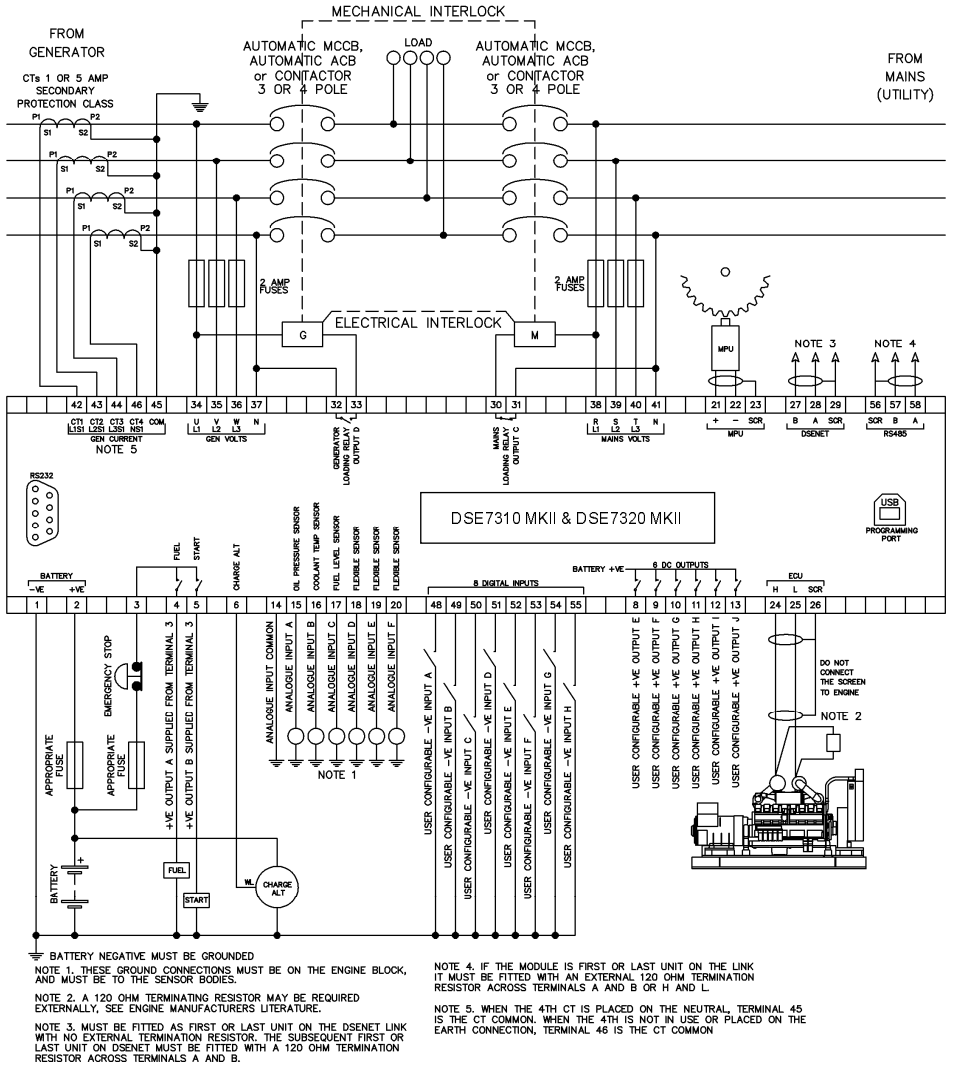
TYPICAL WIRING DIAGRAM



NOTE: Terminals 38, 39, 40 & 41 are not fitted to the DSE7310 MKII.

NOTE: A larger version of the Typical Wiring Diagram is available in the product's operator manual, refer to DSE Publication: *057-253 DSE7310 MKII & DSE7320 MKII Operator Manual* available from www.deepseaelectronics.com for more information.

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DEEP SEA ELECTRONICS

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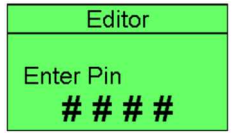
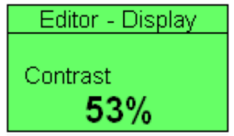
DSE7310 MKII & DSE7320 MKII Installation Instructions

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 *057-243 DSE7310 MKII & DSE7320 MKII Configuraiton Suite PC Software Manual* available from www.deepseaelectronics.com.

MAIN CONFIGURATION EDITOR PARAMETERS

NOTE: Depending upon module configuration, some values in the *Main & Running Configuration Editors* may not be available. For more information refer to DSE publication *057-243 DSE7310 MKII & DSE7320 MKII Configuraiton Suite PC Software Manual* available from www.deepseaelectronics.com

Section	Parameter As Shown On Display	Value
Display	Contrast	0 %
	Language	English
	Current Date and Time	dd:mm:yyyy, hh:mm:ss
	Dual Mutual Mode	Set Priority / Run Time / Engine Hours
	Dual Mutual Priority	0
	Dual Mutual Duty Time	0 h 0 m 0 s
Alt Config	Config To Edit	Main Configuration / Alt Config 1,2,3,4 or 5
	Default Configuration	Main Configuration / Alt Config 1,2,3,4 or 5
Engine	Oil Pressure Low Shutdown	0.00 bar 0 psi 0 kPa
	Oil Pressure Low Pre Alarm	0.00 bar 0 psi 0 kPa
	Coolant Temperature Low Warning	0 °C 0 °F
	Coolant Temperature High Pre Alarm	0 °C 0 °F
	Coolant Temperature High Electrical Trip	0 °C 0 °F
	Coolant Temperature High Shutdown	0 °C 0 °F
	Fuel Usage Running Rate	0 %
	Fuel Usage Stopped Rate	0 %
	Specific Gravity	0.00
	Pre Heat Temp	0 °C 0 °F
	Pre Heat Timer	0 h 0 m 0 s
	Post Heat Temp	0 °C 0 °F
	Post Heat Timer	0 h 0 m 0 s
	Droop Control	Active / Inactive
	Droop Control	0.0 %
	Crank Disconnect Oil Pressure Delay	0.0 s
	Crank Disconnect	0 V
	Under Speed Shutdown	Active / Inactive
	Under Speed Shutdown	0 RPM
	Under Speed Warning	Active / Inactive
	Under Speed Warning	0 RPM
	Under Speed Delay	0.0 s
	Over Speed Warning	Active / Inactive
	Over Speed Warning	0 RPM
	Over Speed Shutdown	0 RPM
	Over Speed Delay	0.0 s
	Overspeed Overshoot	0 %
	Overspeed Overshoot Delay	0 m 0.0 s
	Battery Under Voltage Warning	Active / Inactive
	Battery Under Voltage Warning	0.0 V
	Battery Under Voltage Warning Delay	0 h 0 m 0 s
	Battery Over Voltage Warning	Active / Inactive
	Battery Over Voltage Warning	0.0 V
	Battery Over Voltage Warning Delay	0 h 0 m 0 s
	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
	Inlet Temperature Shutdown	0 °C 0 °F
	Inlet Temperature Pre-Alarm	0 °C 0 °F
Generator	AC System	3 Phase, 4 Wire
	Under Voltage Shutdown	0 V
	Under Voltage Pre Alarm	0 V
	Under Voltage Delay	0.0 s
	Nominal Voltage	0 V
	Over Voltage Pre Alarm	0 V
	Over Voltage Shutdown	0 V
	Over Voltage Delay	0.0 s
	Under Frequency Shutdown	0.0 Hz
	Under Frequency Pre Alarm	0.0 Hz
	Under Frequency Delay	0.0 s

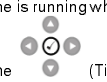
MAIN CONFIGURATION EDITOR PARAMETERS (CONTINUED)

Section	Parameter As Shown On Display	Value
Generator (Continued)	Nominal Frequency	0.0 Hz
	Over Frequency Pre Alarm	0.0 Hz
	Over Frequency Shutdown	0.0 Hz
	Over Frequency Delay	0.0 s
	Frequency Overshoot	0 %
	Frequency Overshoot Delay	0.0 s
	CT Primary	0 A
	CT Secondary	0 A
	Earth CT Primary	0 A
	Full Load Rating	0 A
	Delayed Over Current	Active / Inactive
	Delayed Over Current	0 %
	Earth Fault Trip	Active / Inactive
	Earth Fault Trip	0 %
	kW Overload Trip	0 %
Mains DSE7320 MKII Only	Under Voltage Trip	0 V
	Over Voltage Trip	0 V
	Under Frequency Trip	0.0 Hz
	Over Frequency Trip	0.0 Hz
Timers	Start Delay Off Load	0 h 0 m 0 s
	Start Delay On Load	0 h 0 m 0 s
	Start Delay Mains Fail	0 h 0 m 0 s
	Start Delay Telemetry	0 h 0 m 0 s
	Mains Transient Delay	0 m 0 s
	Engine Cranking	0 m 0 s
	Engine Cranking Rest	0 m 0 s
	Engine Smoke Limiting	0 m 0 s
	Engine Smoke Limiting Off	0 m 0 s
	Engine Safety On Delay	0 m 0 s
	Engine Warming	0 h 0 m 0 s
	ECU Override	0 m 0 s
	Mains Transfer Time	0 m 0.0 s
	Return Delay	0 h 0 m 0 s
	Engine Cooling	0 h 0 m 0 s
	Engine Fail To Stop Delay	0 m 0 s
	LCD Page Delay	0 h 0 m 0 s
	LCD Scroll Delay	0 h 0 m 0 s
	Sleep Timer	0 h 0 m 0 s
	Backlight Timer	0 h 0 m 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 ***Tick*** ✓ to begin editing then up or down when selecting the different parameters in the scheduler.
	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 ***Tick*** ✓ to begin editing then up or down when selecting the different parameters in the scheduler.

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 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)

ACCESSING THE 'RUNNING' CONFIGURATION EDITOR

- The 'running' editor can be entered while the engine is running. All protections remain active if the engine is running while the running editor is entered.
- Press and hold the  (Tick) button to enter the running editor.

RUNNING CONFIGURATION EDITOR PARAMETERS

Section	Parameter As Shown On Display	Values
Display	Contrast	0 %
	Language	English
	Dual Mutual Status	Set Priority (1 to 8)
Engine	Manual Frequency Trim	0.0 Hz
	Speed Bias	0.0
	Governor Gain	0
	Frequency Adjust	0.0 %
	DPF Auto Regen Inhibit	Active / Inactive
	DPF Manual Regeneration Request	Active / Inactive
	ECU Service Mode	Active / Inactive
AVR	Droop (% of Set Point)	0.0
	Proportional Set Point	0.0
	Integral Set Point	0.0
	Derivative Set Point	0.0
	Off Load Duty Cycle	0.0
	Maximum Duty Cycle	0.0
	Soft Start Ramp Start Point	0.0
	Soft Start Ramp Rate (%/Hz)	0.0
	Alternative Configuration	0
	Stability Selection	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	• 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.
Communication Circuits	• Must be connected to communication circuits of UL Listed equipment
DC Output Pilot Duty	• 0.5 A
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)