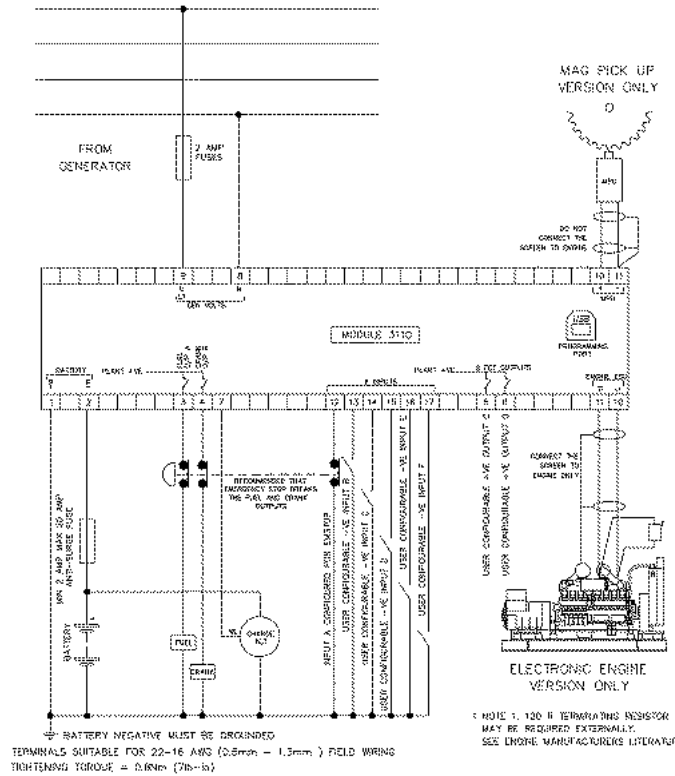


OUTPUT SOURCE LIST		
0	Not used	
1	RESERVED	
2	RESERVED	
3	RESERVED	
4	RESERVED	
5	RESERVED	
6	CAN ECU data fail	CAN
7	CAN ECU error	CAN
8	CAN ECU fail	CAN
9	CAN ECU power	CAN
10	CAN ECU stop	CAN
11	RESERVED	
12	Close Gen output	
13	Close Gen output pulse	
14	Common Alarm	
15	Common Shutdown	
16	Common Warning	
17	RESERVED	
18	RESERVED	
19	RESERVED	
20	RESERVED	
21	RESERVED	
22	RESERVED	
23	RESERVED	
24	RESERVED	
25	Energise to stop	
26	RESERVED	
27	RESERVED	
28	Fuel relay	
29	Gas choke on	MPU
30	Gas ignition	MPU
31	RESERVED	
32	RESERVED	
33	RESERVED	
34	RESERVED	
35	RESERVED	
36	RESERVED	
37	RESERVED	
38	Open Gen Output	
39	Open Gen Output pulse	
40	RESERVED Plant battery over volts warning	
41	RESERVED Plant battery under volts warning	
42	Preheat During Preheat Timer	
43	Preheat Until End of Crank	
44	Preheat Until End of Safety Timer	
45	Preheat Until End of Warming Timer	
46	Smoke limiting	
47	Start relay	
48	RESERVED Under frequency shutdown	
49	RESERVED Under speed shutdown	

DIMENSIONS

Case Dimensions : 99mm x 79 mm x 40mm (3.9" x 3.1" x 1.6")
 Panel Cutout : 80mm x 68mm (3.2" x 2.7")

TYPICAL WIRING DIAGRAM



DEEP SEA ELECTRONICS

3110 INSTALLATION INSTRUCTIONS

ACCESSING THE FRONT PANEL CONFIGURATION EDITOR

Ensure the engine is at rest and the module is in STOP mode by pressing the Stop/Reset button.

Press the Stop/Reset and Down buttons simultaneously.

The configuration icon is displayed, along with the first configurable parameter.

EDITING A PARAMETER

Press to select the required 'page' as detailed in the configuration tables.

Press (+) to select the next parameter or (-) to select the previous parameter within the current page.

When viewing the parameter to be changed, press the button. The value begins to flash.

Press (+) or (-) to adjust the value to the required setting.

Press the save the current value, the value ceases flashing.

Press and hold the button to exit the editor, the configuration icon will be removed from the display.

In this example, parameter 101 (Contrast) is currently set to 50%:



NOTE: - Values representing pressure will be displayed in Bar. Values representing temperature will be displayed in degrees Celsius.

NOTE: - Pressing and holding the +/- buttons will give auto-repeat functionality. Large values can be changed quicker by holding the buttons for a prolonged period. For instance large timers increment in 1 second steps to 1 minute, then in 30 second steps to 1 hour, then in 30 minute steps.

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CONFIGURATION PARAMETERS – MODULE (Page 1)

101	Contrast	000 (%)	
102	RESERVED		
103	RESERVED		
104	Lamp test at startup	On (1), Off (0)	
105	Power save mode enable	On (1), Off (0)	
106	Protected start enable	On (1), Off (0)	
107	Power up into Auto mode	On (1), Off (0)	
108	Oil Pressure in PSI	On (1), Off (0)	
109	Display Volts in Ph-Ph	On (1), Off (0)	

CONFIGURATION PARAMETERS – APPLICATION (Page 2)

201	Default configuration	On (1), Off (0)	CAN
202	Alternate Engine Speed	On (1), Off (0)	CAN
203	CAN ECU data fail enable	On (1), Off (0)	CAN
204	CAN ECU data fail action	0 (Action)	CAN
205	CAN ECU data fail delay	0:00	CAN

CONFIGURATION PARAMETERS – INPUTS (Page 3)

301	Low oil pressure enable	On (1), Off (0)	CAN
302	Low oil pressure trip	0.00 bar	CAN
303	High engine temperature trip	00 deg C	CAN
304	Digital input 1 source	0 (Input source)	
305	Digital input 1 polarity	0 (Polarity)	
306	Digital input 1 action (if source = user config)	0 (Action)	
307	Digital input 1 arming (if source = user config)	0 (Arming)	
308	RESERVED		
309	Digital input 2 source	0 (Input source)	
310	Digital input 2 polarity	0 (Polarity)	
311	Digital input 2 action (if source = user config)	0 (Action)	
312	Digital input 2 arming (if source = user config)	0 (Arming)	
313	RESERVED		
314	Digital input 3 source	0 (Input source)	
315	Digital input 3 polarity	0 (Polarity)	
316	Digital input 3 action (if source = user config)	0 (Action)	
317	Digital input 3 arming (if source = user config)	0 (Arming)	
318	RESERVED		
319	Digital input 4 source	0 (Input source)	
320	Digital input 4 polarity	0 (Polarity)	
321	Digital input 4 action (if source = user config)	0 (Action)	
322	Digital input 4 arming (if source = user config)	0 (Arming)	
323	RESERVED		
324	Digital input 5 source	0 (Input source)	
325	Digital input 5 polarity	0 (Polarity)	
326	Digital input 5 action (if source = user config)	0 (Action)	
327	Digital input 5 arming (if source = user config)	0 (Arming)	
328	RESERVED		
329	Digital input 6 source	0 (Input source)	
330	Digital input 6 polarity	0 (Polarity)	
331	Digital input 6 action (if source = user config)	0 (Action)	
332	Digital input 6 arming (if source = user config)	0 (Arming)	
333	RESERVED		

CAN = 3110 – xxx – 02 (CAN) option only

MPU = 3110 – xxx – 01 (Magnetic pickup) option only

CONFIGURATION PARAMETERS – OUTPUTS (Page 4)

401	Digital output 1 source	0 (Output source)	CAN
402	Digital output 1 polarity	0 (Output source Polarity)	CAN
403	Digital output 2 source	0 (Output source)	CAN
404	Digital output 2 polarity	0 (Output source Polarity)	CAN
405	Digital output 3 source	0 (Output source)	
406	Digital output 3 polarity	0 (Output source Polarity)	
407	Digital output 4 source	0 (Output source)	
408	Digital output 4 polarity	0 (Output source Polarity)	

CONFIGURATION PARAMETERS – TIMERS (Page 5)

501	Remote Start Delay	0:00	
502	Preheat timer	0:00	
503/4	RESERVED		
505	Smoke limiting	0:00	
506	Smoke limiting off	0:00	
507	RESERVED		
508	Warm up time	0:00	
509	Return Delay	0:00	
510	Cooling Time	0:00	
511	ETS Solenoid Hold	0:00	
512-514	RESERVED		
515	Breaker trip pulse	0:00	
516	Breaker close pulse	0:00	

CONFIGURATION PARAMETERS – GENERATOR (Page 6)

601	Alternator Fitted	On (1), Off (0)	
602	Alternator Poles	0	
603-604	RESERVED		
605	Under Voltage trip enable	On (1), Off (0)	
606	Under Voltage trip level	0 V	
607	Loading Voltage	0 V	
608	Over Voltage trip level	0 V	
609	Under frequency trip enable	On (1), Off (0)	
610	Under frequency trip level	0.0 Hz	
611	Loading Frequency	0.0 Hz	
612	Nominal Frequency	0.0 Hz	
613	Over frequency trip enable	On (1), Off (0)	
614	Over Frequency trip level	0.0 Hz	
615	AC System	0-4	

CONFIGURATION PARAMETERS – ENGINE (Page 7)

701	Magnetic pickup fitted	On (1), Off (0)	MPU
702	Flywheel teeth	000	MPU
703	Start Attempts	0	
704-705	RESERVED		
706	Gas choke timer (Gas engine only)	0:00	MPU
707	Gas on delay (Gas engine only)	0:00	MPU
708	Gas ignition off delay (Gas engine only)	0:00	MPU
709	Crank disconnect on Oil enable	On (1), Off (0)	
710	Check oil pressure prior to starting	On (1), Off (0)	
711	Crank disconnect on Oil threshold	0.00 Bar	
712	Crank disconnect on frequency	0.0Hz	
713	Crank disconnect on Engine Speed	000 rpm	
714	Under speed enable	On (1), Off (0)	
715	Under speed trip	0000 rpm	
716	Over speed trip	0000 rpm	
717-724	RESERVED		
725	Charge alt failure enable	On (1), Off (0)	
726	Charge alt failure trip	00.0 V	

CONFIGURATION PARAMETERS – ALTERNATIVE CONFIGURATION (Page 8)

801	Alt config – Enable configuration	On (1), Off (0)
802	Alt config - Alternative Engine Speed	On (1), Off (0)
803	Alt config – Ender Voltage Shutdown Enable	On (1), Off (0)
804	Alt config - Under Voltage trip	On (1), Off (0)
805	Alt config - Under Voltage trip level	0 V
806	Alt config - Loading Voltage	0 V
807	Alt config - Over Voltage trip level	0 V
808	Alt config - Under frequency enabled	On (1), Off (0)
809	Alt config - Under frequency trip level	0.0 Hz
810	Alt config - Loading Frequency	0.0 Hz
811	Alt config - Nominal Frequency	0.0 Hz
812	Alt config - Over Frequency enabled	On (1), Off (0)
813	Alt config - Over Frequency trip level	0.0 Hz
814	Alt config - Alternative Under speed enable	On (1), Off (0)
815	Alt config - Alternative Under speed trip	0000 rpm
816	Alt config - Alternative Over speed trip	0000 rpm

Parameters with multiple choices use the following identification tables for the parameter values.

INPUT SOURCE LIST

0	User Configured
1	RESERVED
2	RESERVED
3	Alternative configuration
4	Coolant Temperature Switch
5	Emergency Stop
6	External Panel Lock
7	RESERVED
8	RESERVED
9	Low Fuel Level Switch
10	Oil Pressure Switch
11	Remote Start Off Load
12	Remote Start On Load
13	Smoke Limiting

INPUT ACTION LIST

Index	Action
0	Electrical Trip
1	Shutdown
2	Warning

INPUT ARMING LIST

Index	Arming
0	Always
1	From Safety On
2	From Starting
3	Never

INPUT POLARITY LIST

Index	Action
0	Close to Activate
1	Open to Activate

OUTPUT POLARITY LIST

Index	Arming
0	Energise
1	De-energise

CAN DATA FAIL ACTION

Index	Action
0	None
1	Shutdown
2	Warning always latched

CAN DATA FAIL ARMING

Index	Arming
0	From Safety On
1	From Starting

AC SYSTEM

Index	AC System	Instrumentation
0	Single phase 2 wire	L-N
1	2 phase, 3 wire (L1/L2/L3)	L-N x 2
2	3 phase, 4 wire	L-N x sqrt(3)
3	3 phase, 3 wire delta	L-N
4	3 phase, 4 wire delta	L-N x 2

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MPU = 3110 – xxx – 01 (Magnetic pickup) option only