

# DSEULTRA<sup>®</sup> STARTING WITH QUALITY.



## DSE701 & DSE702 AUTO & MANUAL START CONTROL MODULES

DSE701



DSE702



The DSE701 is a Manual/Auto Start Control Module that offers an excellent range of engine monitoring and protection features.

The module has been designed to monitor low oil pressure, high engine temperature, over speed and a user defined auxiliary input.

It also has the capability to monitor battery charging by utilising the WL terminal on the charge alternator. When the module detects a fault condition it automatically shuts down the engine.

The DSE702 is a Manual/Auto Start Control Module that includes all the features of the DSE701 plus a tamper proof engine hours counter.

Both modules include a remote start signal input. This input allows the module to be started from a pre-defined remote location.

### FEATURES


- Manual start
- Engine pre-heat
- Engine monitoring and protection features
- Protected solid state (PSS) outputs
- Front panel mounting
- Tamper proof engine hours counter
- Remote start
- LED indicators

### BENEFITS

- Hours counter provides accurate information for monitoring maintenance and warranty periods
- Multiple engine parameters are monitored simultaneously


### OPERATION

#### MANUAL MODE

- The module is started using the on-board key/buttons
- The user turns the key to the  position
- The engine pre-heat button is then pressed for the required time

- The start button is then pressed to start the engine
- To stop the engine the key needs to be turned to the off position

#### AUTOMATIC MODE

- The key needs to be permanently left in the  position
- The module is powered up by the remote start signal
- The pre-heat function is automatically carried out and then the engine is started
- To stop the engine the remote switch is turned to the 'off' position

#### OVERSPEED PROTECTION

The engine over speed trip setting can be calibrated at the rear of the module for 50Hz or 60Hz nominal operation (57Hz or 68Hz trip respectively).

During engine cranking and for the first 10 seconds after the engine starts running, all alarm conditions are suspended to allow the engine to reach its optimum running speed.

### 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.

#### ALTERNATOR INPUT FREQUENCY

50Hz – 60Hz at rated engine speed (minimum:75V Overspeed: nominal frequency +14% (+24% overshoot)

#### ALTERNATOR INPUT RANGE

15-305 V AC RMS (+20%)

#### START OUTPUT

Solid state 1.2A negative grounding

#### RUN OUTPUT

Solid state 1.2A negative grounding terminal

#### PRE-HEAT OUTPUT

Solid state 1.2A negative grounding terminal

#### DSE701 DIMENSIONS

72mm x 72mm x 38mm  
2.8" x 2.8" x 1.5"  
Excludes key switch

#### DSE701 CUT OUT

68mm x 68mm  
2.7" x 2.7"

#### DSE702 DIMENSIONS

84mm x 72mm x 34.9mm  
3.3" x 2.8" x 1.4"  
Excludes key switch

#### DSE702 CUT OUT

80mm x 68mm  
3.1" x 2.7"

### ENVIRONMENTAL TESTING STANDARDS

#### ELECTRO MAGNETIC CAPABILITY (EMC)

BS EN 61000-6-4  
EMC Generic Emission Standard for the Industrial Environment  
BS EN 61000-6-2  
EMC Generic Immunity Standard for the Industrial Environment

#### ELECTRICAL SAFETY

BS EN 60950  
Safety of Information Technology Equipment including Electrical Business Equipment

#### TEMPERATURE

BS EN 60068-2-2  
Test Ab to 70°C  
Test Ab to -30°C

#### VIBRATION

BS EN 60068-2-6  
Ten sweeps in each of the three major axes  
5Hz to 8Hz @ +/- 7.5mm

#### HUMIDITY

BS EN 60068-2-30  
Test Db 95% RH @ 55°C for 12 hours

#### SHOCK

BS EN 60068-2-27  
Three shocks in each of three major axes  
15gn in 11mS

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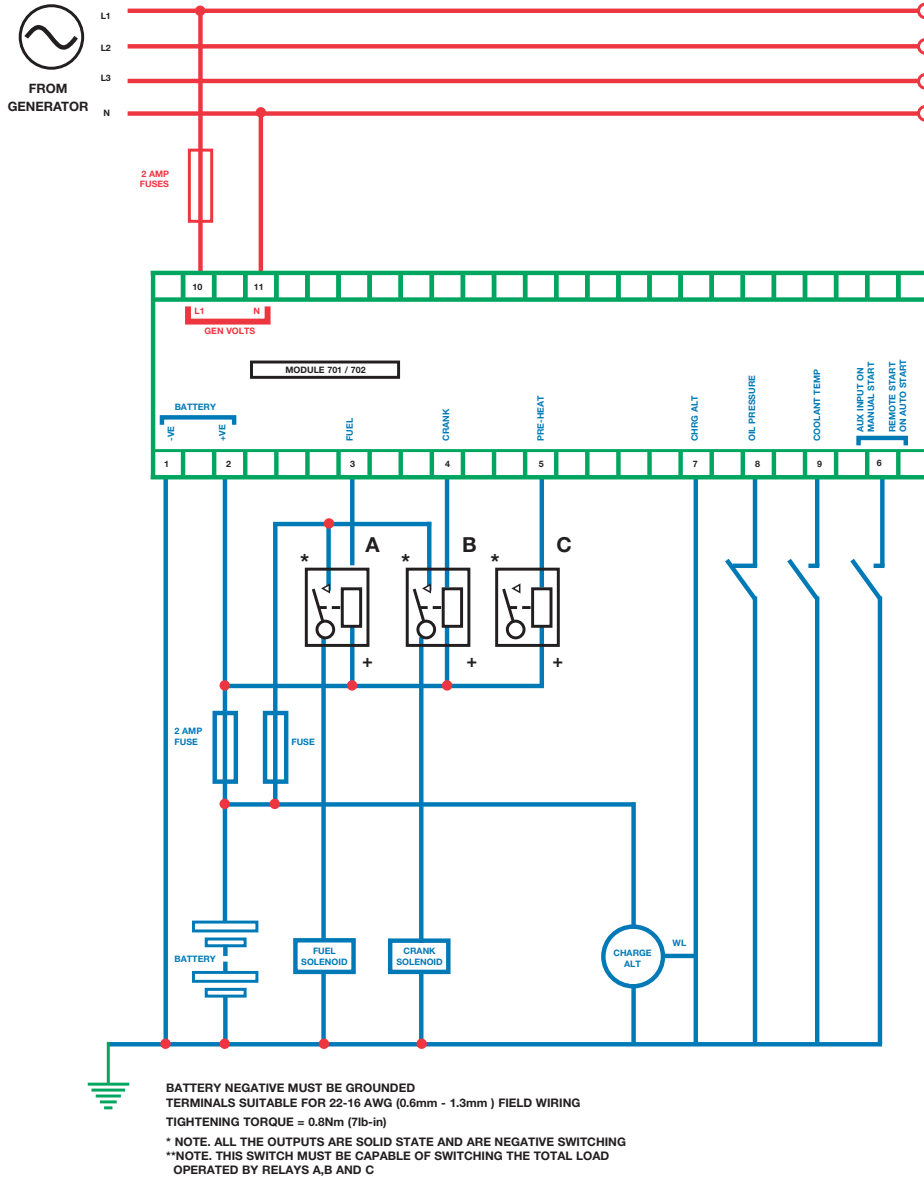
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# DSE701 & DSE702

**RELATED MATERIALS**

TITLE	PART NO'S
DSE701/702NK Installation Instructions	053-002
DSE701/702K Installation Instructions	053-003
DSE701/702 Manual Key Installation Instructions	053-016

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