

# Automatic Engine Controller

AS3000-02127B  
Revised 05-03  
Catalog Section 75  
(00-02-0525)

FWMurphy



## AS3000 Model

- Auto crank disconnect
- Multi-attempt starting
- Fault warning and shutdown
- Reduced panel wiring
- Simple set set-up

## Description

The AS3000 provides automatic start up, fault monitoring and shutdown control for engine driven applications. The unique two-module design, with a single interconnecting lead, gives reduced panel wiring and installation. This simple, compact unit is ideally suited to small engine and generator panels.

## Key features

- Multi-attempt cranking with auto crank disconnect
- Automatic or manual modes, selected by front facia pushbuttons. Control inputs for optional security keyswitch.
- User interface module: front of panel mounted, 92mm square DIN cut-out. Environmental sealing to IP65
- Panel interface module: DIN rail mounted PCB tray.
- Fault shutdown and indication system. Low oil pressure, high coolant temperature and auxiliary inputs are fitted to both modules, allowing use with engine mounted fault switches or panel mounted SWICHGAGE® units.
- Speed sensing (auto crank disconnect and over-speed shutdown) is via magnetic pickup, generator AC or remote contact. Speed calibration is automatic and adjustment free.
- Mains charger/charge alternator fail warning LED.

- Easy setup of operating options using circuit board links.
- Generator AC Hz meter output, 0 – 5V.

## Product Specification

### Power supply

**Continuous voltage range:** 8 – 35 VDC

**Brown out voltage:** < 5 VDC for 2 secs (recovery to 8V)

**Blackout voltage:** 0V for 50ms (from 10V, recovery to 5V)

**Overvoltage withstand:** 50 VDC for 5 seconds (to SAEJ1810 load dump immunity)

**Reverse voltage withstand:** 100 VDC continuous.

**Current consumption (standby):** 50mA.

**Current consumption (max):** 500mA (plus output loads).

### DC Inputs

**Oil pressure, coolant temp, auxiliary and charger faults:** Closed to negative DC ( $\pm 3V$ ) on fault.

**Remote start positive:** Open from positive DC to start.

**Remote start negative:** Close to negative DC ( $\pm 3V$ ) to start.

**Lamp test:** Close to negative DC ( $\pm 3V$ ) to activate.

**DC input protection:**  $\pm 50$  VDC maximum.

### AC Inputs

**Magnetic pickup:** 3 – 60 VAC, 50Hz – 10 kHz.

**Generator AC:** 600 VAC maximum (L-L or L-N), 50/60 Hz.

### Outputs

**Fuel:** positive DC (transistor), 5A max.

**Crank, preheat:** positive DC (transistor), 2A max.

**Common alarm, fault lockout:** negative DC (transistor), 300mA max.

**Generator Hz. Meter:** 0-1mA (@ 45-65 Hz).

### Physical

**Dimensions:** see "System Overview" on page 2.

**Operating temperature:** 14 to 149°F (-10 to +65°C).

Relative humidity: 95% @ 140°F (60 °C).

**Environmental protection:** AS3000 front: IP65, NEMA4.

Back of User Interface and Panel interface require weather-proof enclosures for outdoor use.

**Vibration:** ISO 88528 pt.9, & 3 axis 3g.

### Weight:

AS3000 User Interface: approx. 9 oz. (250g).

AS3000 Panel Interface: approx. 6 oz. (160g).

**Shipping Weight:** 1 lb. 4 oz. (554 g.).

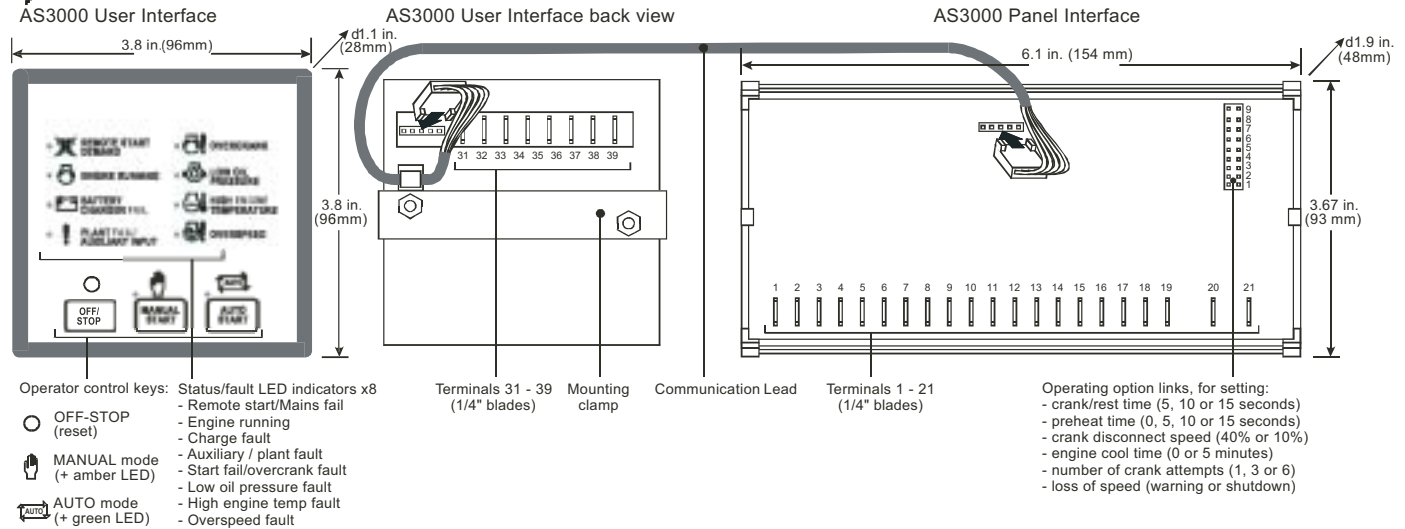
**Shipping Dimensions:** 7-3/8 x 5 x 3-1/8 inch. (187 x 127 x 79 mm.).



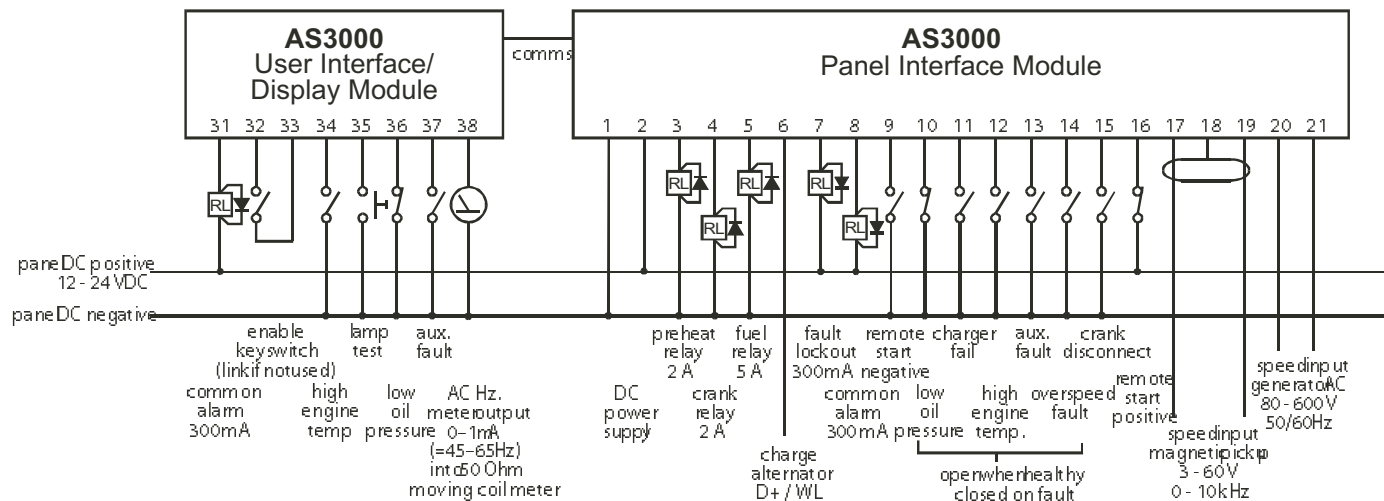


**CAUTION:** Do not bundle AC and DC wiring together. They must be separated by 2 inches ideally, and require separate conduit runs.

## System Overview



## Electrical Connection



## How to order

Stock no.	Unit type
41.70.0093	AS3000 system, white faceplate
41.70.0100	AS3000 system, black faceplate
<b>Components:</b>	
41.05.0001	AS3000 User Interface, black faceplate
41.05.0002	AS3000 Panel Interface
41.05.0003	AS3000 User Interface, white faceplate

## Warranty

A two-year warranty on materials and workmanship is given with this FWMurphy product.

A copy of the warranty may be viewed or printed by going to [www.fwmurphy.com/warranty.asp](http://www.fwmurphy.com/warranty.asp).



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