module and additional Wire Groups Module(s) ‡Possible with Hybrid Module and additional IC(s) ΔPossible with Hybrid Module and additional LDI(s)  
⊖Possible using a LDI instead of Standard SDI. Hybrid not required.



● CIRRUS

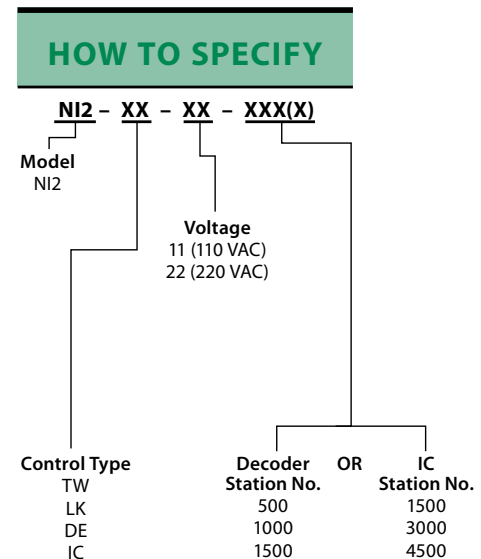


## UNIQUE FEATURES

- ✓ QuickIRR™ programming is a quick and easy method for automatically building programs to meet your irrigation challenges.
- ✓ Smart Sensors™ monitor standard in-field sensors to activate alarms, turn off or pause individual programs, schedules or the entire system then turn on or resume the same.
- Exclusive CYCLE+SOAK™ reduces or eliminates wasteful runoff by matching each sprinkler's application rate to the localized soil infiltration rate. Total application of water is precisely controlled regardless of number of cycles.
- Course monitor screens are intuitively designed to instantly show you exactly what is going on with your course.
- Pump Profiling™ automatically manages pump station power consumption during peak electrical rate periods.
- ✓ Industry's only innovative, guided initialization and start-up programming results in a customized QuickStart™ program.
- Dryrun™ helps you fine tune your irrigation programs for peak performance.
- ✓ SmartWeather™ monitors evapotranspiration (ET) rates and modifies schedules based on actual turf requirements.
- The highest performance irrigation engine in the industry means you can expect some of the highest Water Window Efficiencies available.
- ✓ Smart Pump™ links your pump station to your central control system; optimizing each and every irrigation cycle. Smart Pump can also monitor and instantly react to changes in pump station capacity so an overheated motor won't take down your entire irrigation system.
- Manage up to five (5) different weather stations throughout the golf course and target them to sprinklers in any microclimate on your course.
- ✓ Hybrid technology means your system can adapt to use any combination of field hardware necessary to precisely meet your needs. Cirrus can have up to 12 field interfaces (mix or match).



● NIMBUS II



**UNIQUE FEATURES**

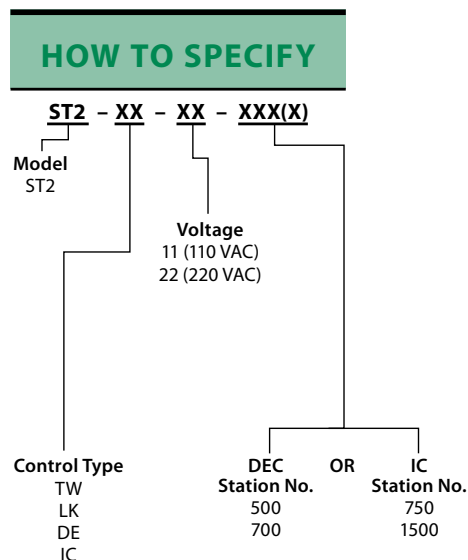
- ✔ QuickIRR™ programming is a quick and easy method for automatically building programs to meet your irrigation challenges.
- Exclusive CYCLE+SOAK™ reduces or eliminates wasteful runoff by matching each sprinkler's application rate to the localized soil infiltration rate. Total application of water is precisely controlled regardless of number of cycles.
- Course monitor screens are intuitively designed to instantly show you exactly what is going on with your course.
- Pump Profiling™ automatically manages pump station power consumption during peak electrical rate periods.
- ✔ Industry's only innovative, guided initialization and start-up programming results in a customized QuickStart™ program.
- Dryrun™ helps you fine tune your irrigation programs for peak performance.
- The highest performance irrigation engine in the industry means you can expect some of the highest Water Window Efficiencies available.

**SOFTWARE OPTIONS**

- ✔ SmartWeather™ Software enhances regular weather software to include weather station call-back based on user-defined conditions for any of the instruments, i.e., rainfall, windspeed, temperature, humidity, etc.
- ✔ Smart Sensors™ monitor standard in-field sensors to activate alarms, turn off or pause individual programs, schedules or the entire system then turn on or resume the same.
- Station Layers-Map/Operation lets you individually control, manage and program sprinklers directly from the map.
- ✔ Hybrid allows multiple field interface devices on a central. These could be multiple MIMs or LDIs, or a combination of these devices, therefore allowing the possibility of having a decoder system in addition to a satellite system operate from the same central. Nimbus can have up to 3 interfaces (mix or match).
- Manage up to five (5) different weather stations throughout the golf course and target them to sprinklers in any microclimate on your course.
- ✔ Smart Pump™ links your pump station to your central control system; optimizing each and every irrigation cycle. Smart Pump can also monitor and instantly react to changes in pump station capacity so an overheated motor won't take down your entire irrigation system.



## ● STRATUS II



### UNIQUE FEATURES

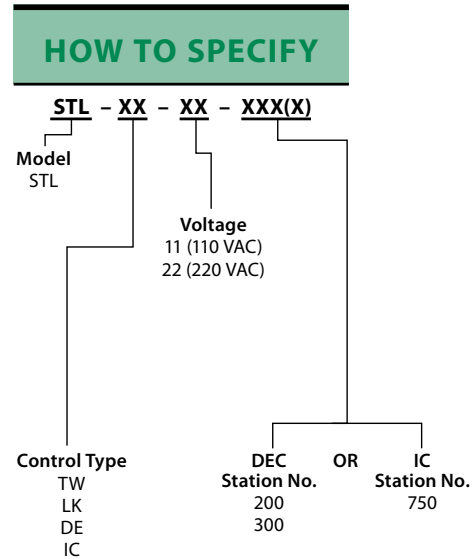
- QuickIRR™ programming is a quick and easy method for automatically building programs to meet your irrigation challenges.
- Exclusive CYCLE+SOAK™ reduces or eliminates wasteful runoff by matching each sprinkler's application rate to the localized soil infiltration rate. Total application of water is precisely controlled regardless of number of cycles.
- Course monitor screens are intuitively designed to instantly show you exactly what is going on with your course.
- Pump Profiling™ automatically manages pump station power consumption during peak electrical rate periods.
  - Industry's only innovative, guided initialization and start-up programming results in a customized QuickStart™ program.
- Dryrun™ helps you fine tune your irrigation programs for peak performance.
- The highest performance irrigation engine in the industry means you can expect some of the highest Water Window Efficiencies available.

### SOFTWARE OPTIONS

- SmartWeather™ Software enhances regular weather software to include weather station call-back based on user-defined conditions for any of the instruments, i.e., rainfall, windspeed, temperature, humidity, etc.
- Smart Sensors™ monitor standard in-field sensors to activate alarms, turn off or pause individual programs, schedules or the entire system then turn on or resume the same.
- Station Layers-Map/Operation lets you individually control, manage and program sprinklers directly from the map.
- Hybrid allows multiple field interface devices on a central. These are a combination of two of these devices, therefore allowing the possibility of having a decoder system in addition to a satellite system operate from the same central.
- Weather Software allows central to communicate with Rain Bird weather station, being able to monitor, receive, update and calculate ET value for establishing run times.
- Smart Pump™ links your pump station to your central control system; optimizing each and every irrigation cycle. Smart Pump can also monitor and instantly react to changes in pump station capacity so an overheated motor won't take down your entire irrigation system.



● STRATUSLT



**UNIQUE FEATURES**

- QuickIRR™ programming is a quick and easy method for automatically building programs to meet your irrigation challenges.
- Exclusive CYCLE+SOAK™ reduces or eliminates wasteful runoff by matching each sprinkler's application rate to the localized soil infiltration rate. Total application of water is precisely controlled regardless of number of cycles.
- Course monitor screens are intuitively designed to instantly show you exactly what is going on with your course.
- Pump Profiling™ automatically manages pump station power consumption during peak electrical rate periods.
- Industry's only innovative, guided initialization and start-up programming results in a customized QuickStart™ program.
- Dryrun™ helps you fine tune your irrigation programs for peak performance.
- The highest performance irrigation engine in the industry means you can expect some of the highest Water Window Efficiencies available.

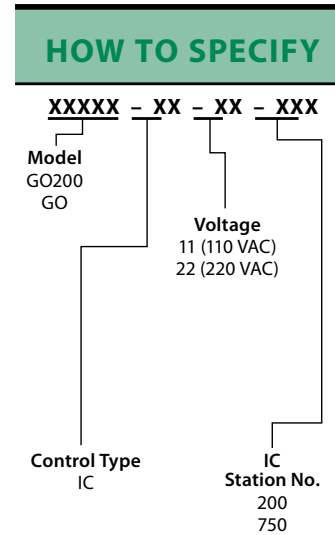
**SOFTWARE OPTIONS**

- Add a WS-PRO LT weather station and a weather software module to monitor evapotranspiration (ET) rates and modify schedules based on actual turf requirements.
- Smart Sensors™ monitor standard in-field sensors to activate alarms, turn off or pause individual programs, schedules or the entire system then turn on or resume the same.
- Smart Pump™ links your pump station to your central control system; optimizing each and every irrigation cycle. Smart Pump can also monitor and instantly react to changes in pump station capacity so an overheated motor won't take down your entire irrigation system.



NEW

● GO/GO200



## UNIQUE FEATURES

- GO™/GO200™ was designed specifically for the IC field control system.
- Exclusive CYCLE+SOAK™ reduces or eliminates wasteful runoff by matching each sprinkler's application rate to the localized soil infiltration rate. Total application of water is precisely controlled regardless of number of cycles.
- Course monitor screens are intuitively designed to instantly show you exactly what is going on with your course.
- Pump Profiling™ automatically manages pump station power consumption during peak electrical rate periods.
- Pre-built Flo-Manager® tables get you up and running in minutes.
- Dryrun™ helps you fine tune your irrigation programs for peak performance.
- GO/GO200 benefits from exactly the same high-performance irrigation engine used by Cirrus™, Nimbus™ II, Stratus™ II and StratusLT™ which means GO/GO200 systems have the highest Water Window Efficiency available.

## MI Series Mobile Controllers

Remote access to your central control is now as convenient as the Internet, with mobile control. This software runs on your central control computer to provide remote irrigation control via a web-enabled cell phone.

Rain Bird® MI Series Mobile Controllers are designed to work on a standard cell phone with Internet connectivity and offer far more remote options than anything else available.

Once connected to the Internet, up to 9 remote users can simultaneously control sprinklers and programs, review system activity or directly change settings on both sprinklers and irrigation programs. All activity is logged for convenient review.

Available in Basic, Advanced and Professional versions, you can turn sprinklers and programs on and off. You can see which sprinklers and programs are running, how much they are using and how long they have been running.

### SYSTEM REQUIREMENTS

- Designed for Windows® XP SP2 or higher.
- Requires an Internet connection to the central control.
- Requires a web-enabled cell phone with a data plan.

FEATURE COMPARISON			
LINK NAME	BASIC	ADVANCED	PROFESSIONAL
Satellites (Areas)/Stations	X	X	X
Programs/Schedules	X	X	X
Diagnostics			X
Accessories			X
Alarm Log			X
Cancel All	X	X	X

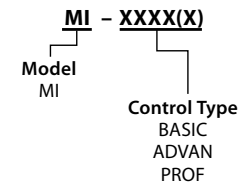
ACCESSORIES			
LINK NAME	BASIC	ADVANCED	PROFESSIONAL
Water Budget			X
Demand Flow		X	X
Smart Pump™			X
Smart Weather™			X
Activity Log	X	X	X
Online Users	X	X	X

AVAILABLE OPTIONS			
	BASIC	ADVANCED	PROFESSIONAL
<b>PROGRAMS</b>			
Execute	X	X	X
Get Status		X	X
Edit Data		X	X
<b>SCHEDULES</b>			
Execute	X	X	X
Get Status		X	X
Edit Data		X	X



● MI Series Mobile Controller (Software only)\*

### HOW TO SPECIFY



\*Phone not included.

### FREEDOM-Pad™

Rain Bird's® FREEDOM-Pad™ coupled with the popular FREEDOM System™ makes remote control of your irrigation system easier than ever! The FREEDOM-Pad allows real-time operation and database management of your central control from anywhere on the course.

#### Design and Technology

- Practical Pocket PC Technology and Golf Irrigation Control.
- The FREEDOM-Pad uses the HP iPAQ and Windows Mobile® 5.0 operating system to allow real-time operation and database management of golf course central control.

#### Map-Based System Compatibility

- Maps are transferred directly from your Rain Bird® Cirrus™, Nimbus™ II, Stratus™ II or StratusLT™ Central.
- The FREEDOM-Pad provides complete station, program and/or schedule operation.
- Command-based functions (Turn On, Turn Off, Advance, Pause, Resume) and schedule-based operations are easily activated.
- All commands are sent directly to the central control computer and properly administered according to the system's hydraulic conditions.

#### Superior Database Control

- On the course, changes like Runtime, ET adjust, Station adjust, Cycle + Soak™ time can be made anywhere as the situation is identified.
- In the office, the FREEDOM-Pad automatically updates the changes made in the field through synchronization with the central control computer.

#### Operation Tracking

- The FREEDOM-Pad activity is logged at the central control computer to deliver unmatched true system-reporting performance.
- Rain Bird central software verifies all transmissions received, bringing together reliable two-way communication and easy operation.

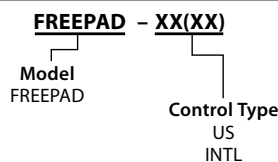
#### Features

- Works with any Rain Bird map-based central control system using a FREEDOM System.
- Windows® CE system commands provide superior operation.
- Map or Explorer style view for quick activation.
- Transfer central control map layers for easy reference of station locations.
- Standard FREEDOM handheld radio functions.
- Built-in map layers and database transfer utility.



● FREEDOM-Pad™

#### HOW TO SPECIFY



### The FREEDOM System™

The FREEDOM handheld provides reliable, two-way communication with your Rain Bird system. Use it to choose from command-based or schedule-based operations, making irrigation adjustments a snap. Either way, The FREEDOM System puts you in control of your irrigation management system wherever you are.

#### System Features and Benefits

- **Two-way Communication with Rain Bird Centrals.** Audio response at radio indicates command received by central.
- **Station- and Program-based Commands.** Provides the flexibility to turn ON or OFF any station or an entire area with the click of a few buttons.
- **FREEDOM-based Commands Recorded at Central.** Irrigation activity logged at the central whether stations turned ON with FREEDOM System or with central.
- **Optional Flo-Manager® Bypass.** Permits FREEDOM user to bypass Flo-Manager.
- **Optional Operating Window.** Allows user to define FREEDOM usage hours, which helps superintendents to control irrigation activity.
- **Two-way Voice Communication**

#### Radio Features and Benefits

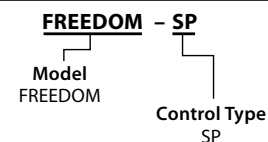
Weather Resistant and Reliable. The TK 3180 handheld radio is built to survive the drops, hard-knocks and weather environments of its users. The TK 3180 meets or exceeds the demanding MIL-STD "driven rain" standard, which guarantees water-resistant performance even in wet weather.

- **LCD Display.** The backlit, high-resolution dot matrix 12-character display furnishes the user with a simple easy-to-read interface.
- **High Quality Audio Output.** Equipped with an extra-large 1.58-inch speaker that delivers a half-watt of audio power for robust clarity.
- **Extra-Long Battery Life.** 1100 mAh batteries deliver more than nine (9) hours of operating time on a single charge (5-5-90 duty).
- **Wide/Narrow Channel Bandwidth.** Each channel can be programmed for wide or narrow bandwidth operation.
- **Radio Warranty.** One-year warranty.
- **MIL-STD 810 C/D/E/F Environmental Tests.** Meets or exceeds the stringent IP/54/55 dust and water intrusion standards and a full range of tough MIL-STD 810 C, D, E and F environmental standards in categories such as vibration, shock, dust, humidity, rain, temperature, solar radiation and atmospheric pressure.



● The FREEDOM System™

#### HOW TO SPECIFY





● RAINWATCH

Patented Rain Bird® RainWatch™ technology maximizes water efficiency, while minimizing system wear and tear, through intelligent, real-time decision-making based accurate rainfall measurement.

### FEATURES AND BENEFITS

- The industry's first active rainfall monitoring and response system.
- The only system designed to automatically react to rainfall and adjust sprinkler application rates to take full advantage of natural rain, thereby eliminating over-watering.
- Saves water and electricity, while keeping the course drier and more playable, by pausing, adjusting or canceling irrigation in the event of rainfall.
- Results in reduced wear and tear on irrigation system components.
- An integral part of Rain Bird® Central Control Software versions 4.0 and higher.

### HOW RAINWATCH MANAGES RAINFALL

- Stationed throughout the course, one to four high-resolution RainWatch rain cans collect environmental data.
- A rotor can be set to react to any of the rain cans.
- The central control system continuously polls each rain can.

Rainfall data received by the system is used to make intelligent decisions based on user-defined responses:

**System Response:** For course-wide reactions

**Program Response:** For program-specific responses

**No-Action Response:** For monitoring only



**Intelligent responses include:**

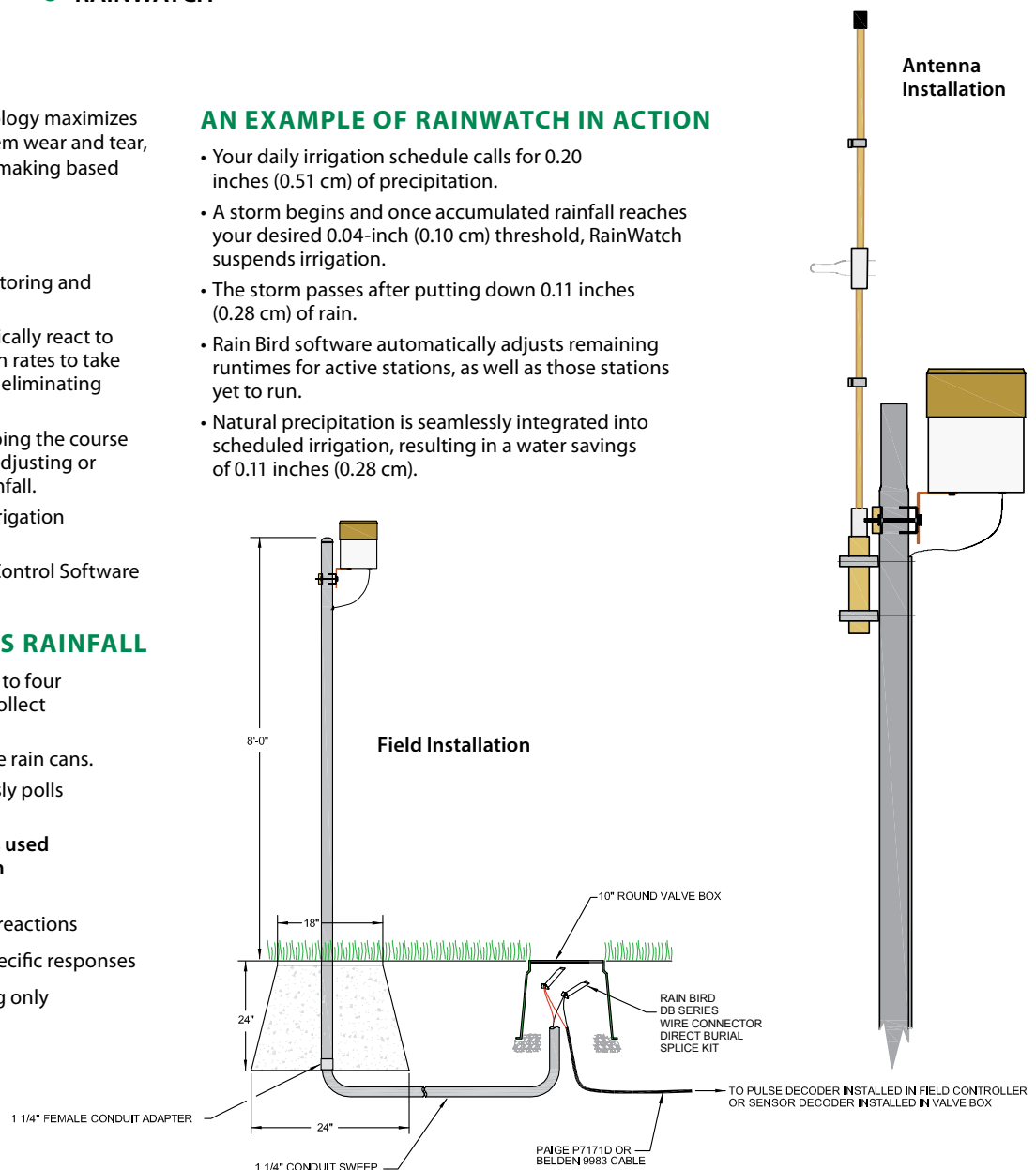
- Pause
- Resume
- Adjust runtimes and resume
- Cancel

RAINWATCH™	HOW TO SPECIFY	
For Satellite 2-Wire Systems with MIM	Rain Can Tipping Bucket	RCTW
	Pulse Decoder	RCPD
For Decoder Systems	Rain Can Tipping Bucket	RCDE
	Sensor Decoder	SDDE
Radio LINK System with MIM LINK* without Radio Modem Kit (RMK)	Rain Can Tipping Bucket	RCLK
	Sensor Installation Kit	SELK
	LINK Antenna	ATLK

\*Radio modem kit (RMK) (specify part number H41004) and antenna must be purchased separately.

### AN EXAMPLE OF RAINWATCH IN ACTION

- Your daily irrigation schedule calls for 0.20 inches (0.51 cm) of precipitation.
- A storm begins and once accumulated rainfall reaches your desired 0.04-inch (0.10 cm) threshold, RainWatch suspends irrigation.
- The storm passes after putting down 0.11 inches (0.28 cm) of rain.
- Rain Bird software automatically adjusts remaining runtimes for active stations, as well as those stations yet to run.
- Natural precipitation is seamlessly integrated into scheduled irrigation, resulting in a water savings of 0.11 inches (0.28 cm).



### FEATURES AND BENEFITS

Rain Bird's Smart Pump™ is a powerful central control software tool that improves pump station performance more than any comparable product on the market. It integrates your irrigation system from Reservoir to Rotor, constantly comparing actual flow to expected flow. By making smart, real-time decisions based on this information, it optimizes your system — saving water, conserving electricity and reducing wear and tear on your valuable pumping system.

### ACTUAL FLOW MEASUREMENT

Unlike other irrigation central control software, Smart Pump bases its decisions on actual flow, not estimated flow. By using accurate information — in real time — Smart Pump automatically balances supply with system demand. That means greater efficiency and an end to wasted water and electricity.

### 24-HOUR PUMP SUPERVISION

With Smart Pump, you can relax knowing your system will instantly respond to actual field conditions with the right decisions. For instance, if a pipe breaks, Smart Pump will stop water flow to the pipe to prevent turf damage. Or, if the pump station fails, Smart Pump will make immediate water demand adjustments to keep the system from shutting down permanently. It's like having your own irrigation supervisor at every sprinkler, 24/7.

### INTEGRATION MEETS INTELLIGENCE

Smart Pump seamlessly integrates your entire irrigation system. It automatically starts waiting sprinklers or pauses active sprinklers to reduce flow or increase demand, keeping your irrigation system running at peak efficiency at all times.

Smart Pump™	Part Number
Smart Pump Software Module	H49100

