

Fig. 63 Transformer/rectifier (EBL 30)

- 1 Block 6: Solar charge regulator (if fitted)
- 2 Block 1: Refrigerator
- 3 Block 2: Refrigerator power supply D+, battery sensor/control lines
- 4 Block 4: Heating, basic light (lighting in the entrance area), entrance step
- 5 Block 3: Panel
- 6 Block 5: Reserve 2, sockets, basic light
- 7 Block 7: Auxiliary charging unit
- 8 Block 8: Appliances, TV, water pump, reserve 1, multimedia, sockets
- 9 Battery selector switch (Gel/AGM)
- 10 Fuses
- 11 Battery cut-off switch ("Batterie Ein/Aus" (battery On/Off))
- 12 Mains connection 240 V~

Functions The transformer/rectifier has the following functions:

- The transformer/rectifier charges the living area battery. The transformer/rectifier charges the starter battery with a float charge only.
- The transformer/rectifier monitors the voltage in the living area battery.
- The transformer/rectifier distributes the current to the 12 V circuits and secures them. Devices with a maximum of 10 A can be connected to the sockets.
- The transformer/rectifier provides connections for a solar charge regulator, an auxiliary charging unit, as well as other control and monitoring functions.
- When the vehicle engine is turned off, the transformer/rectifier separates the starter battery electrically from the living area battery. This prevents the 12 V living area appliances from discharging the starter battery.
- The battery cut-off switch in the transformer/rectifier separates all the appliances from the living area battery.

The transformer/rectifier only works in conjunction with a panel.

The power in the transformer/rectifier (maximum 18 A) is divided into charging current and current to the appliances. The charging current is always just the portion that is not being used by any appliances. If the current to the appliances exceeds the current available, then the living area battery is discharged.

Position See section 8.8.

Fuses on the living area battery

The fuses are installed in the vicinity of the living area battery.



- 1 Jumbo flat fuse 40 A/orange (for the transformer/rectifier)
- 2 Flat fuse 2 A/grey (for battery sensor, living area battery)
- 3 Flat fuse 20 A/yellow (for special equipment: heating)
- 4 Flat fuse 15 A/blue (for special equipment: heating switch)

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Fig. 68 Fuses (living area battery)

Fuses on the relay box AD01

For the position of the relay box AD01 see section 8.8.

FuNo	Function	Value/colour
B2	Cl. 15 (ignition on)	15 A blue
B3	Cl. 30 (constant positive)	15 A blue
B5	Signal D+	Internal Polyswitch (2 A)
B6	Spare (additional heater)	15 A blue
B7	Lamps	5 A light brown

Fuse for the Thetford toilet (swivel toilet)

The toilet has a maintenance-free fuse which resets automatically.

Fuses on the transformer/rectifier EBL 30

Function	Value/colour
Solar charger module	15 A blue
Internal charger module	20 A yellow
Refrigerator	20 A yellow
Heater	10 A red
Basic light/entrance step/awning light	15 A blue
Basic light	25 A white
Basic light/radio	15 A blue
12 V sockets, USB charging socket	10 A red
Spare 2, electric pull-down bed	10 A red
12 V sockets, USB charging socket	10 A red
Multimedia	10 A red
Spare 1	10 A red
Circuit 1 (light 1)	15 A blue
Auxiliary charging unit	20 A yellow
Circuit 2 (light 2, waste water tank drainage)	15 A blue
TV	10 A red
Water pump	7.5 A brown

8.9.2 Block diagram 12 V

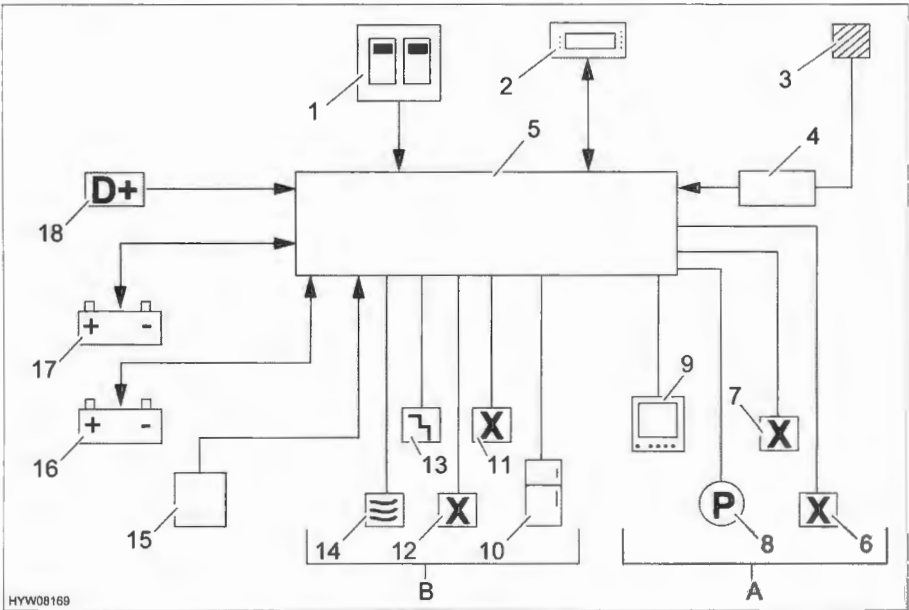


Fig. 71 12 V circuit diagram

1	240 V automatic circuit breaker
2	Panel with 12 V main switch
3	Solar
4	Solar regulator
5	Transformer/rectifier with battery cut off switch
A	Light, consumer circuits can be switched on/off via 12 V main switch
6	Sockets 1, sockets 2, spare 1, 2
7	Circuit 1, circuit 2
8	Pump (water pump)
9	Multimedia/TV
B	Basic supply can be switched on/off via battery cut-off switch
10	Refrigerator
11	Basic light 4A (special equipment, e.g. defroster)
12	Basic light 4B/radio
13	Basic light, step
14	Heater
15	Auxiliary charging unit
16	Living area battery
17	Starter battery
18	(D+)

Fig. 71 shows a schematic diagram of the 12 V network.