JCB GENERATOR

SERVICE MANUAL



CONTROL PANELS

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Wiring Diagrams

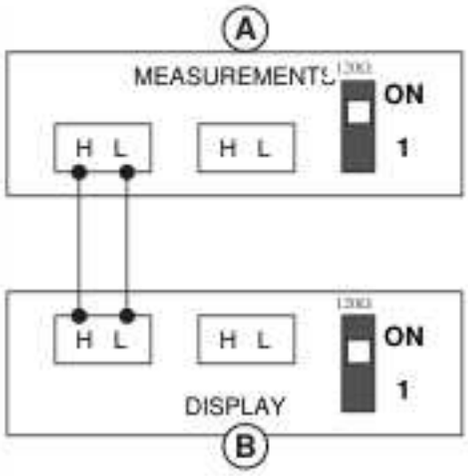


Fig 41. Manual/AMF Device

Key ⇨ *Fig 41. (🗋 83)*

A	Measurements
B	Display

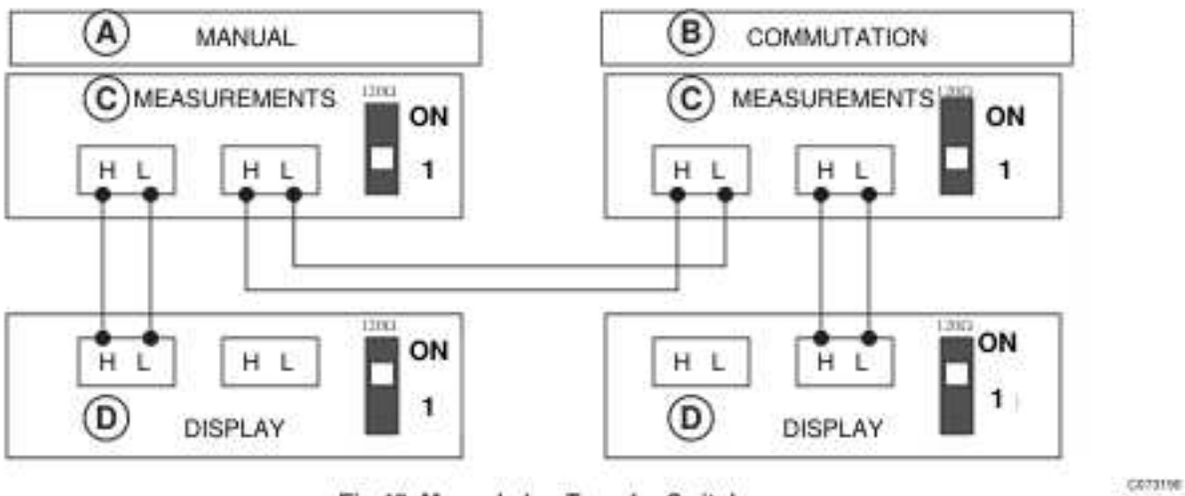


Fig 42. Manual plus Transfer Switch

Key ⇨ *Fig 42. (🗋 83)*

A	Manual
B	Commutation
C	Measurements
D	Display

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CAN Alarms

CAN alarms are messages sent from the CAN ECU to the DSE controller and displayed as follows in the below tables.

Note: *Please refer to the engine manufacturer's documentation for Can error message information.*

Display	Reason
CAN ECU Warning	The engine ECU has detected a warning alarm and has informed the DSE module of this situation. The exact error is also indicated on the module's display and action taken depending upon the setting for the DM1 signals
ECU Shutdown	The engine ECU has detected a shutdown alarm and has informed the DSE module of this situation. The exact error is also indicated on the module's display.
ECU Data Fail	The module is configured for CAN operation and does not detect data on the engine CAN datalink, the engine shuts down.

DM1 Signals. Messages from the CAN ECU that are configurable within the DSE module for:-

Warning, Electrical Trip, shutdown or None

Display	Reason
Amber Warning	The CAN ECU has detected a Amber warning.
Red Shutdown	The CAN ECU has detected a Red Shutdown.
Malfunction	The CAN ECU has detected a Malfunction message.
Protect	The CAN ECU has detected a Protect message

Advanced CAN alarms Allows configuration of additional can messages from the engine ECU.

Display	Reason
Water in Fuel	The ECU has detected water in the fuel action taken is set by settings in advanced
After Treatment	The ECU has detected "After Treatment alarm" consult engine manufacturer for details" action taken by DSE controller is set by settings in advanced

Note: *For CAN ECU error code meanings, refer to the ECU documentation provided by the engine manufacturer, or contact the engine manufacturer for further assistance.*

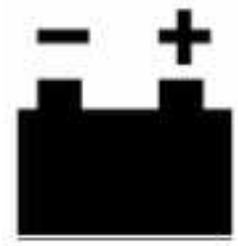
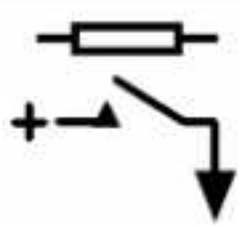
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Installation

The DSE8600 Series module is designed to be mounted on the panel fascia. For dimension and mounting details, see the section entitled Specification, Dimension and mounting elsewhere in this document.

Terminal Description

DC Supply, Fuel and Start Outputs

Icon	Pin No.	Description	Cable Size	Notes
	1	DC Plant Supply Input (Negative)	2.5mm² AWG 13	
	2	DC Plant Supply Input (Positive)	2.5mm² AWG 13	(Recommended Maximum Fuse 15A anti-surge) Supplies the module (2A anti-surge requirement) and Output relays E F,G and H
	3	Not Connected		
	4	Not Connected		
	5	Not Connected		
	6	Not Connected		

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About

Contains important information about the module and the firmware versions. This information may be asked for when contacting DSE Technical Support Department for advice.

- Module Type (i.e. 8620)
- Application Version – The version of the module's main firmware file – Updatable using the Firmware Update Wizard in the DSE Configuration Suite Software
- USB ID – unique identifier for PC USB connection
- Analogue Measurements software version
- Firmware Update Boot loader software version

Ethernet Pages

Update Network settings using DSE Configuration Suite Software+ 1 Power cycle off/on before the editor pages are updated.





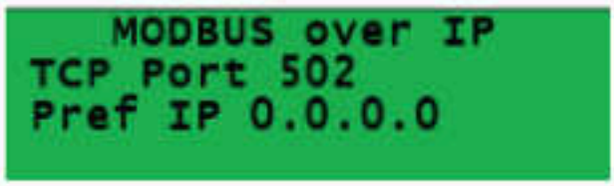






(E8.A4.C1.0.C2) = Unique setting for each module





Pages available in the "ABOUT" screen to confirm Network settings.

Data Logging Pages

The DSE data logging pages show information depending on the configuration in the module.



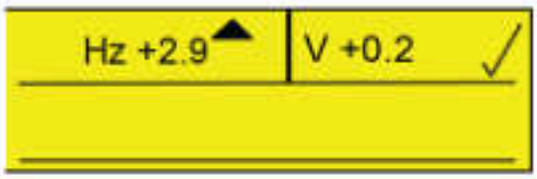
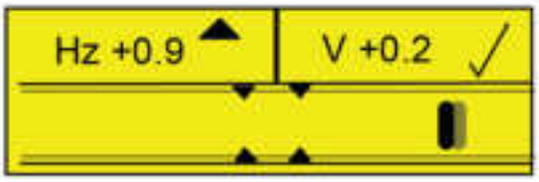
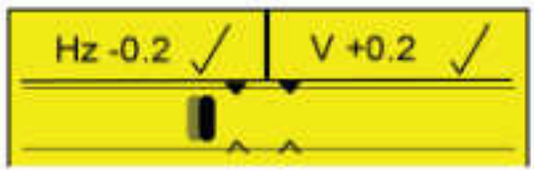
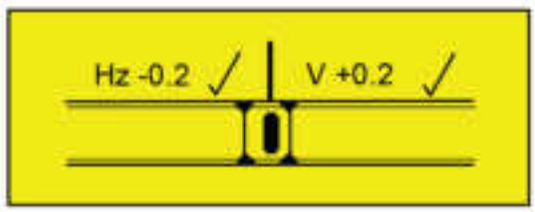
(Internal memory) - Location of stored data. Internal module memory or external USB memory.

(Logging Active) - If data logging is active or inactive

Inserting a USB drive to the host USB will display the following change to the page.

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Synchroscope Operation

	Initial stage of Synchronising display will only show the difference between the Mains Supply and the Generator Output. Here the display is showing a frequency mismatch of +2.9Hz - The genset frequency is too high (indicated by the arrow) and should be reduced. The voltage is +0.2 volts high, but is within the limits set for synchronising.
	Once the difference between the Mains and the Generator frequency has been reduced, the 'Synchroscope' display will become active. The moving bar will roll from one side to the other showing the phase of the two supplies. The area in the centre of the scope indicates the set limits for synchronising to occur.
	Synchronising will only occur when both the Frequency and the voltage differences are within acceptable limits - Indicated by 'Tick' marks on the top of the display. Then the moving bar display will show the phase difference. The engine speed will be automatically adjusted, altering the phase, until the moving bar enters the centre of the scope.
	Once the Mains and generator supplies are synchronised, the module will initiate a breaker close signal to load the generator onto the Mains. Should synchronism be broken the moving bar will pass out of the synchronising window.

Note: *If the module display is showing the status page when the synchronising process begins, the module will automatically switch to the Synchroscope page. The ramp progress will also be displayed on the screen once paralleling has taken place.*

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