



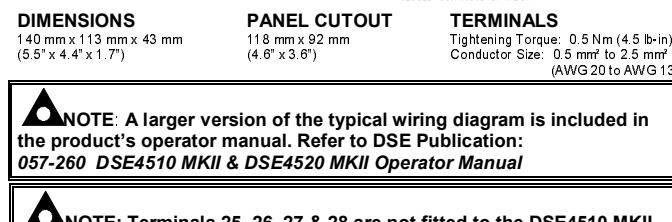
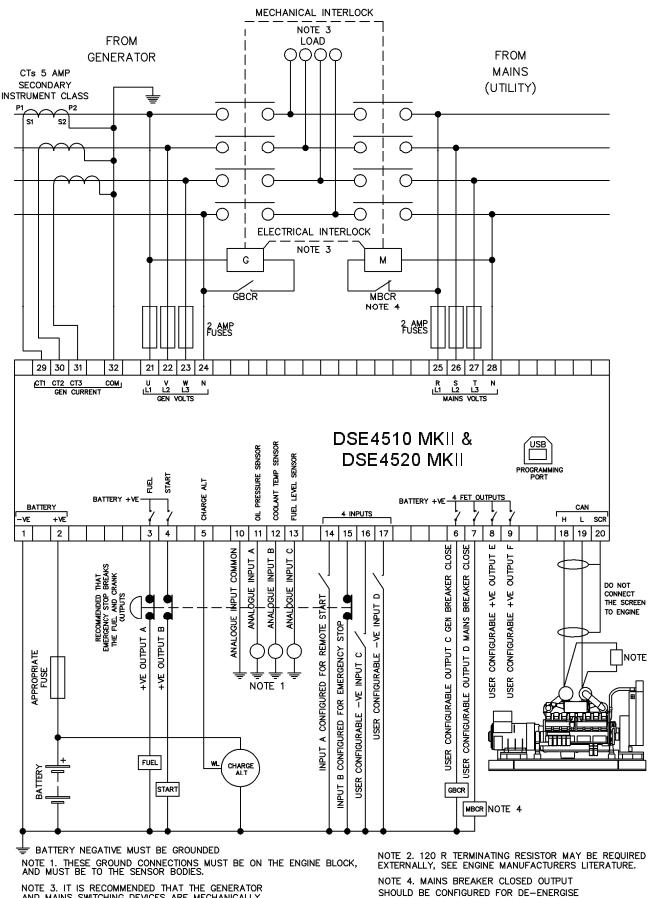
Input Sources		
0 User Configured	17 Mains Load Inhibit	41 Alternative Configuration 2
1 Remote Start on Load	18 RESERVED	42 Alternative Configuration 3
2 RESERVED	19 External Panel Lock	43 Emergency Stop
3 Auto Start Inhibit	20 Auxiliary Mains Fail	44 RESERVED
4 Lamp Test	21 Oil Pressure Switch	45 Maintenance Reset Oil
5 Alarm Mute	22 Coolant Temperature Switch	46 Maintenance Reset Air
6 Alarm Reset	23 RESERVED	47 Maintenance Reset Fuel
7 RESERVED	24 Simulate Mains Available	48 RESERVED
8 Simulate Start Button	25 Remote Start Off Load	49 RESERVED
9 Simulate Stop Button	26-30 RESERVED	50 DPF Auto Regen Inhibit
10 RESERVED	31 Auto Restore Inhibit	51 DPF Force Regeneration
11 Simulate Auto Button	32 RESERVED	52 DPF Regeneration Interlock
12 RESERVED	33 Low Fuel Level Switch	53 Water in Fuel
13 Close Generator   Open Mains	34 Smoke Limiting	54 Fuel Bund Level High
14 Generator Load Inhibit	35-38 RESERVED	55 Fan Speed Low
15 RESERVED	39 Main Configuration	
16 Close Mains   Open Generator	40 Alternative Configuration 1	

Output Sources		
0 Not Used	44 Mains High Frequency	88 Analogue Input A (Digital)
1 Air Flap Relay	45 Mains High Voltage	89 Analogue Input B (Digital)
2 Audible Alarm	46 Mains Low Frequency	90 Analogue Input C (Digital)
3 Battery High Volts Warning	47 Mains Low Voltage	91 RESERVED
4 Battery Low Volts Warning	48 Oil Pressure Sensor Open Circuit	92 RESERVED
5 CAN ECU Data Fail	49 Open Generator Output	93 RESERVED
6 ECU (ECM) Warning	50 Open Generator Output Pulse	94 RESERVED
7 ECU (ECM) Shutdown	51 Open Mains Output	95 Over Speed Overshoot Alarm
8 CAN ECU Power	52 Open Mains Output Pulse	96 Over Frequency Overshoot Alarm
9 CAN ECU Stop	53 Over Frequency Shutdown	97 Display Heater Fitted and Active
10 Charge Alternator Shutdown	54 Over Speed Shutdown	98 RESERVED
11 Charge Alternator Warning	55 Preheat During Preheat Timer	99 SCR Inducement
12 Close Generator Output	56 Preheat Until End of Crank	100 DEF Level Low
13 Close Generator Output Pulse	57 Preheat Until End of Safety Timer	101 DPF Auto Regeneration Inhibit
14 Close Mains Out put	58 Preheat Until End of Warming	102 DPF Forced Regeneration
15 Close Mains Out put Pulse	59 Smoke Limiting	103 DPE Non Mission State
16 Combined Mains Failure	60 Start Relay	104 DPF Regen Interlock Active
17 Common Alarm	61 Temperature Sensor Open Circuit	105 DPF Rgen Interlock Active
18 Common Electrical Trip	62 Under Frequency Shutdown	106 DPTC Filter
19 Common Shutdown	63 Under Speed Shutdown	107 HEST Active
20 Common Warning	64 Waiting for Manual Restore	108 Water in Fuel
21 Cooling Down	65 Flexible Sensor C High Alarm	109 Fuel Pull in Coil
22 Digital Input A	66 Flexible Sensor C High Pre-Alarm	110 Generator at Rest
23 Digital Input B	67 Flexible Sensor C Low Pre-Alarm	111 Fuel Tank Bund Level High
24 Digital Input C	68 Flexible Sensor C Low Alarm	112 ECU Preheat
25 Digital Input D	69 RESERVED	113 Water Heater
26 RESERVED	70 RESERVED	114 Water Cooler
27 RESERVED	71 RESERVED	115 Closed to Gen
28 RESERVED	72 RESERVED	116 Closed to Mains
29 Emergency Stop	73 Fuel Sensor High Alarm	117 Generator Under Frequency Warning
30 Energise to Stop	74 Fuel Sensor High Pre-Alarm	118 Generator Over Frequency Warning
31 Fail to Start	75 Fuel Sensor Low Pre-Alarm	119 Generator Low Voltage Warning
32 Fail to Stop	76 Fuel Sensor Low Alarm	120 Generator High Voltage Warning
33 Fuel Relay	77 Delayed Load Output 1	121 Main Config Selected
34 Gas Choke On	78 Delayed Load Output 2	122 Alt Config 1 Selected
35 Gas Ignition	79 Delayed Load Output 3	123 Alt Config 2 Selected
36 Generator Available	80 Delayed Load Output 4	124 Alt Config 3 Selected
37 Generator High Voltage Alarm	81 Air Filter Maintenance	125 Flexible Sensor A High Alarm
38 Generator Low Voltage Alarm	82 Oil Filter Maintenance	126 Flexible Sensor A High Pre-Alarm
39 kW Overload Alarm	83 Fuel Filter Maintenance	127 Flexible Sensor A Low Alarm
40 Over Current Immediate Warning	84 System in Stop Mode	128 Flexible Sensor A Low Pre-Alarm
41 Delayed Over Current Alarm	85 System in Auto Mode	129 Flexible Sensor A Open Circuit
42 High Coolant Temp Shutdown	86 System in Manual Mode	130 Fan Speed Low
43 Low Oil Pressure Shutdown	87 RESERVED	

Functionality in DSE4510 MKII &amp; DSE4520 MKII

Functionality in DSE4520 MKII only

## TYPICAL WIRING DIAGRAM



## REQUIREMENTS FOR UL CERTIFICATION

Specification	Description
Screw Terminal Tightening Torque	• 4.5 l-b-in (0.5 Nm)
Conductors	• 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> ). • 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.
Communication Circuits	• Must be connected to communication circuits of UL Listed equipment
DC Output Pilot Duty	• 0.5 A
Mounting	• Suitable for use 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)
Storage Temperature	• -40 °F to +176 °F (-40 °C to +80 °C)



DEEP SEA ELECTRONICS

DSE4510 MKII &amp; DSE4520 MKII Installation Instructions

Applicable to module version 3.0 and upwards.

## EDITING A PARAMETER

- Press the Stop/Reset Mode (O) (-) and Auto Mode (AUTO) (+) buttons together to enter the editor mode.
- Press the Up (↑) or Down (↓) navigation buttons to cycle through the front panel editor in increments of 100.
- Press the Manual/Start Mode (I) (+) or Stop/Reset Mode (O) (-) buttons to cycle through the front panel editor in increments of 1.
- When viewing the parameter to be edited, press the Auto Mode (AUTO) (+) button and the value begins to flash.
- Press the Manual/Start Mode (I) (+) or Stop/Reset Mode (O) (-) navigation buttons to adjust the value to the required setting.
- Press the Auto Mode (AUTO) (+) button to save the current value, the value ceases flashing.
- Press and hold the Auto Mode (AUTO) (+) button to save and exit the editor, the configuration icon (x) is removed from the display.

**NOTE:** Pressing and holding the Manual/Start Mode (I) (+) or Stop/Reset Mode (O) (-) buttons will give auto-repeat functionality.

**NOTE:** More comprehensive module configuration is possible via PC configuration software. For further details of module configuration, refer to DSE Publication: 057-258 DSE4510 MKII & DSE4520 MKII Configuration Suite PC Software Manual.

Deep Sea Electronics Ltd

Tel: +44 (0)1723 890099

Email: sales@deepsealelectronics.com

Web: www.deepsealelectronics.com

Deep Sea Electronics Inc

Tel: +1 (815) 316-8706

Fax: +1 (815) 316-8708

Email: sales@deepseausa.com

Web: www.deepseausa.com