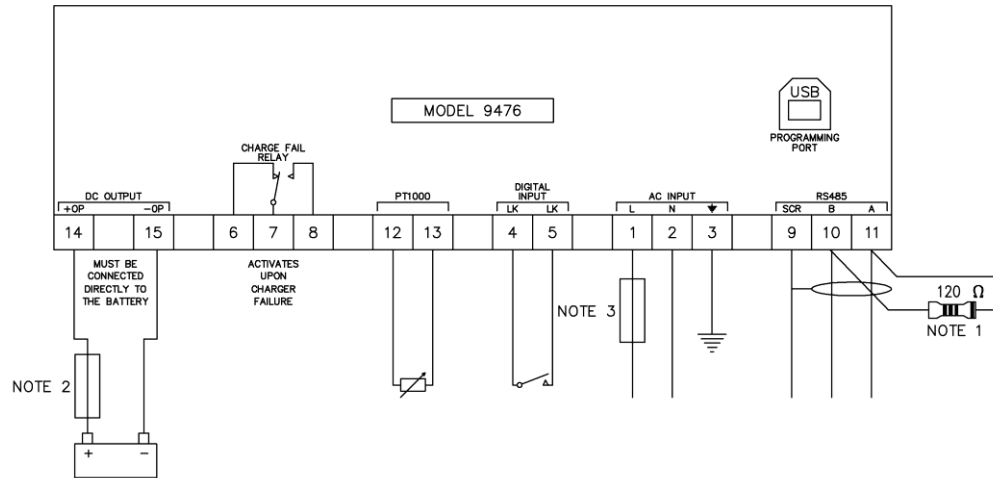


## TYPICAL WIRING DIAGRAM

**NOTE:** A larger version of the Typical Wiring Diagram is available in the product's operator manual, refer to DSE Publication: *057-282 DSE 9476 Operator Manual* available from [www.deepseaelectronics.com](http://www.deepseaelectronics.com) for more information.



- NOTE 1  
A 120 OHM TERMINATION RESISTOR MUST BE FITTED IF IT IS THE FIRST OR LAST DEVICE ON AN RS485 LINK
- NOTE 2  
FUSE APPROPRIATELY AND AS CLOSE TO THE BATTERY AS POSSIBLE TO PROTECT THE CABLES AND BATTERY
- NOTE 3  
FUSE APPROPRIATELY AND AS CLOSE TO THE BATTERY CHARGER AS POSSIBLE TO PROTECT THE CABLES AND BATTERY

**DANGER OF DEATH: LIVE PARTS** exist within the enclosure. The enclosure cover must not be removed when connected to an AC supply



DEEP SEA ELECTRONICS

DSE9476 Installation Instructions

053-235  
ISSUE 2

## INSTALLATION

The DSE9476 is a 24 V, 20 A battery charger which is designed to be mounted within a control panel, utilising the integral mounting holes. The DSE9476 battery charger is fit-and-forget. It may be permanently connected to the AC supply and the load, with no requirement to disable the charger during times of heavy load (such as engine cranking) or when in parallel with a charging alternator.



**WARNING!** For safe operation, the charger **MUST** be installed in an enclosure which prevents accidental contact with Hazardous Voltages.

## BATTERY SUITABILITY

The charger is factory set by DSE to suit Lead Acid batteries; configuration is possible to suit other battery types using the DSE Configuration Suite PC Software which is available from [www.deepseaelectronics.com](http://www.deepseaelectronics.com). Care must be taken to ensure the batteries connected to the charger are of the correct technology to suit the setting of the charger.

## INDICATIONS

The DSE9476 Battery Charger features LED indicators to show the battery charger status.



**NOTE:** Please refer to DSE Publication: *057-282 DSE9476 Intelligent Battery Charger Operator Manual* for further details.

## BOOST MODE

Boost mode is operated automatically or by activation of the digital input (if configured to perform this function). This raises the battery charger voltage to the *boost voltage* setting.



**NOTE:** Please refer to DSE Publication: *057-159 DSE9476 DSE94xx Battery Charger Series Configuration Suite PC Software Manual* for further information.

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## AC SUPPLY CONNECTIONS

The battery charger is protected by an internal fuse. In order to ensure proper protection of the AC supply cables in the event of a fault between the supply and the connection to the battery charger, it is recommended that a fuse be installed in the supply line as close to the power source as possible. It is important to note that the fuse's sole purpose is to safeguard the cables, and therefore the same fuse can be utilized regardless of the supply voltage.

AC Input Voltage	Recommended Fuse Size
110 V AC	20 A anti-surge
230 V AC	20 A anti-surge

Pin No	Terminal	Function	Recommended Size	Comments
1	L	AC Live	4 mm <sup>2</sup> (AWG 12)	
2	N	AC Neutral	4 mm <sup>2</sup> (AWG 12)	
3		Earth	4 mm <sup>2</sup> (AWG 12)	

## INPUT, AND OUTPUT CONNECTIONS

Pin No	Terminal	Function	Recommended Size	Comments
4	LK	Configurable Input	1 mm <sup>2</sup> (AWG 16)	Connect the terminals together to activate the input. The factory setting for the digital input provides the Lamp Test function but the Configurable Input can be customised using DSE Configuration Suite PC Software to perform other available functions.
5	LK	Configurable Input	1 mm <sup>2</sup> (AWG 16)	
6	NC	Normally Closed Contact of the Charge failure relay	0.5 mm <sup>2</sup> (AWG 22)	Changes State Under Charge Fail Conditions
7	COM	Charge failure relay Contact Common	0.5 mm <sup>2</sup> (AWG 22)	
8	NO	Normally Open Contact of the Charge failure relay	0.5 mm <sup>2</sup> (AWG 22)	

## BATTERY CONNECTIONS

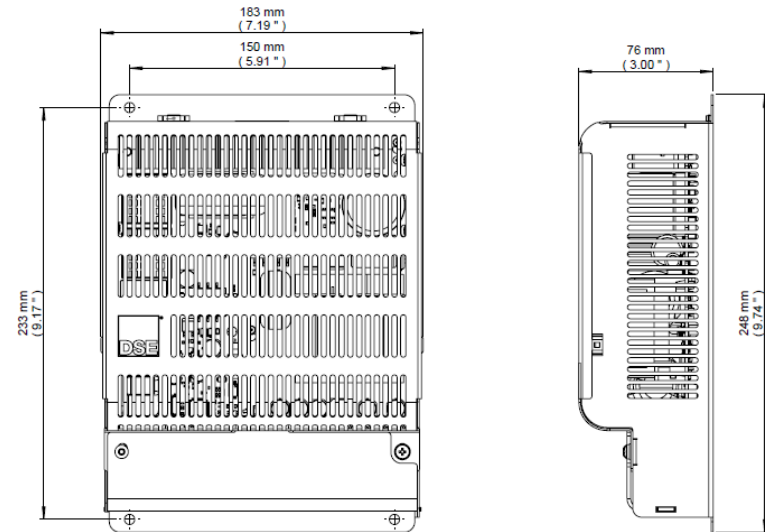
**NOTE:** Use correct size cables for the battery connection to ensure minimum voltage drop.

Pin No	Terminal	Function	Recommended Size	Comments
14	+OP	Load Positive	10 mm <sup>2</sup> (AWG 6)	Battery positive terminal
15	-OP	Load Negative	10 mm <sup>2</sup> (AWG 6)	Battery negative terminal. This terminal is not internally connected to Earth.

## RS485 AND TEMPERATURE SENSOR CONNECTIONS

Pin No	Terminal	Function	Recommended Size	Comments
9	RS485 SCR	RS485 screen terminal.	0.5 mm <sup>2</sup> (AWG 22)	Recommended Belden 9841 cable. Ensure correctly fitted 120 Ω termination resistors at the first and last devices on the RS485 link.
10	RS485 B	RS485 B (+) terminal.	0.5 mm <sup>2</sup> (AWG 22)	
11	RS485 A	RS485 A (-) terminal.	0.5 mm <sup>2</sup> (AWG 22)	
12	PT1000 TEMP SENSOR	PT1000 Sensor	As fitted to the PT1000 Sensor	Battery Temperature Sensing. Used for Battery Temperature Compensation.
13	PT1000 TEMP SENSOR	PT1000 Sensor		

## DIMENSIONS AND MOUNTING



Parameter	Specification
Weight	1.8 kg
Case Dimensions	183 mm x 248 mm x 76 mm (7.19" x 9.74" x 3.00")
Mounting Holes Dimensions	Suitable for M5 (3/16" diameter)
Mounting Hole Spacings	233 mm x 150 mm (9.17" x 5.91")