

**DEEP SEA ELECTRONICS LTD**

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## Product Change Notification: DSE4520 MKII

Part No's: 4520-05



Related Products	Description	Part Number
Module Gasket	Rubber Gasket Seal for Module Front Panel	020-282
DSE890	DSEWebNet® Gateway 4G/Ethernet	0890-04
DSE855	USB to Ethernet Communications Device	0855-01
DSE857	USB to RS485 Communications Device	0857-01

### New Features

<b>Release Date: 17/01/24 - v 4.10</b>	
<b>Added Feature</b>	<b>Feature Explanation</b>
Exhaust temperature configurable cooldown timer	If exhaust temperature is above a pre-defined level when the engine is requested to stop, the original cool down period can be extended by up to 1 hour to provide additional cooling time.
2 additional timers to show in engine section	Provides extra instrumentation if supported by engine file for low level inducement (LLI) and severe level inducement (SLI). Values are taken directly from the ECU.
ECU override during protected start.	ECU wakes up after first manual start button press and displays engine instrumentation on the module.
<b>Release Date: 14.11.22 - v 4.9.2</b>	
<b>Added Feature</b>	<b>Feature Explanation</b>
Load unbalance alarm.	Provides the option for an alarm indication under load unbalance condition.
<b>Release Date: 22.04.21 - v 4.8</b>	
<b>Added Feature</b>	<b>Feature Explanation</b>
Support for engage attempts for CAN engines.	Electronic engine support for engage attempts was not previously a feature. Selected electronic engine support has been added for enhanced flexibility.
<b>Release Date: 21.12.20 - v 4.7</b>	
<b>Added Feature</b>	<b>Feature Explanation</b>
Low level pre-alarm and high level pre-alarm can be set to indication.	Provides the ability to drive an output from the module without generating an actual alarm condition.
<b>Release Date: 17.09.20 - v 4.6</b>	
<b>Added Feature</b>	<b>Feature Explanation</b>
Charge-alternator excitation is now only enabled once the engine is running.	Improvements to the charge alternator circuit.
Module can now enter sleep mode when in an existing alarm condition.	Improvements to the sleep mode functionality.



## New Features

Release Date: 22.05.20 - v 4.5	
Added Feature	Feature Explanation
5 V Output	A single digital output (F) is now configurable as a 5 V output to power senders. User configurable within DSE Configuration Suite software (4520-07).
Text Mode	Provides the option to change the module from the default icon based display to a text based display. This is configured within DSE Configuration Suite software (4510-05 / 4510-06 / 4520-05 / 4520-06).
Enhanced Sender Range	Resistive and temperature ranges have been modified to accommodate a wider range of senders and temperatures. (4510-05 / 4510-06 / 4520-05 / 4520-06).
Increased Flexibility	Fuel and crank outputs have been changed from dedicated outputs to configurable outputs allowing use for additional functionality if required. Ideally suited to applications that have independent start functions (4510-05 / 4510-06 / 4520-05 / 4520-06).
Improved Engine Maintenance Through Coolant Temperature	Enhancements have been made to the coolant temperature monitoring to include a pre-alarm for advanced warning, helping to avoid potential engine problems. Settings are configurable within DSE Configuration Suite software (4510-05 / 4510-06 / 4520-05 / 4520-06).
Release Date: 30.04.19 - v 4.1.2	
Added Feature	Feature Explanation
Internal release.	Enhancements for internal testing.
Release Date: 30.06.18 - v 3.0.23	
Added Feature	Feature Explanation
0 V to 10 V sender option	Provides a 0 V to 10 V sender option (Hardware dependent).
Configurable CAN	Allows the module to communicate with third party CAN instruments.
Pre/post heat functionality	Adds the ability to configure the pre and post heat engine settings. Speeds up engine starting if already warm.
Overload protection	Adds the ability to stop the engine if there is an overload status that exceeds a pre-set timer.
Mains/generator A/C system selection	Allows 3-phase generators to work with single-phase mains power supplies.
Output timer for external audible alarm	Adds the ability to set the time an external audible alarm remains active. Can be set between 0 seconds and 3 minutes.
Release Date: 31.08.17 v 2.0.5	
Added Feature	Feature Explanation
Fuel solenoid pull-in circuit	Becomes active at the point the standard fuel output becomes active to pull the fuel solenoid in place whilst the engine starts. Can be configured to remain active for a maximum of 5 seconds.
On-screen line diagram on/off functionality	Adds the ability to hide the single line mimic that appears at the bottom of the display.
Configurable CAN instrumentation (10)	Adds additional flexibility into the control module by allowing the user to configure up to 10 CAN instrumentation values.
Water in fuel digital input	Triggers an alarm condition if water is detected in the fuel tank.
Fuel tank bund alarm digital input	Triggers an alarm condition if fuel is present in the overflow fuel tank.
Generator at rest output	Indicates when the generator is not running.
ECU periodic wake-up for information retrieval	Adds the ability to set pre-defined time periods to wake up the ECU to retrieve engine data.
Back-light power-save mode	Adds the ability to turn off the display screen after a pre-defined period of no activity.
Adjustable delay crank timer	Adds the ability to set the time delay between the fuel solenoid and start solenoid energising.

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## New Features

### Current Module Software Version

Version	Date	Comments
V 4.10	17.01.24	Software upgraded to provide functionality for features added above.
V 4.9.2	14.11.22	Software upgraded to provide functionality for features added above.
V 4.8	22.04.21	Software upgraded to provide functionality for features added above.
V 4.7	21.12.20	Software upgraded to provide functionality for features added above.
V 4.6	17.09.20	Software upgraded to provide functionality for features added above.
V 4.5	22.05.20	Software upgraded to provide functionality for features added above.
V 4.1.2	30.04.19	Software upgraded to provide functionality for features added above.
V 3.0.23	30.06.18	Software upgraded to provide functionality for features added above.
V 2.0.5	31.08.17	Software upgraded to provide functionality for features added above.