Waukesha

Waukesha ESM2 Control Upgrade

Conversion, Modification & Upgrade Offering

Product description

The ESM*2, the next generation of engine control for Waukesha* gas engines, offers new functionality, while simplifying the user experience. A large, full-color touch screen display panel allows users to see all engine parameters, trend data, view manuals/service bulletins, and walk through troubleshooting steps, eliminating the need for a laptop computer. The ability to read exhaust and main bearing temperatures and oil pressure permissive for starting means that your investment is more protected and productive than ever!

Product details

ESM2 control upgrade includes:

- Engine control unit (ECU) with knock sensors, ignition system, and governor actuator
- New upgraded harnesses, wireways, and engine sensors
- Human Machine Interface (HMI) industrial PC touch-screen control panel
- Power distribution box with fault logic communicated to ECU
- Customer interface harness
- Air/fuel ratio control (AFR2 functionality)
- Exhaust and main bearing thermocouples integrated with ECU

ESM2 offers a variety of control features, including:

- Start-stop control
- Engine safeties
- Fault logging and diagnostics
- Data trending and logging through HMI
- Service tool with online troubleshooting guide and engine manuals integrated into HMI
- Remote monitoring capabilities utilizing Asset Performance Management (APM) software

Customer benefits

Increased engine uptime and improved availability, through:

- Knock detection algorithm that adjusts timing to keep your engine running through changes in fuel quality and ambient conditions.
- Misfire detection utilizing sensors monitoring every cylinder combustion event to ensure optimal uptime and fast identification of combustion-related faults.
- Ignition power module with advanced diagnostics monitors spark plug performance and life to predict maintenance intervals and increase spark plug life.
- Remote monitoring connectivity capabilities to INNIO's myPlant* system to remotely monitor engine and driven equipment health, monitor and improve equipment reliability, and optimize plant performance.
- Ignition timing is based on a higher resolution map allowing for tighter control and reduced exhaust temperatures on hotter fuels.
- Reduced maintenance cost through improved engine/ controls serviceability and faster troubleshooting including:
- One ECU combines the use of multiple modules utilizing a smaller footprint on the engine, making servicing the engine easier.
- Industrial PC HMI provides all engine control inputs and diagnostic information onsite without the use of an additional computer or laptop.
- Support and fault diagnostics for nearly every engine system integrated into onsite HMI panel help to identify and resolve issues quickly with step-by-step troubleshooting guides, reducing engine downtime.
- Advanced power distribution box with power conditioning and fault monitoring that is communicated to the HMI panel reduces downtime and simplifies troubleshooting issues.

Applicable units

VHP*	F3514GSI/F3524GSI F5794GSI L7042GSI S4 L7044GSI

INNIO* is a leading solutions provider of gas engines, power equipment, a digital platform and related services for power generation and gas compression at or near the point of use. With our Jenbacher* and Waukesha* product brands, INNIO pushes beyond the possible and looks boldly toward tomorrow. Our diverse portfolio of reliable, economical and sustainable industrial gas engines generates 200 kW to 10 MW of power for numerous industries globally. We can provide life cycle support to the more than 48,000 delivered gas engines worldwide. And, backed by our service network in more than 100 countries, INNIO connects with you locally for rapid response to your service needs. Headquartered in Jenbach, Austria, the business also has primary operations in Welland, Ontario, Canada, and Waukesha, Wisconsin, US.

Find your local support online: www.innio.com/en/company/providers

IWK-219018-EN

*Indicates a trademark

INNIO