



DESCRIPTION

The Model 521 is an **Automatic Engine Control Module** designed to automatically start and stop the engine. Indicating operational status and fault conditions, it will automatically shut down the engine and indicate engine failure by flashing LED on the front panel. Other simultaneous faults are indicated by steady LED.

Selected operational sequences, timers and alarms can be altered by the customer by using a PC and the 808 interface. This also provides the operator with 'real-time' diagnostic facilities to monitor the operation of the system either locally or remotely. Remote PC-controlled engine starting and stopping is also featured.

Operation of the module is via a three position rotary switch (key-switch option available) mounted on the front panel with STOP, AUTO and MANUAL positions.

Microprocessor control allows for **enhanced operation**. The module features a comprehensive list of timers and pre-configured sequences. This allows complex specifications to be achieved

Configurable expansion facilities are provided.

Relay outputs are provided for:

- Fuel Solenoid Output
- Start Output
- 3 configurable outputs.

Normally the relays are configured as pre-heat, load transfer and alarm outputs. However the relay function is configurable to activate on a range of 32 different functions, conditions or alarms. The relays supply positive plant supply out.

Configurable inputs are available for:

- Low Oil Pressure
- High Engine Temperature
- Remote Start.

This allows the module to function with N/O or N/C switches. Four fully configurable auxiliary inputs are provided to give protection expansion. These can be selected to be indication, warning or shutdown inputs either immediate or held off during start up.

Uncommitted LED's allow additional annunciation.

Multiple alarm channels are provided to monitor the following:

- Under/Overspeed
- Charge Fail
- Emergency Stop
- Low oil pressure
- High engine temperature
- Fail to Start
- Fail to stop
- Loss of speed sensing
- Programmable inputs as selected

First-up alarm is indicated by a flashing LED. Subsequent simultaneous alarms are displayed by a steady LED.

The 500 series modules have been designed for front panel mounting. The module is fitted into the cut-out with the fixing clips removed. These are then fitted from the rear. Connection is via locking plug and socket connectors



SPECIFICATION

DC Supply:

8V to 35V Continuous.

Cranking Dropouts:

Able to survive 0V for 50mS, providing supply was at least 10V before dropout and supply recovers to 5V. *This is achieved without the need for internal batteries.*

Max. Operating Current:

290mA at 12V. 210mA at 24V.

Max. Standby Current:

50mA at 12V. 30 mA at 24V.

Alternator Input Range:

15V - 300V ac RMS

Alternator Input Frequency:

50Hz - 60Hz at rated engine speed.

Magnetic Input Range:

0.5V to +/- 70V (Clamped by transient suppressors)

Magnetic Input Frequency:

10Hz to 10,000Hz

Start Relay Output:

16 Amp DC at supply voltage.

Fuel Relay Output:

16A DC at supply voltage.

Auxiliary Relay Outputs:

5A DC at supply voltage.

Dimensions:

96mm x 96mm x 140.5mm
(3.8" x 3.8" x 5.5")
(Excluding switch)

Charge Fail / Excitation Range:

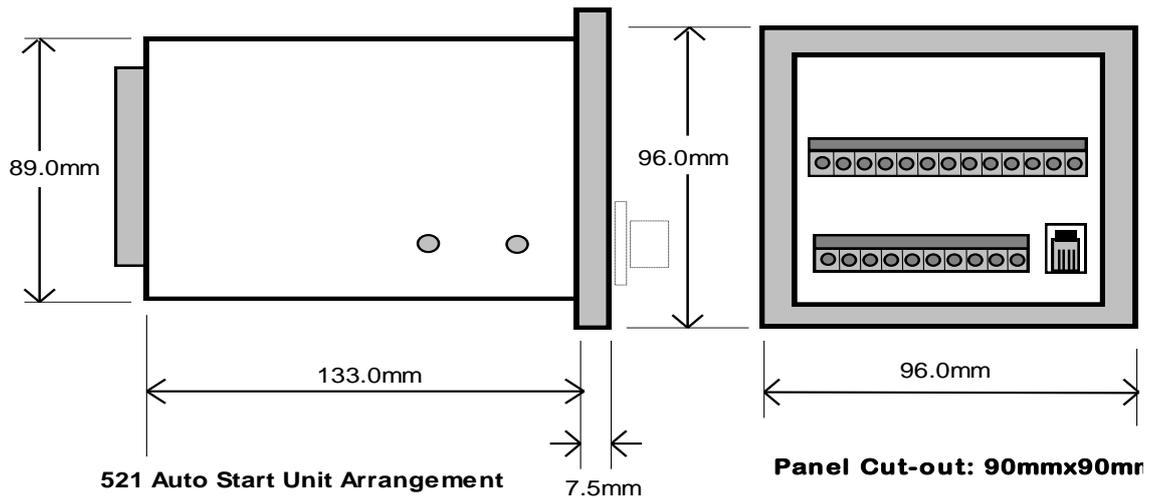
0V to 35V

Operating Temperature Range:

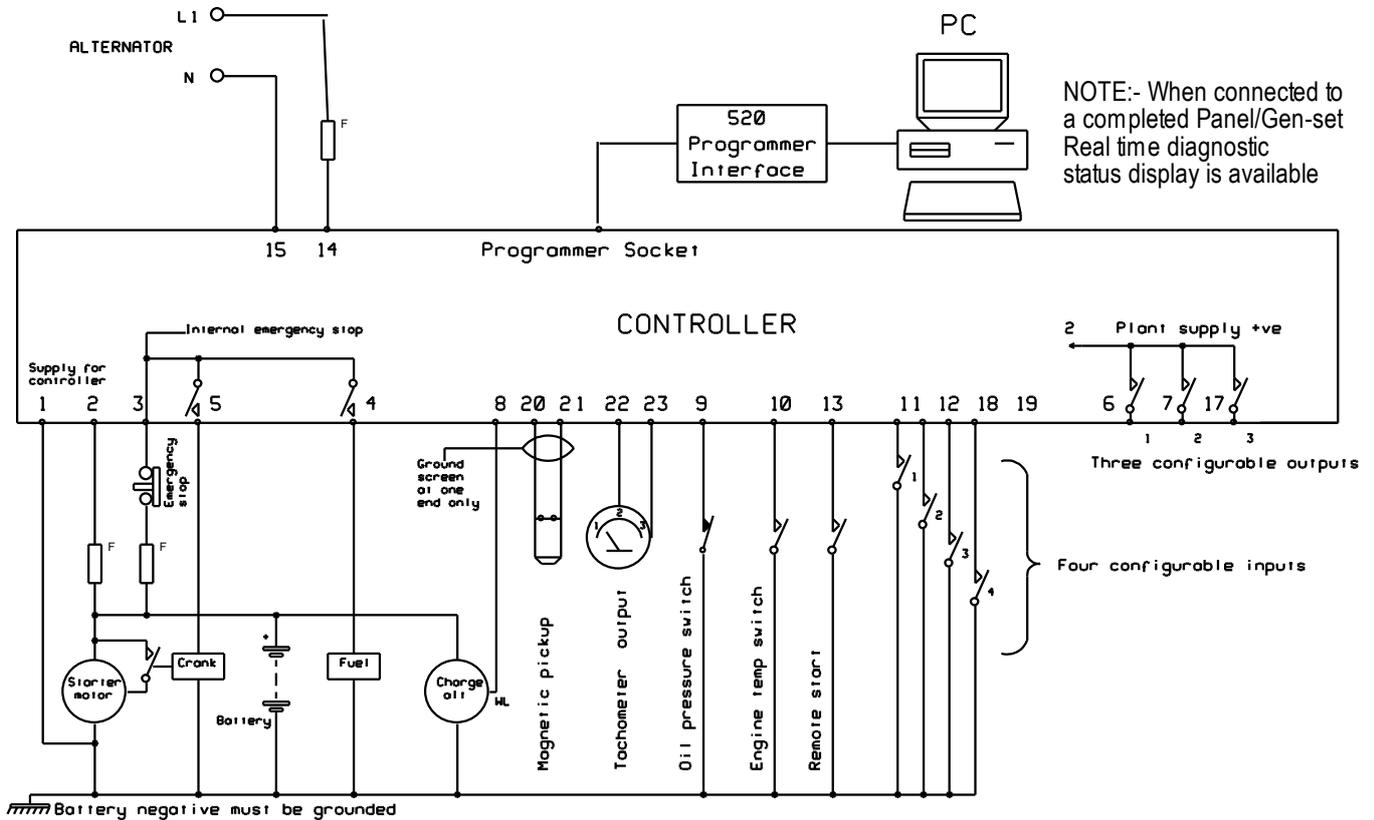
-30°C to +70°C

CASE DIMENSIONS

Imperial Measurements	
Module dimensions	Panel Cutout
3.8" x 3.8" x 5.5"	3.54" x 3.54"



TYPICAL CONNECTIONS



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