

DEEP SEA ELECTRONIC DSE-8680 Synchronising Generator Bus Tie Module Instruction Manual

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ISSUE 1



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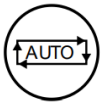
DEEP SEA ELECTRONICS

DSEG8680 Installation Instructions

This document details the installation and operation requirements of the DSEG8680 module and is part of the DSEgenset® range of products.

The DSE8680 module is a bus tie controller designed to control a Bus Tie. A bus tie controller separates two halves of a generator common bus. The DSE8680 manages the synchronising and check synch and automatically controls the DSE AMSC (Advanced Multi Set Communications) Link when opening/closing the bus tie.

CONTROL BUTTONS

Icon	Description
	Auto Button In the G8680 the auto button is used to select Auto Mode.
	Alarm Mute / Lamp Test This button silences the audible alarm in the controller, de-activates the Audible Alarm output (if configured) and illuminates all of the LEDs on the module's fascia as a lamp test function.
	Open Close Bus Breaker There are two controller buttons (left and right) which provide various control options for the breaker: This button opens and closes the breaker.
	Manual This mode allows manual control of the functions. Once in Manual mode the module will respond to the breaker button  , toggling the bus breaker.
	Reset Resets any alarms that have been detected by the controller.
	Menu Navigation Used for navigating the instrumentation, event log and configuration screens.

ACCESSING THE 'RUNNING' CONFIGURATION EDITOR



NOTE: Depending upon module configuration, some parameters in the 'Running' Editor may not be available. For more information refer to DSE publication 057-326 DSEG8680 Configuration Suite PC Software Manual available from www.deepseaelectronics.com

RUNNING' CONFIGURATION EDITOR PARAMETERS

Section	Parameter As Shown On Display	Values
Display Settings	Contrast	0-100 %
	Language	English, Other
	Commissioning Screens	Active, Inactive

Editor

EDITING A PARAMETER

- Press and hold the **Tick**  button for 5 seconds to access the editor.
- Press the **Scroll**  buttons to select parameter.
- Press the **Tick**  button to adjust the value (flashing) using the **.Scroll**  buttons
- Press the **Tick**  button save the changes.

ACTIVATING THE COMMISSIONING SCREENS

Editor Display

Commissioning Screens Active

- Press the **Scroll**  buttons to select commisioning screens parameter.
- Press the **Tick**  button to adjust the value (flashing) using the **.Scroll**  buttons
- Press the **Tick**  button save the changes.

EXITING THE RUNNING CONFIGURATION EDITOR

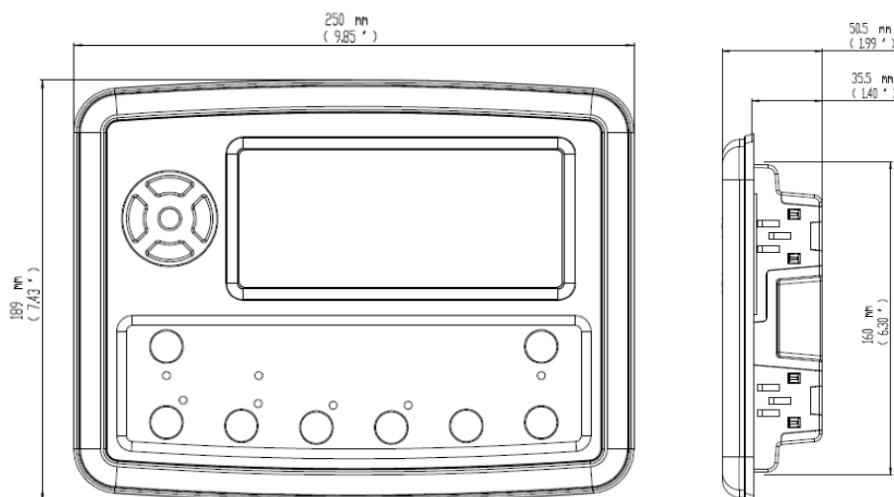


NOTE: The editor automatically exits after 5 minutes of inactivity to ensure security.

- Press and hold the **Tick**  button for 5 seconds to exit the editor and save the changes.

DIMENSIONS AND MOUNTING

Parameter	Specification
Dimensions	250 mm x 189 mm x 50.5 mm (9.85 " x 7.43 " x 1.99 ")
Panel Cutout	220 mm X 160 mm (8.7" X 6.3")
Weight	0.76 kg (1.67 lb)
Operating Temperature with Standard Display	-30 °C to +70 °C (-22 °F to +158 °F)
Operating Temperature with Heated Display	-40 °C to +70 °C (-40 °F to +158 °F)
Storage Temperature	-40 °C to +80 °C (-40 °F to +176 °F)



FIXING CLIPS



NOTE: In conditions of excessive vibration, mount the control panel on suitable anti-vibration mountings

The module is held into the control panel fascia using the supplied fixing clips.

- Withdraw the fixing clip screw (turn anticlockwise) until only the pointed end is protruding from the clip.
- Insert the three 'prongs' of the fixing clip into the slots in the side of the DSE module's case.
- Pull the fixing clip backwards (towards the back of the module) ensuring all three prongs of the clip are inside their allotted slots.
- Turn the fixing clip screws clockwise until they make contact with the panel fascia.
- Turn the screws a quarter of a turn to secure the module into the control panel's fascia. Care must be taken not to over tighten the fixing clip screws.

REQUIREMENTS FOR UL CERTIFICATION



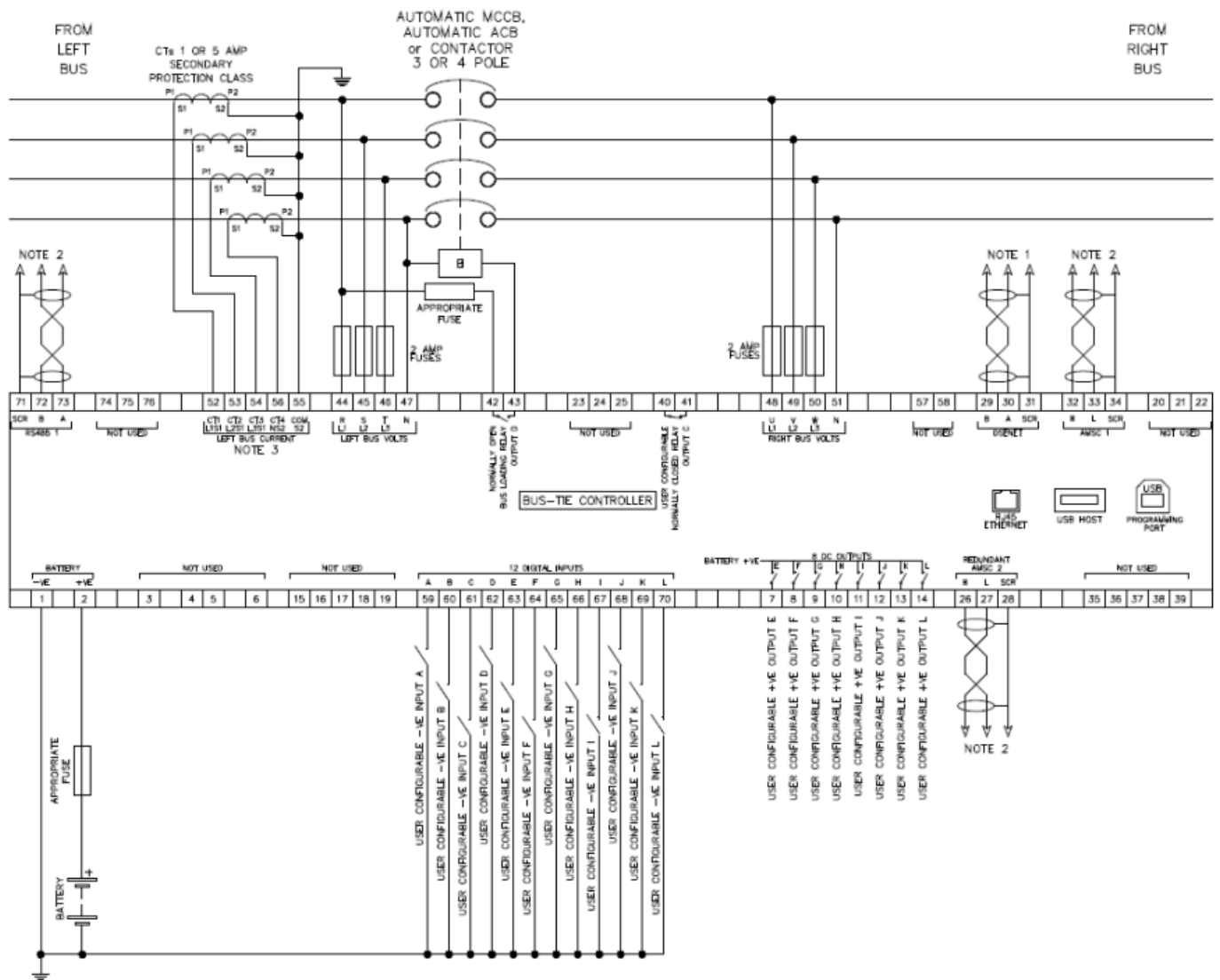
WARNING!: More than one live circuit exists, see diagram overleaf for further information.

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 (USA) • 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 1/4" (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 (if working to UL requirements) 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 (if working to UL requirements).
DC Output Pilot Duty	• 0.5 A
Mounting	• Suitable for flat surface mounting in Type 1 Enclosure Type rating with surrounding air temperature -22 °F to +122 °F (-30 °C to +50 °C) • 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	• 122 °F (50 °C)

TYPICAL WIRING DIAGRAM



NOTE: Typical Wiring Diagrams are available in the product's operator manual, refer to DSE Publication: 057-327 DSE8660 Operator Manual available from www.deepseaelectronics.com for more information.



BATTERY NEGATIVE MUST BE GROUNDED

NOTE 1. 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 OHM TERMINATION RESISTOR TERMINALS A AND B.

NOTE 2. IF THE MODULE IS FIRST OR LAST UNIT ON THE LINK. IT MUST BE FITTED WITH A 120 OHM TERMINATION RESISTOR ACROSS TERMINALS H AND L.

NOTE 3. WHEN THE 4TH CT IS PLACED ON THE NEUTRAL. TERMINAL 56 IS THE CT COMMON. WHEN THE 4TH IS NOT IN USE OR PLACED ON THE EARTH CONNECTION, TERMINAL 56 IS THE CT COMMON

Deep Sea Electronics Ltd.

Tel: +44 (0)1723 890099

Email: support@deepseaelectronics.com

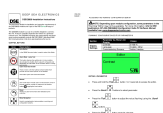
Web: www.deepseaelectronics.com

Deep Sea Electronics Inc.

Tel: +1 (815) 316 8706

Email: usasupport@deepseaelectronics.com

Web: www.deepseaelectronics.com

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References

-  [Deep Sea Electronics](#)
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