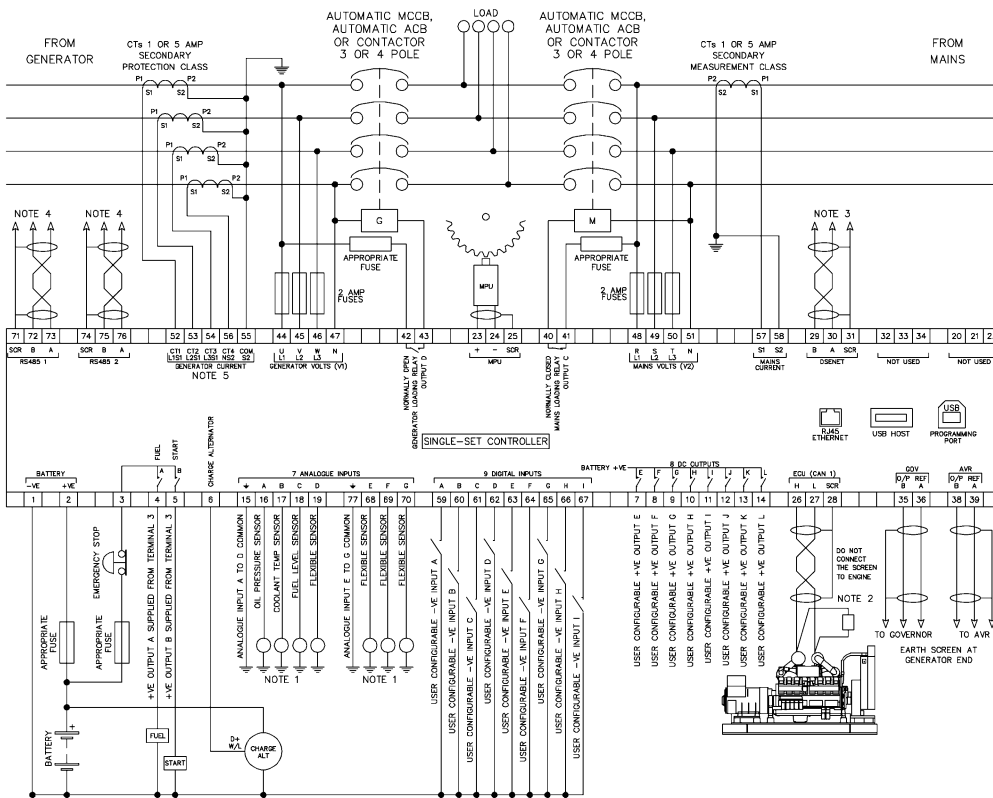


TYPICAL WIRING DIAGRAM

NOTE: A larger version of the Typical Wiring Diagram is available in the product's operator manual, refer to DSE Publication: **057-323 DSEG8600 Operator Manual** available from www.deepseaelectronics.com for more information.



BATTERY NEGATIVE MUST BE GROUNDED

NOTE 1: THESE GROUND CONNECTIONS MUST BE ON THE ENGINE BLOCK, AND MUST BE TO THE SENSOR BODIES.

NOTE 2: 120 R TERMINATING RESISTOR MAY BE REQUIRED EXTERNALLY, SEE ENGINE MANUFACTURERS LITERATURE.

NOTE 3: MUST BE FITTED AS FIRST OR LAST UNIT ON DSENET WITH NO TERMINATION RESISTOR. THE SUBSEQUENT FIRST OR LAST UNIT ON DSENET MUST BE FITTED WITH A 120 OHM TERMINATION RESISTOR TERMINALS A AND B.

NOTE 4: IF THE MODULE IS FIRST OR LAST UNIT ON THE LINK, IT MUST BE FITTED WITH A 120 OHM TERMINATION RESISTOR ACROSS TERMINALS H AND L.

NOTE 5: WHEN THE 4TH CT IS PLACED ON THE NEUTRAL, TERMINAL 55 IS THE CT COMMON. WHEN THE 4TH IS NOT IN USE OR PLACED ON THE EARTH CONNECTION, TERMINAL 56 IS THE CT COMMON.



DEEP SEA ELECTRONICS

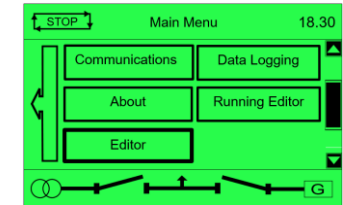
DSEG8600 Installation Instructions

053-256
ISSUE 2

NOTE: Depending upon module configuration, some parameters in the Main and Running Editors may not be available. For more information refer to DSE publication: **057-322 DSEG8600 Configuration Suite PC Software Manual** available from www.deepseaelectronics.com.

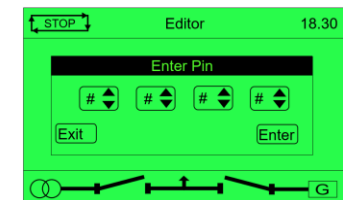
ACCESSING THE MAIN CONFIGURATION EDITOR

- Ensure the engine is at rest and the module by pressing the **Stop/Reset Mode** button.
- Press the **Next Page** button followed by either the **Up** or **Down** buttons or the **Next Page** or **Previous Page** buttons to locate the **Editor** page.



ENTERING A PIN

- Press the **Tick** button, the first '#' changes to '0'. Press the **Up** or **Down** buttons to adjust it to the correct value.
- Press the **Next Page** button when the first digit is correctly entered. The digit previously entered now shows as '#' for security.
- Repeat this process for the other digits of the PIN number.
- Press the **Previous Page** button to move back to adjust one of the previous digits.
- When the **Tick** button is pressed after editing the final PIN digit, the PIN is checked for validity. If the number is not correct, the PIN must be re-entered.
- If the PIN has been successfully entered (or the module PIN has not been enabled), the editor is displayed.



EDITING A PARAMETER

NOTE: If the editor is left inactive for the duration of the **LCD Page Timer**, it is automatically exited to ensure security. The PIN number is automatically reset when the editor is exited (manually or automatically) to ensure security. Comprehensive module configuration is possible using the DSE Configuration Suite PC Software, refer to DSE publication: **057-322 DSEG8600 Configuration Suite PC Software Manual** available from www.deepseaelectronics.com.

- Press the **Next Page** or **Previous Page** buttons to cycle to the section to view/change.
- Press the **Up** or **Down** buttons to select the parameter to view/change within the currently selected section.
- To edit the parameter, press the **Tick** button to enter edit mode. The parameter is highlighted to indicate editing.
- Press the **Up** or **Down** buttons or **Next Page** or **Previous Page** buttons to change the parameter to the required value.
- Press the **Tick** button to save the value. The parameter ceases flashing to indicate that it has been saved.

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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** the **Next Page**  button to access the Main Menu page.
- Press the **Previous Page**  button followed by either the **Up** or **Down**  buttons or the **Next Page** or **Previous Page**  buttons to locate the ‘Running’ Configuration Editor.

RUNNING 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 057-323 DSEG8600 Operator Manual available from www.deepseaelectronics.com

Section	Parameter As Shown On Display	Values
Display Settings	Contrast	75 %
	Units Pressure	kPa, bar, psi
	Units Temperature	°C, °F
Synchronising	Commissioning Screen	Active / Inactive
	Override Starting Alarms	Active / Inactive
	Voltage Adjust (Manual Mode Only With Generator Running and Breaker Open)	0 %
Load Control	Frequency Adjust (Manual Mode Only With Generator Running and Breaker Open)	0 %
	Injection Port	Activity Timer Countdown (1 Hour) / Inactive
	Mains Decoupling Test Mode	Active / Inactive
	Power Control Mode	Constant Power / Frequency-Power / Voltage-Power
	Load Parallel Power	0 %
	kvar Control Mode	Constant Power Factor / Voltage-Reactive Power / Power-Power Factor / Constant Reactive Power
	Load Parallel kvars	0 %
	Load Parallel PF	0.00 pf
	Governor Droop Offset	0%
	Governor Ramp Rate	0%
	AVR Droop Offset	0%
	AVR Ramp Rate	0%
	Load Priority	1-64

ELECTRICAL SPECIFICATIONS

Parameter	Specification
DC Supply Voltage	8 V DC to 35 V DC
Maximum Operating Current	530 mA at 12 V DC 280 mA at 24 V DC
Maximum Standby Current	320 mA at 12 V DC 120 mA at 24 V DC
Typical Power (Controller On, Heater Off)	3.8 W to 4.1 W
Typical Power (Controller On, Heater On)	6.8 W to 7.1 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, 5 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 (utility) 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.
DC Output Pilot Duty	Fuel and Crank: 2.0 A VA/Pilot Duty Auxiliaries: 1.0 A VA/Pilot Duty
Mounting	Suitable for flat surface mounting in Type 1 Enclosure Type rating with surrounding air temperature -22 °F to +158 °F (-30 °C to +70 °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 +158 °F (-30 °C to +70 °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
Dimensions	248 mm x 182.6 mm x 45.2 mm (9.77 " x 7.19 " x 1.78 ")
Panel Cutout	220 mm x 160 mm (8.7 " x 6.3 ")
Weight	0.76 kg (1.67 lb)
Operating Temperature with Standard Display	-30 °C to +70 °C (-22 °F to +158 °F)
Operating Temperature with Heated Display	-40 °C to +70 °C (-40 °F to +158 °F)
Storage Temperature	-40 °C to +80 °C (-40 °F to +176 °F)

