

Installation Instructions

Connecting Solar systems (controller and panel) to Schaudt- and third party systems

Always follow the corresponding operating instruction manual.

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1 Safety information

1.1 Meaning of safety symbols



▲ DANGER!

Failure to comply with this sign may result in danger to life or physical condition.



▲ WARNING

Failure to comply with this sign may result in injury.



▲ ATTENTION!

Failure to comply with the sign may result in damage to equipment or other connected consumers.

1.2 General safety instructions



▲ DANGER!

230V units carrying mains voltage.

Risk of fatal injury due to electric shock or fire:

- The motorhome or caravan's electrical system must comply with DIN, VDE and ISO regulations.
- Connect devices rated at 230V to the 230V supply in line with national installation regulations.
- Do not try to modify the device.
- Only carry out electrical work once the 230V supply has been disconnected.
- Never try to start the device using a defective mains cable or a faulty connection.
- Never undertake maintenance on the device when it is live.
- Ensure proper electrical connections are made.
- Ensure correct electrical fuses are used.



▲ WARNING

Hot components

Burns:

- Blown fuses may only be changed after the power to the system has been disconnected
- Blown fuses may only be replaced once the cause of the fault is known and has been rectified
- The back of the device can get hot during operation. Do not touch them.

2 Introduction

These installation instructions are aimed at trained personnel.

They contain important information on the connection and safe operation of the device. The safety information provided must be observed.

Always follow the relevant instruction manual in addition to the installation instructions.

2.1 Liability limitation

All technical information, data and instructions pertaining to installation, operation and maintenance contained within this installation guide and associated operating manual were up-to-date when the documents were printed, and were compiled in good faith in due consideration of experience and findings gained previously.

No legal claims can be derived from the specifications, illustrations and descriptions in this operating manual or associated installation guide.

The manufacturer assumes no liability for damage due to:

- a failure to comply with this installation guide and associated operating manual
- improper assembly and/or installation
- non-intended use
- improper repairs
- technical modifications
- use of non-approved spare parts

3 Introduction

This installation guide contains important information for safely fitting and connecting equipment from Schaudt. Make sure you read and follow the safety instructions provided.

The installation guide should always be kept in the vehicle. All safety information must be passed on to other users.

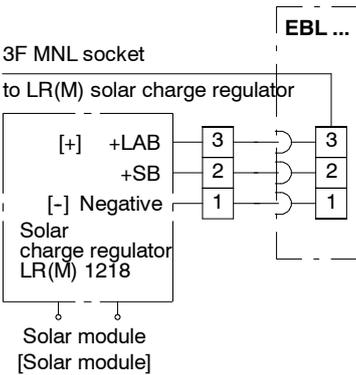
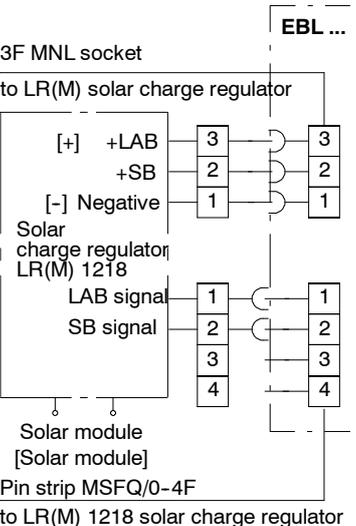
4 General and application

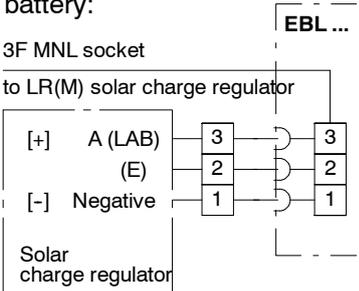
This document describes the connection of Schaudt products developed for solar systems:

- LRM 1218 solar regulator*
- LR 1218 solar regulator
- LT 320 control and display panel

* the solar regulator LRM 1218 was delivered with two different housing types. The connection is the same for both types.

Which devices are to be fitted new and the situation inside the vehicle must be known before work is commenced. Then the corresponding connection diagram must be determined and the connectors established in the form shown therein:

Solar regulator	Connection to battery	Display	Bus system	→ See
LRM 1218	<p>Via EBL with 3-pin connector; the following solar regulator connector is in the block diagram:</p> 	Via LT 320	-	→ Section 5.2
	<p>Via EBL with 4-pin connector; the following solar regulator connector is in the block diagram:</p> 	Via panel with solar power display	-	→ Section 5.4

Solar regulator	Connection to battery	Display	Bus system	→ See
LRM 1218	Via EBL with 3-pin connection, 2 pins assigned; the following solar regulator connector is in the block diagram (E is either not assigned or routed in the EBL to an input for a solar module); A is used here as an input for the leisure area battery: 	Via LT 320	-	→ Section 5.3
	Via bus-compatible EBL; the following symbol might be on the front panel: 	Via bus panel with solar power display	SDT 213	→ Section 7.2
		Via LT 320*	SDT 630 SDT 213	→ Section 7.3
	Directly on the vehicle for third party systems or EBLs without solar regulator connector	LT 320	-	→ Section 5.1
LR 1218	Via EBL with 3-pin connector (EBL connection diagram as for LRM 1218; see above).	LT 320	-	→ Section 5.2
		Display panel with solar power display, e.g.	-	→ Section 5.4
	Via EBL with 3-pin connector, 2 pins assigned (EBL connection diagram as for LRM 1218; see above).	LT 320	-	→ Section 5.3
	Directly on the vehicle for third party systems	LT 320	-	→ Section 5.1
	Via bus-compatible EBL; symbol specified as for LRM 1218	Via LT 320	SDT 630 SDT 213	→ Section 7.1
* Dual display of solar power in Normal mode; but display option also for active shutdown. Refer to Section 7.3.				

5 Connecting the LT 320 in conjunction with LR 1218

The following sets are required for the connection variants in Sections 5.1 to 5.3:

- Part no. 9990219: LR 1218 with connector material
- Part no. 9990298: LT 320 with connector material

Only set 9990219 is required for the connection variant in Section 5.4.

5.1 LR 1218 and third party system

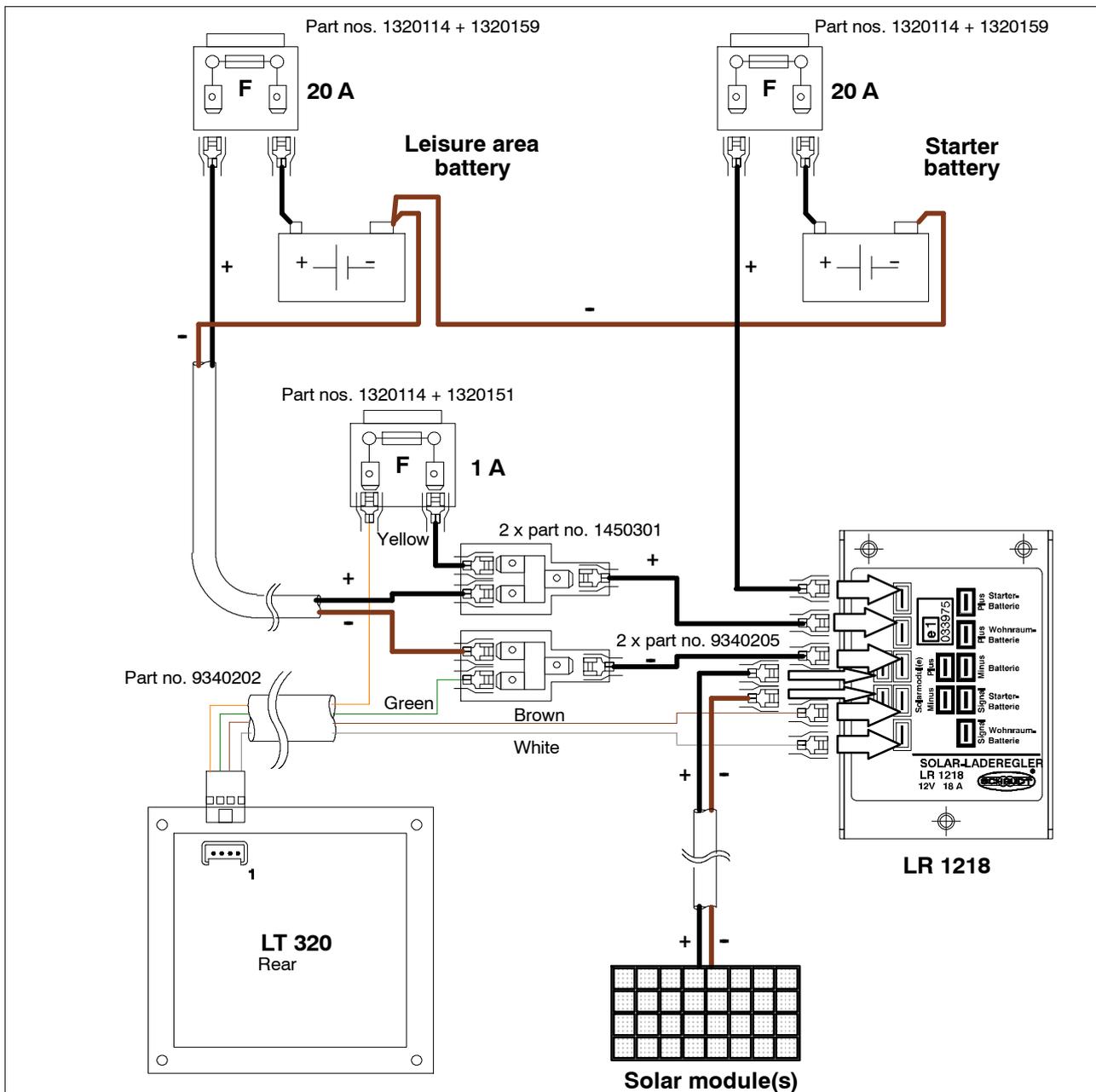


Fig. 1 LT 320 and LR1218 for third party system

The cables between the batteries and Y distributors, and solar module(s) and their connector cables, are not included in the delivery.

5.2 LR 1218 and Schaudt EBLs with 3-pin solar connector

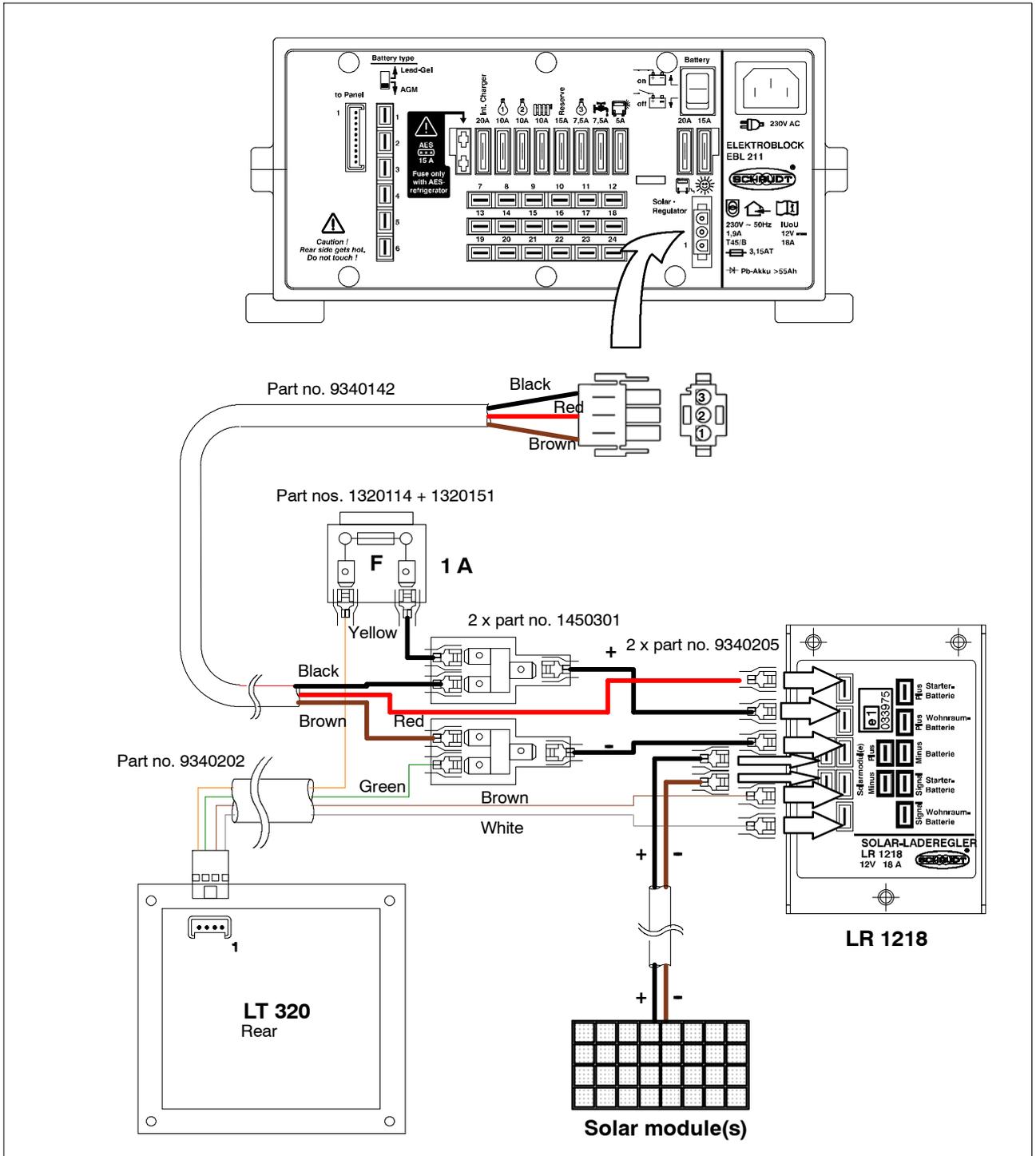


Fig. 2 LT 320 and LR1218 to Schaudt EBL with 3-pin solar regulator connector

Solar module(s) and their connector cables are not included in the delivery.

5.3 LR 1218 and Schaudt EBLs with 2-pin solar connector, and adapter for the starter battery

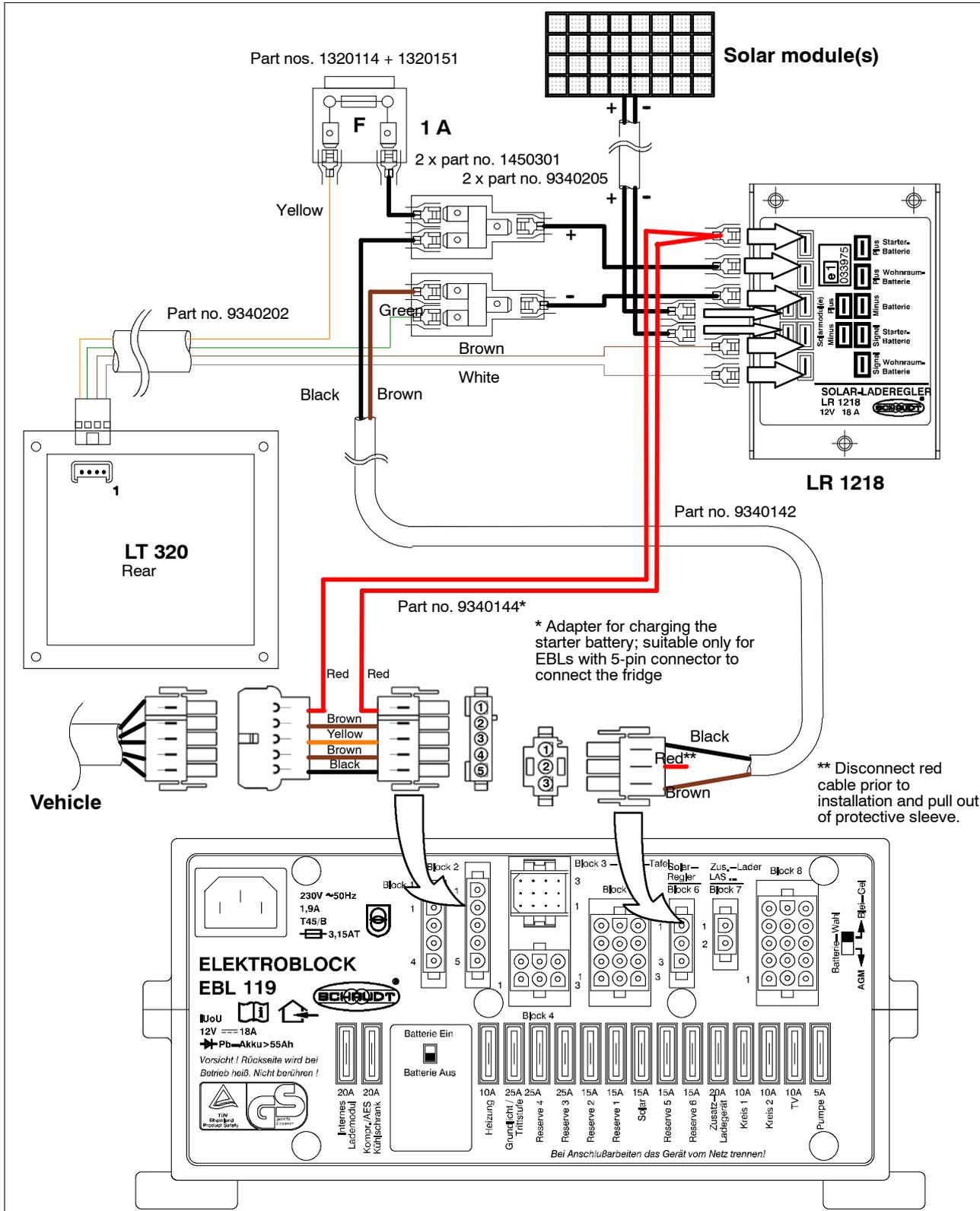


Fig. 3 LT 320 and LR1218 to Schaudt EBL with 3-pin solar regulator connector (e.g. EBL 119)

Solar module(s) and their connector cables are not included in the delivery.

5.4 LR 1218 and Schaudt EBLs with 3-pin solar connector, and panels with solar power display

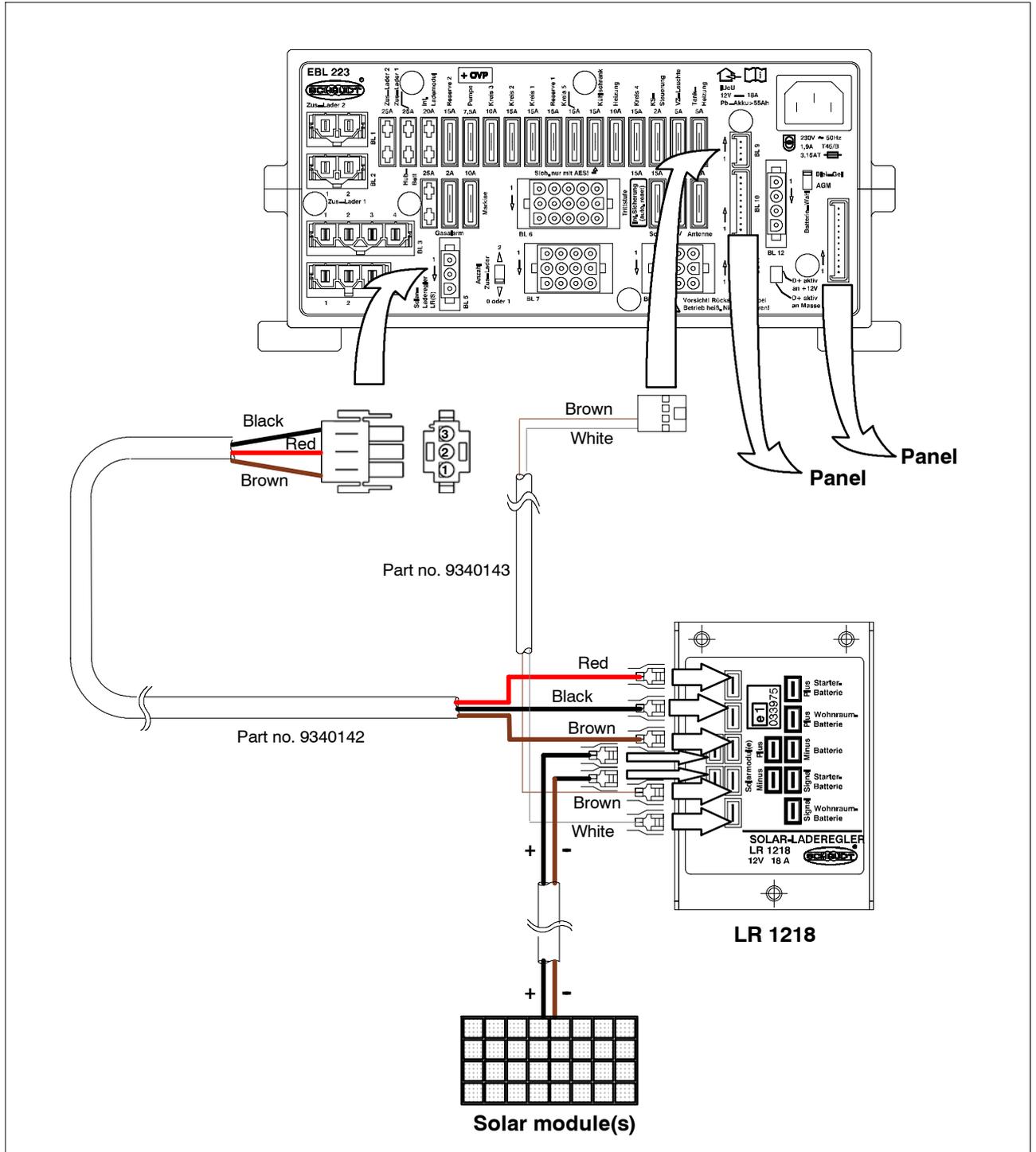


Fig. 4 LR1218 to Schaudt EBL with 3-pin solar regulator connector (e.g. EBL 223)

Solar module(s) and their connector cables are not included in the delivery.

6.2 LRM 1218 and Schaudt EBLs with 3-pin solar connector

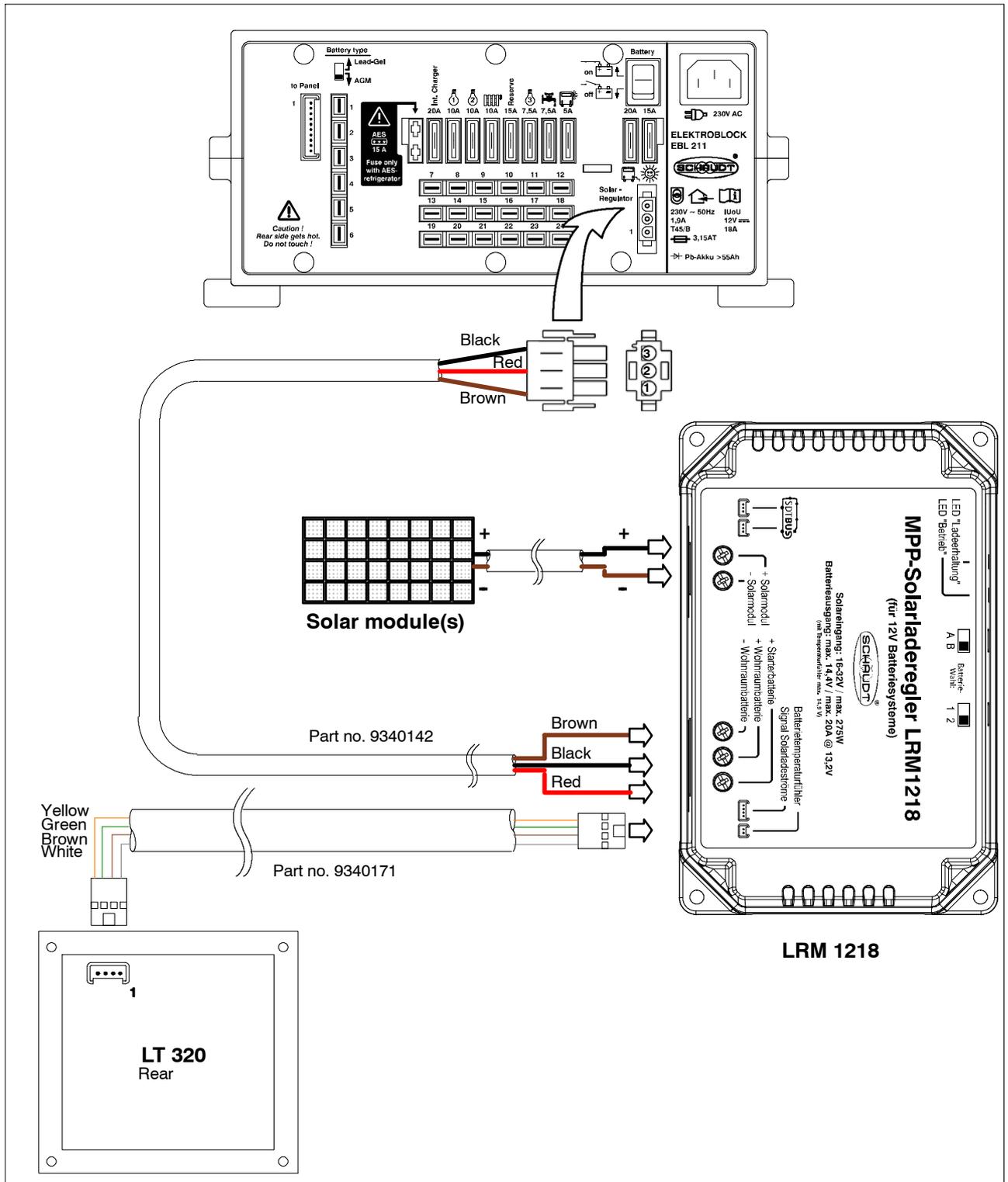


Fig. 6 LT 320 and LRM 1218 to Schaudt EBL with 3-pin solar regulator connector (e.g. EBL 211)

6.4 LRM 1218 and Schaudt EBLs with 3-pin solar connector, and panels with solar power display

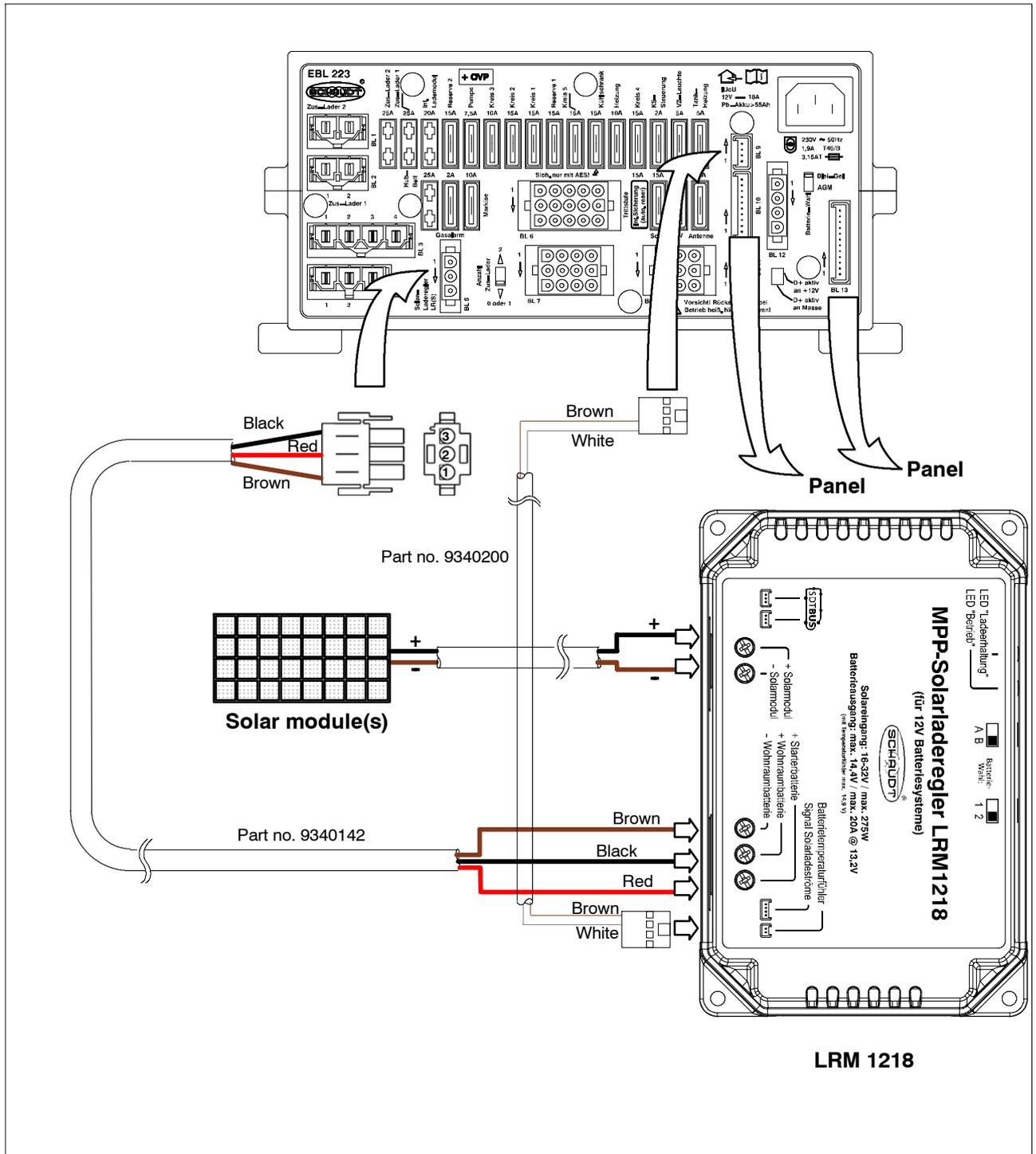


Fig. 8 LRM1218 to Schaudt EBL with 3-pin solar regulator connector (e.g. EBL 223)

7 Connecting to SDTBUS bus systems

7.1 LR 1218 with LT 320



▲ When the LR 1218 is used on bus systems, display of the solar power from the main control and display panel is NOT possible, even if it supports a solar power display. The display on the main panel can only be activated from the SDTBUS. This is only possible using the LRM 1218 solar regulator.

Set 9990219 (LR 1218 with connector material) is required.

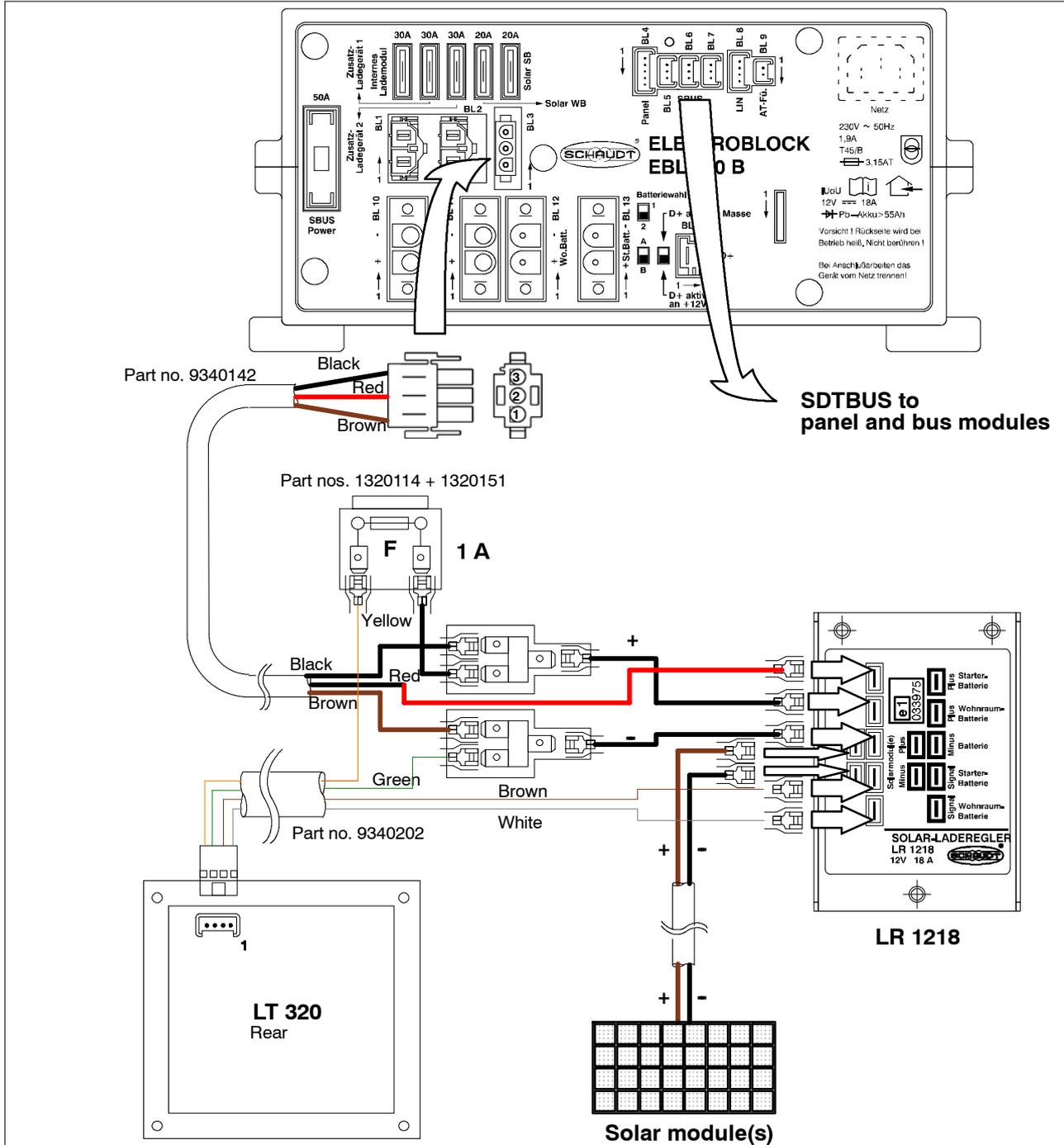


Fig. 9 LT 320 and LR1218 to Schaudt bus-compatible EBL with 3-pin solar regulator connector

7.2 LRM 1218 with connection to SDTBUS

Set 9990314 (LRM 1218 with connector material) is required.

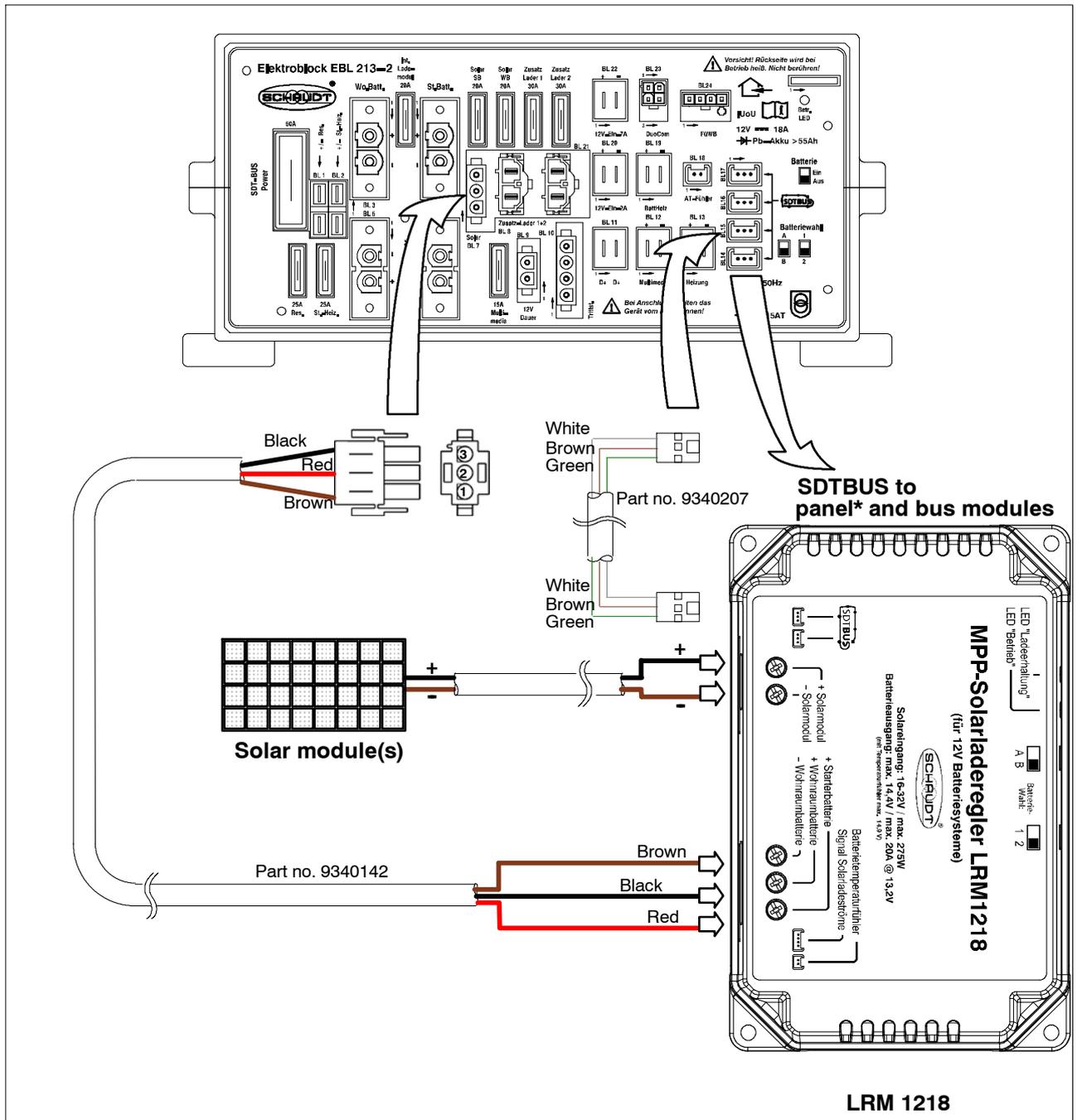


Fig. 10 LRM1218 to Schaudt bus-compatible EBL with 3-pin solar regulator connector



▲ * When a panel which supports a solar power display is connected here (such as an LT 13 or DT 713), the solar power can be displayed there. This function may need to be activated first. Refer also to the installation guide for the panel in question.

7.3 LRM 1218 with connection to SDTBUS and LT 320

The following sets are required:

- Part no. 9990314: LRM 1218 with connector material
- Part no. 9990298: LT 320 with connector material

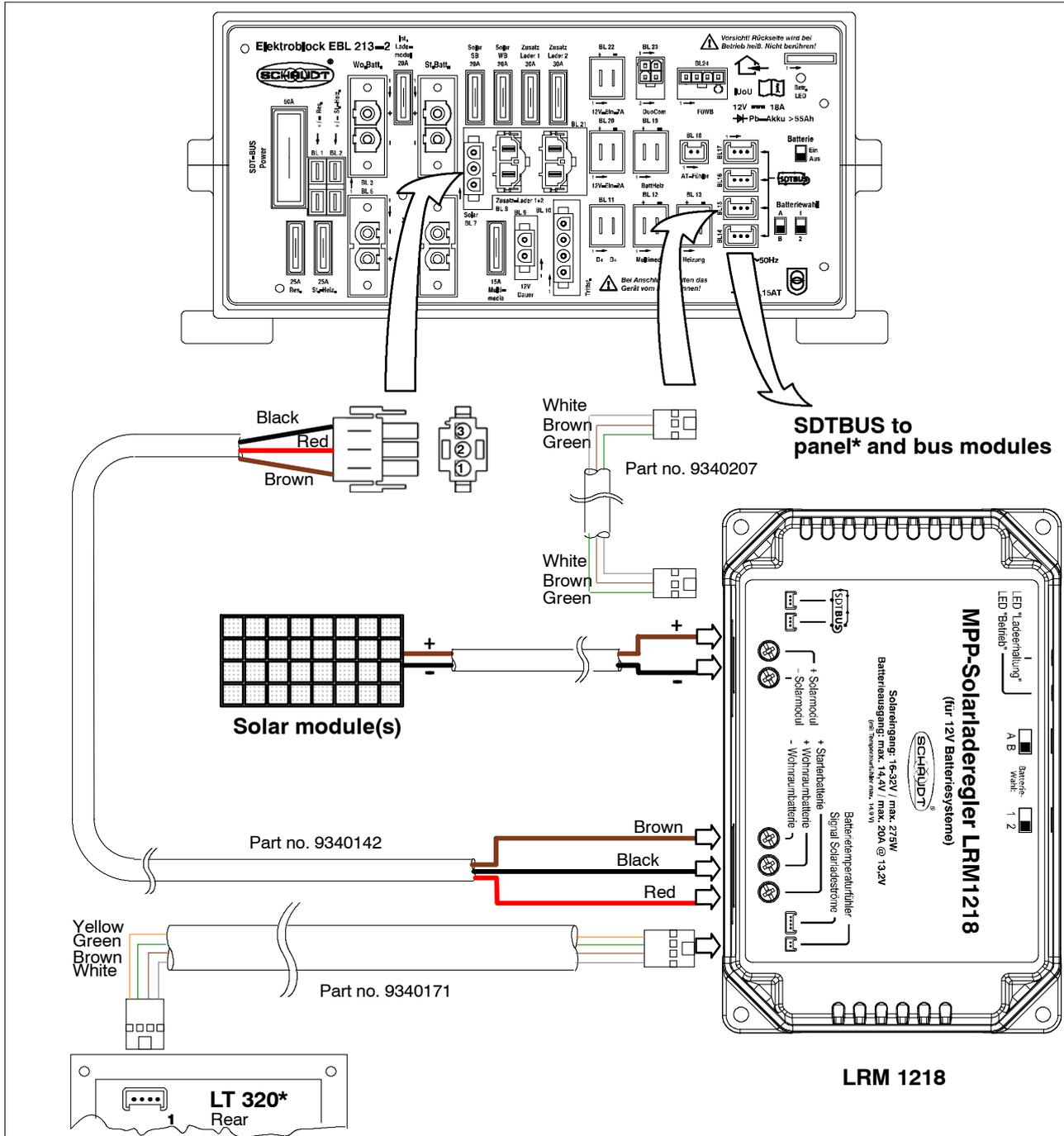


Fig. 11 LRM1218 to Schaudt bus-compatible EBL and additional display via LT320



▲ *In this case, the solar power is displayed on a suitably configured main control and display panel (e.g. LT 13 or DT 713) and on the DT 320. The display on the DT 320 however is also possible when the system is shut down or the 12 V supply is switched off. This means battery charging can also be checked whilst the vehicle is idle (such as in winter).