

SENTRY-PRO SENTINEL III by GILLETTE GENERATORS



SENTINEL III is our optional controller equipment on all 4-pole, 1800 or 1500 RPM generators. It is an Automatic Utility Mains Failure Control Module. The module is used to automatically start and stop the engine, indicating the operational status and fault conditions, automatically shutting down the engine and indicating the engine failure by means of a graphical LCD display and a flashing LED on the front panel. Selected operational timers and alarms can be altered by the customer. Adjustments are made by using the integral front panel editor allowing changes in the field, with no lap-top computer or other special equipment required.

Operation of the module is via push-button mounted on the front panel with STOP, AUTO, and MANUAL modes. A further push-button provides an LCD DISPLAY SCROLL function to view the instrumentation. The module features microprocessor control and provides a comprehensive list of timers & preconfigured sequences. This allows complex specifications to be achieved.

► **Multiple Alarm Channels:** These channels are provided to monitor for the following; Under/Overspeed • Alternator Charger Failure • Emergency Stop • Low Oil Pressure • High Engine Temperature • Fail to start • Fail to come to rest • Loss of speed sensing signal. Additionally, any configurable input alarms that have been configured as indication, warning, or shutdown. Alarms are indicated by an LCD icon and LED illumination. The **SENTINEL III** modules have been designed for front panel mounting.

► **Metering:** The module provides metering via the LCD display with the following instrumentation displays, accessed via the scroll push-button: Generator Volts L1-N, L2-N, L3-N • Generator Volts L1-L2, L2-L3, L3-L1 • Generator Amps L1, L2, L3 • Generator Frequency Hz • Engine Speed RPM • Engine Oil Pressure (PSI & Bar) • Engine Temperature (Degrees Celsius & Fahrenheit) • Plant Battery Volts • Engine Hours Run.

► **LCD Indication:** The instrumentation displays are supplemented further by “HID-TIL-LIT” LCD icon displays (see reverse side), for various engine alarms. Uncommitted LCD icons allow the user to configure the module to provide other status or alarm indications for either internal states or from external digital inputs.

► **Digital Inputs:** The module accepts the following digital inputs: Emergency Stop Input - a N/C DC positive input. Five fully configurable warning or shutdown inputs. With the exception of the Emergency Stop Input, these are configurable to be either N/C or N/O contacts, switched to the -Ve DC. The five fully configurable auxiliary inputs can be selected to be indication, warning or shutdown inputs either immediate or held off during start up to allow for use as protection expansion inputs. Alternatively they may be configured to control extra functions such as lamp test or remote start input - refer to appropriate manuals for detail.





► **Analog Inputs:** Provided for Oil Pressure and Engine Temperature. These connect to conventional engine mounted resistive sender units (such as VDO, Murphy, or Datcon Type) to provide accurate monitoring and protection facilities. Alternatively they can be configured to interface with digital switch type inputs for Low Oil Pressure and High Engine Temperature shutdowns.

► **Relay Outputs:** Provided for Fuel Solenoid Output, Start Output, and three configurable outputs. A range of different functions, conditions, or alarms can be selected for the three configurable relay outputs. These outputs supply positive plant supply out. Refer to appropriate manuals for details.





► **Features:** Programmable Microprocessor based design • Automatic Engine Starting and Stopping • Automatic Shutdown on fault condition • Custom graphical icon type display • Provides engine and generator instrumentation • Provides engine alarms and status information • “Front Panel” configurable inputs, outputs, alarms, and timers • LED & LCD alarm indication • Compatible with **SENTINEL IV** module for easy upgrade path.

SENTINEL-III Icons and LCD Identification













PUSH BUTTONS

Display Symbol	Description	Display Symbol	Description	Display Symbol	Description
	Stop/Reset		Auto Mode		Manual Mode
I	Start (manual mode)				Scroll

STATUS / MEASUREMENT UNITS

Display Symbol	Description	Display Symbol	Description	Display Symbol	Description
L1	Line	L2	Line	L3	Line
L1- N	Line - Neutral	L2- N	Line - Neutral	L3- N	Line - Neutral
L1-L2	Line - Line	L2-L3	Line - Line	L3-L1	Line - Line
BAR	Pressure	HPa	KPa Oil Pressure Units	PSI	Pressure
V	Voltage	°F	Temperature	Hz	Frequency
A	Amperes	°C	Temperature	RPM	Speed
	Hours Run		AC		Parameter being adjusted
			DC		

ALARM INDICATIONS

Display Symbol	Description	Display Symbol	Description	Display Symbol	Description
	Warning Alarm		Shutdown Alarm		Electrical Trip
	Charge Fail		Low Oil Pressure		Over-speed
	Emergency Stop		High Coolant Temperature		Under-speed
	Fail to start (Over- crank)		Auxiliary Alarm (Warning or Shutdown)		Auxiliary Indication

OPTIONAL SENTINEL IV CONTROLLER & ACCESSORIES



SENTINEL IV : This auto start-stop and instrument module has the same features as “SENTINEL III” plus many more: Advanced 16 bit microprocessor programmable controller • Graphic LCD display for true, 4 selected languages • Simple, all push button controlled operation • Remote telemetry and control via a computer with MS Windows 9x • Earth fault shutdown • 15 event memory, and many more. The most important feature of this controller is that it allows remote telemetry for full control of your generator set, from any part of the world.



PART #157 is an OUTPUT RELAY EXPANSION MODULE, allowing (8) more, contacts for additional annunciating or control functions than normally achieved by the limit of (3) functions on either SENTINEL III or SENTINEL IV.

PART #548 is an LED DISPLAY ANNUNCIATOR, configured to provide eight user definable annunciations, while the remaining two bottom units (total 10) are fixed for “Link Lost” and “Power On”. This is an expansion of “Sentinel IV” host modules to display normal or fault conditions, up to 150 feet remote location.



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