



One Cost-Cutting Solution. Three Big Problems.

Compliance Controls MEC-L Air-Fuel Ratio Control System solves **three tough problems** faced every day by lean-burning engine operators:

- 1 Emissions Compliance.** The MEC-L gives owners and operators failsafe assurance that lean-burning engines designed for emissions compliance “right out of the box” will maintain compliance – over thousands of operating hours with varying loads, fuel composition and ambient air temperatures. In today’s environment of continually tightening emissions limits, this reduces risk of noncompliance fines, as well as the need to add costly after-treatment technologies.
- 2 Troubleshooting & Maintenance.** The MEC-L Air-Fuel Ratio Control System includes built-in troubleshooting and diagnostics, covering no fewer than 44 critical operating parameters. By allowing the operator to pinpoint performance problems as soon as they occur – misfires, detonations, overheating and more – the MEC-L cuts the costs of maintenance, downtime, labor, and replacement parts. In harsh operating environments – deserts or at high altitude, for example – MEC-L can even prevent catastrophic engine failure, by automatically optimizing the air-fuel mix to compensate for changes in atmospheric oxygen density, ambient air temperature or fuel composition.
- 3 Operational Issues.** Keeping up with technology is costly – in dollars, time and headaches. MEC-L provides all the benefits of the state-of-the-art – including trouble-free, set-it-and-forget-it ease of use.

Plus: with today’s high gas prices, lean-burn engine operators can count on the MEC-L to handle these challenges while maximizing engine fuel economy.

Problems: Solved.

Ongoing emissions compliance assured, reduced maintenance costs, fully automatic operation, with minimal operator intervention or training: the Compliance Controls MEC-L delivers benefits and continuing returns on investment no other air-fuel ratio control system can match.



Set it and forget it. It's like having an engine expert monitoring your engine, tweaking the air-fuel mix 24-7-365 – even troubleshooting your equipment.

- Ongoing compliance assured
- Improved engine & emissions control performance
- Failsafe troubleshooting & diagnostics
- Easy to install & use - fully automatic

MEC-L

LEAN-BURN AIR-FUEL RATIO CONTROL SYSTEM

Compliance 
CONTROLS™

Whoever said you can't be too rich or too lean wasn't in our business.



THE ONE-OF-A KIND SOLUTION

- Easy to install & use
- Fail-safe troubleshooting & diagnostics
- Improved engine & emissions control system performance
- Ongoing compliance assured

The MEC-L Lean-Burn Air-Fuel ratio Control System was engineered specifically for lean-burn, spark-ignited, carbureted natural gas engines. It minimizes engine emissions, maximizes fuel efficiency, improves engine performance and cuts engine maintenance costs – by precisely maintaining the proper air-fuel ratio over varying engine loads, speeds, fuel quality, and ambient conditions

Unlike other air-fuel ratio controllers that cost about the same, the MEC-L tracks *multiple factors* and regulates the air-fuel mix accordingly: engine load, actual tailpipe emissions and more. It also monitors a wide range of engine operating conditions. The result? Top performance, less maintenance and ongoing compliance assured.

And the MEC-L works without operator intervention.

Dollars & Sense: A System That Pays For Itself.

Compliance assured, over the long haul. Improved engine performance, with greater fuel efficiency and reduced fuel costs. Longer, more trouble-free equipment service-life. Fail-safe troubleshooting. Fast, easy installation. Easy, user-friendly operation, with minimal

training. Network compatibility, with high-speed data transfer. Powerful smart-system features and benefits you won't find anywhere else. All with the flexibility to tailor solutions to your specific current and future wants and needs. All for about what you'd spend on other air-fuel ratio controls that deliver a whole lot less.

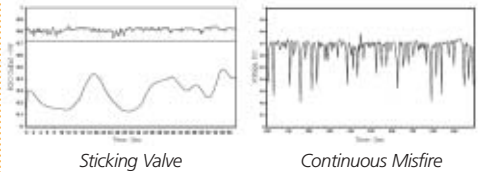
Top management, financial officers, engineers, IT and those in charge of operations can all agree: the Compliance Controls MEC-L Lean-Burn Air-Fuel Control System is simply the best value on the market, bar none – and a "must" for lean-burn engines.

Features

- Fast, easy, low-cost installation
- Fits virtually any lean-burn, spark-ignited, carbureted natural-gas industrial engine
- Windows® -based platform compatible with most computers
Software can be installed on laptop, PC, or network
- At-a-glance on-screen dashboard graphics: LED Driver (COMM Modules) for Power, Alarm & Shutdown, Controller Communication and more
- Adaptive valve learn-software
Continually updates look-up tables for rapid transient response and continuous control in Open Loop mode
- Comprehensive 44-fault diagnostics
- Data plotting for easy, accurate troubleshooting
- Alarm and shutdown dry contacts
- Closed loop, exhaust oxygen feedback control
- Variable set-point for exhaust oxygen control
For automatic, real-time response to varying engine loads and transients Perfect for generator-sets and other high-variance applications
- Catalyst temperature monitoring to protect the catalyst from engine fueling malfunctions
- Two-dimensional valve positioning, based on engine speed and load
Maintains compliance even with critical oxygen sensor malfunction
- Drives up to two fuel-metering valves for "V" engine configurations
- Valve control options:
 - **Smart Valve Electronic Pressure Regulator**
Controls all engine fuel with full authority, with differential fuel pressure control in case of air-fuel ratio control system failure
 - **Full Authority Valve**
Regulates all engine fuel via system-controlled butterfly valve
- Simple, soft-key control option
- RS-485/MODBUS® communications support for high-speed data transmission
- Utilizes CAN protocol

Benefits

- Emissions compliance assured over varying engine speeds/loads and ambient temperatures
- Reduced fuel consumption; better fuel economy
- Reduced lube oil nitration
- Improved engine performance
 - **Minimizes air-fuel-mix related misfires and detonations**
- Longer, more trouble-free equipment life
- Fail-safe troubleshooting & diagnostics, with automatic shutdowns
 - **Eliminates operator guesswork and look-see troubleshooting**
 - **Prevents costly equipment damage and failures**
 - **Better-managed, lower maintenance costs**
- Fully automatic; no operator required in normal operation
- Minimal operator training
- Flexible network compatibility – with high-speed data transfer
- Responsive, full-service support: 24-7-365
- Software, upgrades and documentation available on disk or online



Comprehensive, Failsafe Engine Diagnostics

- Covering 44 critical parameters

About Compliance Controls.

Compliance Controls was formed by two of the best-known, most trusted leaders in industrial engine emissions control and



equipment management solutions: MIRATECH

Corporation and FW Murphy. Backed by our parent companies' distribution networks, Compliance

Controls focuses exclusively on delivering and supporting MEC Air-Fuel Control System solutions tailored to our customers' specific requirements.



Visit Our Website. Or Give Us A Call.

To find out more about the MEC-L Lean-Burn Air-Fuel Control System, please visit our website: www.compliancecontrols.com. Or simply give us a call: **918-627-5050**

