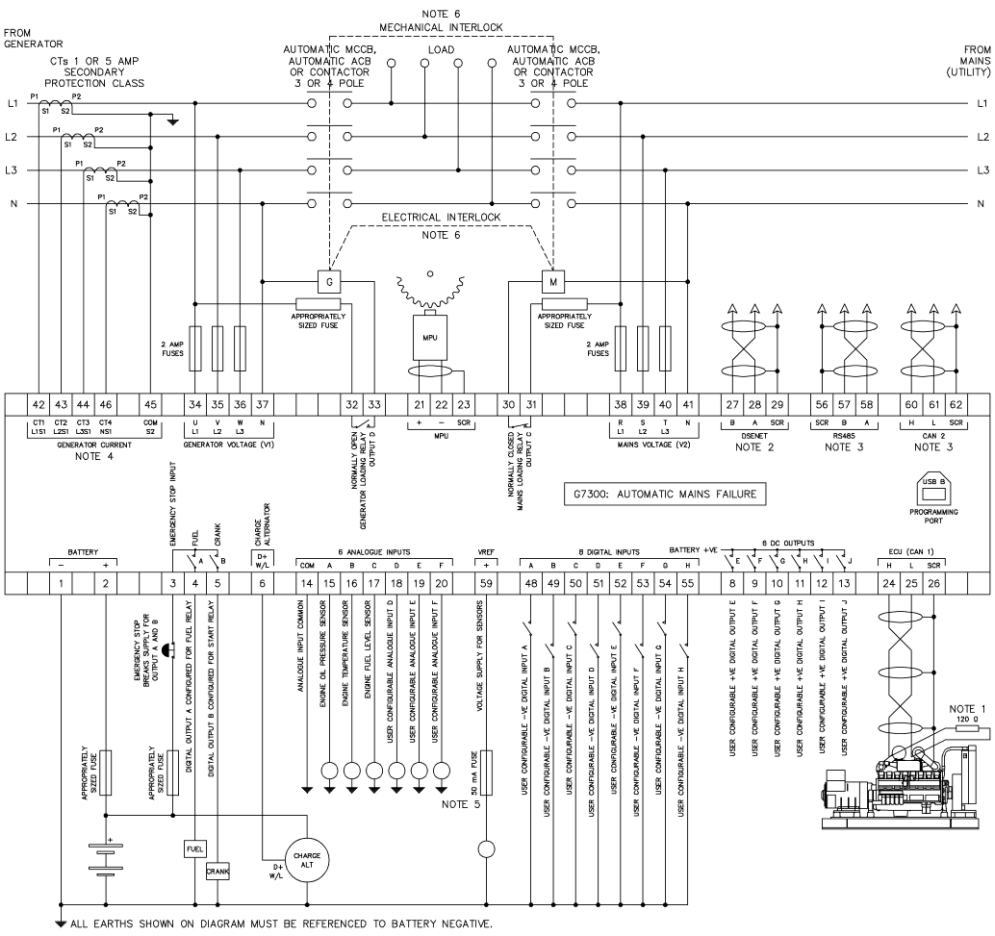
TYPICAL WIRING DIAGRAM



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

NOTE 2. MUST BE FITTED AS FIRST OR LAST UNIT ON DSENET WITH NO TERMINATION RESISTOR. THE SUBSEQUENT FIRST OR LAST UNIT ON DSENET MUST BE FITTED WITH A 120 Ω TERMINATION RESISTOR ACROSS THE A AND B TERMINALS.

NOTE 3. IF THE MODULE IS FIRST OR LAST UNIT ON THE LINK, IT MUST BE FITTED WITH A 120 Ω TERMINATION RESISTOR ACROSS THE A AND B, OR H AND L TERMINALS.

NOTE 4. WHEN THE 4TH CT IS PLACED ON THE NEUTRAL, TERMINAL 48 IS THE CT COMMON. WHEN THE 4TH IS NOT IN USE OR PLACED ON THE EARTH CONNECTION, TERMINAL 49 IS THE CT COMMON

NOTE 5: FUSE AS CLOSE TO THE DSE MODULE'S TERMINAL AS POSSIBLE.

NOTE 6: IT IS RECOMMENDED THAT THE GENERATOR AND MAINS SWITCHGEAR ARE MECHANICALLY AND ELECTRICALLY INTERLOCKED.

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DEEP SEA ELECTRONICS

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ISSUE 1

DSEG7300 Installation Instructions

NOTE: If the editor is left inactive for the duration of the *LCD Page Timer,* it is automatically exited to ensure security.

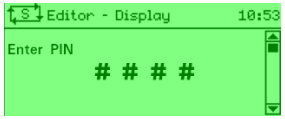
NOTE: The PIN number is automatically reset when the editor is exited (manually or automatically) to ensure security.

NOTE: Comprehensive module configuration is possible using the DSE Configuration Suite PC Software, refer to DSE publication *057-388 DSEG7300 Configuration Suite PC Software Manual* available from www.deepseaelectronics.com.

ACCESSING THE MAIN CONFIGURATION EDITOR

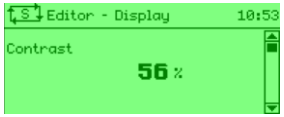
- Ensure the engine is at rest and the module is in STOP mode by pressing the (Stop/Reset) button.
- Press the (Stop/Reset) and (Tick) buttons simultaneously.

If a module security PIN has been set, the PIN number request is then shown:



- The first **'#'** changes to **'0'.** Press the (Up) or (Down) button to adjust it to the correct value.
- Press the (Right) button when the first digit is correctly entered. The digit previously entered now shows **'#'** for security.
- Repeat this process for the other digits of the PIN number. Press the (Left) button to move back to adjust one of the previous digits.
- When the (Tick) 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



- Enter the editor as described above.
- Press the (Right) or (Left) buttons to cycle to the section to view/change.
- Press the (Up) or (Down) buttons to select the parameter to view/change within the currently selected section.
- To edit the parameter, press the (Tick) button to enter edit mode. The parameter begins to flash to indicate editing.
- Press the (Up) or (Down) buttons to change the parameter to the required value.
- Press the (Tick) button to save the value. The parameter ceases flashing to indicate that it has been saved.
- To exit the editor and save the changes, press and hold the (Tick) button.
- To exit the editor and not save the changes, press and hold the (Stop/Reset) button.

MAIN CONFIGURATION EDITOR PARAMETERS

NOTE: Depending upon module configuration, some values in the *Main & Running Configuration Editors* may not be available. For a full list of parameters refer to DSE publication *057-388 DSEG7300 Configuration Suite PC Software Manual* available from www.deepseaelectronics.com.

Section	Parameter As Shown On Display	Value
Display	Contrast	0 %
	Brightness	0 %
	Language	English
	Current Date and Time	dd:mm:yyyy hh:mm:ss
	Dual Mutual Mode	Set Priority / Run Time / Engine Hours
	Dual Mutual Priority	0
	Dual Mutual Duty Time	0 h 0 m
	Platform Mode	Remote Start / Auto Mains Fail / Remote Start and Auto Mains Fail
Alt Config	Config to Edit	Main Configuration / Alt Config 1, 2, 3, 4 or 5
	Default Configuration	Main Configuration / Alt Config 1, 2, 3, 4 or 5
Engine	Oil Pressure Low Shutdown	0.00 bar 0 psi 0 kPa
	Oil Pressure Low Pre Alarm	0.00 bar 0 psi 0 kPa
	Coolant Temperature Low Warning	0 ºC 0 ºF
	Coolant Temperature High Pre Alarm	0 ºC 0 ºF
	Coolant Temperature High Electrical Trip	0 ºC 0 ºF
	Coolant Temperature High Shutdown	0 ºC 0 ºF
	Fuel Usage Alarm Running	0 %
	Fuel Usage Alarm Stopped	0 %
	Fuel Specific Gravity	0.00
	Pre Heat Temp	0 ºC 0 ºF
	Pre Heat Timer	0 h 0 m 0 s
	Post Heat Temp	0 ºC 0 ºF
	Post Heat Timer	0 h 0 m 0 s
	Droop Control Enable	Active / Inactive
	Droop Control	0.0 %
	Crank Disconnect Delay on Oil Pressure	0.0 s
	Crank Disconnect on Generator Voltage	0 V
	Under Speed Shutdown Enable	Active / Inactive
	Under Speed Shutdown	0 RPM
	Under Speed Warning Enable	Active / Inactive
	Under Speed Warning	0 RPM
	Under Speed Delay	0.0 s
	Over Speed Warning Enable	Active / Inactive
	Over Speed Warning	0 RPM
	Over Speed Shutdown	0 RPM
	Over Speed Delay	0.0 s
	Overspeed Overshoot	0 %
	Overspeed Overshoot Delay	0.0 s
	Battery Under Voltage Warning Enable	Active / Inactive
	Battery Under Voltage Warning	0 V
	Battery Under voltage Warning Delay	0 h 0 m 0 s
	Battery Over Voltage Warning Enable	Active / Inactive
	Battery Over Voltage Warning	0 V
	Battery Over Voltage Warning Delay	0 h 0 m 0 s
	Charge Alternator Failure Warning Enable	Active / Inactive
	Charge Alternator Failure Warning	0 V
	Charge Alternator Warning Delay	0 h 0 m 0 s
	Charge Alternator Failure Shutdown Enable	Active / Inactive
	Charge Alternator Failure Shutdown	0.0 V
	Charge Alternator Shutdown Delay	0 h 0 m 0 s
	Inlet Temperature Alarm	0 ºC 0 ºF
	Inlet Temperature Pre-Alarm	0 ºC 0 ºF
Generator	AC System	3 Phase, 4 Wire
	Under Voltage Shutdown	0 V
	Under Voltage Pre Alarm	0 V
	Under Voltage Delay	0.0 s
	Nominal Voltage	0 V
	Over Voltage Pre Alarm	0 V

MAIN CONFIGURATION EDITOR PARAMETERS (CONTINUED)

Section	Parameter As Shown On Display	Value
Generator	Over Voltage Shutdown	0 V
	Over Voltage Delay	0.0 s
	Under Frequency Shutdown	0.0 Hz
	Under Frequency Pre Alarm	0.0 Hz
	Under Frequency Delay	0.0 s
	Nominal Frequency	0.0 Hz
	Over Frequency Pre Alarm	0.0 Hz
	Over Frequency Shutdown	0.0 Hz
	Over Frequency Delay	0.0 s
	Frequency Overshoot	0 %
	Frequency Overshoot Delay	0 m 0.0 s
	CT Primary	0 A
	CT Secondary	0 A
	Earth CT Primary	0 A
	Full Load Rating	0 A
	Delayed Over Current Enable	Active / Inactive
	Delayed Over Current	0 %
	Earth Fault Trip	Active / Inactive
	Earth Fault Trip	0 %
	kW Overload Trip	0 %
	Phase Rotation Enable	Active / Inactive
	Phase Rotation	0

ACCESSING THE 'RUNNING' CONFIGURATION EDITOR

- The 'running' editor can be entered while the engine is running. All protections remain active if the engine is running while the running editor is entered.
- Press and hold the  (Tick) button to enter the running editor.

RUNNING CONFIGURATION EDITOR PARAMETERS

Section	Parameter As Shown On Display	Value
Display	Contrast	0%
	Brightness	0 %
	Language	English
	Pressure Units	0 kPa
	Temperature Units	0 ºC
	Volume Units	0 Litre

POWER SUPPLY REQUIREMENTS

Description	Specification
Minimum Supply Voltage	8 V continuous, 5 V for up to 1 minute.
Cranking Dropouts	Able to survive 0 V for 50 ms providing the supply was at least 10 V before the dropout and recovers to 5 V afterwards.
Maximum Supply Voltage	35 V continuous (60 V protection)
Reverse Polarity Protection	-35 V continuous
Maximum Operating Current	<620 mA at 12 V <310 mA at 24 V
Maximum Operating Current with Heater	1.4 A at 12 V 0.7 A at 24 V
Maximum Standby Current	<240 mA at 12V (not including DC and Relay Outputs) <120 mA at 24V (not including DC and Relay Outputs)
Maximum Current When In Sleep Mode	200 mA at 12 V 100 mA at 24 V
Typical Power (Module On, Heater Off)	7 W to 7.5 W
Typical Power (Module On, Heater On)	16 W to 17 W

REQUIREMENTS FOR UL CERTIFICATION

Description	Specification
Screw Terminal Tightening Torque	4.5 lb-in (0.5 Nm)
Conductors	• Terminals suitable for connection of conductor size AWG 20 to AWG 13 (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.
Current Inputs	Must be connected through UL Listed or Recognized isolating current transformers with the secondary rating of 5 A max.
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.
Maximum Operating Temperature	-22 ºF to +122 ºF (-30 ºC to +50 ºC)

DIMENSIONS AND MOUNTING

Parameter	Specification
Panel Cutout	220 mm x 160 mm (8.66 " x 6.30 ")
Overall Size	248 mm x 182.6 mm x 45.2 mm (9.8 " x 7.19 " x 1.78 ")
Case Material	Polycarbonate
Keypad Material	Silicone
Protection Category	IP65 panel mounted with integrated gasket.
Weight	0.77 kg (1.69 lb)
Mounting Type	Panel Mounting. Base mounted to a vertical surface with connection terminals to the rear.
Mounting Torque	Mounting Torque 4x 020-294 Clip M4 3 prong, mounting torque 0.2 Nm.