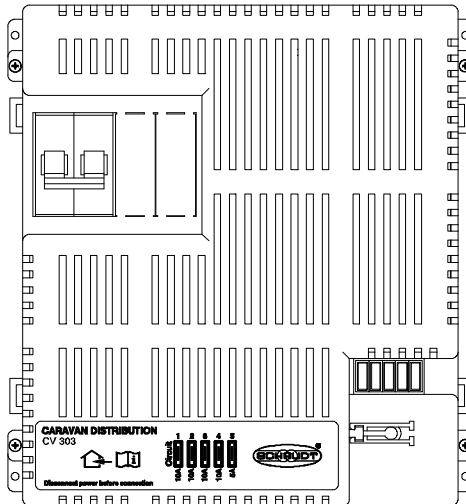


Instruction Manual



Caravan distributor CV 304 with PanelST02HS+PU or LT 151 (optionally)

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1 Safety information

1.1 Significance of the warning signs



▲ 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 loads.

1.2 General safety instructions

The design of the device is state-of-the-art and complies with recognised safety regulations. Failure to observe the safety instructions may nonetheless lead to injury or damage to the device.

Only use the device when it is in perfect technical condition.

Any faults that may affect the safety of persons or the proper functioning of the device must be repaired immediately by specialists.



▲ DANGER!

230V units carrying mains voltage.

Risk of fatal injury 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 it from the power supply.
- Ensure that no liquids enter the device.



▲ WARNING!

Hot components.

Burns:

- Blown fuses may only be replaced when the distributor is de-energised.
- Blown fuses may only be replaced when the cause of the fault is known and has been 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 them.
- 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 on safe operation of the device. Make sure you read and follow the safety instructions provided.

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

3 Operation

A 12V main switch and a pump switch are available as a control on a shared switch panel (ST02HS+PU).

3.1 Connect the 12V supply voltage

Operation on the towing vehicle



▲ ATTENTION!

Battery discharge when towing vehicle is hitched
Towing vehicle cannot be started:

- Switch off the ignition when the towing vehicle engine is not running (depending on model).
- Disconnect the connector on the towing vehicle (depending on model).

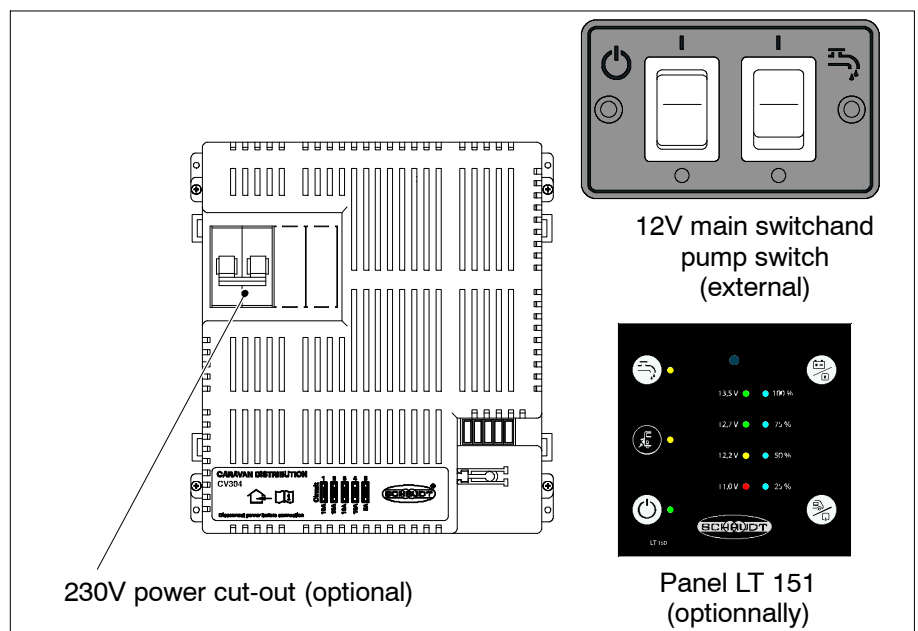








Figure 1 CV 304 caravan distributor - controls

- Switching on** ▶ Press rocker switch  (12V main switch) so that it is briefly in the "I" position or touch the sensor  (LT151).
- The power supply is connected to all the consumers.
 - Supply is provided via the battery of the towing vehicle when connected up. Circuit 5 (awning light) is disabled so that it cannot be switched on whilst the vehicle is moving (a legal regulation in some countries). For mains or battery operation, power is supplied from the caravan battery (also circuit 5).
- ▶ Refer to the documentation of the vehicle manufacturer for more details about and operation of the 230V power cut-out.
- Switching off** ▶ Press 12V main switch  so that it is briefly in the "O" position or touch the sensor  (LT151).



3.2 Connect the pump

For the pump to be switched on, the 12V supply voltage must first be switched on (see Section 3.1 for the main supply).

- Switching on** ▶ Move the switch with the pump  symbol upwards or touch the sensor  (LT151).

The supply voltage for the water pump is enabled:

- The pump may switch on briefly (e.g. in a pressure system).
- In other systems, the pump is enabled by the water tap contacts.

- Switching off** ▶ Move the switch with the pump  symbol downwards or touch the sensor  (LT151)..

3.3 Faults

Flat vehicle fuses A fault in the power supply system is usually caused by a blown fuse.

Please contact our customer service team 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 caravan distributor repaired at a specialist workshop. In this case, you must ensure that the warranty is not invalidated by incorrect repairs being carried out. Schaudt GmbH will not accept any liability for damage resulting from such repairs.

Fault	Possible cause	Remedy
12V supply does not work in the living area	12V main switch is off	12V main switch must be switched on
	No supply voltage	Check the battery or mains connection
	Battery (caravan) discharged	Check the battery and replace/charge as required
	Vehicle battery discharged	
	Defective fuse or wiring	Check fuse and wiring
	Blown vehicle fuse	Check the fuse and replace it if required
	Caravan distributor defective	Call customer service

Fault	Possible cause	Remedy
Pump cannot be switched on	12V main switch is off	12V main switch must be switched on
	Pump switch disabled	Turn on pump switch
	Circuit 1 safety fuse defective	Replace circuit 1 (5A) safety fuse
	Switch defective in the relevant water tap	Contact workshop/dealer
	Pump defective	Contact workshop/dealer

4 Application and functions in detail

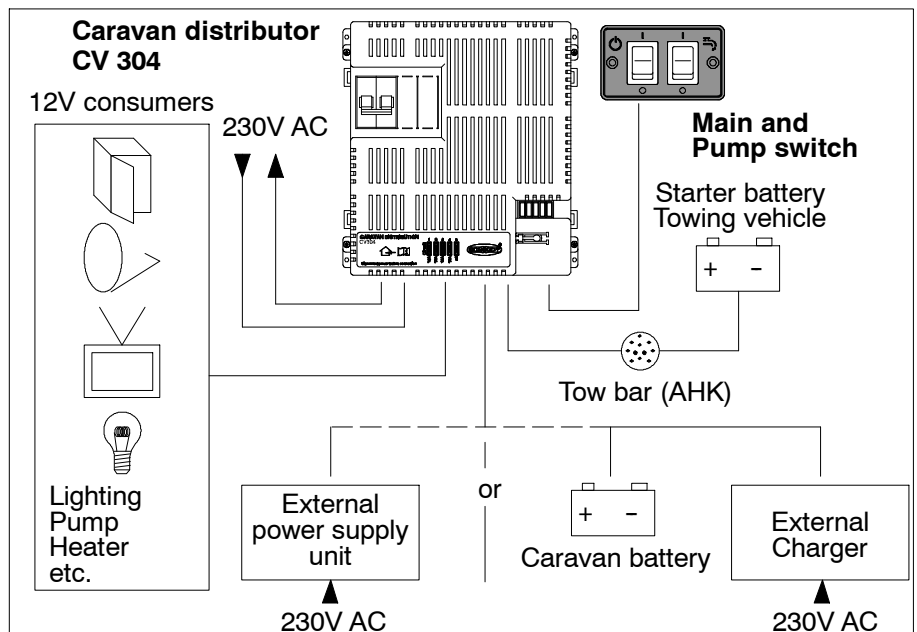


Figure 2 On-board power supply system



▲ This device is intended for permanent installation in a caravan.

The CV 304 caravan distributor is the central power distribution unit for all consumers (12V and 230V) in the caravan's electrical system. It is usually located inside a cupboard or storage area, and is accessible from the front in order to change fuses and to access the main switch.

The caravan distributor is only designed for connection to the 12 V power supply.

Connected devices can be supplied via a battery installed in the caravan or via the towing vehicle's battery. Switchover is automatic on connecting the plug to the towing vehicle (requirement: 13-pole connector, connected in accordance with EN 1648-1 - voltage at pin 10 with ignition switched on).

Modules The CV 304 caravan distributor contains:

- the complete 12V distribution unit
- the fuses for the 12V circuits
- the 230V distribution unit
- Space for an optional dual power cut-out is provided (for 230V distribution).

The device does not have its own power supply or charger.

Connections are provided for:

- Three circuits each with 10 A max.
- One circuit (max. 5 A) for a water pump. This circuit is enabled/disabled with the pump switch.
- Another circuit (max. 5 A) for the potential connection of an awning light (does not illuminate if towing vehicle is connected or ignition is switched on, installation dependent, also see "Automatic shutdown for awning light")
- 230V supply and 230V consumers

The flat vehicle fuses protect the various circuits (12V).

Automatic shutdown for awning light

The effectiveness of this function depends on the socket assignment on the towing vehicle:

- Option 1: Control via the ignition
If the caravan is connected to the towing vehicle, and as soon as the ignition is switched on (voltage on terminal 10 and tow-bar (AHK)), circuit 5 provided for the awning light is disabled.
- Option 2: Control with connection to the towing vehicle
As soon as the caravan is connected to the towing vehicle (voltage on terminal 10 and tow-bar (AHK)), circuit 5 provided for the awning light is disabled.

This always prevents the awning light from being switched on whilst the vehicle is moving.

Max. total current

All consumers together may not exceed the following load:

- Battery mode: 30 A
- Operation with towing vehicle, ignition ON: 15 A (also see fuse in the vehicle)

Suitable batteries

Any 12V battery or rechargeable 12V battery (depending on charger used)

12V main switch

The main 12V switch (rocker switch with centre position) disconnects all of the 12V consumers from the caravan battery.

This prevents the battery from slowly discharging due to closed circuit currents.

Standby current from towing vehicle battery A closed circuit current of approx. 0.15 A flows for consumers that are switched off.

Standby current from caravan battery No closed circuit current for switched off consumers.

5 Maintenance

The CV 304 caravan distributor requires no maintenance.

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

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Appendix

A Customer service

Customer service address

Schaudt GmbH, Elektrotechnik & Apparatebau
Planckstraße 8
D-88677 Markdorf

Phone: +49 7544 9577-16 Email: kundendienst@schaudt-gmbh.de

Office hours Mon to Thurs 08.00 – 12.00, 13.00 – 16.00
 Fri 08.00 – 12.00

Send in device

Returning a faulty device:

- ▶ Always use well-padded packaging.
- ▶ Complete and enclose the fault report, see Appendix B.
- ▶ Send it to the addressee (free delivery).

B Fault report

In the event of damage, please fill in the fault report and send it with the faulty device to the manufacturer.

Device type: _____
Item no.: _____
Vehicle: Manufacturer: _____
 Model: _____
 Own installation? Yes No
 Upgrade? Yes No
Upstream overvoltage protection? Yes No

Following fault has occurred (please tick):

- Electrical consumers do not work – which?
(please specify below)
- Switching on and off not possible
- Persistent fault
- Intermittent fault/loose contact

Other comments:

C Design

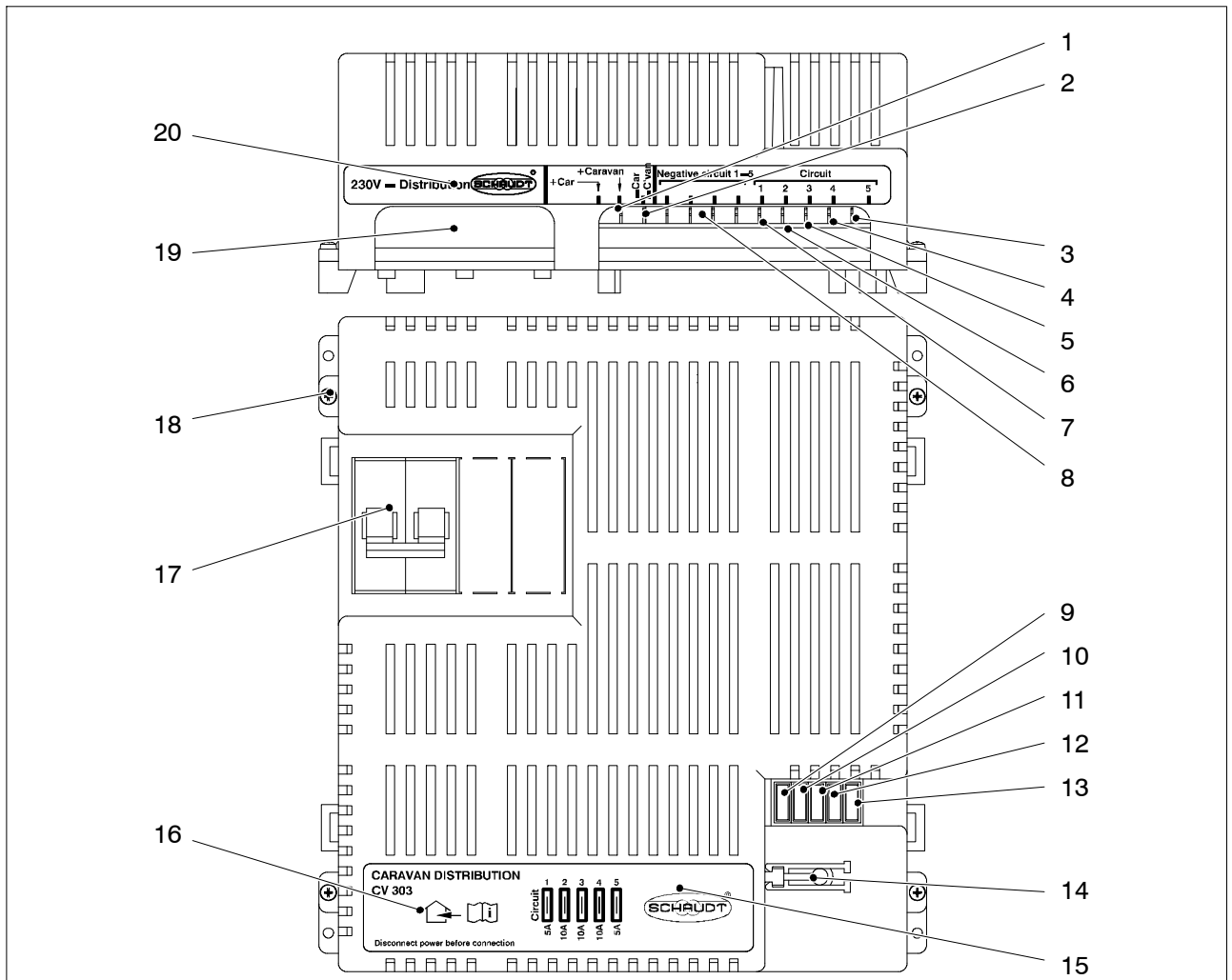


Figure 3 Front view of CV 304 caravan distributor

- | | | | |
|----|--------------------------------------|------|---|
| 1 | + connection tow-bar connector | 11 | Flat vehicle fuse circuit 3 |
| 2 | + connection caravan battery | 12 | Flat vehicle fuse circuit 4 |
| 3 | Connections circuit 5 (awning light) | 13 | Flat vehicle fuse circuit 5 |
| 4 | Connections circuit 4 | 14 | Removal aid for safety fuses |
| 5 | Connections circuit 3 | 15* | ST1/ST2 for panel (ST02HS+PU/LT 151) and input A20 signal "mains" |
| 6 | Connections circuit 2 | 16 | Adhesive label |
| 7 | Connections circuit 1 | 17** | Opening with power cut-out |
| 8 | Ground circuit 1 to 5, batteries | 18 | Bracket with hole |
| 9 | Flat vehicle fuse circuit 1 | 19 | Opening for inserting the 230V cables |
| 10 | Flat vehicle fuse circuit 2 | 20 | Adhesive label |

* ST1, ST2 , A20 accessible after removing the cover

** optional; there is no opening in the cover without a power cut-out

D Block diagram/wiring diagram

