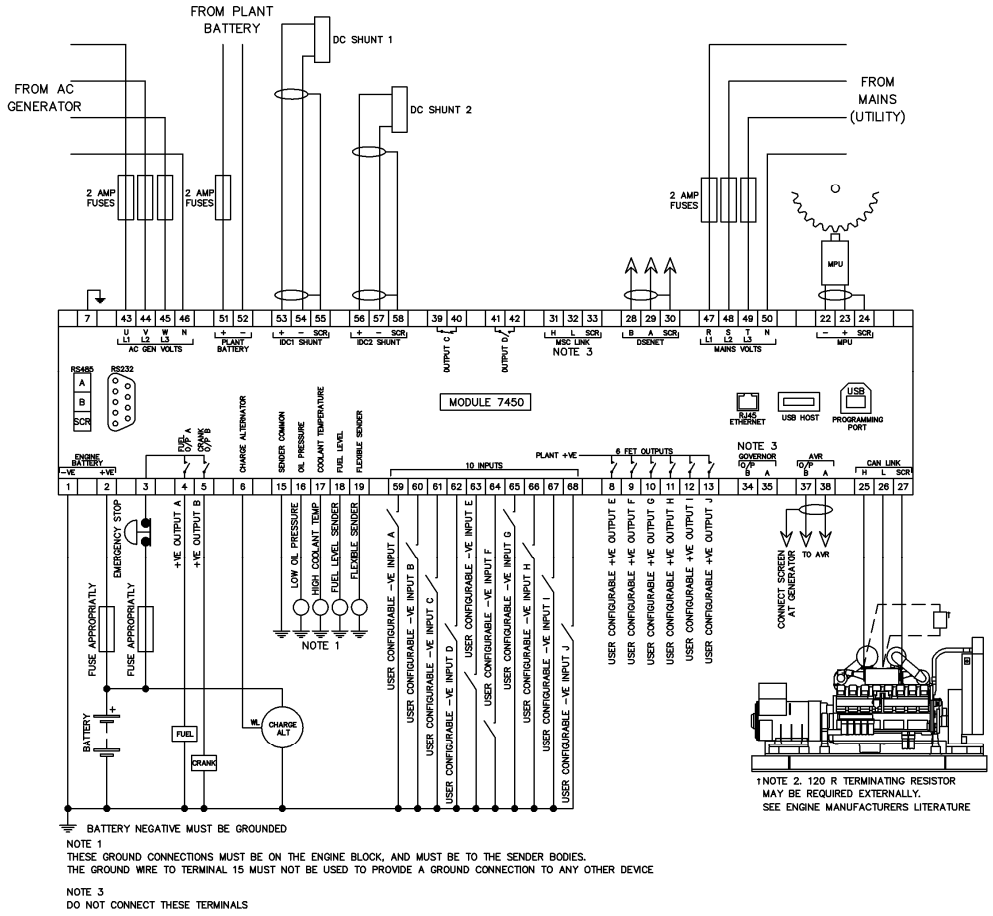
TYPICAL WIRING DIAGRAM



NOTE: Terminals 37 48 are only fitted to DSE7450 version 2 modules.

NOTE: A larger version of the Typical Wiring Diagram is available in the product's operator manual, refer to DSE Publication: *057-170 DSE7450 Operator Manual* available from www.deepseaplc.com for more information.

NOTE: Comprehensive module configuration is possible using the DSE Configuration Suite PC Software, refer to DSE publication *057-170 DSE7450 Operator Manual* available from www.deepseaplc.com for more information.

DIMENSIONS AND MOUNTING

For flat surface mounting in a Type 1 enclosure

DIMENSIONS

240 mm x 181 mm x 42 mm (9.4" x 7.1" x 1.6")

PANEL CUTOUT

220 mm x 160 mm (8.7" x 6.3")

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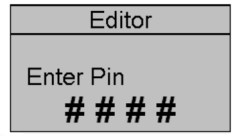
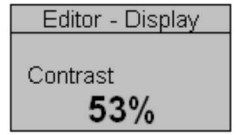
DSE7450 Installation Instructions

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:



- Press the (Tick) button, the first '#' changes to '**0**'. Press the Up (Up) or (Down) buttons 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.

NOTE: When the editor is visible, it is exited after 5 minutes of inactivity to ensure security.

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

ADJUSTABLE PARAMETERS

MAIN CONFIGURATION EDITOR

Section	Parameter as Shown on Display	Value
Display	Contrast	0 %
	Language	English, others.
	Current Date And Time	hh:mm
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 Temp High Pre-Alarm	0 ºC 0 ºF
	Coolant Temp High Electrical Trip (If Active)	0 ºC 0 ºF
	Coolant Temp High Shutdown	0 ºC 0 ºF
	Start Delay Off Load	0 h 0 m 0 s
	Start Delay On Load	0 h 0 m 0 s
	Start Delay Mains Fail	0 h 0 m 0 s
	Start Delay Telemetry	0 h 0 m 0 s
	Pre Heat Timer	0 m 0 s
	Crank Duration	0 s
	Crank Rest Time	0 m 0 s
	Safety On Delay	0 m 0 s
	Smoke Limiting	0 m 0 s
	Smoke Limiting Off	0 m 0 s
	Warm Up Time	0 h 0 m 0 s
	Cool Down Time	0 h 0 m 0 s
	Underspeed Shutdown	Active, Inactive
	Underspeed Shutdown (If Active)	0 rpm
	Underspeed Warning	Active, Inactive
	Underspeed Warning (If Active)	0 rpm
	Overspeed Warning	Active, Inactive
	Overspeed Warning (If Active)	0 rpm
	Overspeed Shutdown	0 rpm
	Speed Overshoot Delay	0 s
	Speed Overshoot	0%
	Fail To Stop Delay	0 m 0 s
	Battery Under Volts Warning	Active, Inactive
	Battery Under Volts Warning Delay (If Active)	0 h 0 m 0 s
	Battery Under Volts Warning (If Active)	0 V
	Battery Over Volts Warning	Active, Inactive
	Battery Over Volts Warning Delay (If Active)	0 h 0 m 0 s
	Battery Over Volts Warning (If Active)	0 V
	Charge Alternator Failure Warning	Active, Inactive
	Charge Alternator Failure Warning (If Active)	0 V
	Charge Alternator Warning Delay (If Active)	0 h 0 m 0 s
	Charge Alternator Failure Shutdown	Active, Inactive
	Charge Alternator Failure Shutdown (If Active)	0 V
	Charge Alternator Shutdown Delay (If Active)	0 s
Generator	AVR Tgt	0.00 V
	Under Voltage Shutdown	0 V
	Under Voltage Pre-Alarm	0 V
	Nominal Voltage	0 V
	Over Voltage Pre-Alarm	0 V
	Over Voltage Shutdown	0 V
	Under Frequency Shutdown	0Hz
	Under Frequency Pre-Alarm	0Hz
	Nominal Frequency	0Hz
	Over Frequency Pre-Alarm	0Hz
	Over Frequency Shutdown	0Hz
	AC System	3 Phase 4 Wire
	Transient Delay	0 s
Mains	Under Voltage Trip	0 V
	Over Voltage Trip	0 V
	Under Frequency Trip	0Hz
	Over Frequency Trip	0Hz
	Transient Delay	0 s
Timers	LCD Page Timer	0 h 0 m 0 s
	Scroll Delay	0 h 0 m 0 s
	Engine Pre Heat Timer	0m 0s
	Engine Crank Duration	0 s
	Engine Crank Rest Time	0 s
	Engine Safety On Delay	0 s
	Engine Smoke Limiting	0 s
	Engine Smoke Limiting Off	0 s

MAIN CONFIGURATION EDITOR (CONTINUED)

Section	Parameter as Shown on Display	Value
Timers Continued	Engine Warm Up Time	0 s
	Engine Cool Down Time	0 m
	Engine Speed Overshoot Delay	0 s
	Engine Failed To Stop Delay	0 s
	Battery Under Voltage Warning Delay	0 m
	Battery Over Voltage Warning Delay	0 m
	Return Delay	0 s
	Generator Transient Delay	0 s
	Mains Transient Delay	0 s
Scheduler	Schedule	Active, Inactive
	Schedule On Load (If Active)	Active, Inactive
	Schedule Period Weekly (If Active)	Weekly, Monthly
	On Load (Weekly Selected) (1-16 Schedule Events Available)	Start Time hh:mm Run Time hh:mm M T W T F S S
	On Load (Monthly Selected) (1-16 Schedule Events Available)	Week 1,2,3,4 Start Time hh:mm Run Time hh:mm M T W T F S S
Battery Spec	Battery Capacity	0 Ah
	Battery Charge Rate	0 h
	Depth Of Discharge	0 %
	Full Charge Level	0 %
	Floating Min Voltage	0.0 V
	Peukert's Constant	1.00
	Plant Battery Low Temperature Shutdown	Active, Inactive
	Plant Battery Low Temperature Shutdown	0 ºC 0 ºF
	Plant Battery Low Temperature Warning	Active, Inactive
	Plant Battery Low Temperature Warning (If Active)	0 ºC 0 ºF
	Plant Battery Low Temperature Warning Return (If Active)	0 ºC 0 ºF
	Plant Battery High Temperature Warning	Active, Inactive
	Plant Battery High Temperature Warning Return (If Active)	0 ºC 0 ºF
	Plant Battery High Temperature Warning (If Active)	0 ºC 0 ºF
	Plant Battery High Temperature Shutdown (If Active)	0 ºC 0 ºF
	Depth Of Discharge Warning	Active, Inactive
	Depth Of Discharge Warning	0 %
	Depth Of Discharge Warning Return	0 %
	Depth Of Discharge Warning Delay	0 h 0 m 0 s
	Depth Of Discharge Shutdown	Active, Inactive
	Depth Of Discharge Shutdown (If Active)	0 %
	Depth Of Discharge Shutdown Delay (If Active)	0 h 0 m 0 s
	Float Charge Timer	0 h 0 m 0 s
DC	DC Low Voltage Shutdown	Active, Inactive
	DC Low Voltage Shutdown (If Active)	0.0 V
	DC Low Voltage Shutdown Delay (If Active)	0 h 0 m 0 s
	DC Low Voltage Warning	Active, Inactive
	DC Low Voltage Warning (If Active)	0.0v
	DC Low Voltage Warning Return (If Active)	0.0V
	DC Low Voltage Warning Delay (If Active)	0 h 0 m 0 s
	DC High Voltage Warning	Active, Inactive
	DC High Voltage Warning Return (If Active)	0.0 V
	DC High Voltage Warning (If Active)	0.0 V
	DC High Voltage Warning Delay (If Active)	0 h 0 m 0 s
	DC High Voltage Shutdown (If Active)	0.0 V
	DC High Voltage Shutdown Delay (If Active)	0 h 0 m 0 s
	Delayed Over Current	Active, Inactive
	Delayed Over Current (If Active)	0A
	DC Battery Current Trip	Active, Inactive
	DC Battery Current Trip (If Active)	0 A
	Load Current Trip	Active, Inactive
	Load Current Trip	0 A
	Short Circuit Trip	Active, Inactive
	Short Circuit Trip	0 A
	kW Overload Trip Warning	Active, Inactive
	kW Overload Trip Warning	0 %
	kW Overload Trip Warning Return	0 %
	kW Overload Trip Warning Delay	0 h 0 m 0 s
	kW Overload Trip Shutdown	Active, Inactive

MAIN CONFIGURATION EDITOR (CONTINUED)

Section	Parameter as Shown on Display	Value
DC Continued	kW Overload Trip Shutdown	0 %
	kW Overload Trip Shutdown Delay	0 h 0 m 0 s
	DC Shunt 1 Location (Setting Unavailable If Used In DC Shunt 2)	Battery, Charge, Load
	DC Shunt 1 Voltage	0 V
	DC Shunt 1 Amps	0 A
	DC Shunt 2 Location (Setting Unavailable If Used In DC Shunt 1)	Battery, Charge, Load
	DC Shunt 2 Voltage	0 V
	DC Shunt 2 Amps	0 A

ACCESSING THE 'RUNNING' 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.

ADJUSTABLE PARAMETERS

RUNNING EDITOR

Section	Parameter as Shown on Display	Value
Display	Contrast	0 %
	Language	English
Generator	AVR Tgt	0.00 V

REQUIREMENTS FOR UL CERTIFICATION

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.
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
Mounting	• Suitable for use in type 1 Enclosure Type • 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 install in an unventilated or filtered ventilation enclosure to maintain a pollution degree 2 environment.
Operating Temperature	• -22 ºF to +122 ºF (-30 ºC to +50 ºC) (Non UL certification, max temperature is +70 ºC (+158 ºF))
Storage Temperature	• -40 ºF to +176 ºF (-40 ºC to +80 ºC)