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ASM720 series

Micro-processor based -- Auto Start Module

- ◆ Compact 72mmsq DIN standard case ... just 90mm deep
- ◆ 6 to 36Vdc single range supply – no drop-out on cranking
- ◆ Dedicated channels for Low Oil Press and Cooling Fault
- ◆ IP67 Rated - for water and dust protection
- ◆ Optional Hours Run Counter
- ◆ Customer Specific hardware and software is available to order



ASM720P

Operation : ASM720A

Turn mode switch to MAN to initialise an 'engine start' manually. AUTO mode, for Automatic-Standby applications requires a +Ve supply on the Remote Start input to initialise an 'engine start'. Removal of this +Ve supply initialises an 'automatic stop'. Select OFF mode, to un-power the unit and / or reset any shutdowns.

Operation : ASM720P

Manual Start : press the **GREEN BUTTON** momentarily to power the unit and initialise an 'engine start'.

Manual Stop : press the **RED BUTTON** momentarily to stop the engine and reset all Shutdowns Note: the engine will not stop if a +Ve supply is connected to the Remote-Start Input. Always ensure that the engine is stationary before restarting.

Having initialised an **ENGINE START** (top Led pulsing), the fuel solenoid is energised, preheat output activated and the starter will automatically crank the engine. Note: a low oil pressure **Safety Circuit** helps ensure that the starter cannot engage into a running engine under fault conditions.

If the engine fails to start after a preset time, the starter will disengage for a

rest period and try again. If the engine fails to start after a preset number of attempts, the unit will shutdown on "Fail to Start". Press the Emergency Stop switch and consult the engine **manufactures Handbook**.

Assuming the engine fires, the starter motor is automatically disengaged and the engine runs up to full speed. The **Protection Delay** timer is now running and when elapsed, the input channels are enabled as applicable.

The **Excitation output** is available during cranking and for a preset time afterwards, in order to excite the charging alternator.

First-up interlock ensures that only the first shutdown fault will be displayed. **Engine speed** can be monitored from the Main Alternator, Charge Alternator or a Magnetic Pick-Up. Crank-cut, Underspeed, Load Enable & Overspeed thresholds are held in non-volatile memory.

The **Load Output** will energise after the On-Load Delay to operate an external contactor.

Having initialised an **AUTOMATIC STOP** and provided the Remote-Start input remains open-circuit, the Load Output will de-energise after the Off-Load delay time and the engine will stop after a Stop-Delay time. The unit is now un-powered and back in **Auto-**

Standby mode. Note: if the Remote-Start Input is +Ve during either delay period, the unit will switch back on load immediately and reset the timers.

Programming Switches

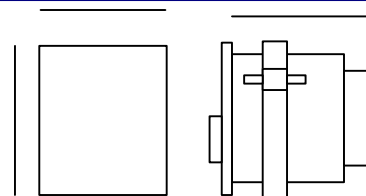
Rear mounted controls include potentiometer and two 4-way switches. These are read at power-up and being under software control, can be used for specific customer requirements.



Refer to side label for specific switch functions. If the label is un-readable or missing; please email, fax or telephone for assistance and quote the unit Serial Number. Refer to the Data Sheet before making or changing any connections.

Ch	Function	Prot' Delay	Shut-Down	LED Colour	LED Action
1	DC On			Green	Pulsing
	Protection on	---	---		Steady
2	Charge Fail	---	---	Red	Steady
3	Low Oil Press'	Yes	Yes	Red	Steady
4	High Engine Temp'	Yes	Yes	Red	Steady
5	Pre-Heat	---	---	Yellow	Steady
6	Fail to Start Auxiliary	---	Yes	Red	Pulsing
		S3	Yes		Steady
7	Emergency Stop	---	Yes	Red	Pulsing
8	Underspeed	Yes	S2	Red	Pulsing
	Overspeed	No	Yes		Steady
9	Remote Start	---	---	Red	Steady
10	Load Enable	---	---	Red	Steady

Dimensions



Front Face = 72mm sq
Panel cut-out = 68mm sq
Depth behind panel = 90mm

Supplied complete with mounting sleeve and connector.

Panel Gasket available to order.

