

REINKE TECHNOLOGY PRODUCTS

ABSOLUTE PRECISION - ABSOLUTE CONTROL

The control panel features a digital display with the following information:

- START** (green button), **START EGG** (grey button), **STOP** (red button), **HELP** (grey button)
- REVERSE** 211.9° (radio button), **FORWARD** 1.00° (radio button), **PROGRAM** (radio button)
- Reinke** logo and a multi-colored circular gauge
- 440V, 6/28/2012 3:27:23 PM, SEC VRL
- MOUSE PER REV: 103.20, 091°F, 31.0 PSI, SAFETY OK
- RAIN: 0.00" 24HR: 0.00" W: 00.00", WIND: 012NW 000' @ GUST: 022WV
- WATER METER: 0.000000, TOTAL: 0.000000
- PUMP** (radio button), **CHEM** (radio button), **ENDGUN** (radio button)
- AUX1** (radio button), **AUX2** (radio button), **AUX3** (radio button), **AUX4** (radio button), **AUX5** (radio button)
- START** (black button), **USB** (USB icon), **SAFETY OVERRIDE** (yellow button), **STOP** (red button)
- RUN** (black button)
- RPM PREFERRED** logo with the tagline "WITH TOUGH TECHNOLOGY"
- Reinke** logo with the tagline "MORE RIGHT THAN RAIN"



LEADING THE NEVER-ENDING RACE OF DOING MORE IN LESS TIME

Maybe you live beyond quality cellular reception. Maybe you'd like to control irrigation systems from the palm of your hand. Or maybe you already enjoy Reinke remote monitoring and control products and want to make an upgrade. Whatever the reason, Reinke offers more solutions to bring easy, reliable and time saving tools to your operation.

TECHNOLOGY PRODUCTS AT A GLANCE

Here's the broad overview of Reinke technology products. Although each product is distinct in its function, every product can be combined with another to create a customized monitor and control system. Superior control is what you can always expect from the first and the leader in GPS technology.



The Navigator GPS system provides unmatched precision and timing in everything from position-based, End-of-System (EOS) GPS control of speed, end guns, park and other commands, to sub-centimeter Real Time Kinematic (RTK) surveyor grade GPS guidance for Swing Arm Corners (SAC) and Lateral Move Systems.



At the heart of each irrigation system is one of our RPM control systems. Four options are available, ranging from the basic to a touch screen panel that creates a number of performance enhancing digital graphs and charts.



We offer more ways to control and monitor your irrigation systems to maximize performance and minimize downtime. You have the option of radio, cellular or satellite communication.

REINKE PRECISION MANAGEMENT (RPM) CONTROL PANELS

UNPARALLELED CONTROL AND DEPENDABILITY MEET SIMPLICITY OF USE

The RPM control panels are the foundation of every Reinke control system and come in four models:

- RPM Touch Screen
- RPM Advanced
- RPM Standard
- RPM Basic

Each is custom built for years of trouble-free use and easily upgrades for additional control or methods of communication.

All RPM control panels are backed by the finest dealer network in the industry. Reinke Dealers are a select group of irrigation professionals who are dedicated to providing only the highest level of service and parts for all Reinke systems and most competitive systems as well.

TECHNOLOGY INSIDE A TOUGH-AS-NAILS CONTROL BOX

Technology and Mother Nature don't always go together. That's why every RPM control panel is enclosed inside a corrosion-resistant, powder coated control box. The outer door is equipped with a watertight seal to keep out the elements. And for those windy days, each panel comes equipped with a pneumatic strut that keeps the outer door open—no pinched fingers here. All of these unique features add up to the most durable and long lasting main control panel in the business.



RPM TOUCH SCREEN

SETTING THE STANDARD FOR THE REST OF THE INDUSTRY

RPM Touch Screen provides ease of use with a Windows® based operating system and touch screen controls. With system variables in your hands, you can chart, track and store performance over the entire season.



PROGRAMMING OPTIONS

Sequence:

The RPM Touch Screen also allows you to program and automate a complicated sequence of startup events. Let's say starting a system requires you to energize a phase converter, open a valve and turn on the pump—before finally starting the system—after which you have to start a chemical or fertilizer pump. Our sequencing technology will automate the entire process and make this difficult situation happen with a single touch of the screen.

Sector:

Execute various system options inside the same defined area repeatedly, whether traveling in forward or reverse.

Time:

Schedule your system's water application for an entire week by the day, hour and minute. Time programming also has the versatility to repeat the program week after week until it is turned off.

FEATURES INCLUDE:

- Commercial or generator power
- Control of end gun, speed, direction, start and stop
- Easy to program user interface
- Sunlight-readable touch screen
- Multilingual
- Onboard help screens
- Multiple end guns
- Step programming
- Records thousands of events for later downloading to your PC
- GPS end-of-system controls for 1/10 degree of accuracy for precise application
- Onboard graphic applications for rain, pressure, flow, temperature, voltage and wind
- Download updates online and then install via USB flash drive
- Designed and built for extreme temperatures
- Quickly and easily change barrier function between auto-reverse & auto-stop
- Weather station compatible
- Programmable alarm inputs
- Meets all UL and C/UL requirements
- Multiple monitor and control options
- Powder coated, aluminum, corrosion-resistant main control panel
- VRI ready



“KICKS THE HECK OUT OF THE OTHER GUY'S PANEL.”
-HAMILTON FARMS

“IT'S REALLY NICE AND THE SIMPLEST ONE TO USE BY FAR.”
-S&S FARMS

TOUCH SCREEN GRAPHING

For the first time ever, stored data can be graphed and displayed in the field at the touch screen panel, allowing you to better manage each individual machine and crop to maximize productivity. This critical information can then be saved to a USB flash drive for printing on a personal computer. An entire month's history can be displayed for each feature.

FLOW:

Records water flow

PRESSURE:

Monitors and graphs system pressure

APPLICATION:

Graphs the depth of the water applied throughout the field

WIND:

Monitors and graphs wind speed

VOLTAGE:

Monitors and graphs incoming voltage

HEAT UNIT:

Monitors and graphs heat units per day

RAIN:

Monitors and graphs rainfall amount

TEMPERATURE:

Monitors and graphs outside ambient temperature



BASIC	STANDARD	ADVANCED	PREFERRED TOUCH SCREEN	FEATURES AND OPTIONS
0	0	S	S	Lightning Arrestor
0	0	S	S	Power Auto Restart
0	0	S	S	End Gun Control
0	0	S	S	Pivot Auto Stop Control
0	0	0	S	Flow Meter
0	0	0	0	High/Low Voltage Setting
0	0	0	0	Generator/Well Control
0	0	0	0	Ground Fault Protection
0	0	0	0	Single Phase
0	0	0	0	Injector Receptacle Kit
0	0	0	0	Frost Switch
0	0	S	S	Pivot Auto Reverse Control
0	0	0	S	Injector Pump Switch
-	0	0	0	Low Voltage Safety
-	0	0	0	UL Approval
-	0	0	0	GPS Positioning
-	0	0	0	Pressure Restart
-	-	S	S	Programmable System Startup
-	-	S	S	Two End Guns/Auxiliary Outputs
-	-	0	0	Temperature Restart
-	-	S	S	Programmable Park
-	-	S	S	Position Auto Reverse
-	-	S	S	Position Programmable
-	-	S	S	Multiple Speed Settings
-	-	0	0	Remote Monitoring & Control
-	-	-	S	Configurable Alarm Inputs
-	-	-	S	Programmable Auxiliary Inputs
-	-	-	S	Date/Time Programmable
-	-	-	S	Logs/Record Keeping
-	-	-	S	Programmable Chem. Pump Control
-	-	-	S	Graphical Display of Data
-	-	-	S	Start Sequencing
-	-	-	S	Water Application Scheduling
-	-	-	S	LCD Touchscreen
-	-	-	S	Integrated Help Screens
-	-	-	S	Start/Stop by Flow
-	-	-	0	Rain Gauge/Wind Vane
-	-	-	S	Variable Rate Irrigation (VRI)

CONTROL SYSTEM COMPARISONS

S	Standard	O	Optional	-	Not Available
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1. RPM ADVANCED

- Precisely regulates system speed and functions
- Provides accurate water, fertilizer and chemical applications
- Add Navigator End-of-System GPS and tailor irrigation to varying conditions within a field
- Control two end guns, or one end gun and another auxiliary output
- Customize settings for different sections of your field
- Monitor and control options
- Display calculations up to 1/100 of an inch
- Easy to program
- 30-60 second cycle time options
- Delay at selected barriers
- Repeatable accuracy
- English or metric measurements
- Controls center pivot, lateral move and pivoting lateral move systems

- Powder coated, aluminum, corrosion-resistant main control panel
- Meets all UL and C/UL requirements
- Digital PAC III timer for more features and improved accuracy
- Integrated GPS, end-of-system controls for supreme accuracy
- Upgrades quickly and simply by changing the module on the inner panel

2. RPM STANDARD

- Commercial or generator power, end gun control, speed control, direction options and start/stop
- Easily enhanced with a variety of powerful options, including a basic version of our PAC III timer
- Hour meter
- Volt meter
- End gun shutoff
- Powder coated, aluminum, corrosion-resistant main control panel
- Meets all UL and C/UL requirements
- Pressure and temperature interlock control

- Upgrades quickly and simply by changing the module on the inner panel
- Auto-stop functionality
- End gun control

3. RPM BASIC

- Commercial or generator power
- Control of end gun, speed, direction, start and stop and water supply
- Hour and volt meter
- Options include auto restart, pivot auto stop, tower auto stop and tower auto reverse
- Meets all UL and C/UL requirements
- Powder coated, steel enclosure
- Simple and value-priced
- Built with same components as advanced panels
- Compatible with all Reinke pivots

VARIABLE RATE IRRIGATION (VRI)

OPTIMIZE WATER DISTRIBUTION MAXIMIZE EVERY PLANT'S POTENTIAL

Variable rate irrigation uses unique field prescriptions (Rx) to apply precise amounts of water to match multiple variables within each field. Each Rx can be created using our VRI tool that comes with the RPM Touch Screen panel or by contracting a third party to conduct precise surveys to determine soil variables and define topography. Each prescription is then downloaded to the control panel with a USB drive and you're ready to go.

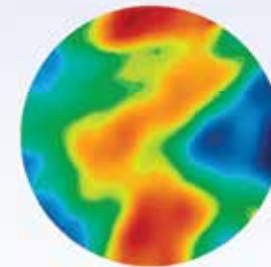
IRRIGATION VARIABLES MAY INCLUDE:

- Soil changes
- Slope
- Drainage
- Crop
- Seed population
- Rain events
- Drought
- Yield fluctuations

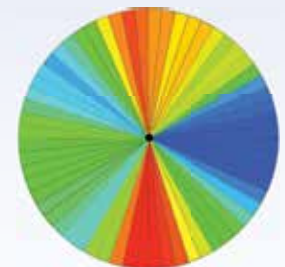
LEVEL 1: SECTOR VRI

Slice the center pivot pie

Sector VRI is accomplished by segmenting the pivot path into pie-like slices or sectors. Each sector has a unique irrigation depth that is accomplished by altering the pivot speed. The Rx may concentrate on the outer 30 to 50 percent of the pivot circle, which accounts for 50 to 75 percent of the total area within each sector.



Field Scan

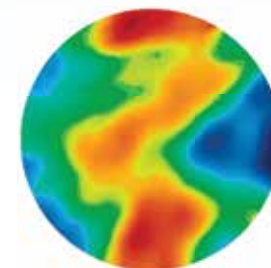


VRI Prescription

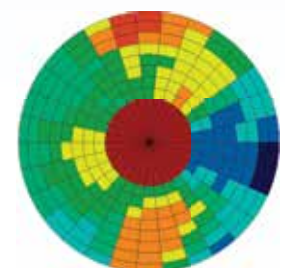
LEVEL 2: ZONE VRI

Find new potential

Zone VRI divides the pivot path further for an even higher level of precision. Irrigation rates are achieved through sprinkler banks that can be controlled individually, allowing almost unlimited water application combinations.



Field Scan



VRI Prescription

NAVIGATOR GPS



THE INDUSTRY LEADER FOR PRECISE GUIDANCE OF PIVOTS, LATERAL MOVE SYSTEMS AND SWING ARM CORNERS

There's no better choice than the Reinke Navigator GPS system for unmatched precision and timing, which is critically important when applying chemicals or maximizing acres. GPS is also virtually maintenance free, saving you time, labor and money. With GPS, there's no need to retrench if field parameters change and its ideal for rocky soil or land with pipelines that make underground cable a hassle.

END OF SYSTEM GPS CONTROLS FOR PIVOTS

Using a Wide Area Augmentation System (WAAS) GPS network, it provides unmatched accuracy and position information when compared to mechanical and end gun control devices. The WAAS network also provides additional information from fixed-point reference stations located around the country to augment information gathered and calculated by the Navigator GPS.

- Provides vastly improved speed control by sector
- Improves end gun control with all system configurations
- Can be used on any existing Reinke system and most competitive brands

GPS GUIDANCE FOR SWING ARM CORNERS AND LATERAL MOVE SYSTEMS

Utilizes Real Time Kinematic (RTK) surveyor grade GPS signal that provides sub-centimeter accuracy for the ultimate in system guidance. RTK surveyor grade GPS utilizes a position location process whereby signals are received directly to the user's base GPS receiver and then transmitted to the GPS receiver located at each individual system.

System position information is transmitted down existing AC power wires (alleviating the need for extra conductors) and interfaces with the RPM Advanced or RPM Touch Screen control panels so you can program various field layouts- all with the assurance of unparalleled location accuracy.



ONTRAC RADIO

ONTRAC RADIO SOFTWARE IS INTUITIVE AND EASY TO USE

This radio-based communication system broadcasts from your home office. You'll have up-to-date information on the status of all your irrigation systems and retain the season's operating data for future analysis and planning. With this information at hand, operational efficiencies increase immensely.

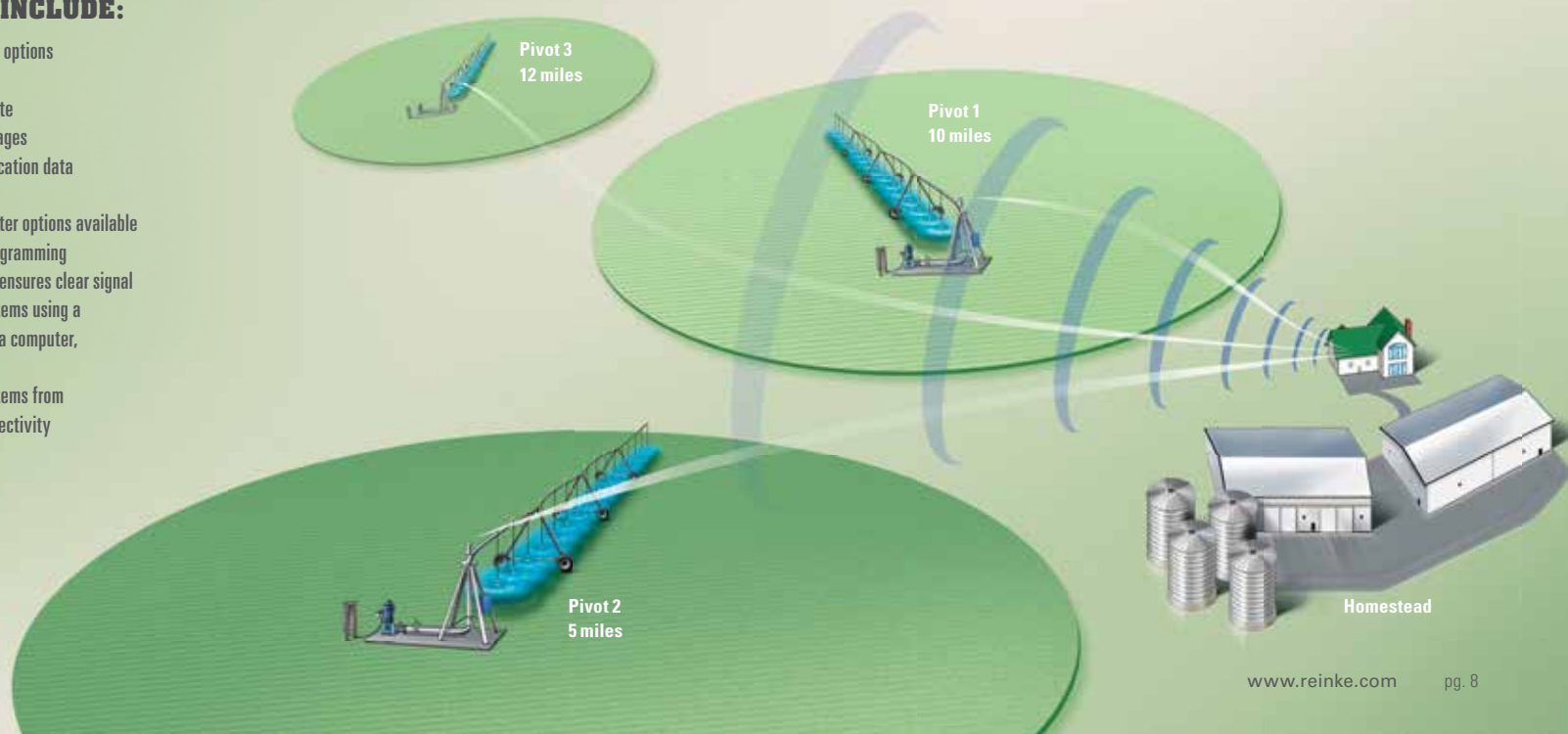
As part of the process, Reinke engineers will also perform a communication path study. They'll factor in pivot locations, pivot path, area signal strength, terrain features and ground obstructions to make sure your Ontrac Radio system operates flawlessly.



Monitor and control your systems from anywhere with Internet connectivity

OTHER FEATURES INCLUDE:

- The most control and monitor options available through Reinke
- Access through secure website
- Receive text and email messages
- Track, record and graph application data
- Windows compatible
- Weather station and flow meter options available
- System startup with step programming
- A communication path study ensures clear signal
- Monitor and control your systems using a web-enabled device such as a computer, smartphone or tablet
- Monitor and control your systems from anywhere with Internet connectivity



ONTRAC SATELLITE AND SATELLITE PLUS

Our satellite based control systems are perfect for areas with poor cell reception or scenarios where you and your pivot are separated by miles of driving. Both provide cloud-proof signal strength and will save you hours when a trip out to your pivot or pivots just isn't convenient.

ONTRAC SATELLITE PLUS

Ontrac Satellite Plus is our most advanced satellite product ever offered with more management features and data accuracy.

Features include:

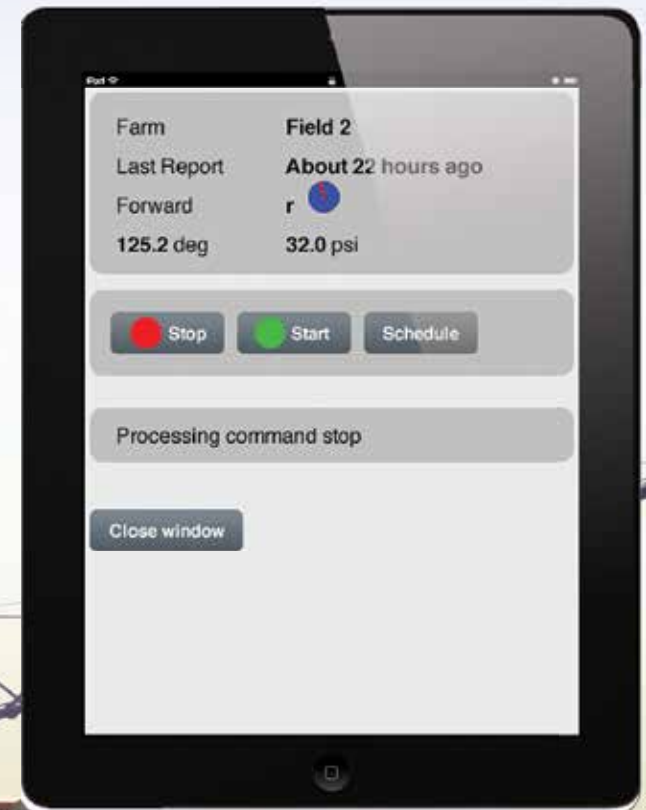
- Precise remote management
- Track and store more accurate data
- Start, stop, pump, speed, GPS position, park, end gun, chemical pump, pressure, flow, power status, safety, auxiliary and more
- Can be pre-installed from the factory
- Compatible with RPM Touchscreen and RPM Advanced control panels
- No loss of signal
- Works through cloud cover
- Receive text or email alerts
- Ensures service and compatibility well into the future due to satellite technology
- Eliminates reception issues due to obstacles

ONTRAC SATELLITE

Ontrac Satellite is the simplified version of our plus model. It gives you all the basics while still providing remote management in areas where cell signals fade.

Features include:

- Start, stop, GPS position, direction, pressure, rain, power status and more
- Compatibility with future technology
- Track and store data
- Eliminates reception issues due to obstacles
- Works through cloud cover
- No loss of signal
- Receive text or email alerts



ONTRAC CELL

Ontrac Cell puts pivot management in the palm of your hand. You'll have complete control of your pivot with the ability to check irrigation status 24/7 through the use of a cell phone, smartphone, tablet device, laptop or desktop computer.

OTHER FEATURES INCLUDE:

- Start, stop, GPS position, direction, pressure, rain, power status and more
- Receive text or email alerts
- Access through secure website
- Fits most brands of systems



ONTRAC SYSTEMS AT A GLANCE

FEATURES AND OPTIONS	RADIO	SATELLITE PLUS	SATELLITE	CELL
Start	x	x	x	x
Stop	x	x	x	x
Direction	x	x	x	x
GPS Position	x	x	x	x
Pressure	x	x	x	x
Power Status	x	x	x	-
Pump	x	x	-	-
Speed	x	x	-	-
Park	x	x	-	-
End Gun	x	x	-	-
Chemical Pump	x	x	-	-
Flow	x	x	-	-
Safety	x	x	-	-
Rain	x	-	x	x
Running/Stopped	x	x	x	x
Wind Speed	x	-	-	-
Wind Direction	x	-	-	-
Temperature	x	-	-	-
Auxiliary 1	x	-	-	-
Auxiliaries 1-5	x	-	-	-
Pressure Transducer	x	x	-	x
Wire Theft Alert	-	-	x	x



Reinke Manufacturing Company, Inc.

National Sales Office
1040 Road 5300
Deshler, Nebraska 68340

Phone: (402) 365-7251

Grower's hotline (toll-free): 866-365-7381

www.reinke.com

Manufacturing Facilities:

- Deshler, Nebraska
- Belleville, Kansas
- Beijing, China

Warehouse Facilities:

- Deshler, Nebraska
- Amarillo, Texas
- Johannesburg, South Africa
- Rostov, Russia

Office Locations:

- Deshler, Nebraska
- Beijing, China
- San Luis Potosi, Mexico
- Moshav Korazim, Israel
- Rostov, Russia
- Venado Tuerto, Argentina