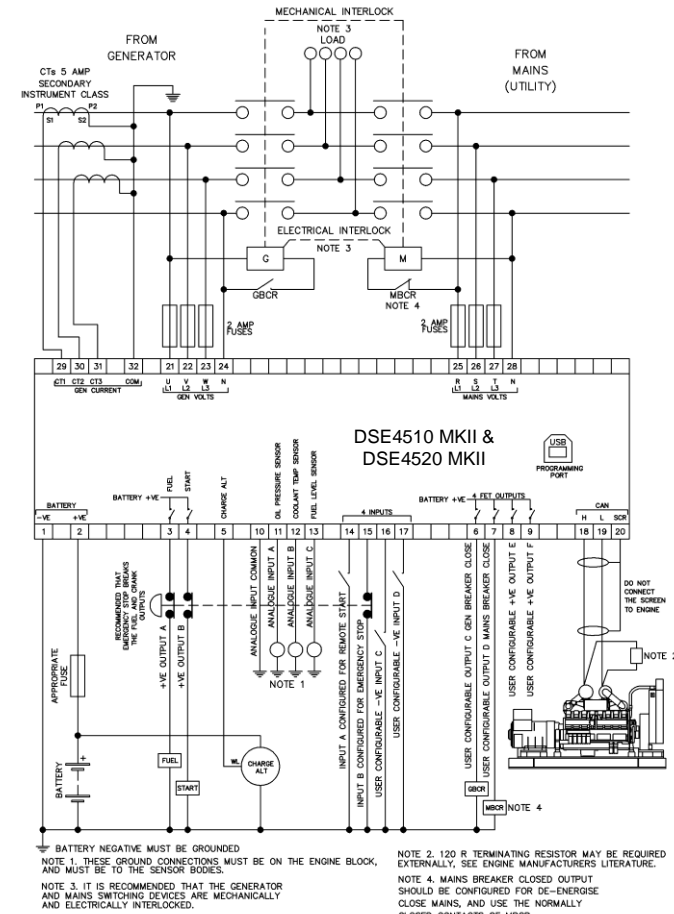


Input Sources			
0	User Configured	17	Mains Load Inhibit
1	Remote Start on Load	18	RESERVED
2	RESERVED	19	External Panel Lock
3	Auto Start Inhibit	20	Auxiliary Mains Fail
4	Lamp Test	21	Oil Pressure Switch
5	Alarm Mute	22	Coolant Temperature Switch
6	Alarm Reset	23	RESERVED
7	RESERVED	24	Simulate Mains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

Output Sources			
0	Not Used	50	Open Generator Output Pulse
1	Air Flap Relay	51	Open Mains Output
2	Audible Alarm	52	Open Mains Output Pulse
3	Battery High Volts Warning	53	Over Frequency Shutdown
4	Battery Low Volts Warning	54	Over Speed Shutdown
5	CAN ECU Data Fail	55	Preheat During Preheat Timer
6	ECU (ECM) Warning	56	Preheat Until End of Crank
7	ECU (ECM) Shutdown	57	Preheat Until End of Safety Timer
8	CAN ECU Power	58	Preheat Until End of Warming
9	CAN ECU Stop	59	Smoke Limiting
10	Charge Alternator Shutdown	60	Start Relay
11	Charge Alternator Warning	61	Temperature Sensor Open Circuit
12	Close Generator Output	62	Under Frequency Shutdown
13	Close Generator Output Pulse	63	Under Speed Shutdown
14	Close Mains Output	64	Waiting for Manual Restore
15	Close Mains Output Pulse	65	Flexible Sensor C High Alarm
16	Combined Mains Failure	66	Flexible Sensor C High Pre-Alarm
17	Common Alarm	67	Flexible Sensor C Low Pre-Alarm
18	Common Electrical Trip	68	Flexible Sensor C Low Alarm
19	Common Shutdown	69	RESERVED
20	Common Warning	70	RESERVED
21	Cooling Down	71	RESERVED
22	Digital Input A	72	RESERVED
23	Digital Input B	73	Fuel Sensor High Alarm
24	Digital Input C	74	Fuel Sensor High Pre-Alarm
25	Digital Input D	75	Fuel Sensor Low Pre-Alarm
26	RESERVED	76	Fuel Sensor Low Alarm
27	RESERVED	77	Delayed Load Output 1
28	RESERVED	78	Delayed Load Output 2
29	Emergency Stop	79	Delayed Load Output 3
30	Emergency to Stop	80	Delayed Load Output 4
31	Fail to Start	81	Air Filter Maintenance
32	Fail to Stop	82	Oil Filter Maintenance
33	Fuel Relay	83	Fuel Filter Maintenance
34	Gas Choke On	84	System in Stop Mode
35	Gas Ignition	85	System in Auto Mode
36	Generator Available	86	System in Manual Mode
37	Generator High Voltage Alarm	87	RESERVED
38	Generator Low Voltage Alarm	88	Analogue Input A (Digital)
39	kW Overload Alarm	89	Analogue Input B (Digital)
40	Over Current Immediate Warning	90	Analogue Input C (Digital)
41	Delayed Over Current Alarm	91	RESERVED
42	High Coolant Temp Shutdown	92	RESERVED
43	Low Oil Pressure Shutdown	93	RESERVED
44	Mains High Frequency	94	RESERVED
45	Mains High Voltage	95	Over Speed Overshoot Alarm
46	Mains Low Frequency	96	Over Frequency Overshoot Alarm
47	Mains Low Voltage	97	Display Heater Fitted and Active
48	Oil Pressure Sensor Open Circuit	98	RESERVED
49	Open Generator Output	99	SCR Inducement
100	DEF Level Low		
101	DPF Auto Regeneration Inhibit		
102	DPF Forced Regeneration		
103	DPF None Mission State		
104	DPF Regeneration in Progress		
105	DPF Regen Interlock Active		
106	DPTC Filter		
107	HEST Active		
108	Water in Fuel		
109	Fuel Pull in Coil		
110	Generator at Rest		
111	Fuel Tank Bund Level High		
112	ECU Preheat		
113	Water Heater		
114	Water Cooler		
115	Closed to Gen		
116	Closed to Mains		
117	Generator Under Frequency Warning		
118	Generator Over Frequency Warning		
119	Generator Low Voltage Warning		
120	Generator High Voltage Warning		
121	Main Config Selected		
122	Alt Config 1 Selected		
123	Alt Config 2 Selected		
124	Alt Config 3 Selected		
125	Flexible Sensor A High Alarm		
126	Flexible Sensor A High Pre-Alarm		
127	Flexible Sensor A Low Alarm		
128	Flexible Sensor A Low Pre-Alarm		
129	Flexible Sensor A Open Circuit		
130	Fan Speed Low		
131	Fuel Usage Alarm		
132	Low Coolant Level		
133	Low Coolant Level Open Circuit		
134	Waiting To Start		
135	High Coolant Temp Pre-Alarm		
136	Gen Over Frequency Delayed Alarm		
137	Load Unbalance Alarm		
138	Configurable CAN 1 Instrument Active		
139	Configurable CAN 2 Instrument Active		
140	Configurable CAN 3 Instrument Active		
141	Configurable CAN 4 Instrument Active		
142	Configurable CAN 5 Instrument Active		
143	Configurable CAN 6 Instrument Active		
144	Configurable CAN 7 Instrument Active		
145	Configurable CAN 8 Instrument Active		
146	Configurable CAN 9 Instrument Active		
147	Configurable CAN 10 Instrument Active		

Functionality in DSE4510 MKII & DSE4520 MKII
 Functionality in DSE4520 MKII Auto Start and AMF
 Functionality in DSE4520 MKII AMF Only

TYPICAL WIRING DIAGRAM



DIMENSIONS	PANEL CUTOUT	TERMINALS
140 mm x 113 mm x 43 mm (5.5" x 4.4" x 1.7")	118 mm x 92 mm (4.6" x 3.6")	Tightening Torque: 0.5 Nm (4.5 lb-in) Conductor Size: 0.5 mm ² to 2.5 mm ² (AWG 20 to AWG 13)

NOTE: A larger version of the typical wiring diagram is included in the product's operator manual. Refer to DSE Publication: **057-260 DSE4510 MKII & DSE4520 MKII Operator Manual**

NOTE: Terminals 25, 26, 27 & 28 are not fitted to the DSE4510 MKII

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 mm ² to 2.5 mm ²). • 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 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 install 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)

DSE
DEEP SEA ELECTRONICS
DSE4510 MKII & DSE4520 MKII Installation Instructions
 Applicable to module version 3.0.0 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 (⚙) 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**.

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