



DEEP SEA ELECTRONICS
DSEL401 MKII Installation Instructions

EDITING A PARAMETER

- Press the **Stop/Reset Mode** (0) (-) and **Auto Mode** (AUTO) (✓) buttons together to enter the editor mode.
- Press the **Up** (↑) or **Down** (↓) navigation buttons to change between (User) or (Configuration Editor) icons.
- Press the **Auto Mode** (AUTO) (✓) to enter the required editor.
- Press the **Up** (↑) or **Down** (↓) navigation buttons to cycle through the front panel editor in increments of 100.
- Press the **Manual/Start Mode** (1) (+) or **Stop/Reset Mode** (0) (-) 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** (1) (+) or **Stop/Reset Mode** (0) (-) 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** (1) (+) or **Stop/Reset Mode** (0) (-) 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: 057-222 DSEL401 MKII Configuration Suite PC Software Manual.

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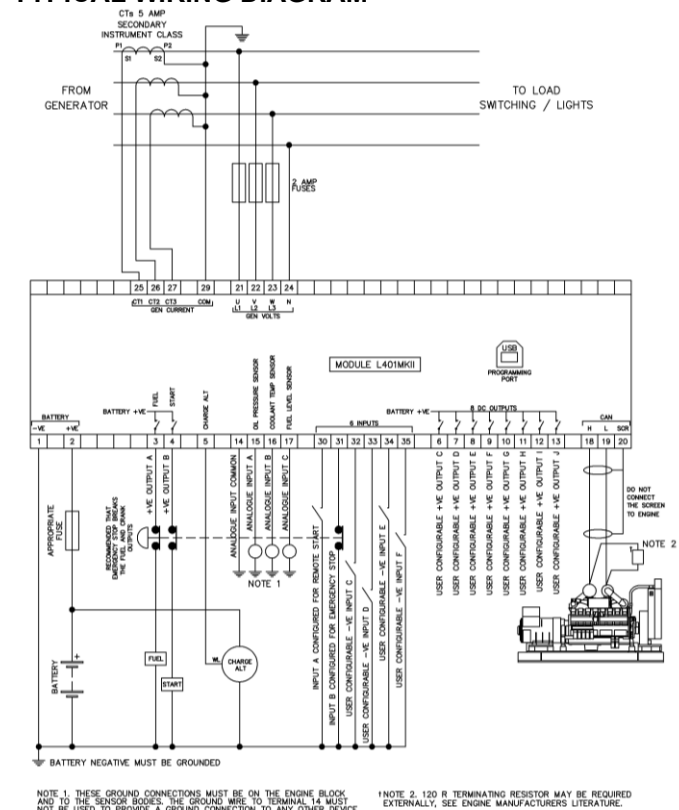
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Output Sources					
0	Not Used	42	Gen Under Voltage Shutdown	83	Mains Low Voltage Shutdown
1	Air Filter Maintenance	43	Generator Over Current	84	Gen/Mains High Frequency
2	Air Flap Relay	44	Generator Delayed Over Current	85	Gen/Mains High Voltage
3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

Configuration Parameters – Analogue Inputs (Page 12)		
1201	Analogue Input A Sensor Type	0 (Sensor Type)
1202	Analogue Input A Sensor Selection	0 (Pressure Sensor List)
1203	Low Oil Pressure Enable	On (1), Off (0)
1204	Low Oil Pressure Trip	0 Bar
1205	Oil Pressure Sensor Open Circuit	On (1), Off (0)
1206	Analogue Input B Sensor Type	0 (Sensor Type)
1207	Analogue Input B Sensor Selection	0 (Temperature Sensor List)
1208	High Engine Temperature Trip	0.00 °C
1209	Temperature Sensor Open Circuit	On (1), Off (0)
1210	Analogue Input C Sensor Usage	Flexible Sensor (1), Fuel Level Sensor (0)
1211	Analogue Input C Sensor Type	0 (Sensor Type)
1212	Analogue Input C Sensor Selection	0 (Pressure / Temperature / Percentage Sensor List)
1213	Flexible Sensor C Arming	0 (Arming)
1214	Flexible Sensor C Low Alarm Action	0 (Action)
1215	Flexible Sensor C Low Alarm Trip	0 % / Bar / °C
1216	RESERVED	
1217	Flexible Sensor C Low Pre-Alarm Enable	On (1), Off (0)
1218	Flexible Sensor C Low Pre-Alarm Trip	0 % / Bar / °C
1219	Flexible Sensor C Low Pre-Alarm Return	0 % / Bar / °C
1220	RESERVED	
1221	Flexible Sensor C High Pre-Alarm Enable	On (1), Off (0)
1222	Flexible Sensor C High Pre-Alarm Return	0 % / Bar / °C
1223	Flexible Sensor C High Pre-Alarm Trip	0 % / Bar / °C
1224-1225	RESERVED	
1226	Flexible Sensor C High Alarm Action	0 (Action)
1227	Flexible Sensor C High Alarm Trip	0 % / Bar / °C
1228-1229	RESERVED	
1230	Fuel Sensor C Low Shutdown Enable	On (1), Off (0)
1231	Fuel Sensor C Low Shutdown Trip	0 %
1232	Fuel Sensor C Low Shutdown Delay	0 s
1233	Fuel Sensor C Low Pre-Alarm Enable	On (1), Off (0)
1234	Fuel Sensor C Low Pre-Alarm Trip	0 %
1235	Fuel Sensor C Low Pre-Alarm Return	0 %
1236	Fuel Sensor C Low Pre-Alarm Delay	0 s
1237	Fuel Sensor C High Pre-Alarm Enable	On (1), Off (0)
1238	Fuel Sensor C High Pre-Alarm Return	0 %
1239	Fuel Sensor C High Pre-Alarm Trip	0 %
1240	Fuel Sensor C High Pre Alarm Delay	0 s

Configuration Parameters – Analogue Inputs (Page 12) Continued		
1241	RESERVED	
1242	Fuel Sensor C High Alarm Action	0 (Action)
1243	Fuel Sensor C High Alarm Trip	0 %
1244	Fuel Sensor C High Alarm Delay	0 s
1245	Fuel Sensor Units	0 (Fuel Sensor Units)
1246	Fuel Tank Size	0

TYPICAL WIRING DIAGRAM



NOTE: A larger version of the typical wiring diagram is included in the product's operator manual. Refer to DSE Publication: 057-221 DSEL401 MKII Operator Manual

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 (20 AWG to 13 AWG)

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 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)