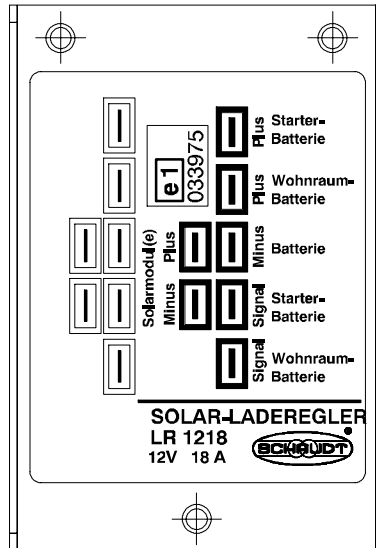


Instruction Manual



LR 1218 Solar Charge Regulator

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1 Safety Information

1.1 Meaning of safety symbols



▲ DANGER!

Failure to heed this warning may result in death or serious injury.



▲ WARNING!

Failure to heed this warning may result in personal injuries.



▲ ATTENTION!

Failure to heed this warning may result in damage to the device or connected consumers.

1.2 General safety information

The device is state-of-the-art and complies with approved safety regulations. Nonetheless, personal injuries or damage to the device may occur if the safety instructions contained herein are not followed.

Ensure that the device is in perfect working order before use.

Any technical faults which may impact personal safety or the safety of the device must be rectified immediately by qualified personnel.



▲ DANGER!

230V mains voltage carrying parts.

Danger of death due to electric shock or fire:

- Do not carry out maintenance or repair work on the device.
- If cables or the device housing are damaged, no longer use the device and isolate from the power supply.
- Ensure that no liquids enter the device.



▲ WARNING!

Hot components!

Burns:

- Only change blown fuses when the device is completely de-energised.
- Only replace blown fuses once the cause of the fault has been identified and rectified.
- Never bypass or repair fuses.
- Only use original fuses rated as specified on the device.
- Device parts can become hot during operation. Do not touch.
- Never store heat sensitive objects close to the device (e.g. temperature sensitive clothes if the device has been installed in a wardrobe).

2 Introduction

This instruction manual contains important information for safe operation of the device. Make sure you read and follow the safety instructions provided.

The instruction manual should be kept in the vehicle at all times. Ensure that other users are made aware of the safety regulations.

Use The LR 1218 solar charge regulator is for charging the batteries of the motorhome by means of the connected solar module. The solar charge regulator limits and controls the charging voltage of the batteries. The solar charge regulator can be connected to:

- two batteries
- a Schaudt Electrobloc with a separate connection for solar current
- a Schaudt Electrobloc with a retrofit adapter for charging the starter battery

For vehicles with digital panel and solar current display, the charging current is picked up by the shunt installed in the solar charge regulator and displayed as solar current on the digital panel.

The solar charge regulator works as a pulse-width modulated series regulator and ensures that the connected batteries are charged without being impaired.



▲ To use the solar charge regulator with an Electrobloc, see the instruction manual for the Electrobloc.

3 Operation

The solar charge regulator does not have any controls.



▲ ATTENTION!

The output voltage of the charge regulator is not suitable for direct supply without battery.

Malfunction of or damage to connected consumers:

- Do not operate the solar charge regulator without a battery.
- Disconnect connector "Plus Solar module(s)" on the solar charge regulator before changing or removing the battery.
- The solar charge regulator may only be used in buffer mode with lead acid or lead gel batteries with a minimum rating of 55 Ah.

4 System faults

Please contact our customer service address if you cannot rectify the fault using the following table.

If this is not possible, e.g. if you are abroad, you can have the electronic bloc repaired at a specialist workshop. Please note that the warranty will become void if incorrect repair work is carried out. Schaudt GmbH shall not accept liability for any damages resulting from such repairs.

Fault	Possible cause	Remedy
No display of the solar current on the digital panel (if available)	Solar charge regulator defective	Contact the customer service department
	Defective electronic block	Contact the customer service department
	Defective wiring	Have the wiring checked

Fault	Possible cause	Remedy
Batteries are not being charged	Defective batteries	Have the batteries checked
	If batteries are in perfect working order: Solar charge regulator defective	Contact the customer service department
	Defective electronic block	Contact the customer service department
	Defective wiring	Have the wiring checked

5 Technical data

Nominal voltage 12 V

Final charge voltage 14.2V for living area and starter battery. Living area battery has priority.

Suitable batteries 6-cell lead acid or lead gel batteries, rated 55 Ah or higher

Suitable solar modules Typ. 36-cell modules with the following properties

- Off-load voltage max. 25 V
- Overall nominal current max. 18 A

Calculation example For example, five solar modules each rated at 55W can be connected in parallel:

Per solar module $U_0 = 22 \text{ V}$
 $I_{\text{nominal}} = 3.2 \text{ A}$
 Overall nominal current $I_{\text{nominal}} = 16 \text{ A}$

Suitable EBL ... electroblocs

- Schaudt GmbH electroblocs with separate solar current connection
- Schaudt GmbH electroblocs with retrofit adapter for charging the starter battery

6 Application and functions in detail

Charging voltage limited If the solar modules have sufficient charging voltage, the solar charge regulator allows the battery to be charged by up to 14.2 V.

As soon as this voltage is reached, the charging current is reduced to fully charge the batteries without impairing them. If the charging voltage of the solar modules is insufficient (e.g. in the dark), an integrated isolation diode prevents the batteries from discharging.

Priority of the living area battery Living area battery and starter battery are charged simultaneously. The living area battery has priority.

7 Maintenance

The device requires no maintenance.

Cleaning Clean the device with a soft, slightly damp cloth and mild detergent. Never use spirit, thinners or similar substances. Do not allow liquids to enter the device.

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D Fault report

In the event of damage, please return the defective device together with the completed fault report to the manufacturer.

Device type: _____
 Article no.: _____
 Vehicle: _____ Manufacturer: _____
 Model: _____
 Own installation? Yes No
 Upgrade? Yes No

Following fault has occurred (please tick):

- Battery is not charged when solar modules are connected
- Persistent fault
- Intermittent fault/loose contact

Other remarks:

E Design

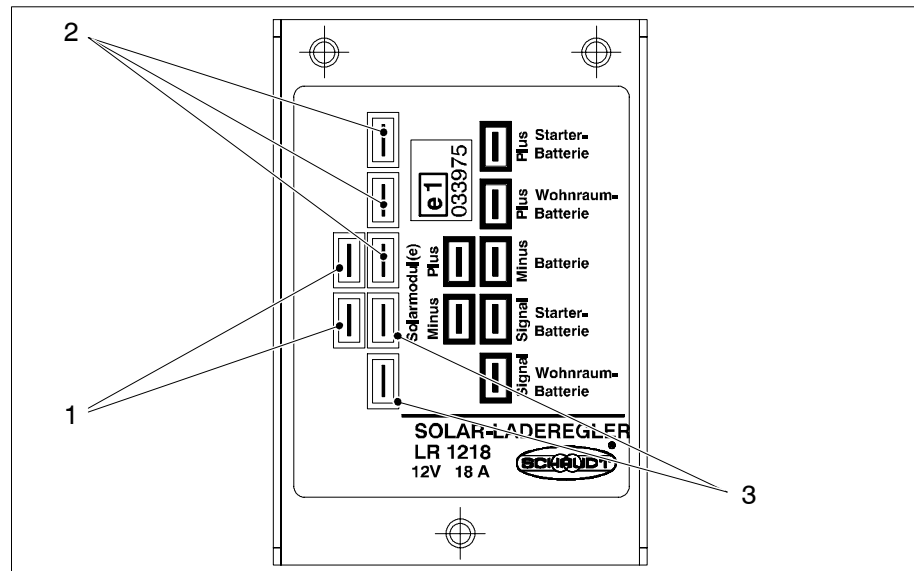


Fig. 1 LR 1218 Solar Charge Regulator

- 1 Solar module connection
- 2 Living area battery and starter battery connections, if required via Electrobloc
- 3 Display panel connection, if required via Electrobloc