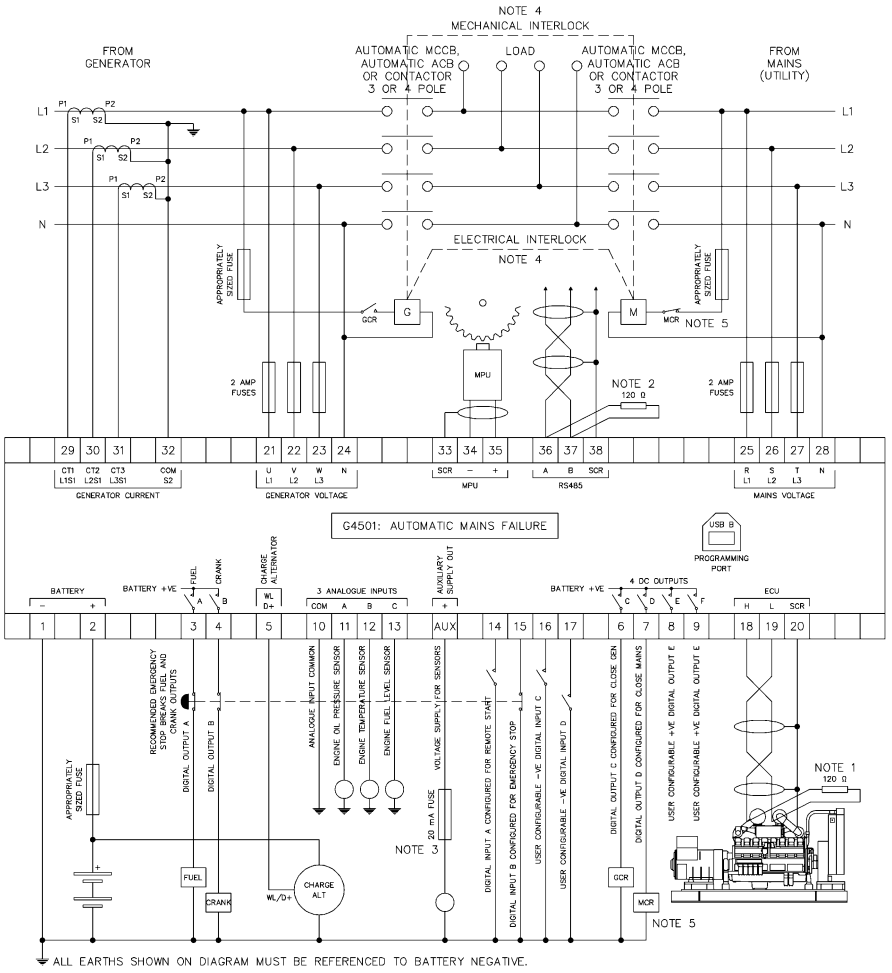
TYPICAL WIRING DIAGRAM

NOTE: Larger versions of the Typical Wiring Diagrams are available in the product's operator manual, refer to DSE Publication: *057-379 DSEG4500 & DSEG4501 Operator Manual* available from www.deepseaelectronics.com for more information.



NOTE 1: A 120 Ω TERMINATION RESISTOR MAY BE REQUIRED EXTERNALLY, REFER TO ENGINE MANUFACTURER'S LITERATURE.

NOTE 2: IF THE MODULE IS FIRST OR LAST UNIT ON THE LINK, A 120 Ω TERMINATION RESISTOR MUST BE FITTED ACROSS A AND B.

NOTE 3: FUSE AS CLOSE TO THE DSE MODULE'S TERMINAL AS POSSIBLE.

NOTE 4: IT IS RECOMMENDED THAT THE GENERATOR AND MAINS SWITCHGEAR ARE MECHANICALLY AND ELECTRICALLY INTERLOCKED.

NOTE 5: CLOSE MAINS OUTPUT SHOULD BE CONFIGURED FOR DE–ENERGISE AND DRIVE THE NORMALLY CLOSED CONTACT OF MCR.

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DEEP SEA ELECTRONICS

053-280
ISSUE 1

DSEG4500 & DSEG4501 Installation Instructions

NOTE: Depending upon module configuration, some parameters in the Main Configuration Editor may not be available. For more information refer to DSE publication *057-378 DSEG4500 & DSEG4501 Configuration Suite Software Manual* available from www.deepseaelectronics.com.

ACCESSING THE FRONT PANEL EDITOR

- Ensure the engine is at rest by pressing the ***Stop/Reset Mode*** O button.
- Press and hold the ***Stop/Reset Mode*** O (-) and ***Auto Mode*** AUTO (✔) buttons together to enter the main configuration editor.

ENTERING A PIN

NOTE: The PIN is not set by DSE when the module leaves the factory. If the code has been 'lost' or 'forgotten', the module must be returned to the DSE factory to have the PIN removed. A charge is made for this procedure. This procedure cannot be performed away from the DSE factory.

NOTE: The PIN is automatically reset when the editor is exited (manually or automatically) to ensure security.

- If a module security PIN has been set, the PIN request is then shown.
- Press the ***Auto Mode*** AUTO button (✔), the first '#' changes to '0'. Press the ***Up*** ↑ or ***Down*** ↓ buttons to adjust it to the correct value.
- Press the ***Manual/Start Mode*** I (+) buttons to move to the next digit. The digit previously entered now shows as '#' for security.
- Repeat this process for the other digits of the PIN number. Press the ***Stop/Reset Mode*** O (-) button to move back to adjust one of the previous digits.
- When the ***Auto Mode*** AUTO (✔) button is pressed after editing the final PIN digit, the PIN is checked for validity. If the number is not correct, the PIN must be re-entered.
- If the PIN has been successfully entered (or the module PIN has not been enabled), the editor is displayed.

EDITING A PARAMETER

NOTE: Pressing and holding the *Stop/Reset Mode* O (-) or *Manual/Start Mode* I (+) buttons enables an auto-repeat functionality.

- Once in the selected editor, press the ***Up*** ↑ and ***Down*** ↓ navigation buttons to cycle through various pages (General, Timers, Generator, etc.).
- Press the ***Stop/Reset Mode*** O (-) or ***Manual/Start Mode*** I (+) buttons to cycle through the editor in increments of 1.
- When viewing the parameter to be edited, press the ***Auto Mode*** AUTO (✔) button, the value begins to flash.
- Press the ***Stop/Reset Mode*** O (-) or ***Manual/Start Mode*** I (+) buttons to adjust the value to the required setting.
- Press the ***Auto Mode*** AUTO (✔) button to save the current value, the value ceases flashing.

EXITING THE FRONT PANEL EDITOR

NOTE: The editor automatically exits after 5 minutes of inactivity to ensure security.

- Press and hold the ***Stop/Reset Mode*** (O) (-) button to exit the editor without saving changes.
- Press and hold the ***Auto Mode*** (AUTO) (✔) button to exit the editor and save the changes.

FRONT PANEL EDITOR PARAMETERS

NOTE: Depending upon module configuration, some parameters in the Main and Running Editors may not be available. For a full list of parameters refer to DSE publication *057-379 DSEG4500 & DSEG4501 Operator Manual* available from www.deepseaelectronics.com

Section	Parameter As Shown On Display	Values
General	Contrast	0 (%)
	Fast Loading Enabled	On (1), Off (0)
	All Warnings Latched	On (1), Off (0)
	Lamp Test At Startup	On (1), Off (0)
	Power Save Mode Enable	On (1), Off (0)
	Deep Sleep Mode Enable	On (1), Off (0)
	Protected Start Enable	On (1), Off (0)
	Event Log Display Format	On (1), Off (0)
	Power Up Mode	0 (Power Up Mode)
	DTC String Enable	On (1), Off (0)
	Pin Protected Maintenance Reset	On (1), Off (0)
	Stop Button Cool down	On (1), Off (0)
	Backlight Inactivity Timer	On (1), Off (0)
	ECU Periodic Wake Up	On (1), Off (0)
	Limit Audible Alarm Duration	On (1), Off (0)
	English Text Mode	On (1), Off (0)
	ECU Override During Protected Start	On (1), Off (0)
Date & Time	Time of Day	hh:mm:ss
	Day of Month	1-31
	Month of Year	1-12
	Year	0-99

POWER SUPPLY REQUIREMENTS

Parameter	Specification
Minimum Supply Voltage	8 V continuous, 5 V for up to 1 minute.
Starting Dropouts	Able to survive 0 V for greater than 50 ms providing the supply was at least greater than 10 V for 5 seconds before the dropout and recovers to greater than 10 V afterwards.
Maximum Supply Voltage	35 V continuous (60 V protection)
Reverse Polarity Protection	-35 V continuous
Maximum Operating Current	200 mA at 12 V 120 mA at 24 V
Maximum Standby Current	65 mA at 12 V 35 mA at 24 V
Maximum Current When In Sleep Mode	95 mA at 12 V 55 mA at 24 V
Maximum Current When In Deep Sleep Mode	Less than 10 µA at 12 V Less than 10 µA at 24 V
Typical Power	1 W to 3 W
Typical Power (Controller On, Heater On)	No heater fitted or available

REQUIREMENTS FOR UL

Specification	Description
Screw Terminal Tightening Torque	4.5 lb-in (0.5 Nm)
Conductors	• Terminals suitable for connection of conductor size 13 AWG to 20 AWG (0.5 mm² to 2.5 mm²). • Conductor protection must be provided in accordance with NFPA 70, Article 240 • Low voltage circuits (35 V or less) must be supplied from the engine starting battery or an isolated secondary circuit. • The communication, sensor, and/or battery derived circuit conductors shall be separated and secured to maintain at least ¼" (6 mm) separation from the generator and mains connected circuit conductors unless all conductors are rated 600 V or greater. • Use min. 90 °C Copper Conductors Only.
Current Inputs	From Listed or R/C (XODW2.8) current transformers.
Communication Circuits	Must be connected to communication circuits of UL Listed equipment
Output Pilot Duty	0.5 A
Mounting	• Suitable for use in type 1 Enclosure Type rating with surrounding air temperature -22 ºF to +158 ºF (-30 ºC to +70 ºC) • Suitable for pollution degree 3 environments when voltage sensing inputs do not exceed 300 V. When used to monitor voltages over 300 V device to be installed in an unventilated or filtered ventilation enclosure to maintain a pollution degree 2 environment.
Operating Temperature	-22 ºF to +158 ºF (-30 ºC to +70 ºC)
Storage Temperature	-40 ºF to +176 ºF (-40 ºC to +80 ºC)

DIMENSIONS AND MOUNTING

Parameter	Specification
Dimensions	142 mm x 118 mm x 48 mm (5.6 " x 4.6" x 1.9 ")
Panel Cutout	118 mm x 92 mm (4.6 " x 3.6 ")
Weight	0.240 kg (0.52 lb)