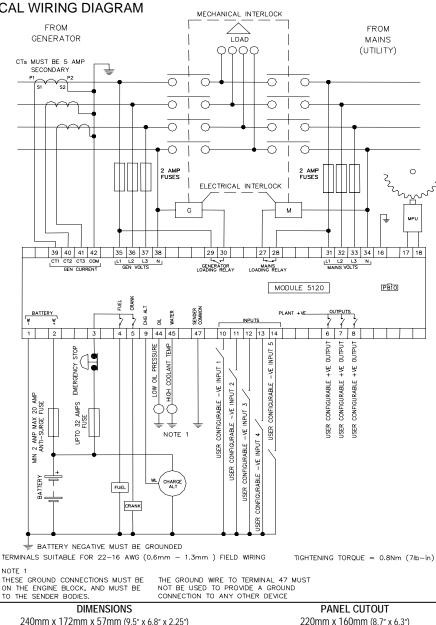
TYPICAL WIRING DIAGRAM



240mm x 172mm x 57mm (9.5" x 6.8" x 2.25")

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Model 5120 Configuration and installation instructions

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Press the Stop/Reset O and Info butto simultaneously.

ACCESSING THE CONFIGURATION EDITOR

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 displaying Start Delay (parameter 0). It is curren set to 5 seconds.

EDITING A PARAMETER

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- Enter the editor as described above. .
- Press + / to scroll through the parameters the one you want to change.
- ٠ 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 ٠ parameter.
- Press ✓ to save the value and exit edit mode for . this parameter.
- The *t* symbol will be removed from the display ٠ 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.

ANOTE: 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 \checkmark button first

TIMERS & ANALOGUE SETTINGS
Eactory default settings are in bold italicised text

	Tactory default settings	ale in Dolu i	tent.
	Parameter	Туре	Range
uttons	0 - Start delay	Timer	0-60m (5s)
	1 - Preheat	Timer	0-60s (0s)
	2 - Crank attempt	Timer	3-60s (10s)
	3 - Crank rest	Timer	3-60s (10s)
	4 - Safety delay	Timer	8-60s (8s)
AUTO	5 - Warming up	Timer	0-60m <i>(0s)</i>
	6 - Return delay	Timer	0-60m (30s)
	7 - Cooling run	Timer	0-60m (60s)
	8 - E.T.S. hold	Timer	0-60s (0s)
	9 - Sensor fail	Timer	1-5s (2s)
	10 - Fail to Stop	Timer	10-60s (60s)
	11 - Low Oil Press.	Trip	5-150PSI (15PSI)
ole is	12 - High Temp	Trip	90-150°C (95°C)
rrently	13 - Under Speed	Trip	0-3600RPM (1250RPM)
	14 - Over Speed	Trip	300-5000RPM (1750RPM)
	15 – Under freq'	Trip	0-60Hz (40Hz)
	16 - Over freq'	Trip	0-72Hz (57Hz)
	17 - Charge Alt	Warning	0-25V (8V DC)
	18 - Flywheel teeth	Value	46-300 (0)
	19 - CT Primary	Value	10-6000A (500A)
ers to [· · · · · · · · · · · · · · · · · · ·

NOTE:- Setting a timer to zero (0) will disable it (where applicable) NOTE:- Setting Flywheel teeth to zero (0) will disable magnetic

pickup speed sensing. In this instance, engine speed is derived from the alternator output frequency.

LIST ITEM SETTINGS

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

1	Parameter	Selections
	20 - Alternator poles	0,2, 4 ,6,8
r	21 - Oil pressure input	0 - Not used
		1 - Digital, close for low pressure
,		2 - Digital, open for low pressure
		3 - VDO 0-5bar
		4 - VDO 0-10bar
•		5 - Datcon 5bar
5		6 - Datcon 10bar
3		7 - Datcon 7bar
		8 - Murphy 7bar
		9 - User configured
_1	22 - Coolant temp input	0 - Not used
		1 - Digital, close for high
		temperature
		2 - Digital, open for high
		temperature
		3 - VDO 40℃ to 120℃
		4 - Datcon High
		5 - Datcon Low
		6 - Murphy
		7 - Cummins
		8 - PT100
		9 - User configured

		ons	Parameter
23 - Fast load	ng 0 - No		28 - Output
enabled	1 - Yes		
24 - AC syster	n 0-3 p	hases 4 wires	
	1 - 1 pł	nase 2 wire	
		nases 3 wires	
		nases 3 wires	
05 01			
25 - Oil pressu			
display u	nits 1 - kPa		
Parameter	Selection		
26 - Output 1	0 - Unused		
	1 - Preheat mod	de 0	
	2 - Air flap		
	3 - Close Genera	ator	
	4 - Energise to s	ton	
	F Engine ruppi		
	5 - Engine runni	.ig	
	6 - Shutdown ala	arm	
	7 - System in au	to	
	8 - Auxiliary inpu	It 1 active	20 1 00 1
	9 - Auxiliary inpu	it 2 active	29 - LCD 1
	10 - Auxiliary inp	out 3 active	
	11 - Auxiliary inp	out 4 active	
	12 - Auxiliary inp	out 5 active	
	13 - Preheat mo	de 1	
	14 - Preheat mo		
	15 - Preheat mo	de 2	
	16 - Warning ala		
	17 - Common al	arm	
27 - Output 2	0 - Unused		
	1 - Preheat mod	e 0	
	2 - Air flap		
	3 - Close Genera	ator	
	4 - Energise to s	top	
	5 - Engine runni	ng	
	6 Chutdown old	iy arm	
	6 - Shutdown ala		
	7 - System in au	to	
	8 - Auxiliary inpu	It 1 active	
	9 - Auxiliary inpu	It 2 active	
	10 - Auxiliary inp	out 3 active	30 - LCD 2
	11 - Auxiliary inp	out 4 active	30 - LOD Z
		ut 5 active	
	12 - Auxiliary inc		
	12 - Auxiliary inp 13 - Preheat mo	de 1	
	13 - Preheat mo	de 1	
	13 - Preheat mo 14 - Preheat mo	de 1 de 2	
	13 - Preheat mo 14 - Preheat mo 15 - Preheat mo	de 1 de 2 de 3	
	13 - Preheat mo 14 - Preheat mo 15 - Preheat mo 16 - Warning ala	de 1 de 2 de 3 arm	
	13 - Preheat mo 14 - Preheat mo 15 - Preheat mo	de 1 de 2 de 3 arm	

- 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 - Auxiliary input 3 active 11 - Auxiliary input 4 active 12 - Auxiliary input 5 active 13 - Preheat mode 1 14 - Preheat mode 2 15 - Preheat mode 3 16 - Warning alarm 17 - Common alarm			Descent
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14 - Preheat mode 215 - Preheat mode 316 - Warning alarm		13 - Preheat mode 1	
16 - Warning alarm			
10 - Warning alarm		15 - Preheat mode 3	
		16 - Warning alarm	
			cycles.

Doromotor	Selection
Parameter	Selection
31 - LCD 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 - Auxiliary input 3 active
	11 - Auxiliary input 4 active
	12 - Auxiliary input 5 active
	13 - Preheat mode 1
	14 - Preheat mode 2
	15 - Preheat mode 3
	16 - Warning alarm
	17 - Common alarm
32 - LCD 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 - Auxiliary input 3 active
	11 - Auxiliary input 4 active
	12 - Auxiliary input 5 active
	13 - Preheat mode 1
	14 - Preheat mode 2
	15 - Preheat mode 3
	16 - Warning alarm
	17 - Common alarm
configurable	The 'preheat modes' selectable for outputs and LCD indicators following actions :

Parameter	Selection
33 - Input 1	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 - Remote Start, close to activate
	9 - Remote Start, open to activate
34 - Input 2	0 - Delayed, Warning, close to activate
0parz	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
35 - Input 3	0 - Delayed, Warning, close to activate
oo mparo	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 - Lamp test, close to activate
	9 - Lamp test, open to activate
36 - Input 4	0 - Delayed, Warning, close to activate
50 - Input 4	1 - Delayed, Warning, close to activate
	2 - Immediate, Warning, close to activate
	3 - Immediate, Warning, open to activate
	4 - Delayed, Shutdown, close to activate
	5 - Delayed, Shutdown, close to activate
	6 - Immediate, Shutdown, close to activate
	7 - Immediate, Shutdown, open to activate
	8 - Simulated mains, close to activate
	9 - Simulated mains, open to activate
37 - Input 5	0 - Delayed, Warning, close to activate
57 - Input 5	1 Delayed Warning, close to activate
	1 - Delayed, Warning, open to activate 2 - Immediate, Warning, close to activate
	3 - Immediate, Warning, close 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 - Oil pressure, Shutdown, close to activate
	9 - Oil pressure, Shutdown, open to activate

perfor

- Preheat mode 0 Preheat during preheat timer, ceasing at end of preheat timer. Preheat mode 1 - Preheat during preheat timer and

- 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.

MAINS SETTINGS Fac

ctory	default	settings	are in	bold	italicised text.	

Parameter	Selections
38 - Immediate mains dropout	0 - disabled
	1 - enabled
39 - Under voltage Trip	(50-333v) 184V
40 - Under voltage Return	(50-333v) 207V
41 - Over voltage Return	(50-333v) 253V
42 - Over voltage trip	(50-333v) 276V