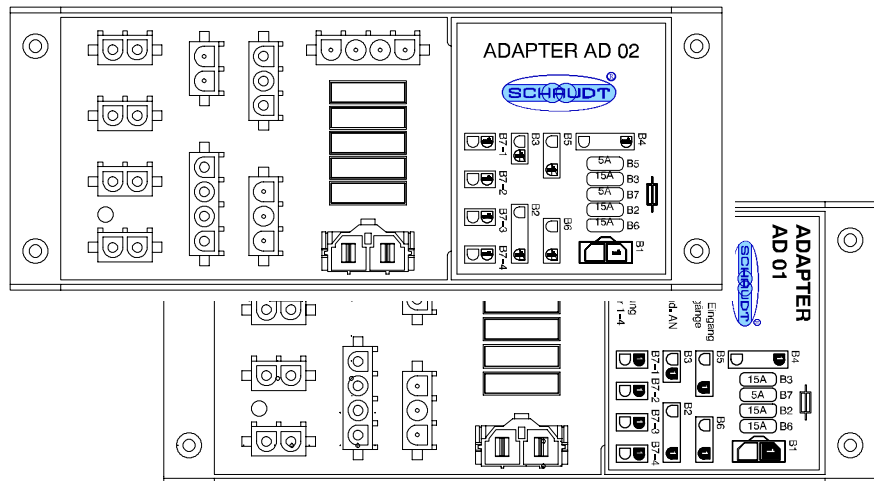


Instruction manual



Adapter AD 01 AD 02

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1 Introduction

This instruction manual contains important information on the safe operation of equipment supplied by Schaudt. Make sure you read and follow the safety instructions provided.

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

2 Safety information

2.1 Meaning of safety symbols



▲ **DANGER!**

Failure to comply with this symbol may result in danger to life and limb.



▲ **WARNING!**

Failure to comply with this symbol may result in injury to persons.



▲ **ATTENTION!**

Failure to comply with this symbol may result in damage to the device or connected consumers.



▲ This symbol indicates recommendations or special features.

2.2 General safety information

The device is state-of-the-art and complies with approved safety regulations. Despite this, persons can be injured and the device damaged 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!**

230 V units carrying mains voltage.

Risk of fatal injury as a result of electric shock or fire:

- The electrical system of the motorhome or caravan must comply with DIN, VDE and ISO regulations.
- Never attempt to modify the electrical system.
- Never attempt to modify the device.
- Only qualified electricians are permitted to make electrical connections in accordance with the installation instructions supplied by Schaudt.
- Connection work must only be carried out when isolated from the power supply.
- Never try to start the device using a defective mains cable or a faulty connection.
- Never undertake maintenance work on the device whilst it is still live.



▲ DANGER!

Incorrect installation.

Electric shock or damage to connected devices:

- Install as shown in installation instructions.



▲ WARNING!

Hot components!

Burns:

- Blown fuses may only be exchanged once the system has been disconnected from the power supply.
- Blown fuses may only be replaced once the cause of the fault has been identified and rectified.
- Never bypass or repair fuses.
- The rear of the device may become hot during operation. Do not touch.
- Only use original fuses rated as specified on the device.

3 Application and function

The AD 01 and AD 02 adapters are used in order to switch additional consumers via the two vehicle settings "Ignition on" and "D+" on or off. An additional fused unswitched plus-output is also available.

This feature is required, for example, for switching additional position lights and fog lights. The AD 01 adapter also has the option of activating a voltage as soon as the engine is running (amplifying the D+ signal; suitable for switching consumers with a higher power consumption, that can then only be used when the engine is running).

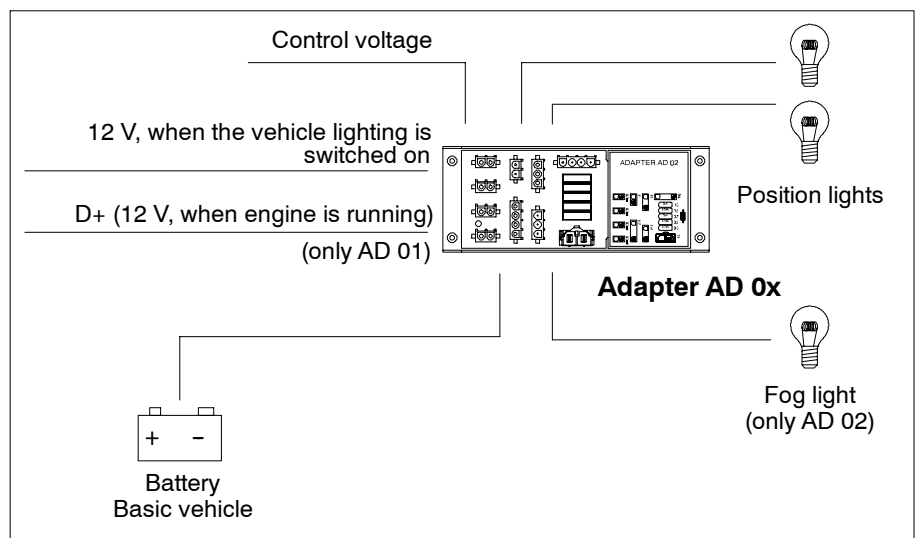


Fig. 1 Principal function of AD 0x adapter

The adapter can be used in the following vehicles:

- AD 01: Fiat Ducato and comparable vehicle types
- AD 02: Mercedes Sprinter and comparable vehicle types

Modules The adapters contain:

- Switching relay
- Flat-vehicle fuses for the 12 V circuit
- Current limiter for the D+ output (only AD 01)

Required control circuits

To operate the adapter it must be connected to the corresponding control voltages of the vehicle (vehicle lighting on, D+, ignition on, control voltage 1 and additional heating (AD 01) or 4 (AD 02)) and with the battery voltage.



▲ Input additional heating (AD 01) or input 4 (AD 02) is ground-switched.

AD 01 The following can be connected:

- Four additional position lights (fuse: 5 A)
- An additional heating unit (fuse: 15 A)
- Devices that need a permanent supply (fuse: 15 A)
- Devices that cannot be switched on if the ignition is turned off (fuse: 15 A)
- D+ control voltage for devices that cannot be switched on until the engine is running (electronically limited to 2 A)

AD 02 The following can be connected:

- Four additional position lights (fuse: 5 A)
- An additional fog light (fuse: 5 A)
- Two devices, switched via a separate control input (input 1, see Appendix E) (fuse: 15 A)
- One device, switched via a separate control input (input 4, see Appendix E) (fuse: 15 A)

Current carrying capacity

12 V outputs may only be loaded up to a maximum of 90 % of the rated current of the associated fuse (see block diagram or name plate).

Maximum total current

All consumers combined may not exceed the following load (depending on the fuses on the vehicle battery):

- 45 A

4 Design

4.1 AD 01

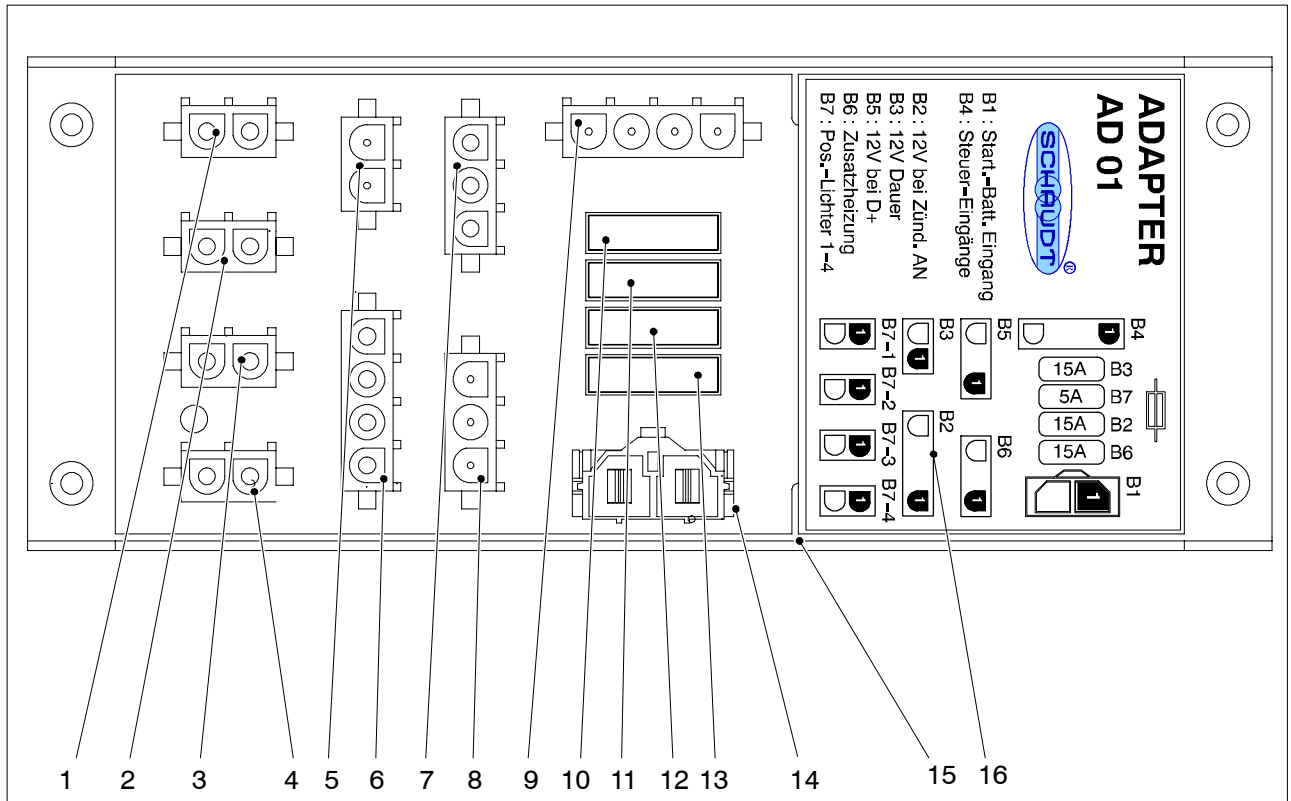


Fig. 2 Adapter AD 01

- 1 Connections position light 1
- 2 Connections position light 2
- 3 Connections position light 3
- 4 Connections position light 4
- 5 12 V continuous current
- 6 12 V for ignition ON
- 7 12 V when engine is running (D+)
- 8 12 V for additional heating
- 9 Connection control voltages vehicle
- 10 Flat-vehicle fuse for 12 V continuous current
- 11 Flat-vehicle fuse for position lights
- 12 Flat-vehicle fuse 12 V for ignition ON
- 13 Flat-vehicle fuse for additional heating
- 14 Connection for vehicle battery
- 15 Casing
- 16 Adhesive label

4.2 AD 02

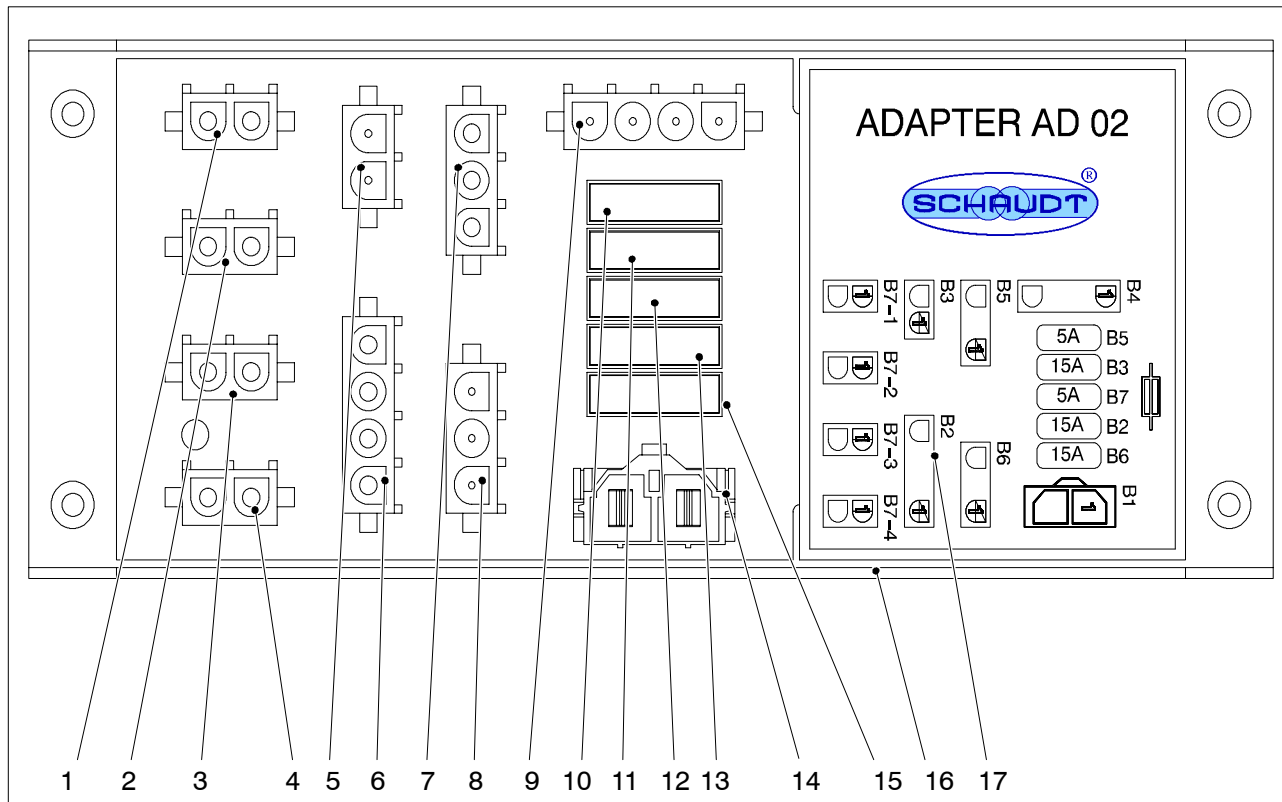


Fig. 3 Adapter AD 02

- 1 Connections position light 1
- 2 Connections position light 2
- 3 Connections position light 3
- 4 Connections position light 4
- 5 12 V for ignition ON
- 6 12 V, switched from input 1
- 7 Connections for fog lights
- 8 12 V, switched from input 4
- 9 Connection control voltages vehicle
- 10 Flat-vehicle fuse for fog lights
- 11 Flat-vehicle fuse 12 V for ignition ON
- 12 Flat-vehicle fuse for position lights
- 13 Flat-vehicle fuse for 12 V output 1
- 14 Connection clip 15 – vehicle
- 15 Flat-vehicle fuse for 12 V output 4
- 16 Casing
- 17 Adhesive label

5 Operation

The AD 01 and AD 02 adapters do not have any operating elements. They are operated via the basic vehicle.

5.1 Faults

Flat-vehicle fuses The majority of power supply system faults are caused by blown fuses.

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 caravan power supply repaired at a specialist garage. In this case you must ensure that the warranty is not invalidated by improper repairs being carried out. Schaudt GmbH will not accept any liability for damage resulting from such repairs.

Fault	Possible cause	Remedy
A connected device or one or more lights do not work	No 12 V supply from the battery	Check battery voltage on AD 0x (connector B1)
		Check fuse in the battery feed cable and replace if necessary
	Fuse in AD 0x faulty	Replace fuse
	A control voltage is missing	Call customer service

6 Maintenance

The adapter does not require maintenance.

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Appendix

A EC conformity declaration

Schaudt GmbH hereby confirms that the design of the AD 01 and AD 02 adapters correspond to the following relevant regulations:

EC low voltage directive

73/23/EEC edition with amendments issued on 22.07.93

Electromagnetic compatibility directive

89/336/EEC with amendments 92/31/EEC

The original EU declaration of conformity is available for reference at any time.

Manufacturer Schaudt GmbH, Elektrotechnik & Apparatebau

Address Planckstraße 8
88677 Markdorf
Germany

B Customer service

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

Tel.: +49 7544 9577-16 e-mail: kundendienst@schaudt-gmbh.de

Office hours	Mon to Thur	08:00 – 12:00, 13:00 – 16:00
	Fri	08:00 – 12:00

Send in device Returning a defective device:

- Always use well-padded packaging.
- Fill in and enclose the fault report, see Appendix C.
- Send it to the addressee (free-of-charge delivery).

C Fault report

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

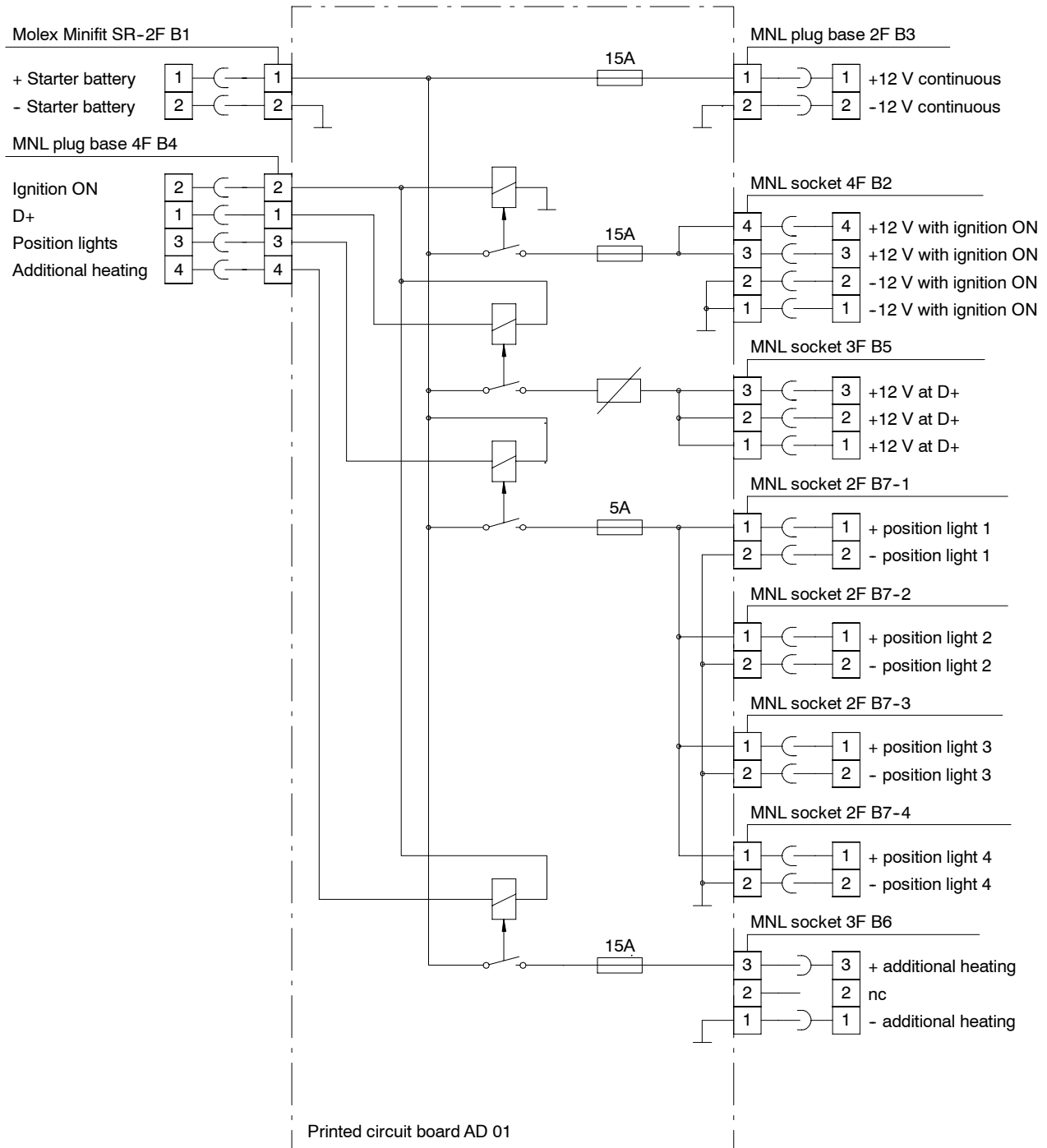
Device type: _____
 Article no.: _____
 Vehicle: _____ Manufacturer: _____
 Model: _____
 Own installation? Yes No
 Upgrade? Yes No

Please select the fault from the following:

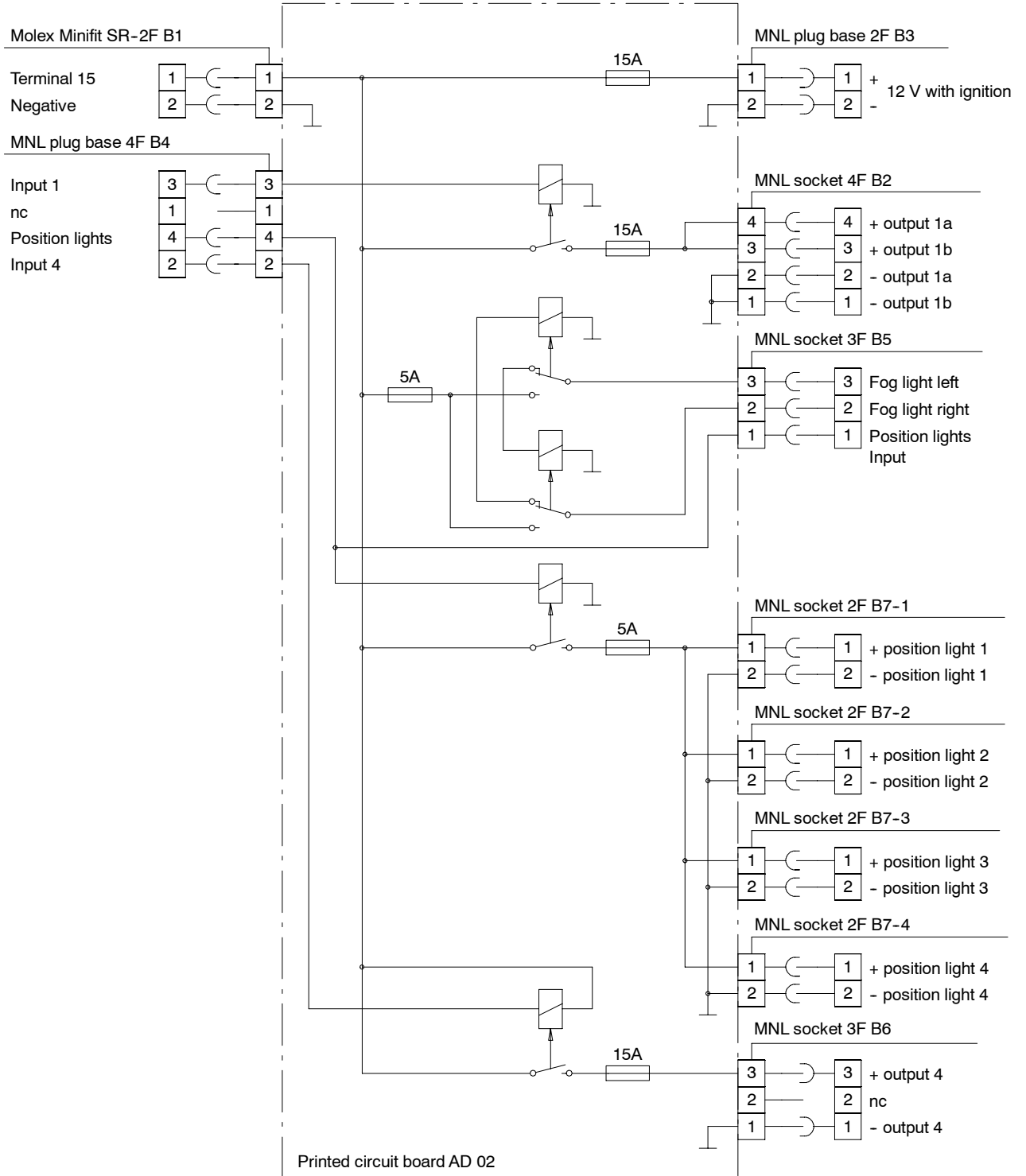
Electrical consumers do not work - which?	
Cannot switch on/off	
Permanent fault	
Temporary fault/loose contact	

Other remarks:

D Block diagram/circuit diagram AD 01



E Block diagram/circuit diagram AD 02



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