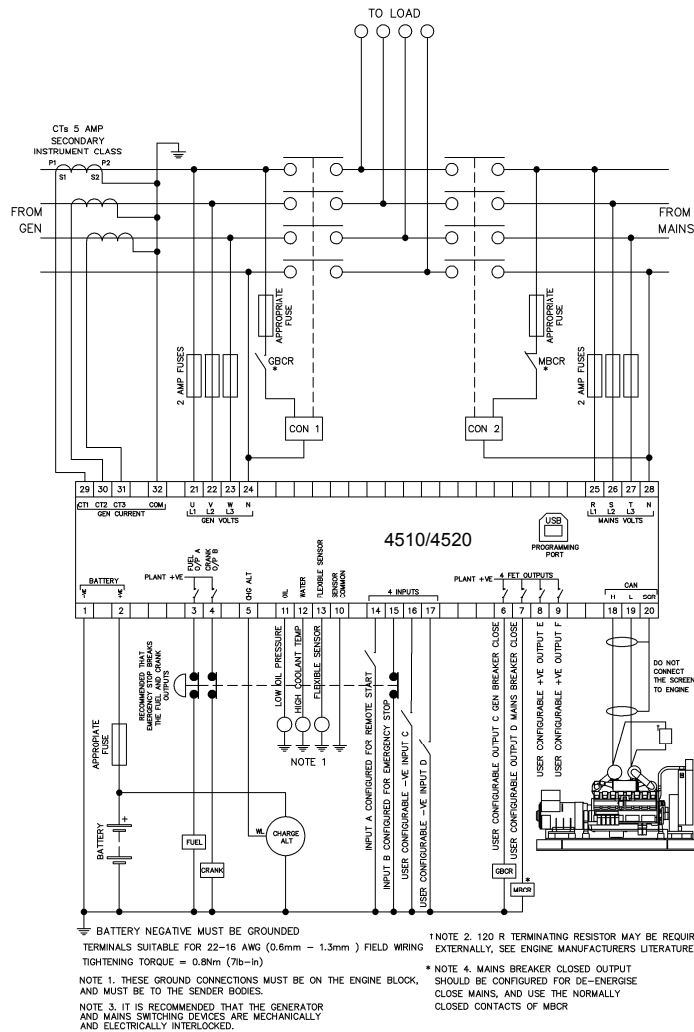


Configuration Parameters – Alternate Configuration (Page 20)			
2001	Default Configuration	On (1), Off (0)	2028 Delayed Over Current Alarm Action 0 (Action)
2002	Enable Configuration	On (1), Off (0)	2029 Over Current Delay 00:00:00
2003	CAN Alternative Engine Speed	On (1), Off (0)	2030 Over Current Trip 0 %
2004	Under Voltage Shutdown Enable	On (1), Off (0)	2031 Generator kW Rating 0 kW
2005	Under Voltage Shutdown Trip	0 V	2032 Overload Protection Enable On (1), Off (0)
2006	Under Voltage Warning Enable	On (1), Off (0)	2033 Overload Protection Action 0 (Action)
2007	Under Voltage Warning Trip	0 V	2034 Overload Protection Trip 0 %
2008	Loading Voltage	0 V	2035 Overload Protection Trip Delay 0 s
2009	Over Voltage Warning Enable	On (1), Off (0)	2036 AC System 0 (AC system)
2010	Over Voltage Warning Return	0 V	2037 Mains Failure Detection On (1), Off (0)
2011	Over Voltage Warning Trip	0 V	2038 Immediate Mains Dropout On (1), Off (0)
2012	Over Voltage Trip	0 V	2039 Mains Under Voltage Enable On (1), Off (0)
2013	Under Frequency Shutdown Enable	On (1), Off (0)	2040 Mains Under Voltage Trip 0 V
2014	Under Frequency Shutdown Trip	0.0 Hz	2041 Mains Under Voltage Return 0 V
2015	Under Frequency Warning Enable	On (1), Off (0)	2042 Mains Over Voltage Enable On (1), Off (0)
2016	Under Frequency Warning Trip	0.0 Hz	2043 Mains Over Voltage Return 0 V
2017	Loading Frequency	0.0 Hz	2044 Mains Over Voltage Trip 0 V
2018	Nominal Frequency	0.0 Hz	2045 Mains Under Frequency Enable On (1), Off (0)
2019	Over Frequency Warning Enable	On (1), Off (0)	2046 Mains Under Frequency Trip 0.0 Hz
2020	Over Frequency Warning Return	0.0 Hz	2047 Mains Under Frequency Return 0.0 Hz
2021	Over Frequency Warning Trip	0.0 Hz	2048 Mains Over Frequency Enable On (1), Off (0)
2022	Over Frequency Shutdown Enable	On (1), Off (0)	2049 Mains Over Frequency Return 0.0 Hz
2023	Over Frequency Shutdown Trip	0.0 Hz	2050 Mains Over Frequency Trip 0.0 Hz
2024	CT Primary	0 A	2051 Under Speed Shutdown Enable On (1), Off (0)
2025	Full Load Rating	0 A	2052 Under Speed Shutdown Trip 0 RPM
2026	Immediate Over Current	On (1), Off (0)	2053 Over Speed Shutdown Trip 0 RPM
2027	Delayed Over Current Alarm	On (1), Off (0)	

Output Sources		
0	Not Used	66 Flexible Sender C High Alarm
1	Air Flap Relay	67 Flexible Sender C Low Pre-Alarm
2	Audible Alarm	68 Flexible Sender C Low Alarm
3	Battery Over Volts Warning	69 RESERVED
4	Battery Under Volts Warning	70 RESERVED
5	CAN ECU Data Fail	71 RESERVED
6	CAN ECU Error	72 RESERVED
7	CAN ECU Fail	73 Fuel Sender High Alarm
8	CAN ECU Power	74 Fuel Sender High Alarm
9	CAN ECU Stop	75 Fuel Sender Low Pre-Alarm
10	Charge Alternator Shutdown	76 Fuel Sender Low Alarm
11	Charge Alternator Warning	77 Delayed Load Output 1
12	Close Gen Output	78 Delayed Load Output 2
13	Close Gen Output Pulse	79 Delayed Load Output 3
14	Close Mains Output	80 Delayed Load Output 4
15	Close Mains Output Pulse	81 Air Filter Maintenance Output
16	Combined Mains Failure	82 Oil Filter Maintenance Output
17	Common Alarm	83 Fuel Filter Maintenance Output
18	Common Electrical Trip	84 System In Stop Mode
19	Common Shutdown	85 System In Auto Mode
20	Common Warning	86 System In Manual Mode
21	Cooling Down	87 RESERVED
22	Digital Input A	88 Analogue Input A (Digital)
23	Digital Input B	89 Analogue Input B (Digital)
24	Digital Input C	90 Analogue Input C (Digital)
25	Digital Input D	91 RESERVED
26	RESERVED	92 RESERVED
27	RESERVED	93 RESERVED
28	RESERVED	94 RESERVED
29	Emergency Stop	95 Over Speed Overshoot
30	Emergency To Stop	96 Over Frequency Overshoot
31	Fail To Start	97 Display Heater Fitted and Active
32	Fail To Stop	65 Flexible Sender C High Alarm

Input Sources		
0	User Configured	9 External Panel Lock
1	Alarm Mute	10 Generator Load Inhibit
2	Alarm Reset	11 Lamp Test
3	Alternative Configuration	12 Low Fuel Level Switch
4	Auto Restore Inhibit	13 Mains Load Inhibit
5	Auto Start Inhibit	14 Oil Pressure Switch
6	Auxiliary Mains Fail	15 Remote Start Off Load
7	Coolant Temperature Switch	16 Remote Start On Load
8	Emergency Stop	17 Simulate Mains Available
9	External Panel Lock	18 Simulate Stop Button
10	Generator Load Inhibit	19 Simulate Auto Button
11	Lamp Test	20 Simulate Start Button
12	Low Fuel Level Switch	21 Smoke Limiting
13	Mains Load Inhibit	22 Close Generator
14	Oil Pressure Switch	23 Close Mains
15	Remote Start Off Load	24 Maintenance Reset Oil
16	Remote Start On Load	25 Maintenance Reset Air
17	Simulate Mains Available	26 Maintenance Reset Fuel

TYPICAL WIRING DIAGRAM



NOTE: A larger version of the typical wiring diagram is included in the products operator manual. Refer to DSE Publication: **057-171 DSE4510 & DSE4520 Operators Manual**

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 12 AWG – 26 AWG (0.5 mm ² to 2.0 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 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 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)

DEEP SEA ELECTRONICS PLC
DSE4510 & DSE4520 Installation Instructions
 Applicable to module version 1.4.46 and upwards.

EDITING A PARAMETER

- Press the **(-)** and **(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 **(+)** or **(-)** navigation buttons to cycle through the front panel editor in increments of 1.
- When viewing the parameter to be edited, press the **(✓)** button and the value begins to flash.
- Press the **(+)** or **(-)** navigation buttons to adjust the value to the required setting.
- Press the **(✓)** button the save the current value, the value ceases flashing.
- Press and hold the **(✓)** button to save and exit the editor, the configuration icon is removed from the display.

NOTE: Pressing and holding the **(+)** or **(-)** buttons will give auto-repeat functionality. Values can be changed quickly by holding the navigation buttons for a prolonged period of time.

DIMENSIONS	PANEL CUTOUT	TERMINALS
118 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 24 to AWG 10)

NOTE: Terminals 8, 9, 25, 26, 27 & 28 are not fitted to DSE4510

NOTE: Terminals 29, 30, 31 & 32 are fitted to DSE4510 & DSE4520 current sensing variants only

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