



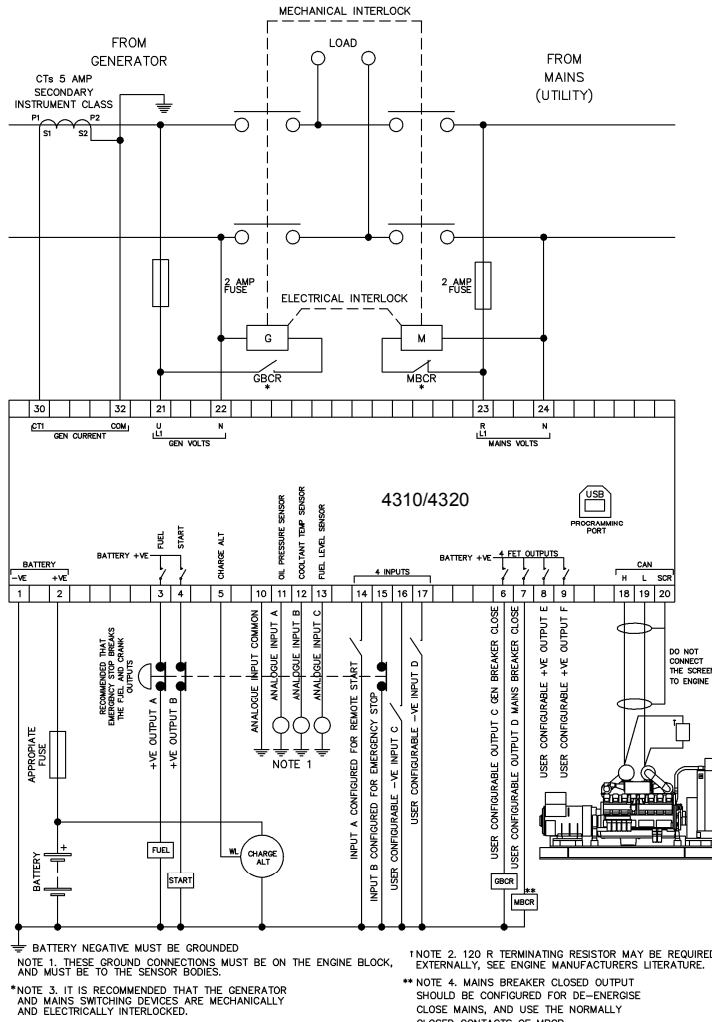
CONFIGURATION PARAMETERS – ALTERNATE CONFIGURATION (PAGE 20)					
2001	Default Configuration	On (1), Off (0)	2028	Delayed Over Current Alarm Action	0 (Action)
2002	Enable Configuration	On (1), Off (0)	2029	Over Current Delay	00:00:00
2003	CAN Alternative Engine Speed	On (1), Off (0)	2030	Over Current 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	RESERVED	
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	33	Fuel Relay	66	Flexible Sender C High Alarm
1	Air Flap Relay	34	Gas Choke On	67	Flexible Sender C Low Pre-Alarm
2	Audible Alarm	35	Gas Ignition	68	Flexible Sender C Low Alarm
3	Battery Over Volts Warning	36	Generator Available	69	RESERVED
4	Battery Under Volts Warning	37	Generator Over Voltage Shutdown	70	RESERVED
5	CAN ECU Data Fail	38	Generator Under Voltage Shutdown	71	RESERVED
6	CAN ECU Error	39	kW Overload Alarm	72	RESERVED
7	CAN ECU Fail	40	Over Current Immediate Warning	73	Fuel Sender High Alarm
8	CAN ECU Power	41	Delayed Over Current Trip Alarm	74	Fuel Sender High Alarm
9	CAN ECU Stop	42	High Coolant Temperature Shutdown	75	Fuel Sender Low Pre-Alarm
10	Charge Alternator Shutdown	43	Low Oil Pressure Shutdown	76	Fuel Sender Low Alarm
11	Charge Alternator Warning	44	Mains High Frequency	77	Delayed Load Output 1
12	Close Gen Output	45	Mains High Voltage	78	Delayed Load Output 2
13	Close Gen Output Pulse	46	Mains Low Frequency	79	Delayed Load Output 3
14	Close Mains Output	47	Mains Low Voltage	80	Delayed Load Output 4
15	Close Mains Output Pulse	48	Oil Pressure Sender Open Circuit	81	Air Filter Maintenance Output
16	Combined Mains Failure	49	Open Gen Output	82	Oil Filter Maintenance Output
17	Common Alarm	50	Open Gen Output Pulse	83	Fuel Filter Maintenance Output
18	Common Electrical Trip	51	Open Mains Output	84	System In Stop Mode
19	Common Shutdown	52	Open Mains Output Pulse	85	System In Auto Mode
20	Common Warning	53	Over Frequency Shutdown	86	System In Manual Mode
21	Cooling Down	54	Over Speed Shutdown	87	RESERVED
22	Digital Input A	55	Preheat During Preheat Timer	88	Analogue Input A (Digital)
23	Digital Input B	56	Preheat Until End Of Crank	89	Analogue Input B (Digital)
24	Digital Input C	57	Preheat Until End Of Safety Timer	90	Analogue Input C (Digital)
25	Digital Input D	58	Preheat Until End Of Warming	91	RESERVED
26	RESERVED	59	Smoke Limiting	92	RESERVED
27	RESERVED	60	Start Relay	93	RESERVED
28	RESERVED	61	Temperature Sender Open Circuit	94	RESERVED
29	Emergency Stop	62	Under Frequency Shutdown	95	Over Speed Overshoot
30	Energise To Stop	63	Under Speed Shutdown	96	Over Frequency Overshoot
31	Fail To Start	64	Waiting For Manual Restore	97	RESERVED
32	Fail To Stop	65	Flexible Sender C High Alarm		

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

DIGITAL INPUT POLARITY		OUTPUT POLARITY		ALARM ACTION	
Index	Polarity	Index	Polarity	Index	Action
0	Close to Activate	0	Energise	0	Electrical Trip
1	Open to Activate	1	De-Energise	1	Shutdown
				2	Warning

## TYPICAL WIRING DIAGRAM



**NOTE:** A larger version of the typical wiring diagram is included in the products operator manual. Refer to DSE Publication: **057-177 DSE4310 & DSE4320 Operators Manual**

## REQUIREMENTS FOR UL CERTIFICATION

SPECIFICATION	DESCRIPTION
Screw Terminal Tightening Torque	• 4.5 lb-in (0.5 Nm)
Conductors	<ul style="list-style-type: none"> <li>• Terminals suitable for connection of conductor size 12 AWG – 26 AWG (0.5 mm<sup>2</sup> to 2.0 mm<sup>2</sup>).</li> <li>• Conductor protection must be provided in accordance with NFPA 70, Article 240</li> <li>• Low voltage circuits (35 volts or less) must be supplied from the engine starting battery or an isolated secondary circuit.</li> <li>• 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 volts or greater.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Suitable for use in type 1 Enclosure Type rating with surrounding air temperature -22 °F to +158 °F (-30 °C to +70 °C)</li> <li>• 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.</li> </ul>
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**  
**DSE4310 & DSE4320 Installation Instructions**  
 Applicable to module version 1.1.54 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 to 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
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 <sup>2</sup> to 2.5 mm <sup>2</sup> (AWG 24 to AWG 10)

**NOTE:** Terminals 8, 9, 23 & 24 are not fitted to DSE4310

**NOTE:** Terminals 30 & 32 are fitted to DSE4310 & DSE4320 current sensing variants only

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