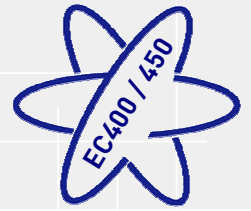




EC400 / 450 Solar Panel



20W Solar Panel Assembly

EC400/450 Solar Energy System SSA-20W & SSA-40W

This guide is a supplement to the handbook information and covers the operation of the solar system fitted to your caravan

Solar panel. 20W Panel dimensions are 550mm x 324mm with a typical output 20W, 1.2A +/- 5%. 40W Panel dimensions are 625mm x 550mm with a typical output 40W, 2.4A +/- 5%.

Regulator. Unlike typical regulators, the 15575-R solar panel regulator has been specifically designed to draw no power from the leisure battery when the solar panel is not generating power. This feature is desirable especially in winter months when a normal regulator can gradually discharge the leisure battery.

Regulator operation. The regulator operates automatically, turning on and off as required to charge and maintain the leisure battery. When the solar panel is exposed to a source of sunlight the regulator starts to operate. When the voltage from the panel reaches a usable level, the Panel Output LED will flash indicating that the battery is being charged (see battery charging below). If insufficient power is being generated by the solar panel the regulator will turn off. The regulator checks the solar panel output every 30 seconds and turns on / off as required. On overcast days when the solar panel output is minimal the regulator can still deliver a small charge, and in this mode the LED's are not illuminated to conserve power.

Battery charging. If a leisure battery is fitted and requires charging the Charge Status LED will illuminate. Depending on the state of charge of the battery this LED will illuminate red for bulk charge (14.4V output) or green for float charge (13.6V output). It may take a few hours to several days to charge the battery depending on its state of charge. When the battery is fully charged the regulator will turn off to prevent overcharging of the battery. If the mains charger is turned on to charge the leisure battery this can also cause the solar panel regulator to turn off.

Power Supply Unit. The PSU does not need to be switched on (shutdown button in) for the solar panel to charge the battery, but if the PSU has an LCD display then this can be used to see the increase in battery voltage as the solar panel charges the battery. During caravan storage the PSU should be shutdown (shutdown button out).

Maintenance & Cleaning. The Solar panel will require cleaning periodically in order to maintain the performance of the panel. A caravan or car shampoo or simple soap can be used, but do not use abrasive cleaners.

Control Panel. When the solar panel is operating the leisure battery voltage display on the control panel will increase, however this does depend on the amount of load placed on the system and the amount of power being generated by the solar panel at that time.

Solar Panel

20 - 40W Solar Panel Regulator
Output Current: 2.5A Max
Output Voltage Bulk: 14.0-14.4
Output Voltage Float: 13.0-13.6
Part Number: 15575-R

SARGENT

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Charge Status

Panel Output

Battery



Solar Regulator Assembly

Contact details. Sargent Electrical Services Limited provide a technical helpline during office hours. Please contact 01482 678981 if you require technical help. For out of hours support please refer to the tech support and product assistance sections of the Sargent web site www.sargenttd.co.uk