

# AUTOMATIC ENGINE CONTROL FOR DIESEL/GAS ENGINES 120VAC SPEED INPUT

The ECU-63 engine control provides complete automation and safety monitoring of a gas or diesel engine. It uses a push on/ push off switch allowing multi control stations. A built in AC Voltage level speed switch controls starter disengagement and overspeed protection. Glow Signal is included that allows for pre-heat cycle. Zero power draw in off condition.

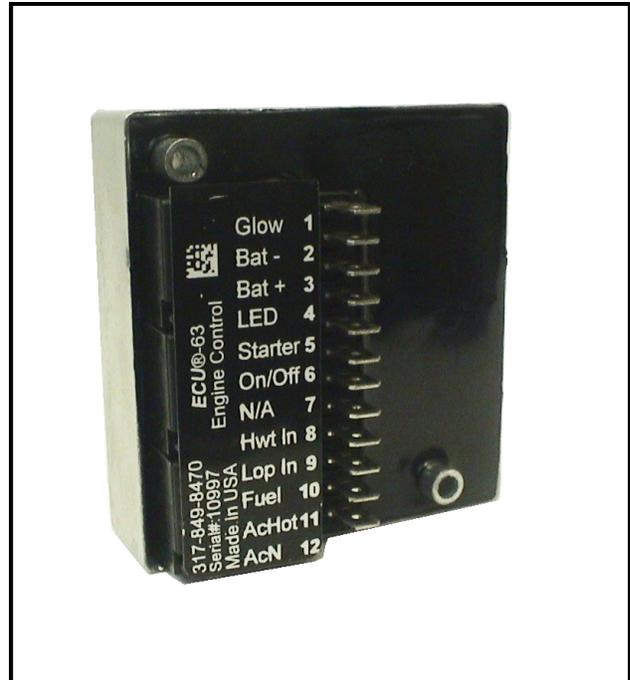
**ECU<sup>®</sup> - 63**

**VERSIONS FOR 12  
OR 24 VDC**

**APPLICATIONS:** Generator Control Panels, Automatic Engine Systems

## FEATURES:

- Loss of AC detection during cranking
- Multi-crank mode
- 120VAC speed switch built in
- Grounded HWT/LOP inputs
- Low oil pressure and high water temp override during cranking
- Glow Hold before start with smart load control
- Wide temperature range -40C to +85C
- Epoxy encapsulated module for excellent field reliability
- Output for LED Status Lamp
- 15 AMP Relays for control outputs



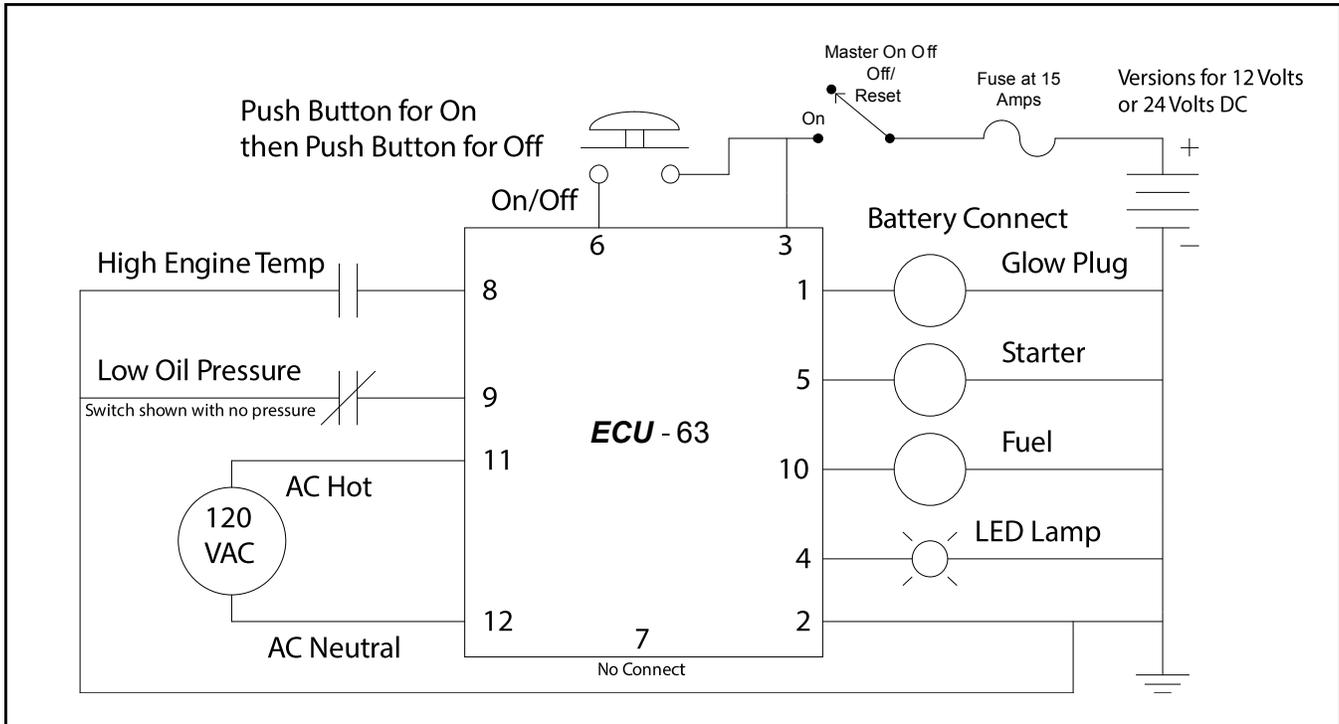
## ECU<sup>®</sup>-63 A COMPLETE AUTOMATIC ENGINE CONTROL

The ECU-63 automatically glow holds, cranks, starts and monitors an engine for Overcrank, High Water Temperature and Low Oil Pressure. All Adjustments are Factory Set. A built in speed switch uses the Generators AC Voltage (120VAC RMS) to monitor engine speed for crank disconnect and overspeed. The bypass timer/logic assures Low Oil Pressure and High Water Temp override during the crank period and an additional adjustable period after crank disconnect. The ECU-63 monitors the AC signal for problems during cranking. If a problem is detected the engine will shutdown and the appropriate flash code will be applied to the Status LED if connected. The unit automatically alternates the Glow Plug Signal and Starter Signal so that total current carried by the unit is in proper range. No on board indicators are included and an external LED lamp must be connected to see the fault and status codes.

The unit features push on and push off allowing for multiple start and stop stations by simply connecting the push buttons in parallel. A master reset switch must be opened to clear faults.

**ECU<sup>®</sup> IS A REGISTERED TRADEMARK OF ENGINEERING CONCEPTS UNLIMITED, INC.**  
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**Voice 317-849-8470 Fax 317-849-6475 [www.ecu-engine-controls.com](http://www.ecu-engine-controls.com)**

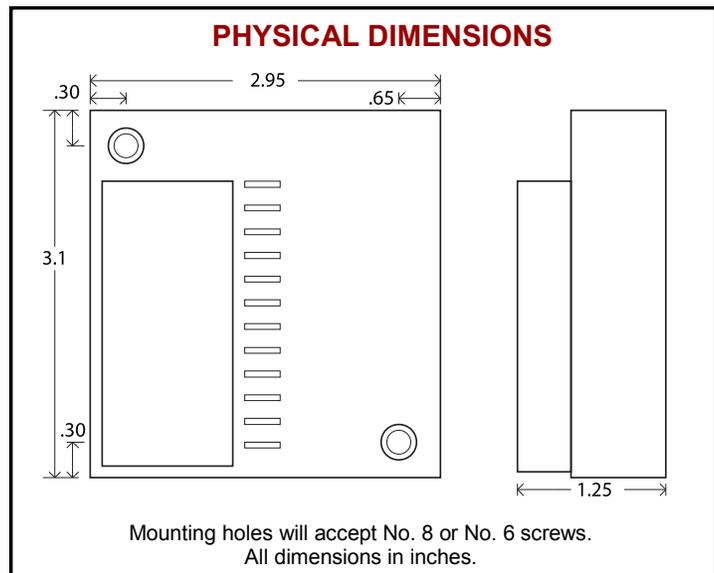
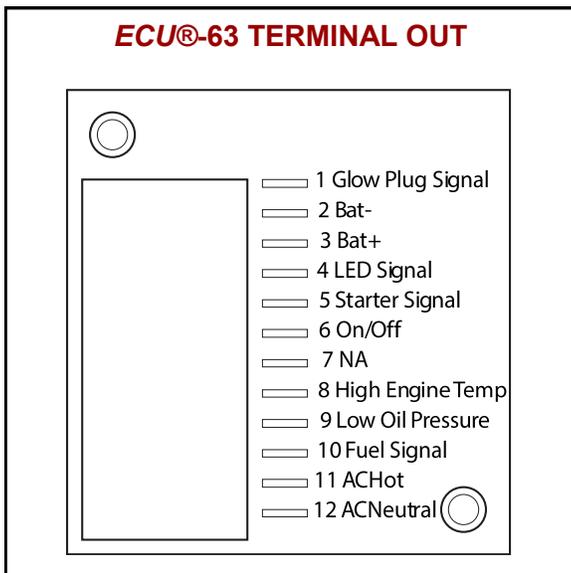
**SAMPLE ECU®-63 APPLICATION:**  
AUTOMATIC ENGINE CONTROL OF DIESEL/GAS ENGINE



The above illustrates the ECU-63 engine control with an energized to run engine. If you press the On/OFF button the Glow Plug Relay is energized for a pre-set time then it turns off and then the Fuel and Starter Relays are energized causing the engine to begin crank cycling. If the engine does not start in the factory set allotted time Overcrank Fault occurs, and the Fuel and Starter Relays are turned off. If during cranking the internal speed switch detects a speed equal to or above the Factory Set Crank Disconnect Setting the Starter Relay turns off, the LOP/HWT delay timer is initiated. After this delay period if the LOP or HWT switch closes the engine will shutdown immediately. To stop the engine press the On/Off Button. To clear a fault condition place the Master On/Off switch in the Off position. If the signal from the AC signal is lost during cranking the engine will shut down and the Loss of pickup condition will occur.

Flash Codes: Glow Hold= Slow Flash, Cranking= Slow Flash, Solid On= Engine Started  
Error Codes Flash Counts Over Crank 1, High Engine Temperature 2, Low Oil Pressure 3, No AC signal 4, Overspeed 6

**SPECIFICATIONS:** AC Voltage Range - 1 to 135 Volts RMS, 1-70 HZ  
DC Voltage Range 12 Volt Version 9 to 15 VDC, 24Volt 19 to 30VDC Max  
Combined Total Current Draw - 15 AMPS MAX (.250 Push On Terminal Limit)  
LED Signal - 100mA AMP MAX, Crank Terminate 20 Hz, Over Speed 68 Hertz



**ORDERING INFORMATION:**  
ORDER BY SPECIFYING: **ECU®-63**

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