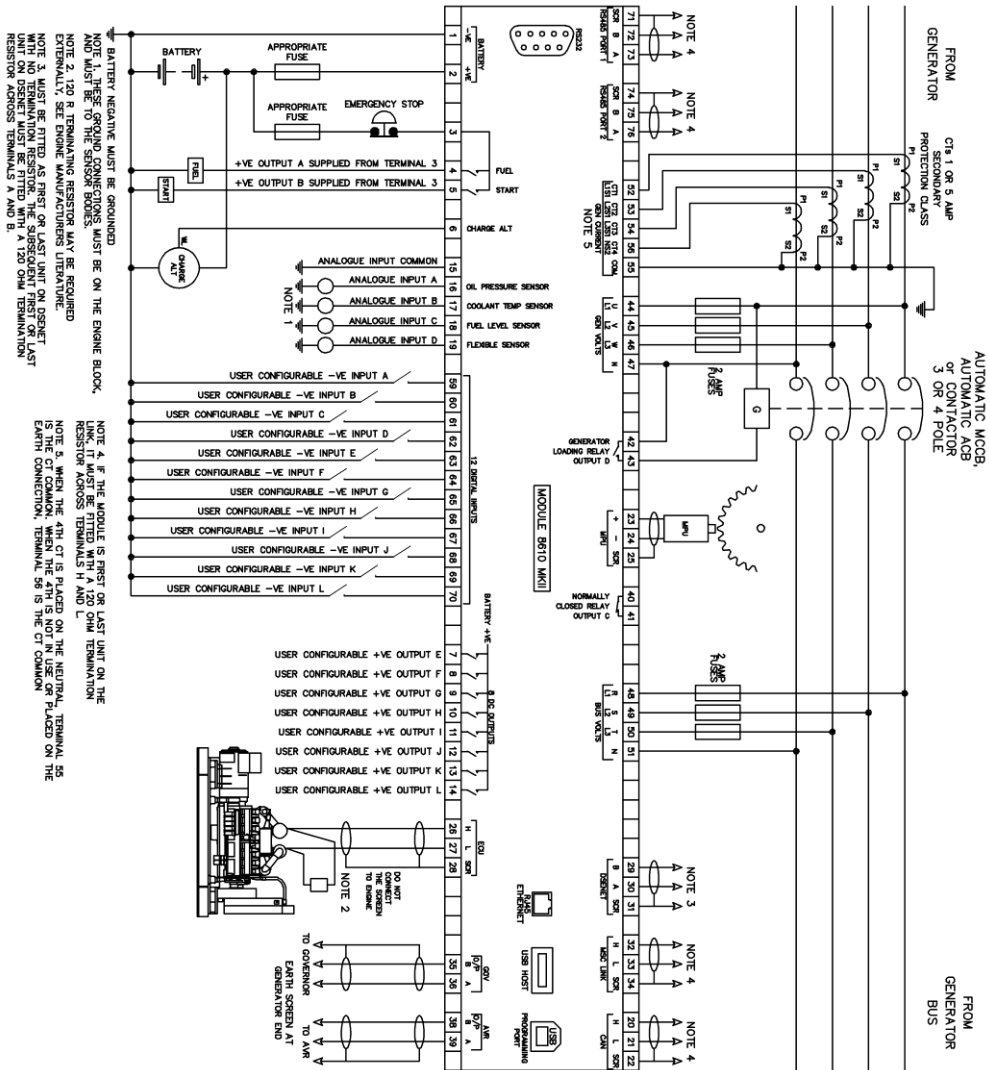


# TYPICAL WIRING DIAGRAM

**NOTE:** A larger version of the Typical Wiring Diagram is available in the product's operator manual, refer to DSE Publication: 057-254 DSE8610 MKII Operator Manual available from [www.deepseaelectronics.com](http://www.deepseaelectronics.com) for more information.



## ACCESSING THE MAIN CONFIGURATION EDITOR

- Ensure the engine is at rest and the module is in STOP mode by pressing the (Stop/Reset) button.
- Press the (Stop/Reset) and (Tick) buttons simultaneously.
- If a module security PIN has been set, the PIN number request is then shown:
- The first '#' changes to '0'. Press the (Up) or (Down) button to adjust it to the correct value.
- Press the (Right) button when the first digit is correctly entered. The digit previously entered now shows '#' for security.
- Repeat this process for the other digits of the PIN number. Press the (Left) 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

- Enter the editor as described above.
- Press the (Right) or (Left) 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 begins to flash 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 ceases flashing to indicate that it has been saved.
- To exit the editor and save the changes, press and hold the (Tick) button.
- To exit the editor and not save the changes, press and hold the (Stop/Reset) button.

**NOTE:** If the editor is left inactive for the duration of the LCD Page Timer, it is automatically exited to ensure security.

**NOTE:** The PIN number is automatically reset when the editor is exited (manually or automatically) to ensure security.

**NOTE:** Comprehensive module configuration is possible using the DSE Configuration Suite PC Software, refer to DSE publication 057-238 DSE8610 MKII Configuration Suite PC Software Manual available from [www.deepseaelectronics.com](http://www.deepseaelectronics.com).

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**NOTE:** Depending upon module configuration, some parameters in the Main and Running Editors may not be available. For more information refer to DSE publication 057-238 DSE8610 MKII Configuration Suite PC Software Manual available from [www.deepseaelectronics.com](http://www.deepseaelectronics.com)

### MAIN CONFIGURATION EDITOR PARAMETERS

Section	Parameter As Shown On Display	Values
Display	Contrast	0%
	Language	English, Other.
	Current Date and Time	DD:MM:YY, hh:mm:ss
Alt Config	Default Config	Default Config / Alternative Config
Engine	Oil Pressure Low Shutdown	0.00 bar
	Oil Pressure Low Pre Alarm	0.00 bar
	Coolant Temperature Low Warning	0 °C
	Coolant Temp High Pre Alarm	0 °C
	Coolant Temp High Shutdown	0 °C
	Start Delay Off Load	0 h 0 m 0 s
	Start Delay On Load	0 h 0 m 0 s
	Start Delay Telemetry	0 h 0 m 0 s
	Pre Heat Temp	0 °C
	Pre Heat Timer	0 h 0 m 0 s
	Post Heat Temp	0 °C
	Post Heat Timer	0 h 0 m 0 s
	Cranking	0 m 0 s
	Cranking Rest	0 m 0 s
	Safety On Delay	0 m 0 s
	Warning at Idle (Idle Running)	0 m 0 s
	Idle Ramp Up (Idle Running)	0 m 0 s
	Smoke Limiting	0 m 0 s
	Smoke Limiting Off	0 m 0 s
	Warning	0 h 0 m 0 s
	Cooling	0 h 0 m 0 s
	Under Speed Shutdown	Active / Inactive
	Under Speed Shutdown	0 RPM
	Under Speed Warning	Active / Inactive
	Under Speed Warning	0 RPM
	Over Speed Warning	Active / Inactive
	Over Speed Warning	0 RPM
	Over Speed Shutdown	0 RPM
	Overspeed Overshoot	0 m 0 s
	Overspeed Overshoot	0 %
	Fail To Stop Delay	0 m 0 s
	Battery Under Voltage Warning	Active / Inactive
	Battery Under Voltage Warning Delay	0 h 0 m 0 s
	Battery Under Voltage Warning	0.0 V
	Battery Over Voltage Warning	Active / Inactive
	Battery Over Voltage Warning Delay	0 h 0 m 0 s
	Battery Over Voltage Warning	0.0 V
	Charge Alternator Failure Warning	Active / Inactive
	Charge Alternator Failure Warning	0.0 V
	Charge Alternator Warning Delay	0 h 0 m 0 s
	Charge Alternator Failure Shutdown	Active / Inactive
	Charge Alternator Failure Shutdown	0.0 V
	Charge Alternator Shutdown Delay	0 h 0 m 0 s
	Droop	Active / Inactive
	Droop	0 %
	Fuel Usage Running Rate	0 %
	Fuel Usage Stopped Rate	0 %
	DPF Auto Regen Inhibit	Active / Inactive
	Specific Gravity	0.80 to 1.00
	CAN Termination	Active / Inactive
Generator	Under Voltage Shutdown	0 V
	Under Voltage Pre-Alarm	0 V
	Loading Voltage	0 V
	Nominal Voltage	0 V
	Over Voltage Pre-Alarm	0 V
	Over Voltage Shutdown	0 V
	Under Frequency Shutdown	0.0 Hz
	Under Frequency Pre-Alarm	0.0 Hz
	Loading Frequency	0.0 Hz
	Nominal Frequency	0.0 Hz
	Over Frequency Pre-Alarm	0.0 Hz
	Over Frequency Shutdown	0.0 Hz

### MAIN CONFIGURATION EDITOR PARAMETERS (CONTINUED)

Section	Parameter As Shown On Display	Values	
Generator (Continued)	Full Load Rating	0 A	
	kW Overload Trip	0 %	
	Delayed Over Current	Active / Inactive	
	Gen Over Current Trip	0 %	
	AC System	3 Phase, 4 Wire	
	CT Primary	0 A Power Cycle After Exit	
	CT Secondary	0 A Power Cycle After Exit	
	Short Circuit Trip	0 %	
	Earth CT Primary	0 A	
	Earth Fault Trip	Active / Inactive	
	Earth Fault Trip	0 %	
	Transient Delay	0.0 s	
	Gen Reverse Power Delay	0.0 s	
	Full kW Rating	0 kW	
	Full kVAr Rating	0 kvar	
	Ramp Up Rate	0 %	
	Ramp Down Rate	0 %	
	Load Level For More Sets	0 %	
	Load Level For Less Sets	0 %	
	Load Demand Priority	1	
	Gen Reverse Power Trip	0 kW	
	Insufficient Capacity Delay	0 m 0 s	
	Insufficient Capacity Action	None / Indication / Warning / Shutdown / Electrical Trip	
	Reactive Load CTL Mode	None / var Share / var Fixed Export	
	Load Parallel Power	0 kW In Mains Parallel Mode	
	Load Power Factor	0 % In Mains Parallel Mode	
	Enable MSC Compatibility	Active / Inactive	
	Comms	RS232 Port Baud Rate	115200
		RS232 Port Server ID	10
		RS485 Port Baud Rate	115200
		RS485 Port Server ID	10
	Timers	LCD Page Timer	0 h 0 m 0 s
		Scroll Delay	0 h 0 m 0 s
		Engine Pre Heat Timer	0 h 0 m 0 s
		Engine Post Heat Timer	0 h 0 m 0 s
Engine Cranking		0 m 0 s	
Engine Cranking Rest		0 m 0 s	
Engine Safety On Delay		0 m 0 s	
Engine Warming Up at Idle		0 m 0 s	
Engine Idle Ramp Up		0 m 0 s	
Engine Smoke Limiting		0 m 0 s	
Engine Smoke Limiting Off		0 m 0 s	
Engine Warming		0 h 0 m 0 s	
Engine Cooling		0 h 0 m 0 s	
Engine Overspeed Overshoot		0 m 0 s	
Engine Fail To Stop Delay		0 m 0 s	
Battery Under Voltage Warning Delay	0 h 0 m 0 s		
Battery Over Voltage Warning Delay	0 h 0 m 0 s		
Return Delay	0 h 0 m 0 s		
Generator Transient Delay	0 s		
Schedule	Schedule	Active / Inactive	
	Schedule Bank 1 Period	Weekly / Monthly.	
	On Load / Off Load / Auto Start Inhibit, Week, Start Time, Run Time and Day. Selection (1 to 8)	Press  to begin editing then up or down when selecting the different parameters.	
	Schedule Bank 2 Period	Weekly / Monthly.	
	On Load / Off Load / Auto Start Inhibit, Week, Start Time, Run Time and Day. Selection (1 to 8)	Press  to begin editing then up or down when selecting the different parameters.	

### DIMENSIONS AND MOUNTING

Parameter	Specification
Dimensions	245 mm X 184 mm X 51 mm (9.6" X 7.2" X 2.0")
Panel Cut-out	220 mm X 160 mm (8.7" X 6.3")
Weight	0.98 kg (2.16 lb)
Operating Temp with Standard Display	-30 °C to +70 °C (-22 °F to +158 °F)
Operating Temp 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)

### ACCESSING THE 'RUNNING' CONFIGURATION EDITOR

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



- Press and hold the (Tick) button to enter and exit the Running Editor.

### RUNNING CONFIGURATION EDITOR PARAMETERS

Section	Parameter As Shown On Display	Values
Display	Contrast	0 %
	Language	English, Other
	Load Demand Priority	1
	Commissioning Screens	Active / Inactive
	Override Starting Alarms	Active / Inactive
	Voltage Adjust (manual mode only, breaker open)	0 %
	Frequency Adjust (manual mode only, breaker open)	0 %
	Mains Decoupling Test Mode	Active / Inactive
	Voltage and Frequency Injection Testing	Active / Inactive (Remains active for 3 minutes)
	Engine	Governor Gain
Frequency Adjust Offset		0.0 Hz
DPF Auto Regen Inhibit		Active / Inactive
DPF Manual Regen		Active / Inactive
Power Levels	Power Control Mode	Constant Power / Frequency-Power / Voltage-Power
	kVAr Control Mode	Constant Power Factor / Voltage-Reactive Power / Power-Power Factor / Constant Reactive Power
	Load Parallel Power	0 %
	Load Parallel kVAr	0 %
	Load Parallel PF	0.00 pf
	Frequency Droop Offset	0.00 % (0.00 Hz)
	Freq. Droop Ramp Rate	0.0 %
	Voltage Droop Offset	0.00 % (0.0 V)
	Voltage Droop Ramp Rate	0.0 %

### REQUIREMENTS FOR UL CERTIFICATION

**WARNING:** More than one live circuit exists, see diagram overleaf for further information.

Specification	Description
Screw Terminal Tightening Torque	• 4.5 lb-in (0.5 Nm)
Conductors	<ul style="list-style-type: none"> <li>Terminals suitable for connection of conductor size 13 AWG to 20 AWG (0.5 mm<sup>2</sup> to 2.5 mm<sup>2</sup>).</li> <li>Conductor protection must be provided in accordance with NFPA 70, Article 240</li> <li>Low voltage circuits (35 V or less) must be supplied from the engine starting battery or an isolated secondary circuit.</li> <li>The communication, sensor, and/or battery derived circuit conductors shall be separated and secured to maintain at least 1/4" (6 mm) separation from the generator and mains connected circuit conductors unless all conductors are rated 600 V or greater.</li> </ul>
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 server relay on the Fuel output must meet the UL 6200 requirements.
Digital Outputs A & B	<ul style="list-style-type: none"> <li>30 V, 8 A resistive</li> <li>24 V, 15 A resistive</li> <li>2 A VA if used to control fuel safety shut off valve in a UL approved system.</li> </ul>
DC Supply Outputs E to L	<ul style="list-style-type: none"> <li>35 V, 2 A resistive</li> <li>1 A VA if used to control fuel safety shut off valve in a UL approved system.</li> </ul>
Mounting	<ul style="list-style-type: none"> <li>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)</li> <li>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.</li> </ul>
Max. Operating Temperature	• 122 °F (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.