

## Recognized Engine Retrofit Program

### Redefining Engine Controls Retrofits



### Overview

Woodward's Recognized Engine Retrofit program is designed to make advanced engine control technologies available to owners and operators of existing engines and equipment, helping them meet tough emissions regulations, expand alternative fuel capabilities, improve performance and fuel efficiency, and take control of cleaner energy.

The program combines proven technologies developed by Woodward with the application expertise of a network of local Recognized Engine Retrofit (RER) partners to address engine operators' needs for improved control systems.

The Woodward RER team is able to provide the perfect controls solutions for existing engines—from the design and manufacture of advanced control systems—to the delivery of application engineering, commissioning, training, and unmatched field support services.

### Description

The unique RER program provides engine owners and operators with the same advanced energy control and optimization technologies used by engine manufacturers worldwide, with unsurpassed quality and five-star service.

By combining globally proven control technologies with local field-proven expertise, the RER team gives owners and operators an extraordinary advantage of tapping into the vast reservoir of combined experience and expertise in engine control.

Updating existing engine control systems allows owners and operators to meet tough emissions mandates, expand their alternative fuel capabilities, optimize engine performance and efficiency, and take control of cleaner energy.

- Reduce emissions and maximize fuel economy
- Expand alternate fuel choices
- Improve performance
- Combines globally proven technologies with locally proven application expertise
- Solutions are identically engineered and centrally documented
- Whole-system solutions view provides superior advances in engine control

## *The Value of Independence*

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Woodward is a leading independent designer, manufacturer, and service provider of energy control and optimization solutions for engines, aircraft and industrial turbines, and electrical power system equipment. The company's innovative fluid energy, combustion control, electrical energy, and motion control systems help customers offer cleaner, more reliable, and cost-effective equipment.

Woodward is an indispensable, global authority, providing technical solutions to help engines and equipment become cleaner, more reliable, and cost-effective in the global power, process, and transportation markets.

*Not owned by any OEM,  
Woodward provides  
comprehensive control systems for  
every prime mover.*

## *Quality—It's Our Way of Life*

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The sterling reputation enjoyed by Woodward and our Recognized Engine Retrofit partners has been forged on the understanding that our customers need to be successful and satisfied for us to be successful and satisfied.

Our relationships are constructed on three forthright principles:

- The superior quality and trusted reliability of our products
- Our extensive product design and manufacturing capabilities
- Unrivaled support and five-star service that you can always count on

Our customers' satisfaction is measured by 'QDRC':

- **Quality.** First-class quality is our first priority; the first time, and every time.
- **Delivery.** On-time delivery of products whenever and wherever you need them.
- **Responsiveness.** Quick, proactive fulfillment of your needs for fast results.
- **Cost.** High-value solutions that are consistent, convincing, and conclusive.

To achieve our high QDRC goals, we apply Six Sigma methodologies to all our processes. By adopting this mindset, we exceed customer expectations for cost, value, and quality. We efficiently orchestrate all our processes and streamline delivery. And we reduce waste and scrap while improving the utilization of resources.

*RER solutions have the same look,  
feel, and operating features as  
what already is operating  
successfully on similar engine  
systems around the globe.*

*RER partners take responsibility  
for installing, commissioning,  
servicing, and supporting the  
complete engine control system.*

## The Power of Shared Solutions

Perhaps the biggest advantage to updating existing engine controls through a local Woodward-recognized RER partner is the simple convenience that all of our products, components, and control systems are identically engineered and centrally documented. So it doesn't matter whether your engines are located across the street or on another continent. And the system is the same regardless of which RER partner installed it.

Whether your system is as massively complex as a multi-engine distributed power plant or as fundamental as a forklift engine, you can expect the same peerless quality and reliability in all Woodward controls and systems anywhere and everywhere in the world.

## The Strength of Whole-System Solutions

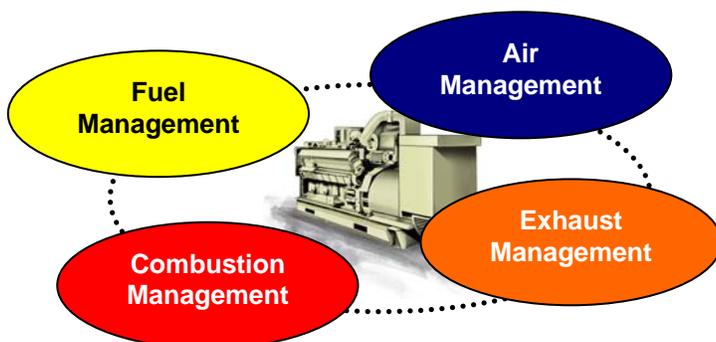
Good control solutions are more than just components and systems. Good solutions also incorporate the real-world experience, expertise, and analytic capabilities that Woodward Recognized Engine Retrofit partners bring to engine owners and operators worldwide.

The combination of Woodward's whole-systems approach and the superior competence of our elite Recognized Engine Retrofit partners gives confidence to engine owners and operators. RER partners take responsibility for installing, commissioning, servicing, and supporting the complete engine control system.



Regular training and periodic audits of the RER partners ensure they maintain a peak capability to perform retrofits and meet Woodward's exceptionally high standards of quality and service.

- Engine System Modeling
- Application Engineering Support
- Extensive Standard and Custom Training Programs
- Service, Technical Assistance, and Commissioning



As a leading supplier of entire control systems to the major engine OEMs, Woodward recognizes that the biggest advances in engine control are not achieved with individual subsystems, but rather by taking a panoramic, whole-systems view of what needs to be controlled and how best to control it.

Woodward's RER partners offer comprehensive, whole-system solutions to upgrading your existing engine controls. Each subsystem—speed control, ignition, air-fuel control, actuation, fuel metering, and knock detection—works smoothly and intuitively with the main engine control unit to deliver the finest possible combination of low emissions, superb efficiency, and field-proven reliability.

## **Redefine Your View of Engine Retrofitting— Call Your Controls Retrofit Partner**

Stricter emission mandates and alternative fuel technologies are expanding at unprecedented rates. We have blazed a sure, safe trail to help engine owners and operators avoid market obsolescence and keep pace with tomorrow's rapid changes.

Don't wait to contact the Woodward Recognized Engine Retrofit partner nearest you to discuss your options, projected results, and cost-effective benefits of a comprehensive controls upgrade.



For the latest, most comprehensive list of RER Partners,  
please visit [www.woodward.com](http://www.woodward.com)



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