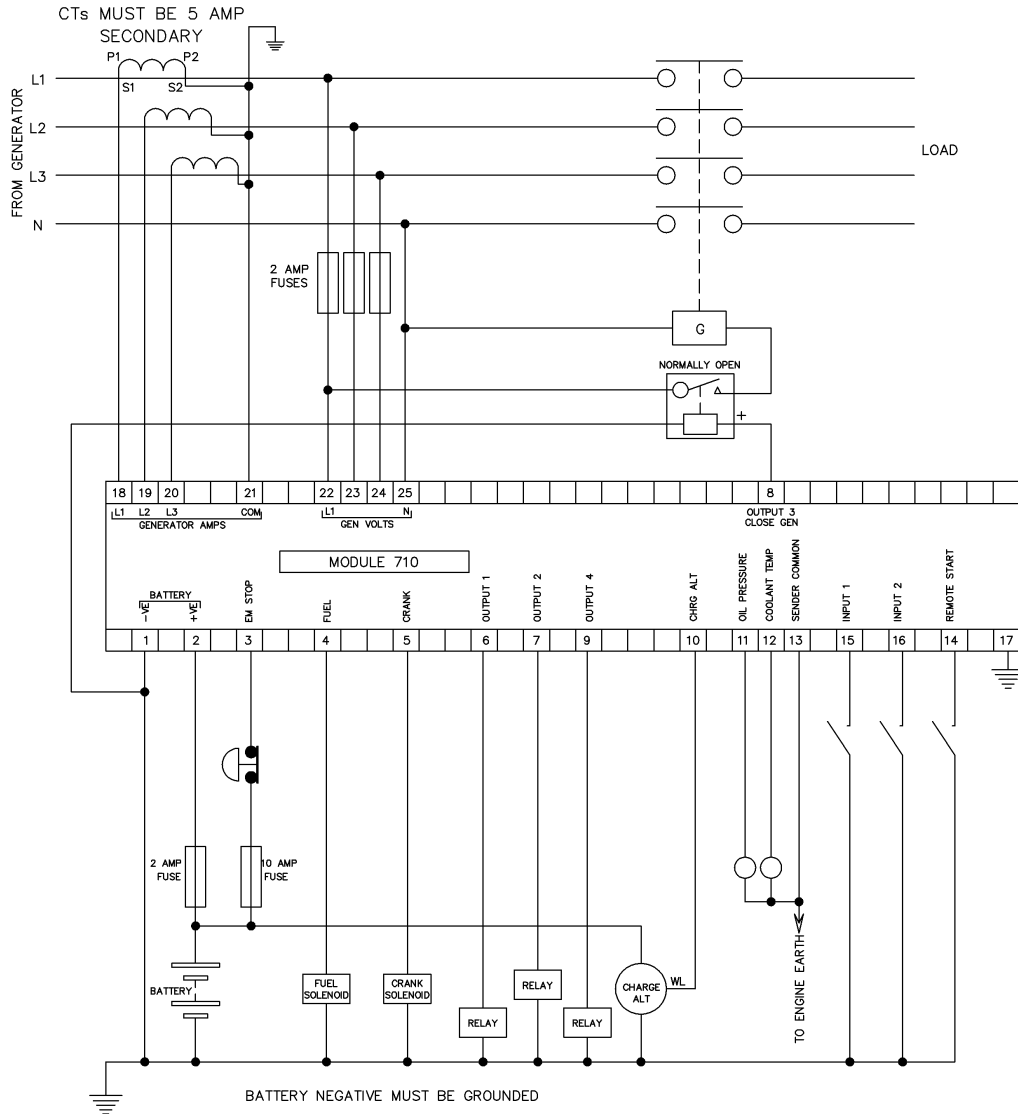


TYPICAL WIRING DIAGRAM



BATTERY NEGATIVE MUST BE GROUNDED

SCREW TERMINALS TIGHTENING TORQUE = 0.8Nm (7lb-in)

NOTE. ALL THE OUTPUTS ARE SOLID STATE AND ARE POSITIVE SWITCHING

DIMENSIONS

209mm x 146mm (8.23" x 5.75")

MOUNTING

Mounting holes suitable for 4 x 4mm screws
Mounting Hole spacing 196.0mm x 103.5mm (7.717" x 4.075")

PANEL CUT-OUT

182mm x 137mm (7.17" x 5.39")
Maximum panel thickness – 8mm (0.3")



DEEP SEA ELECTRONICS

053-013
ISSUE 1

Model 710 Configuration and installation instructions

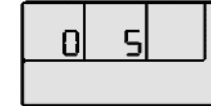
ACCESSING THE CONFIG EDITOR

Press the Stop/Reset and Info buttons simultaneously.

- The LED beside the AUTO button will flash continuously to indicate that configuration mode has been entered.



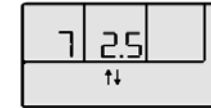
- The first configuration setting is displayed:



From the configuration table, this example is displaying **Start Delay** (parameter 0). It is currently set to **5 seconds**.

EDITING A PARAMETER

- Enter the editor as described above.
- Press + / - to scroll through the parameters to the one you want to change.
- Press ✓ to enter edit mode. The ↑↓ symbol will flash on the display to indicate that edit mode has been entered.
- Press + / - to change the value to the desired parameter.
- Press ✓ to save the value and exit edit mode for this parameter.
- The ↑↓ symbol will be removed from the display to indicate that edit mode has been exited.
- To select another value to edit, press the + / - buttons. Continuing to press the + and - buttons will cycle through the adjustable parameters as shown in the following lists.



SETTINGS

Factory default settings are in **bold italicised** text.

Timers	
0 - Start Delay	0-60m (5s)
1 - Preheat	0-60s (0s)
2 - Cranking Time	3-60s (10s)
3 - Crank Rest Time	3-60s (10s)
4 - Safety On Delay	8-60s (8s)
5 - Warm Up Time	0-10m (0s)
6 - Gen transient delay	0-10s (0s)
7 - Return Delay	0-60m (30s)
8 - Cooling Time	0-30m (1m)
9 - ETS Hold Time	0-60s (0s)
10 - Fail To Stop Delay Time	10-60s (60s)
11 - Low DC Voltage Alarm Delay	0-60m (5m)

NOTE:- Setting a timer to 0 will disable it (where applicable)

Generator	
12 - Under Frequency	0-60Hz (40Hz)
13 - Loading Frequency	20-60Hz (47Hz)
14 - Over Frequency	50-72Hz (57Hz)
15 - Loading Voltage	50-333V (212V)
16 - Over Current Alarm	50-120% (110%)
17 - Over Current Alarm Type	0 - Warning 1 - Shutdown 2 - Electrical Trip
Engine	
18 - Low DC Voltage Alarm	0-25V (8V)
19 - Charge Fail Voltage Alarm	0-25V (8V)

Fixed Input settings	
20 - Low Oil Pressure	5-150PSI (15 PSI)
21 - High Engine Temperature	90-150°C (95°C)
22 - Remote Start input	0 - Remote start close to activate 1 - Remote start, open to activate

NOTE: To exit the front panel configuration editor at any time, press the Stop/Reset button. Ensure you have saved any changes you have made by pressing the ✓ button first

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Factory default settings are in **bold italicised** text.

Auxiliary Input settings	
23 - Input 1	0 - Delayed, warning, close to activate 1 - Delayed, warning, open to active 2 - Immediate, warning, close to activate 3 - Immediate, warning, open to activate 4 - Delayed, shutdown, close to activate 5 - Delayed, shutdown, open to activate 6 - Immediate, shutdown, close to activate 7 - Immediate, shutdown, open to activate 8 - Lamp test, close to activate 9 - Lamp test, open to activate
24 - I/P 1 delay	0-10s (0s)
25 - Input 2	0 - Delayed, warning, close to activate 1 - Delayed, warning, open to activate 2 - Immediate, warning, close to activate 3 - Immediate, warning, open to activate 4 - Delayed, shutdown, close to activate 5 - Delayed, shutdown, open to activate 6 - Immediate, shutdown, close to activate 7 - Immediate, shutdown, open to activate 8 - Electrical trip, close to activate 9 - Electrical trip, open to activate
26 - I/P 2 delay	0-10s (0s)
Outputs	
27 - Output 1	0 - Unused 1 - Preheat Mode 0 2 - Air Flap 3 - Close Generator 4 - Energise to stop 5 - Engine Running 6 - Shutdown Alarm 7 - System in auto 8 - Auxiliary input 1 active 9 - Auxiliary input 2 active 10 - Preheat mode 1 11 - Preheat mode 2 12 - Preheat mode 3 13 - Warning Alarm 14 - Common Alarm 15 - Fail to start
28 - Output 2	0 - Unused 1 - Preheat Mode 0 2 - Air Flap 3 - Close Generator 4 - Energise to stop 5 - Engine Running 6 - Shutdown Alarm 7 - System in auto 8 - Auxiliary input 1 active 9 - Auxiliary input 2 active 10 - Preheat mode 1 11 - Preheat mode 2 12 - Preheat mode 3 13 - Warning Alarm 14 - Common Alarm 15 - Fail to start


Outputs cont'd	
29 - Output 3	0 - Unused 1 - Preheat Mode 0 2 - Air Flap 3 - Close Generator 4 - Energise to stop 5 - Engine Running 6 - Shutdown Alarm 7 - System in auto 8 - Auxiliary input 1 active 9 - Auxiliary input 2 active 10 - Preheat mode 1 11 - Preheat mode 2 12 - Preheat mode 3 13 - Warning Alarm 14 - Common Alarm 15 - Fail to start
30 - Output 4	0 - Unused 1 - Preheat Mode 0 2 - Air Flap 3 - Close Generator 4 - Energise to stop 5 - Engine Running 6 - Shutdown Alarm 7 - System in auto 8 - Auxiliary input 1 active 9 - Auxiliary input 2 active 10 - Preheat mode 1 11 - Preheat mode 2 12 - Preheat mode 3 13 - Warning Alarm 14 - Common Alarm 15 - Fail to start

LCD Indicators	
31 - Indicator 1	0 - Unused 1 - Preheat Mode 0 2 - Air Flap 3 - Close Generator 4 - Energise to stop 5 - Engine Running 6 - Shutdown Alarm 7 - System in auto 8 - Auxiliary input 1 active 9 - Auxiliary input 2 active 10 - Preheat mode 1 11 - Preheat mode 2 12 - Preheat mode 3 13 - Warning Alarm 14 - Common Alarm 15 - Fail to start

Factory default settings are in **bold italicised** text.

LCD Indicators cont'd	
32 - Indicator 2	0 - Unused 1 - Preheat Mode 0 2 - Air Flap 3 - Close Generator 4 - Energise to stop 5 - Engine Running 6 - Shutdown Alarm 7 - System in auto 8 - Auxiliary input 1 active 9 - Auxiliary input 2 active 10 - Preheat mode 1 11 - Preheat mode 2 12 - Preheat mode 3 13 - Warning Alarm 14 - Common Alarm 15 - Fail to start
33 - Indicator 3	0 - Unused 1 - Preheat Mode 0 2 - Air Flap 3 - Close Generator 4 - Energise to stop 5 - Engine Running 6 - Shutdown Alarm 7 - System in auto 8 - Auxiliary input 1 active 9 - Auxiliary input 2 active 10 - Preheat mode 1 11 - Preheat mode 2 12 - Preheat mode 3 13 - Warning Alarm 14 - Common Alarm 15 - Fail to start
34 - Indicator 4	0 - Unused 1 - Preheat Mode 0 2 - Air Flap 3 - Close Generator 4 - Energise to stop 5 - Engine Running 6 - Shutdown Alarm 7 - System in auto 8 - Auxiliary input 1 active 9 - Auxiliary input 2 active 10 - Preheat mode 1 11 - Preheat mode 2 12 - Preheat mode 3 13 - Warning Alarm 14 - Common Alarm 15 - Fail to start

Misc	
35 - Full Load Current Rating	5-6000A (500A)
36 - Current Transformer Primary	10-6000A (500A)
37 - Alternator Poles	2,4,6,8 (4)
38 - AC Topology	0 - 3 phase, 4 wire 1 - Single phase, 2 wire
39 - Oil Pressure Display Units	0 - Bar / PSI 1 - Kpa
40 - Oil pressure sender type	0 - Not used 1 - Digital closed for low oil pressure 2 - Digital open for low oil pressure 3 - VDO 5 bar 4 - VDO 10 bar 5 - Datcon 5 bar 6 - Datcon 10 bar 7 - Datcon 7 bar 8 - Murphy 7 bar 9 - User configured
41 - Coolant temperature sender type	1 - Digital closed for high temperature 2 - Digital open for high temperature 3 - VDO 120°C 4 - Datcon high 5 - Datcon low 6 - Murphy 7 - Cummins 8 - PT100 9 - User configured

 **NOTE:-** The 'preheat modes' selectable for configurable outputs and LCD indicators perform the following actions :

- Preheat mode 0 - Preheat during preheat timer, ceasing at end of preheat timer.
- Preheat mode 1 - Preheat during preheat timer and continue until engine stops cranking.
- Preheat mode 2 - Preheat during preheat timer and continue until the safety delay timer has expired.
- Preheat mode 3 - Preheat during preheat timer and continue until the warming timer has expired.

In addition, in all preheat modes, preheat takes place during the crank rest timer between crank cycles.