

ALARM AGENT

Real-time data. Remote access. RACO reliability.

MODELS

Real-time AlarmAgent.com Wireless Remote Terminal Units (WRTUs) are offered in two different models:



AA-402NEMALTE

AlarmAgent.com WRTU with NEMA 4X enclosure and phantom antenna



AA-402ILTE

AlarmAgent.com WRTU with NEMA 1 enclosure



ABOUT

75 years of reliability

RACO ranks at the top of the industry for technical assistance and customer service. That's because every RACO product comes with a free, personalized account in RACO's online support center.

To find the RACO solution that's right for you, visit racoman.com/our-products or email sales@racoman.com. We'd love to talk you about your remote monitoring needs.

Support Center

Browse over 500 FAQs, ask a question, request an RMA or register your warranty at racoman.com/support

Compare Products

Use our online product selector tool to compare our products and find the solution that fits your needs. Visit racoman.com/product-selector

Order Now

Ready to place an order? We make it easy with our online order center at alarm-monitoring-systems.racoman.com

Live Chat

Talk to a human using the live chat on our website.

Warranty Programs

Learn more about RACO's enhanced warranty program, Peace of Mind. Visit racoman.com/support

Application & Technical Information

Get up-to-date applications and technical information for our complete product line at racoman.com/our-products

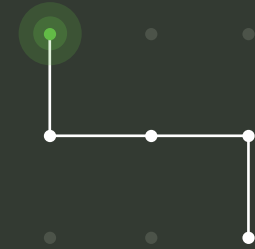
Upcoming Events

Learn about our upcoming events at racoman.com/blog

sales@racoman.com | racoman.com | (800) 722-6999
[@RACOMann](#) on LinkedIn, Twitter, and YouTube

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Continuous monitoring. On-demand reporting. Unequaled control.



Totally Wireless RTU

Easy to install. Goes where landlines can't with 99% availability across North America. No hassle service contracts, remote site surveys available upon request.



Robust Monitoring & Control Functionality

Designed with eight digital and two universal inputs, and two relay outputs. Receive reported events and status of all channels in real-time regardless of alarm condition.



On-Demand Custom Reporting

System alarm and status reports, including battery charging/discharging status. Data exports with customizable ranges for more complex fields such as level monitoring and pump runtimes.



Reliable Communication

Triple redundant, secure website links WRTU with the AlarmAgent.com system. Secure, 24/7 access with multi-factor authentication enabled.



Straightforward User Interface

Immediate status updates for a number of functions, including but not limited to: signal strength, transmission, local service registration, armed/disarmed status, AC/battery, on/off.



Over-the-Air Updates

System upgrades RACO administrators can push to units without downtime. Allows users to update their WRTU's firmware remotely - no need for a field visit.



Alarms Any Time, Anywhere

Instant alarm notification and acknowledgement by voice, SMS, and email. Set who gets notified and how on a global, input, or condition basis all on AlarmAgent.com.



Application Templates

Easy remote or local configurations. Process agnostic monitoring with select templates optimized for water and wastewater pump applications.



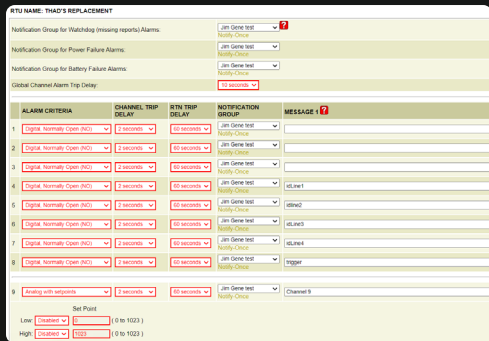
Predictive Maintenance

Stay ahead of faults by using the AlarmAgent's Hours Until Maintenance and Pump Performance Sensitivity alarms to know when your equipment needs to be serviced.

Alarm

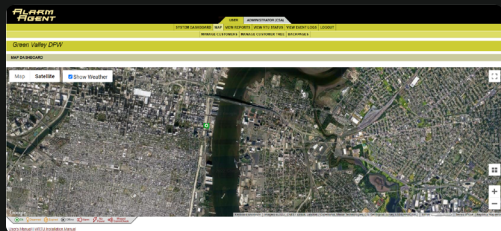
Receive instant alarms at the point of failure via call, text, and email to whomever should be notified.

RACO's reputation has been to reliably monitor your critical infrastructure - that hasn't changed. Have your team receive immediate alarms at your operation's point of failure. The AlarmAgent monitors digital and analog signals, and your alarms can be set for whatever your application may be. With 5 pump templates and 1 application agnostic template, know that whatever your process is, RACO ensures it runs without interruption.



Alarm Configuration Page

Program your unit's alarm conditions from AlarmAgent.com. Set notification groups, channel trip delays, and even scale your analog measurements without being in front of your unit.



System Dashboard Overlay

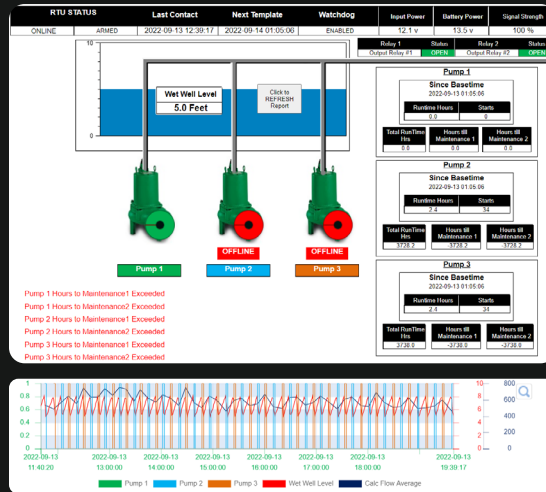
Review and access alarms, power failures, communication problems, and RTU status from a map overlay.

Analyze

Use your RTU as a data logger in the field and synthesize the information right in our portal.

If alarming your equipment wasn't enough, use RACO's data visualization tools to gain keen insight into your equipment and its performance. The AlarmAgent is designed to take your data from the field and consolidate it in one place, display it with an easy-to-use interface, and export it in a readily accessible format if needed. Whether it be pump station analysis, pump starts and stop or runtime ratios, calculated GPM flow, level monitoring, and much more, the AlarmAgent is your one stop shop for all operational data.

RACO's proprietary algorithm allows users to calculate hours until needed maintenance and display that information in one portal. See your units' performance data and your equipments operational data in real time. Web accessible and mobile optimized, as well as easily exportable, your AlarmAgent unit acts as a central heartbeat for your operations.



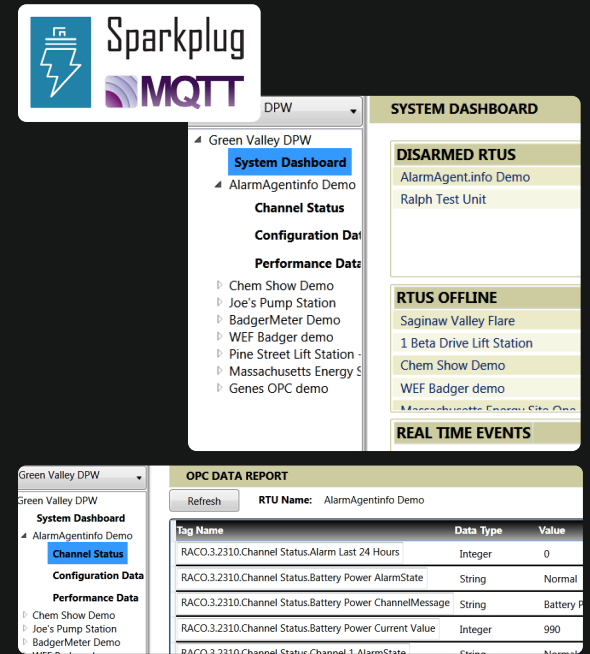
Proprietary Pump Status Report

View your equipment's operations in one place. See faults before they arise with RACOs out of the box HMI SCADA reports.

Integrate

Bring your data from your RTU into your control room and on your SCADA screen with RACO's MQTT/Sparkplug B broker.

With the AlarmAgent's MQTT/Sparkplug B broker, you can integrate the AlarmAgent system with your existing systems' management platform or SCADA terminal. This architecture provides a centralized communication platform for AlarmAgent to publish data and for customers to subscribe to data, allowing customers to consume and view this data in a format and with a client that they prefer. Both types of data generated at the edge, digital and analog signals, will be available in one's SCADA HMI instance in real time. To uphold stringent cybersecurity requirements, RACO utilizes TLS certificates and encrypted data for all transmission points.



AlarmAgent.com's Information in your SCADA Terminal

Share your RTU's data and interact with your AlarmAgent.com instance right from your HMI/SCADA screen

SPECIFICATIONS

Electrical

Eight Digital Inputs:

For connection to dry (unpowered) contacts. Open circuit voltage 5 VDC; closed circuit current 2 mA DC.

Two Universal Signal Inputs:

- **Digital:** Open circuit voltage 5 VDC; closed circuit current 2 mA DC.
- **Analog:** 4-20 mA, single ended. Maximum voltage drop 2.5 VDC.

Resolution:

0.1%; absolute accuracy is 0.25%.

Two Relay Outputs:

Normally open relays, 0.5-ampere @ 120 VAC

- **Scheduled Relay Operations:** Relays can be configured to automatically open / close for time of day.
- **Manual Relay Operations:** Manually turned off/on via the website.

M2M Control Operations:

Wherever there is an unacknowledged alarm, relay will energize.

Battery Backup:

24 hours, 12 V @ 1.2 Amp hr Power

Management:

System intelligently manages power during power failure.

Power Requirements:

User supplied. The WRTU operates on 12-24 VDC power input. With 12 VDC input, current is 1-ampere peak, 200 mA average. With 24 VDC input, current is 0.5-ampere peak, 100 mA average.

Battery Charging:

Precision voltage controlled to maximize battery life and rapidly recharge the battery after power failure.

Power Failure:

Automatic alarm for external power failure and low battery detection.

Power Consumption:

2 watts nominal

Solar Power:

The WRTU is operable directly from a 13.6 VDC solar power unit. Average current is 175 mA or less.

Surge Protection:

Digital inputs are opto-isolated and rated at 5,000 V. Universal inputs are rated at 600 watts. Power input is protected to 1,500 watts peak. The fuse is automatically reset.

Physical

Enclosure:

- **NEMA 1 enclosure:** 9.6" H × 4.35" W × 2.75" D
- **NEMA 4X enclosure:** 11.5" H × 4.33" W × 5.5" D

Mounting Centers:

- **NEMA 1 enclosure:** 3.5" × 6.59375"
- **NEMA 4X enclosure:** 4" × 8.75"

Weight:

- **NEMA 1 enclosure:** 2.7 lbs. w/rubber duck antenna
- **NEMA 4X enclosure:** 5.5 lbs. w/phantom antenna

Environmental

Temperature Range:

Operating, -30-70° C (-22-158° F) Storage, -40-85° C (-40-185° F) Humidity: 0-95% non-condensing

Communications

Real-time bi-directional WRTU communications are handled by the AlarmAgent.com secure server via the wireless cellular network. AlarmAgent.com features a built-in communication failure alarm and power failure alarm.

System Configuration

The WRTU is configurable by two possible means: via dipswitch, or wirelessly via AlarmAgent.com. By selecting from four templates that are optimized for duplex pump stations with or without totalizer and triplex pump stations with or without totalizer, rapid installation and error-proof startup are virtually guaranteed. Three additional templates are available for more general applications.

Alarm and System Messages

User-delivered alarm and system messages are delivered via voice calls, SMS text messages, and email to an unlimited number of users-specified destinations. Authorized personnel acknowledge alarms via a toll-free number, email, or through the AlarmAgent.com website.

Operator Interface

The AlarmAgent.com WRTU includes pushbuttons to turn the unit on or off, to arm or disarm the unit, to cause a special test call to be generated, and a digital input "accept" function to assist in the setup of the WRTU. LEDs are used extensively throughout to indicate the status of the following subsystems: AC power status, battery status, network service availability, a 10-segment LED bar graph for service signal strength, actively transmitting, test report, customer account status, template setting status, individual input channel state, individual relay output state, and if any channels have exceeded their daily limit of transmissions.

Warranty

Two-year parts and labor warranty. FOB factory, Berkeley, California

Firmware Upgrades

AlarmAgent.com WRTU firmware is over-the-air upgradeable.