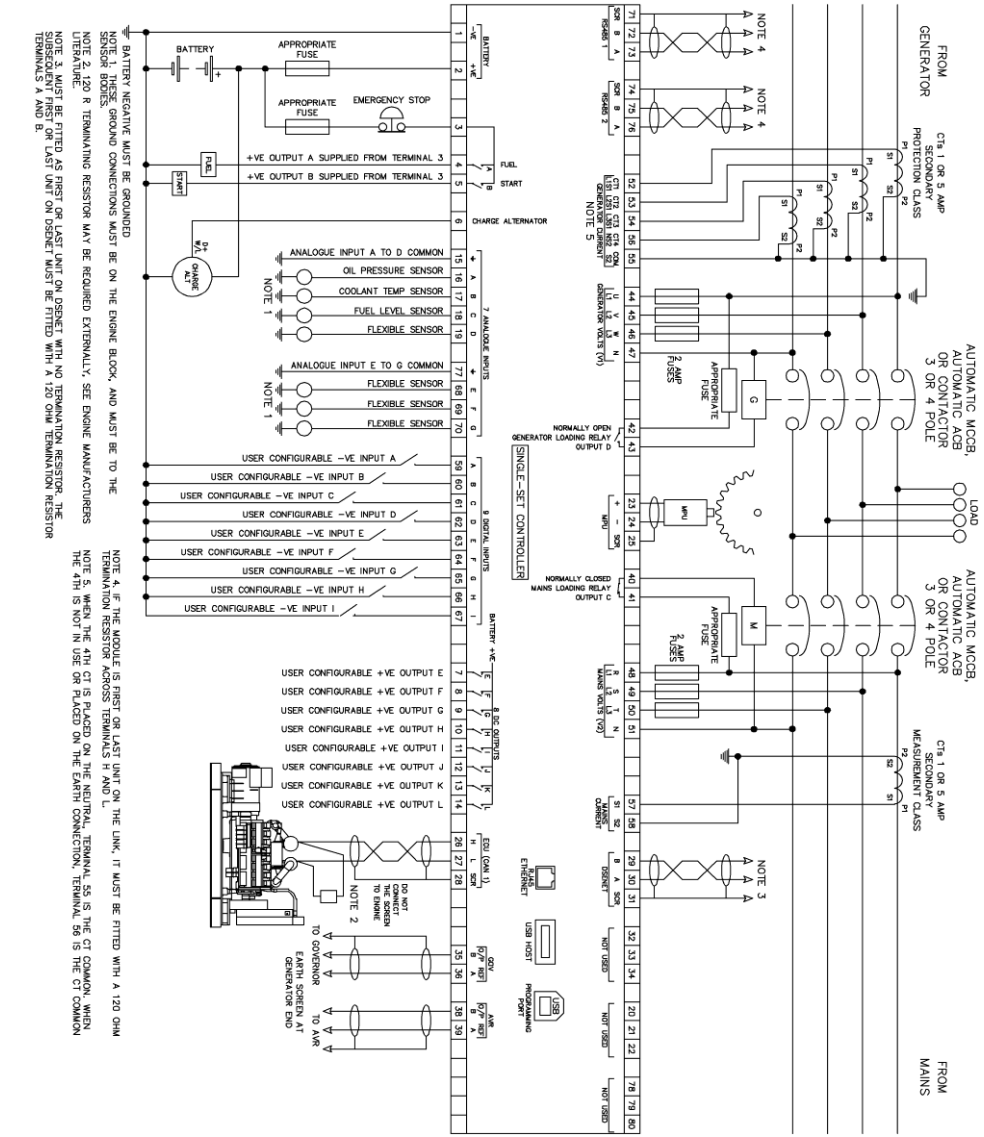
TYPICAL WIRING DIAGRAM

NOTE: A larger version of the Typical Wiring Diagram is available in the product's operator manual, refer to DSE Publication: *057-343 DSEG8900 Operator Manual* available from www.deepseaelectronics.com for more information.



Deep Sea Electronics Ltd.
Tel:+44 (0)1723 890099
Email: support@deepseaelectronics.com
Web: www.deepseaelectronics.com

Deep Sea Electronics Inc.
Tel: +1 (815) 316 8706
Email: support@deepseaelectronics.com
Web: www.deepseaelectronics.com

DEEP SEA ELECTRONICS

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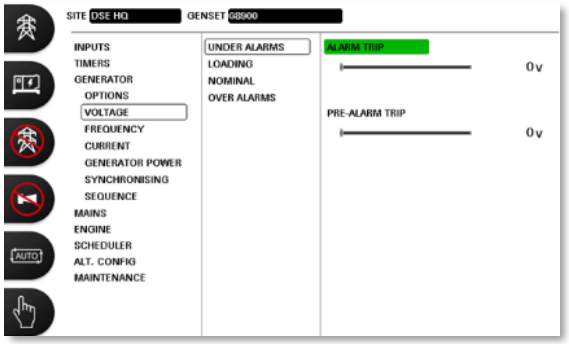
ISSUE 1

DSEG8900 Installation Instructions

NOTE: Depending upon module configuration, some parameters in the Main and Running Editors may not be available. For more information refer to DSE publication *057-340 DSEG8900 Configuraiton Suite PC Software Manual* available from www.deepseaelectronics.com.

ACCESSING THE MAIN CONFIGURATION EDITOR

- Ensure the engine is at rest and the module by pressing the ***Stop/Reset Mode*** button.
- Press and hold the ***Tick*** button and the ***Stop/Reset Mode*** button to enter the main configuration editor.



EDITING A PARAMETER

NOTE: Pressing and holding the Menu Navigation buttons provide the auto-repeat functionality. Values can be changed quickly by holding the navigation buttons for a prolonged period.

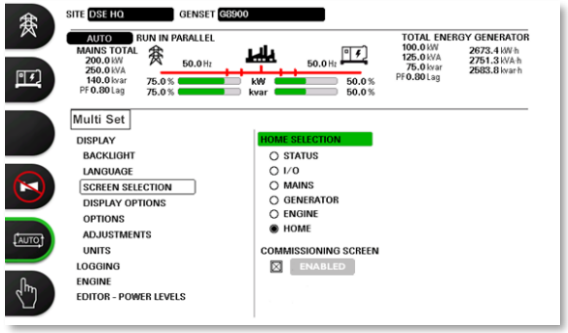
- Enter the *Running Configuration Editor* as described above.
- Press the ***Up*** or ***Down*** buttons to select the section to view/change. The current selected section highlights in green.
- Press the ***Left*** or ***Right*** buttons to select the Subsection/Parameter to be edited. The current selected item highlights in green.
- To edit the parameter, press the ***Tick*** button to enter the edit mode. The parameter is no longer highlighted green to indicate editing.
- Press the ***Up*** or ***Down*** buttons to change the parameter to the required value.
- Press the ***Tick*** button to save the value. The parameter highlights green to indicate that it has been saved.

ACCESSING THE 'RUNNING' CONFIGURATION EDITOR

- The *Running Configuration Editor* is accessible without stopping the engine. All protections remain active whilst using the ''Running' Configuration Editor.

- Press and hold the ***Tick*** button to access the *Running Configuration Editor.*

The parameters in the *Running Configuration Editor* are arranged in a hierarchical tree menu as shown in the example below, the subsequent tables are laid out to reflect this.



MAIN CONFIGURATION EDITOR PARAMETERS

NOTE: Depending upon module configuration, some parameters in the Main and Running Editors may not be available. For a full list of parameters refer to DSE publication *057-343 DSEG8900 Operator Manual* available from www.deepseaelectronics.com

Section	Sub Section	Parameter Group	Parameter	Value
Inputs	Oil Pressure	Low Alarms	Alarm Trip	0.00 bar
			Pre-Alarm Trip	0.00 bar
	Coolant Temp	High Alarms	Pre-Alarm Trip	0 °C
			Electrical Trip	0 °C
			Shutdown Trip	0 °C
		Low Alarms	Pre-Alarm Trip	0 °C
	Fuel	Fuel Usage	Running Rate	0 %/h
			Stopped Rate	0 %/h

ELECTRICAL SPECIFICATIONS

Parameter	Specification
DC Supply Voltage	5 V_{DC} to 35 V_{DC}
Maximum Operating Current	985 mA at 12 V 500 mA at 24 V
Maximum Standby Current	725 mA at 12 V 370 mA at 24 V
Typical Power (Module On, Heater Off)	4.0 W to 4.5 W
Typical Power (Module On, Heater On)	4.5 W to 11 W
Mains Phase to Neutral Voltage Sensing	15 V_{AC} to 345 V_{AC}
Mains Phase to Phase Voltage Sensing	26 V_{AC} to 720 V_{AC}
Mains Voltage Sensing Offset from Earth	100 V_{AC}
Volt-Free Output Rating	8 A at 250 V_{AC}, 8 A at 30 V_{DC}

REQUIREMENTS FOR UL CERTIFICATION

Specification	Description
Screw Terminal Tightening Torque	• 4.5 lb-in (0.5 Nm)
Conductors	• Terminals suitable for connection of conductor size 13 AWG to 20 AWG (0.5 mm² to 2.5 mm²). • Conductor protection must be provided in accordance with NFPA 70, Article 240 • Low voltage circuits (35 V or less) must be supplied from the engine starting battery or an isolated secondary circuit. • The communication, sensor, and/or battery derived circuit conductors shall be separated and secured to maintain at least ¼" (6 mm) separation from the generator and mains connected circuit conductors unless all conductors are rated 600 V or greater.
Current Inputs	• Must be connected through UL Listed or recognized isolating current transformers with the secondary rating of 5 A max.
CTs	• Protection Class CTs must be used on the phases for the Short Circuit Protection
Communication Circuits	• Must be connected to communication circuits of UL Listed equipment
Fuel Output Relay	• The slave relay on the Fuel output must meet the UL 6200 requirements.
Digital Outputs A & B	• 30 V, 8 A resistive • 24 V, 15 A resistive • 2 A VA if used to control fuel safety shut off valve in a UL approved system.
DC Supply Outputs E to L	• 35 V, 2 A resistive • 1 A VA if used to control fuel safety shut off valve in a UL approved system.
Mounting	• Suitable for flat surface mounting in Type 1 Enclosure Type rating with surrounding air temperature -22 °F to +122 °F (-30 °C to +50 °C) • Suitable for pollution degree 3 environments when voltage sensing inputs do not exceed 300 V. When used to monitor voltages over 300 V device to be installed in an unventilated or filtered ventilation enclosure to maintain a pollution degree 2 environment.
Operating Temperature	• -22 °F to +122 °F (-30 °C to +50 °C)
VTs	• When using voltage transformers (VTs) they must be fitted to both generator and bus sensing, have the same ratio from the primary to secondary windings, and a 0° phase offset between the primary and secondary windings.

DIMENSIONS AND MOUNTING

Parameter	Specification
Panel Cutout	228 mm x 136 mm (11.10 " x 5.30 ")
Overall Size	305.0 mm x 161.0 mm x 45.2 mm (12 " x 6.33 " x 1.77 ")
Case Material	Polycarbonate
Keypad Material	Silicone
Protection Category	IP65 panel mounted with gasket. IP4x panel mounted with no gasket.
Weight	1 kg (2.2 lb)
Mounting Type	Panel Mounting. Base mounted to a vertical surface with connection terminals to the rear.
Mounting Torque	0.2 Nm