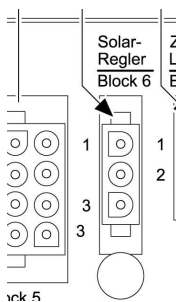


Solar Systems and Electroblocs

Electrobloc power supply units are fitted in a number of motorhomes. Many of these have a socket for the connection of a solar charge controller. So, what is the best way to connect a solar system to a motorhome with an Electrobloc?

This datasheet provides information on how to connect a solar system to a motorhome with an Electrobloc paying particular attention to the use of the LRS1218 dual battery controller, which is manufactured by Schaudt who also manufacture the Electroblocs.

Electrobloc Solar Controller Connection



There is usually a 3 pin socket on the front of an Electrobloc to connect a solar regulator, see the picture. On most Electroblocs it is possible to use this socket to connect regulated supply from any solar charge controller. It does not have to be the LRS1218. The Electroblocs that require the LRS1218 are those listed below in the section **LRS1218 Essential**.

To do this a plug connector is required which can be obtained from Aire and Sun. Pins 1 and 3 are used, pin 1 to negative and pin 3 to positive from the controller

Schaudt LRS1218 controller

The Schaudt LRS1218 solar controller is a dual battery solar charge controller, designed primarily for direct connection to the Schaudt range of EBL Electrobloc power supply units fitted to motorhomes. The LRS1218 is supplied with various cables to enable the connections to be easily made to the EBL Electrobloc unit.

The LRS1218 is an 18A controller which is an upgraded version of the LRS1214 14A controller. The information below applies equally to the LRS1218 and the LRS1214 controllers.

Systems without an Electrobloc

The LRS1218 can be used to run a solar system where there is no Electrobloc by connecting the controller to the domestic and starter batteries directly. All necessary fuses are provided with the LRS1218 to install in this manner but cable to connect to the batteries is required. The installation in this mode is covered in the LRS1218 manual.

LRS1218 Essential

For the EBL units in this section the solar system must use the LRS1218 which must be connected to the Electrobloc. Connection directly to the battery can cause charging issues and possible shut down of the power supply.

Cables are supplied with the LRS1218 to provide charging for the domestic and leisure batteries and for the control panel to provide information on the performance of the solar system.

EBL101

EBL 220

EBL 220-2

EBL 225

Use the standard instructions with the controller.

LRS1218 – Compatible using Cables supplied

For the following EBL units cables are supplied which enable the controller to be connected to the EBL to provide charging for the domestic and leisure batteries.

EBL 99
EBL 100
EBL 244-9
EBL 240
EBL 269

Use the standard instructions with the controller.

It is not essential to use the LRS1218 with these Electroblocs. It is acceptable to connect the solar system directly to the batteries without going through the Electrobloc using any solar charge controller. Also any solar charge controller can be plugged into the “Solar Controller” connection on the Electrobloc which will charge the domestic battery only (see section on page 1).

LRS 1218 Compatible, additional wiring required

For the EBL units in this section the EBL has a 3 pin socket for connecting a solar controller but connection to will only provide charging for the domestic battery. The LRS1218 controller can be connected into this socket using the cable supplied and can charge the starter battery also by adding additional wiring to connect to the positive side of the starter battery. This additional wiring is not supplied with the LRS1218 but is performed by either;

- running a cable directly to the positive terminal of the starter battery. This cable must be fused, as near to the battery terminal as possible. Fuses and fuseholders are supplied with the LRS1218 for this purpose.
- or, by connecting to a cable or terminal at the Electrobloc unit that is connected to the starter battery positive side. See the sections below for connection points on some of the common types of EBL unit that fit in this category. If an EBL unit is not listed please contact Aire and Sun and we will find the best method to connect the LRS1218 controller and add it to this document.

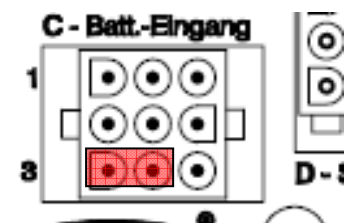
It is not essential to use the LRS1218 with these Electroblocs. It is acceptable to connect the solar system directly to the batteries without going through the Electrobloc using any solar charge controller. Also any solar charge controller can be plugged into the “Solar Controller” connection on the Electrobloc which will charge the domestic battery only (see section on page 1).

Earth Connection

In addition the earth (negative) terminals of the domestic and starter batteries need to be connected together. On a motorhome this is already provided as they are both connected to the vehicle chassis.

EBL-4 106

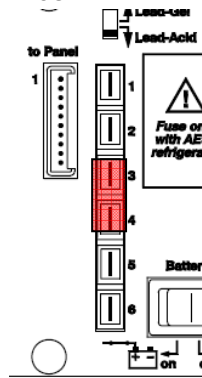
Connect the controller starter battery connection to pin 3 or pin 6 of block C connector. Pin 3 is bottom row on the left and pin 6 is bottom row in the middle, those highlighted in red in the picture.



To do this use a Scotchlock connector, see picture. These connectors enable a connection to be made to a wire without the need to cut the wire.



EBL208



Connect the controller starter battery connection to pin 3 or 4 on the Electrobloc, see picture highlighted in red. This can be achieved using a Scotchlock connector, see picture above.

DT201 and DT220 Control Panel Programming

These control panels have the capability of displaying the solar current that is being produced. To do so the function needs to be switched on by programming the control panel which requires a 4 digit code to gain access which is obtainable from your motorhome supplier or manufacturer. The programming instruction can be obtained from your motorhome supplier, manufacturer, Schaudt or Aire and Sun.