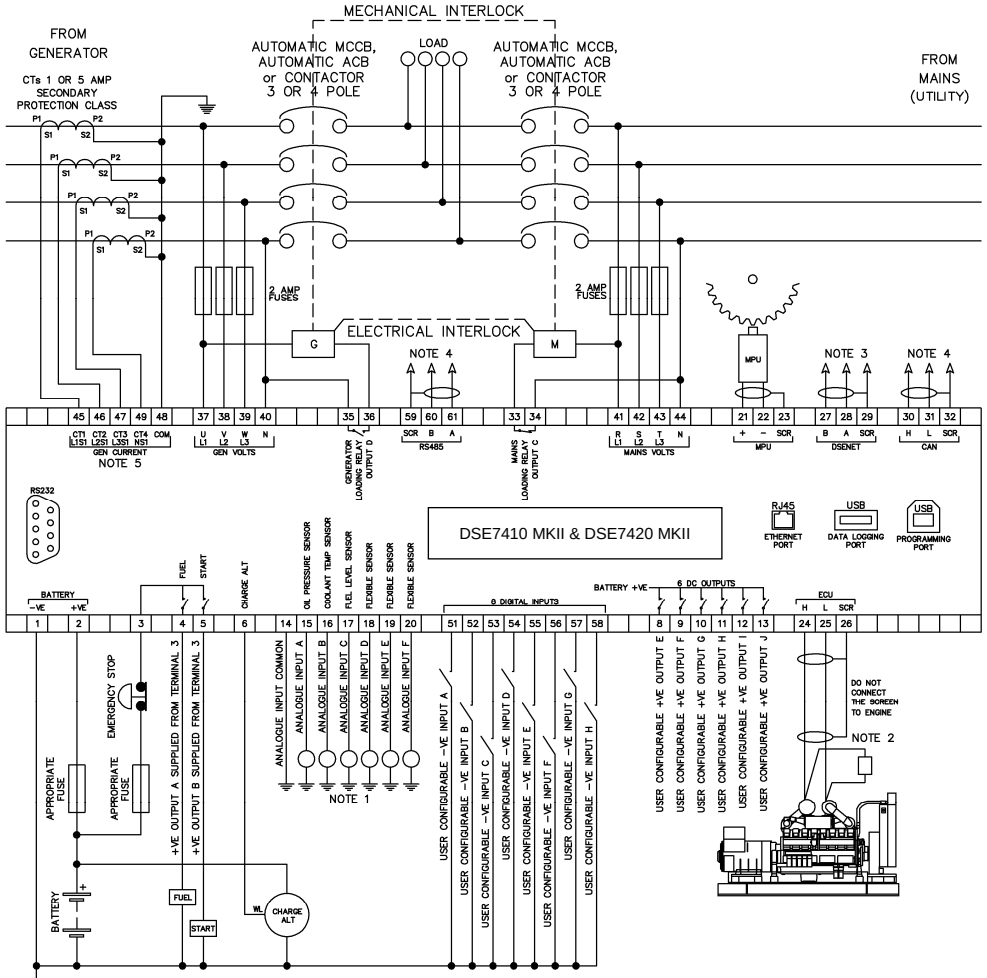
TYPICAL WIRING DIAGRAM



BATTERY NEGATIVE MUST BE GROUNDED

NOTE 1. THESE GROUND CONNECTIONS MUST BE ON THE ENGINE BLOCK, AND MUST BE TO THE SENSOR BODIES.

NOTE 2. A 120 OHM TERMINATING RESISTOR MAY BE REQUIRED EXTERNALLY, SEE ENGINE MANUFACTURERS LITERATURE.

NOTE 3. MUST BE FITTED AS FIRST OR LAST UNIT ON THE DSENET LINK WITH NO EXTERNAL TERMINATION RESISTOR. THE SUBSEQUENT FIRST OR LAST UNIT ON DSENET MUST BE FITTED WITH A 120 OHM TERMINATION RESISTOR ACROSS TERMINALS A AND B.

NOTE 4. IF THE MODULE IS FIRST OR LAST UNIT ON THE LINK IT MUST BE FITTED WITH AN EXTERNAL 120 OHM TERMINATION RESISTOR ACROSS TERMINALS A AND B OR H AND L.

NOTE 5. 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: Terminals 41, 42, 43 & 44 are not fitted to the DSE7410 MKII.

NOTE: A larger version of the Typical Wiring Diagram is available in the product's operator manual, refer to DSE Publication: *057-263 DSE7410 MKII & DSE7420 MKII Operator Manual* available from www.deepseaplc.com for more information.

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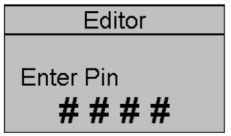
DEEP SEA ELECTRONICS

053-191
ISSUE 1

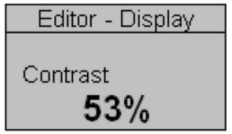
DSE7410 MKII & DSE7420 MKII Installation Instructions

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:



- 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.

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 *057-262 DSE7410 MKII & DSE7420 MKII Configuraiton Suite PC Software Manual* available from www.deepseaplc.com.

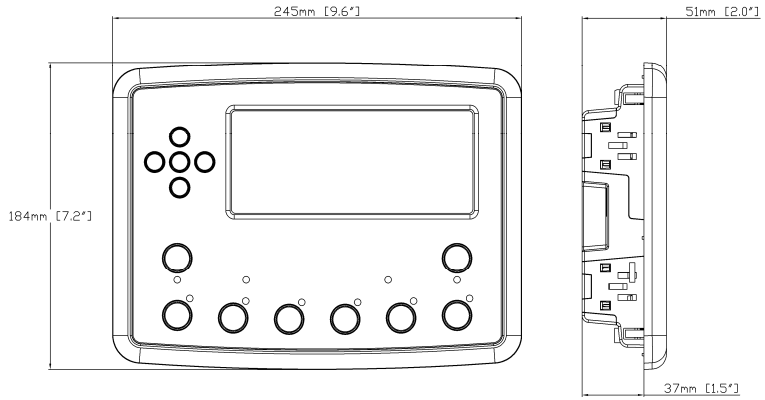
MAIN CONFIGURATION EDITOR PARAMETERS

NOTE: Depending upon module configuration, some values in the *Main & Running Configuration Editors* may not be available. For more information refer to DSE publication *057-262 DSE7410 MKII & DSE7420 MKII Configuraiton Suite PC Software Manual* available from www.deepseaplc.com

Section	Parameter As Shown On Display	Value
Display	Contrast	0 %
	Language	English
	LCD Page Timer	0 h 0 m 0 s
	Auto Scroll Delay	0 h 0 m 0 s
	Current Date and Time	Month, Year, hh:mm
	Dual Mutual Mode	Engine Hours / Dual Mutual Hours / Priority
	Dual Mutual Priority	0
	Dual Mutual Duty Time	0 h 0 m
Editor	Alt Config	Default Config
Engine	Oil Pressure Low Shutdown	0.00 bar
	Oil Pressure Low Pre Alarm	0.00 bar
	Coolant Temperature High Pre Alarm	0 ºC
	Coolant Temperature High Electrical Trip	0 ºC
	Coolant Temperature High Shutdown	0 ºC
	Fuel Usage Alarm (Running Rate)	0 %
	Fuel Usage Alarm (Stopped Rate)	0 %
	Pre Heat Temperature	0 ºC
	Pre Heat Timer	0 h 0 m 0 s
	Post Heat Timer	0 h 0 m 0 s
	Post Heat Temperature	0 ºC
	Droop Control	Active / Inactive
	Droop Control	0 %
	Engine Under Speed Shutdown	Active / Inactive
	Engine Under Speed Shutdown	0 RPM
	Engine Under Speed Warning	Active / Inactive
	Engine Under Speed Warning	0 RPM
	Engine Under Speed Delay	0.0 s
	Engine Over Speed Warning	Active / Inactive
	Engine Over Speed Warning	0 RPM
	Engine Over Speed Shutdown	0 RPM
	Engine Over Speed Delay	0.0 s
	Engine Speed Overshoot	0 %
	Engine Speed Overshoot Delay	0.0 s
	Battery Under Voltage Warning	Active / Inactive
	Battery Under Voltage Warning	0 V
	Battery Under voltage Warning Delay	0 h 0 m 0 s
	Battery Over Voltage Warning	Active / Inactive
	Battery Over Voltage Warning	0 V
	Battery Over Voltage Warning Delay	0 h 0 m 0 s
	Charge Alternator Failure Warning	Active / Inactive
	Charge Alternator Failure Warning	0 V
	Charge Alternator Warning Delay	0 h 0 m 0 s
	Charge Alternator Failure Shutdown	Active / Inactive
	Charge Alternator Failure Shutdown	0.0 V
	Charge Alternator Shutdown Delay	0 h 0 m 0 s
Generator	AC System	3 Phase, 4 Wire
	Generator Under Voltage Shutdown	0 V
	Generator Under Voltage Pre Alarm	0 V
	Generator Under Voltage Delay	0.0 s
	Generator Nominal Voltage	0 V
	Generator Over Voltage Pre Alarm	0 V
	Generator Over Voltage Shutdown	0 V
	Generator Over Voltage Delay	0.0 s
	Generator Under Frequency Shutdown	0.0 Hz
	Generator Under Frequency Pre Alarm	0.0 Hz
	Generator Under Frequency Delay	0.0 s
	Generator Nominal Frequency	0.0 Hz
	Generator Over Frequency Pre Alarm	0.0 Hz
	Generator Over Frequency Shutdown	0.0 Hz
	Generator Under Frequency Delay	0.0 s
	Generator Over Frequency Overshoot	0 %

MAIN CONFIGURATION EDITOR PARAMETERS (CONTINUED)

Section	Parameter As Shown On Display	Value
Generator (Continued)	Generator Over Frequency Overshoot Delay	0.0 s
	Generator CT Primary Current	0 A
	Generator Secondary Current	1 A / 5 A
	Generator CT Primary Earth Current	0 A
	Full Load Rating	0 A
	Delayed Over Current	Active / Inactive
	Delayed Over Current	0%
	Generator Earth Fault Trip	Active / Inactive
	Generator Earth Fault Trip	0 %
	kW Overload Trip	0 %
Mains DSE7420 MKII Only	Mains Under Voltage Trip	0 V
	Mains Over Voltage Trip	0 V
	Mains Under Frequency Trip	0.0 Hz
	Mains Over Frequency Trip	0.0 Hz
Timers	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
	Mains Transient Delay	0 m 0 s
	Crank Duration Timer	0 m 0 s
	Crank Rest Timer	0 m 0 s
	Smoke Limiting	0 m 0 s
	Smoke Limiting Off	0 m 0 s
	Safety On Delay	0 m 0 s
	Warm Up Timer	0 h 0 m 0 s
	Transfer Time	0m 0.0s
	Return Delay	0 h 0 m 0 s
	Cool Down Timer	0 h 0 m 0 s
	Fail To Stop Delay	0 m 0 s
	LCD Page Timer	0 h 0 m 0 s
	Auto Scroll Delay	0 h 0 m 0 s
	Sleep Timer	0 h 0 m 0 s
	Backlight Power Save	0 h 0 m 0 s
Schedule	Schedule	Active / Inactive
	Schedule Bank 1 Period	Weekly / Monthly,
	On Load / Off Load / Auto Start Inhibit, Week, Start Time, Run Time and Day Selection (1-8)	Press ✓ to begin editing then up or down when selecting the different parameters in the scheduler.
	Schedule Bank 2 Period	Weekly / Monthly,
	On Load / Off Load / Auto Start Inhibit, Week, Start Time, Run Time and Day Selection (1-8)	Press ✓ to begin editing then up or down when selecting the different parameters in the scheduler.



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.

EDITING A PARAMETER

- 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.

RUNNING CONFIGURATION EDITOR PARAMETERS

Section	Parameter As Shown On Display	Values
Display	Contrast	0%
	Language	English
	Dual Mutual Priority	0
Engine	Speed Adjust	0 %
	Speed Bias	0 %
	Governor Gain	0
	Frequency Adjust	0 %
	DPF Regeneration Inhibit	Active / Inactive
	DPTC Manual Regeneration Request	Active / Inactive

DIMENSIONS AND MOUNTING

For flat surface mounting in a Type 1 enclosure to meet UL requirements

DIMENSIONS

245 mm x 184 mm x 51 mm
(9.6" x 7.2" x 2.0")

PANEL CUTOUT

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

WEIGHT

0.98 kg
(2.16 lb)