



## iGUARD™ Gen-Set Controller

- **SAE J1939 Compatible.** Reads this common SAE protocol used on newer electronic engines.
- **Universal.** This controller fits any standard gen-set application. Simplify your life with only one controller to learn and stock.
- **Designed to meet NFPA110/NFPA 99**
- **Unmatched Price.** *No other controller has these features at a comparable price.*

### Description

The iGUARD™ is one controller for all your engine-driven generator set applications. It is designed from the ground up to work with today's electronic engines, accepting the J1939 protocol. The iGUARD™ also works with non-electronic engines.

Designed to meet NFPA-110 and NFPA-99 requirements the iGUARD™ has ample inputs and outputs.

The new iGUARD™ controller can be used for all gen-set applications: single-phase or three-phase, and 12 or 24 V.

Engine speed can be read from a magnetic pickup, AC generator frequency, or J-1939 CANbus.

### Programming Updates in the Field

Because the microprocessor is flash-based, the controller can be easily re-programmed or updated using a PC in the field.

### Applications

- Packagers and OEM
- Rental Companies
- Prime Power
- Hospitals
- Ground Support Equipment
- Agriculture
- Marine

### iGUARD Standard Components

- 24 - Digital inputs
- 8 - Analog inputs (one dedicated for battery)
- Inputs for up to three phases and neutral of AC voltage
- Inputs for 3 CT's for current monitoring
- 1 - Magnetic pickup input
- 8 - 20A Form "C" relays
- 1 - RS232 port
- 1 - RS485 port
- 1 - RS232/RS485 port
- 1 - J1939 port
- 1 - 64 x 128 pixel full graphic LCD with backlight
- 1 - 12 position keypad

### Mounts in Several Ways

- Standard set-top
- Alternator mounting
- In existing enclosures

### Specifications

#### Mounting (Cut-out) Dimensions:

7.05 x 5.25 x 2.76 in. (179 x 133 x 70 mm)

#### Mounting Screws:

4, #6-32 screws and nitrile rubber o-ring are supplied to meet NEMA4 specs.

#### Case Material:

Black Polycarbonate, textured finish, UV stabilized.

### Connection:

600V rated multi-wire quick connect for DC and AC connections, suitable for wire harnessing.

### Power supply:

Operates from any DC supply for 8-35VDC continuous. Brownout (5V) ride-through is 5 seconds and a total blackout (0V) ride-through of 100 milliseconds.

### Vibration/Survivability:

3g, 3 axis, frequency swept 10-1000 Hz.

### Operating and Storage Temperature Range:

-40/+185°F (-40/+85°C).

### LCD Operating Range:

-4/+176°F (-20/+70°C).

### I/O's:

Expansion relay board available for additional I/O.

### Shipping Dimensions:

10 x 9 x 6 in. (254 x 229 x 152 mm)

### Shipping Weights:

2 lb. (910 g.).

### Performance Specs

NFPA-110, NFPA-99

SAE Load Dump Test

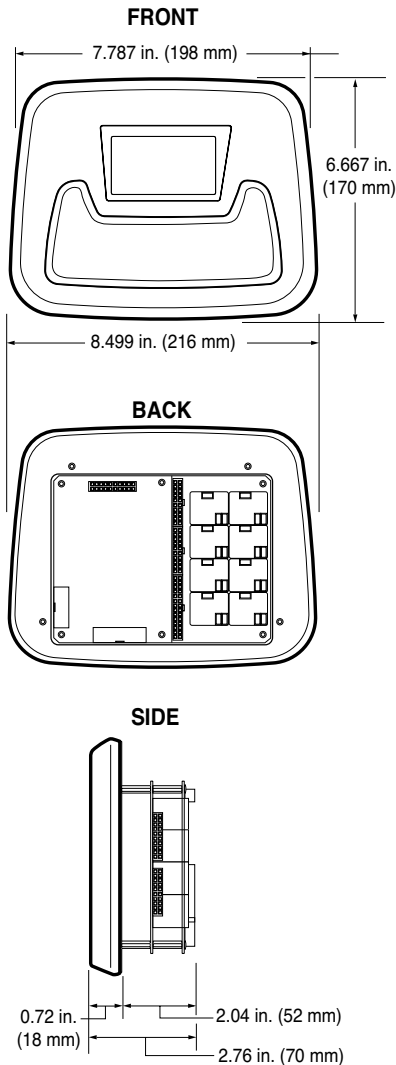
### Approvals

UL/CUL Recognized component as stand alone controller.

UL/CUL Listed when sold in conjunction with Murphy supplied harness.



## Typical Dimensions



### How to Order:

Specify:

**iGUARD™**  
Digital Generator Set Controller.

### Warranty

A limited warranty on materials and workmanship is given with this FW Murphy product. A copy of the warranty may be viewed or printed by going to [www.fwmurphy.com/support/warranty.htm](http://www.fwmurphy.com/support/warranty.htm)

## iGuard™ Accessories

### Wire Harnessing

Part Number	Description
75-00-0074	4-position power connector; 12 ft (3.65 m) wire leads.
75-00-0075	10-position comm. connector—J1939, RS232, RS485; 12 ft. (3.65 m) wire lead
75-00-0076	10-position communications connector - RS232, RS485
75-00-0077	Digital Inputs 1-8; 12 ft. (3.65 m) wire leads 12 ft. (3.65 m) wire leads
75-00-0078	Digital Inputs 9-24; 12 ft. (3.65 m) wire leads
75-00-0079	Analog Inputs, Magnetic Pickup; 12 ft. (3.65 m) wire leads
75-00-0080	ESD Jumper; 0.2 feet (61 mm) wire leads
75-00-0081	AC Voltage connector; 12 ft. (3.65 m) wire leads
75-00-0082	AC Current connector; 12 ft. (3.65 m) wire leads

### Senders and End Devices

Part Number	Description
05-70-1858	0-100 psi Oil pressure sender
10-70-2013	300 °F (150°C) Coolant temperature sender
15-70-0116	EL150K1 Coolant level indicator and low Coolant level shutdown
15-70-0104	L129 high/low Oil level indicator and shutdown
15-70-0660	LM2000 Engine oil replenisher and low oil level shutdown
05-70-6345	PXMS-100 4-20mA Pressure sender 100 psi

### Current Transformer

Part Number	Description
00-00-2592	50:5A Current transformer, 12 inch (305 mm) leads
00-00-2707	60:5A Current transformer, 12 inch (305 mm) leads
00-00-4893	75:5A Current transformer, 12 inch (305 mm) leads
00-00-2372	100:5A Current transformer, 12 inch (305 mm) leads
00-00-2484	150:5A Current transformer, 12 inch (305 mm) leads
00-00-2485	200:5A Current transformer, 12 inch (305 mm) leads
00-00-2486	300:5A Current transformer, 12 inch (305 mm) leads
00-00-2487	400:5A Current transformer, 12 inch (305 mm) leads
00-00-2488	500:5A Current transformer, 12 inch (305 mm) leads
00-00-2489	600:5A Current transformer, 12 inch (305 mm) leads
00-00-2490	800:5A Current transformer, 12 inch (305 mm) leads
00-00-2441	1000:5A Current transformer, 12 inch (305 mm) leads
00-00-2441	1000:5A Current transformer, 12 inch (305 mm) leads
00-00-2516	1200:5A Current transformer, 12 inch (305 mm) leads
00-00-2517	1500:5A Current transformer, 12 inch (305 mm) leads
00-00-2504	1600:5A Current transformer, 12 inch (305 mm) leads
00-00-2518	2000:5A Current transformer, 12 inch (305 mm) leads
00-00-2519	3000:5A Current transformer, 12 inch (305 mm) leads

**MURPHY**

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