



**POWER
ON BOARD**





A steady, onboard power supply is an essential part of mobile travel. Charging systems from Lippert enable batteries to be perfectly charged and onboard electrical devices to be supplied with power in all situations.

MOTORCARAVAN & CARAVAN BOOSTERS



Motorcaravan (#2021104771)

When using an energy-saving charging alternator (Euro 6), using a booster is required because the charging voltage fluctuates very strongly (12,6V to 15V).

When using a conventional alternator, the living area battery charge can be improved by using a booster.

- Charges 12V lead-acid, lead-gel, AGM and lithium batteries while driving, regardless of alternator voltage
- For AGM batteries that require a charging voltage of 14,7V, using a booster is required
- Charging characteristic curve: IUoU (current-dependent switchover to trickle charge)
- Temperature compensation when a sensor is connected
- Maximum charging current is adjustable in four increments: 45 A, 55 A, 63 A and 70 A



Motorcaravan (#20211047228)

When using an energy-saving charging alternator (Euro 6), using a booster is required because the charging voltage fluctuates very strongly (12,6V to 15V).

When using a conventional alternator, the living area battery charge can be improved by using a booster.





- Charges 12V lead-acid, lead-gel, AGM and lithium batteries while driving, regardless of alternator voltage
- For AGM batteries that require a charging voltage of 14,7V, using a booster is required
- Charging characteristic curve: IUoU (current-dependent switchover to trickle charge)
- End-of-charge voltage 14,4V to 14,7V depending on battery type (at a battery temperature of 25°C)
- Temperature compensation when a sensor is connected



Caravan (#2021104721)

For the use in caravans (not suitable for motorcaravans).

- Increases the charging voltage in the caravan so that the caravan battery can be charged when driving
- Cut-off from towing vehicle when ignition is switched off
- Voltage compensation of fluctuating alternator voltage
- Status info via LED

Kit #	Includes	Output Current	Max Input Current	Input Voltage	Output Voltage	Reverse Current Caravan Battery		 Height	 Width	 Depth
2021104771	Motorcaravan booster (WA 121545), all battery sensors, connectors, fuses, instructions	Up to 70 A	65 A	12V to 15V	14,7V**	<0,2mA*	1150 gr	73 mm	170 mm	193 mm
2021104722	Motorcaravan booster (WA 121525), temperature sensor (3mtr), instructions	25 to 30 A	28 A	12V to 15V	14,7V**	<0,2mA*	400 gr	55 mm	148 mm	95 mm
2021104721	Caravan booster (WA 1208), all connectors, fuses, instructions	8 A	9 A	9V to 14,5V DC	14,4V	<0,5mA*	270 gr	50 mm	130 mm	89 mm

* With ignition off or engine off

** Up to 15,0 (WA 121545) / 15,1 (WA121525) volts depending on battery temperature and selected battery type

SOLAR REGULATOR KITS (12V DC)



Solar regulator (#2021104717)

This clocked regulator that ensures the connected solar modules are always properly functioning while the battery is in the mains charging phase regardless of solar radiation, battery voltage and module temperature.

- Charging voltages can be adapted to the living area battery through the setting options and the optional temperature sensor
- Charging current to the living area battery max 20 A (starter battery 2,5 A)
- Suitable for six-cell 12V lead-acid, AGM or lead-gel batteries
- Characteristic curve: IUoU, control principle: MPP
- Charging voltage range 13,2V to 14,9V (temperature controlled)
- SDTBUS capable



Solar regulator (#2021104720)

This regulator limits and regulates the charging voltage from the solar modules. It ensures up to two batteries are partially charged.

- Built-in isolation diode prevents discharge if the charging voltage is insufficient, in the dark for example
- Suitable for six-cell 12V lead acid or lead-gel batteries
- End-of-charge voltage for both batteries 14,2V, characteristic curve: IU



Display control panel (#2021104718)

This display control panel connects directly to a corresponding Schaudt solar regulator.

- Displays the solar charging current for the living area or starter battery
- Compatible with the following Schaudt solar regulators: LRM 1218, LR 1218

Kit #	Includes	Input Voltage	Max Total Current	Charging Voltage	📦	📏 Height	📏 Width	📏 Depth
2021104717	Solar regulator (LRM 1218), temperature sensor (2.5mtr), connectors to 12V consumers, fuses and cables to connect to EBLs, instructions	16 - 32V	20 A	13,2V - 14,9V	360 gr	55 mm	148 mm	95 mm
2021104720	Solar regulator (LR 1218), connectors to 12V consumers, fuses and cables to connect to EBLs, instructions	16 - 25V	18 A	14,2V	160 gr	110 mm	75 mm	56 mm
2021104718	Panel (LT 320), connectors and cables for LR(M), instructions	12V from LR(M) 1218	--	--	75 gr	110 mm	110 mm	35mm

CARAVAN POWER SUPPLY KITS (230V AC / 12V DC)

Power supply units

Power supply units supply 12V equipment such as immersion pumps, fans, lights and similar devices. They are most commonly used for caravans connected to a 230V network and power the utilities from the vehicle battery for a limited amount of time.

#2021104770

- Output voltage: 12,5V DC
- Max output current: 24 A (permanent 18 A)
- Five separately fused 12V current circuits
- Installation space (mounting rail 35 mm, 4TE) for 230V basic distribution available
- Priority circuit for mains supply, otherwise supply of utilities from the car battery
- For operation without battery
- Power supply (CSV 300) with instructions







CSV 300

#2021104728

- Output voltage 12,5V DC, output current 32 A
- Six separately fused 12V current circuits
- Priority circuit for mains supply, otherwise supply of utilities from the car battery
- Output voltage stabilized and screened
- Connection option for water tank monitoring control panel
- Connection option for refrigerator supply
- Power supply (CSV 400) with instructions



CSV 400

Kit #	Includes	Input Voltage	Max Total Current	Output Voltage		 Height	 Width	 Depth
2021104770	Power supply (CSV 300), instructions	230V mains - 12V from car	Supply 24 A	12,5V	1500 gr	84 mm	211 mm	227 mm
2021104728	Power supply (CSV 400), instructions	230V mains - 12V from car	Supply 32 A	12,5V	2000 gr	111 mm	320 mm	217 mm
2021104731	Battery charger (CSV 409), mains-switch (ST 05), all cables, instructions	230V mains - 12V from car	Charging 28 A	14,2V	2000 gr	111 mm	320 mm	217 mm
2021104738	LED control panel (LT 100), water tank level probe (M400), all cables, instructions	12V from CSV 409	--	--	85 gr	92 mm	150 mm	25 mm

Battery charger kit (#2021104731)

Intended for use in autarkic caravan, our battery charging module features complete 12V distribution, fuse protection of the 12V current circuits, as well as other control and monitoring functions.

- Battery charging through 230V supply with 28 A, characteristic curve IUoU
- Suitable for six-cell lead-acid and lead-gel batteries
- 8 A charging booster for battery charging while driving
- Bistable mains latching relay (12V)
- Connection for solar controller LR 1218 / LRM 1218
- Automatic switch-off of utilities when ignition is switched on
- Optional control panel available (#2021104738)
- Battery charger (CSV 409), mains-switch (ST 05), all cables and instructions



CSV 409

LED control panel kit (#2021104738)

This LED panel is intended for operation in self-sufficient caravans and can be used with a CSV 409 charger. Connection material for CSV included in scope of delivery. Tank probes are also required.

- Voltage LED display in four levels for the living area battery
- Optical battery alarm triggering in case of significant battery voltage drops
- Tank level gauge in four stages for domestic use water tanks
- 12V mains switch with switch-on control unit
- 230V network control unit
- LED control panel (LT 100), water tank level probe (M 400), all cables and instructions



LT 100

M 400



ELECTRO BLOCK POWER SUPPLY KITS

- For use with motorcaravans
- EBL 208 for use with six-cell lead-acid and lead-gel batteries
- EBL 211 for use with six-cell AGM and lead-gel batteries
- Charging module: Characteristic curve IUoU, charging current 18 A
- Bistable mains latching relay (12V) and battery monitor module
- Features a battery cutoff switch for winter storage
- Connection for a solar charge regulator LR(M) 1218
- Kits include electro block power supply (EBL 208 or EBL 211), control panel (LT 453), water tank level probe (M 400) and all required connectors, fuses and cables with instructions

Electro block system control panel

- LED display panel can be mounted inside the motorcaravan
- Voltage displays in eight levels for living area and starter batteries
- An optical battery alarm will trigger if the battery voltage drops significantly
- Displays water tank level in four increments for up to two water tanks
- 12V mains switch with switch-on control unit
- 230V network control unit
- Pump switch with switch-on control unit

Water tank level probe

- Measures fresh and wastewater tanks up to 400 mm deep
- Quick, easy installation
- Includes cable, lock-nut and seal
- Other cable and probe lengths available upon request



EBL 211 front



EBL 211 back



2021104727



2021104747

Kit #	Includes
2021104761	EBL 208, LT 453, M400
2021104732	EBL 211, LT 453, M400

Name	Tank Depth		 Height	 Width	 Depth
2021104727	--	173 gr	112 mm	180 mm	25 mm
2021104747	Up to 400 mm	200 gr	18 mm	60 mm	60 mm

BATTERY CHARGERS (230-VOLT AC / 12-VOLT DC)

- Charging current of 18 A and characteristic curve IUoU
- Execution as primary switched-mode power supply
- Also for increasing the charge in systems with electro blocks
- Also for power supply and starter battery recharging
- LAS BUS provides temperature-compensated charging
- LEDs show the charging phase
- High-efficiency of approximately 90%
- A high charging current can be achieved without fans, with compact dimensions and low weight
- Charging characteristic curve also suitable for AGM (LAS 1218: lead-acid, lead-gel)
- Supply mode (12,5V)
- SDTBUS capable (#2021104733 and #2021104773 only)
- LAS 1218-2 kits include battery charger and all required connectors with instructions
- LAS 1218 BUS kits include battery charger, temperature sensor and all required connectors with instructions
- Both chargers available with Schuko or Wago mains connector



LAS 1218-2



LAS 1218 BUS

Kit #	Includes		Height	Width	Depth
2021104740	LAS 1218-2 Schuko	1000 gr	90 mm	150 mm	250 mm
2021104759	LAS 1218-2 Wago	1000 gr	90 mm	150 mm	250 mm
2021104733	LAS 1218 BUS Schuko (TF 25)	1000 gr	90 mm	150 mm	250 mm
2021104773	LAS 1218 BUS Wago (TF 25)	1000 gr	90 mm	150 mm	250 mm

OVERVOLTAGE PROTECTOR

- Provides overvolt protection for 230V devices connected to the mains power source
- If overvoltage occurs, cut-off occurs within 10 milliseconds
- The devices remain switched off until the mains voltage is normal
- Two utility outputs
- Interrupting voltage Ueff: <175V AC, >265V AC



OVP 01

Kit #	Includes	Total Current	Voltage		Height	Width	Depth
2021104719	Overvoltage protection device (OVP 01), OVP to EBL cable, instructions	10 A	230	1150 gr	73 mm	170 mm	193 mm

LIGHT SYSTEM

- The button can be switched on and off through plus or minus
- Any buttons connected to the light system can be used as remote switches and dimmers for bulbs
- Accommodates connection of any number of buttons
- Compatible with most LED lights up to 10 A



LIS 101

Kit #	Includes	Max Current		Height	Width	Depth
2021104723	Light system (LIS 101), connectors, instructions	10 A	400 gr	59 mm	148 mm	95 mm