EICS®
Engine Integrated Control System

Optimizing your engine’s performance and maintaining emission compliance is easier than ever with the FW Murphy Engine Integrated Control System (EICS). It is a complete integration package pre-calibrated specifically for your engine model.

EICS combines key components - ignition system (powered by FW Murphy’s IntelliSpark® Ignition technology), air/fuel control, speed governing, interface and diagnostics, sensors, harnesses, catalyst and engine control unit (ECU) - in one package, saving you money and man-hours associated with the installation and setup of separate engine components.

The EICS has been pre-configured for your convenience, ensuring your engine will run at optimum performance without the need for manual field adjustments. Its D-EPR valve accommodates wide variations in fuel composition and speed/load ranges, maintaining efficiency with load following technology for even the toughest gas lift applications.

In addition, the EICS eliminates the need for pretest site visits by maintaining emissions - saving you time and money. With EICS you can be certain your site will pass required testing, like Quad J testing, without the need for pretesting to get dialed in.

**Features**

- An OEM approach to an after-market application
- Two packages available: performance/efficiency package, optional emissions package (includes catalyst)
- One unit, three integrated functions - CD Ignition, air/fuel control and electronic governing speed control
- Pre-calibrated and dyno tested for specific engine models
- Advanced electronic air-fuel ratio control
- Lightning fast response to engine speed/load variations and fuel quality changes
- FW Murphy’s IntelliSpark Ignition Coils for expanded engine diagnostics and dynamic spark adjustment
- Graphical color user interface
- Data sharing via MODBUS RS485
- Data logging

**Benefits**

- Integrated system = simplified installation compared to separate components
- The integrated approach makes more advanced diagnostics possible
- No more setup of generic boxes - EICS is engine specific
- No more dialing in - it’s pre-calibrated
- Optimization of your engine’s performance
- Maintains emissions compliance between testing - no tweaking necessary
- Eliminates magneto failures and premature spark plug changes
- Reduces engine failure diagnostic time
- Reduces costs associated with the engine’s operation
How To Order

Step 1 - Pick the EICS Package based on your engine model

<table>
<thead>
<tr>
<th>An EICS Package is Available for Engine Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrow VRG330 and VRG330CF</td>
</tr>
<tr>
<td>Caterpillar G3300 Series</td>
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<tr>
<td>Caterpillar G3406</td>
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<tr>
<td>Cummins G5.9</td>
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<tr>
<td>Cummins G8.3</td>
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<tr>
<td>Cummins Engine KTA19GC</td>
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</tbody>
</table>

Kits are available with magneto conversion for older engines.
Kits are also available with shielded ignition components.

Step 2 - Determine display variant

Every EICS Engine Kit Requires One Display - Choose One Variant Below

- P/N 48700017 - In Panel Mount Display Kit, Display + EICS Pigtail + RS485 Pigtail
- P/N 48700021 - Remote Mount Display Panel with Switches, in Enclosure

Step 3 - Add optional hardware if desired

Add Optional Emissions Package:

- Emissions kits are available for each engine. To order, contact your FW Murphy sales representative.

To Add Optional Suction/Discharge Pressure Based Speed Control:

- Order the key below and add a standard FW Murphy PXT 4-20ma Pressure Sensor to complete
- P/N 48700031 - Suction Control/Discharge Control Software Key (requires FW Murphy PXT sensor)

Step 4 - Generator controls

The EICS works with generator controls. To check compatibility contact your FW Murphy sales representative.

Contact your FW Murphy sales representative:
- To purchase products and systems
- To view a full list of supported engine models
- To let us know which engine models you would like to see mapped next

Contact your FW Murphy sales representative at www.fwmurphy.com/EICS-engines.

Diagram of System Overview