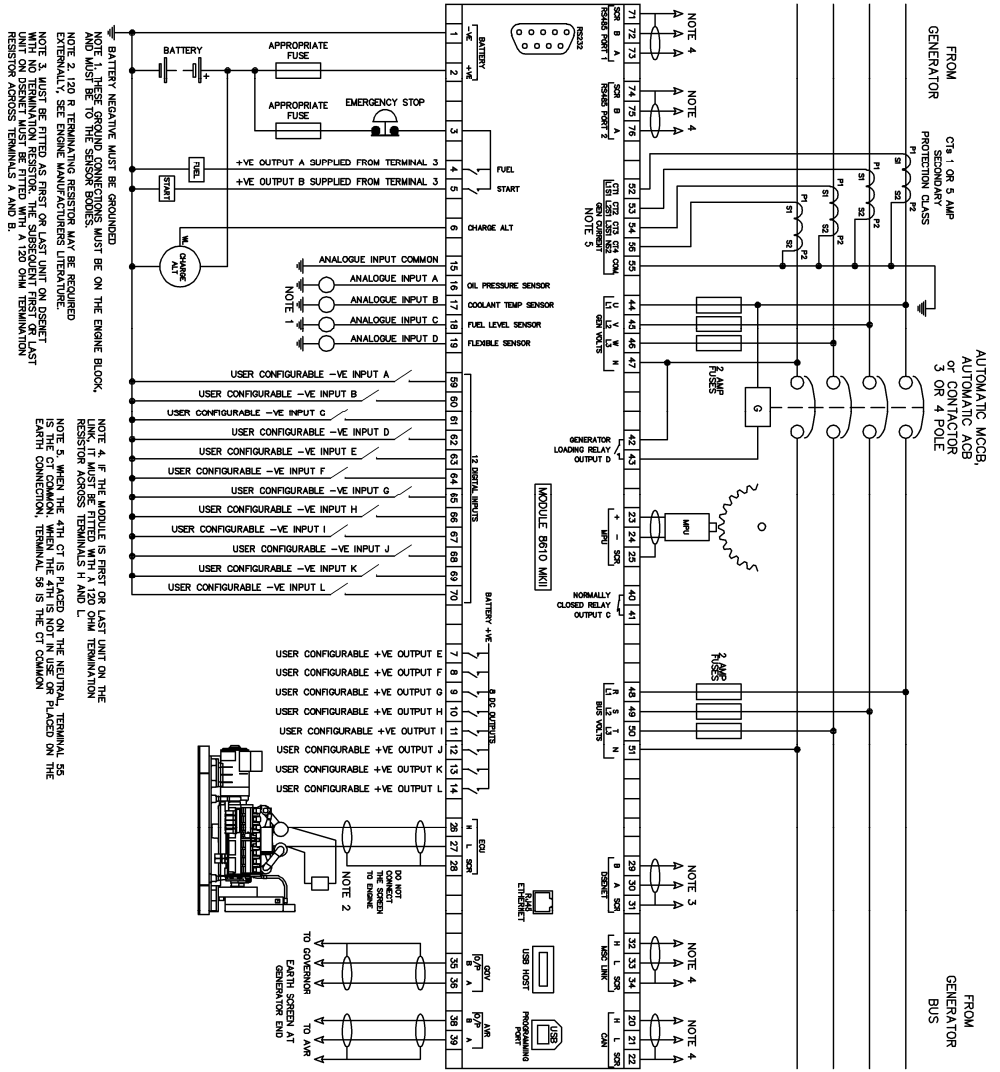


TYPICAL WIRING DIAGRAM

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 for more information.



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DEEP SEA ELECTRONICS DSE8610 MKII Installation Instructions

053-182
ISSUE 9

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:

Editor
 Enter Pin
 ###
 ###
- 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:

Editor - Display
 Contrast
 53%

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.

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

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 Slave ID	10
		RS485 Port Baud Rate	115200
		RS485 Port Slave ID	10
		Timers	LCD Page Timer
	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"> Terminals suitable for connection of conductor size 13 AWG to 20 AWG (0.5mm² to 2.5mm²). 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 1/4" (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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 35 V, 2 A resistive 1 A VA if used to control fuel safety shut off valve in a UL approved system.
Mounting	<ul style="list-style-type: none"> 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 300V. 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
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.