

DC-DC CHARGERS TRAINING GUIDE

DC-DC chargers take power from a vehicle's alternator to charge an auxiliary battery.

Good DC-DC chargers will:

- ensure a battery receives the correct level of charge
- ensure the battery reaches its maximum charge capacity
- be safe and fast.

Some DC-DC chargers charge batteries using a 3-step multistage charging algorithm.

- Bulk:** the primary charging stage. This is where 80% of charging occurs using the maximum current.
- Absorption:** the stage ensuring battery voltage is kept at a pre-set level, reducing current to allow the battery to absorb power.
- Float:** keeps the battery at an optimum level without overcharge or damage so the battery remains connected to the charger.

Some DC-DC chargers include a solar regulator. This means solar can be connected directly to the charger to keep charging the battery even when the engine is off, and a separate individual solar regulator is not required to add solar charging to the battery.

BM PRO DC-DC CHARGERS

MiniBoost

The MiniBoost is a compact multistage DC-DC battery charger with up to 20A output that allows you to charge a secondary battery using your towing vehicle's 12V electrical system. It is designed to work with BM PRO's BatteryPlus35, J35 and ASPERO systems.



MiniBoostPRO

The MiniBoostPRO is a multistage DC-to-DC battery charger with up to 30A output that allows you to charge a secondary battery using your solar panels and/or your towing vehicle's 12V electrical system.



ProBoost25

The ProBoost25 is a multistage DC-DC battery charger with up to 25A output that allows you to charge a secondary battery using solar panels and/or a towing vehicle's 12V electrical system.



ProBoost40

The ProBoost40 is a multistage DC-DC battery charger with up to 40A output that allows you to charge a secondary battery using solar panels and/or a towing vehicle's 12V electrical system.



FEATURE	MINIBOOST	MINIBOOSTPRO	PROBOOST25	PROBOOST40
Output	20A	30A	25A	40A
Maximum battery charge capacity	400Ah	600Ah	500Ah	800Ah
Charge stages	3 stages	3 stages	3 stages	3 stages
LiFePO4 (lithium) battery charging	When used with a lithium-compatible BatteryPlus35 or J35	Yes	Yes	Yes
AGM/Gel/Calcium/Wet battery charging	Yes	Yes	Yes	Yes
Standard lead-acid/calcium battery charging	-	-	Yes	Yes
Combined DC and solar charging	-	Yes	Yes	Yes
Solar regulator	None	PWM	MPPT	MPPT
Smart alternator compatibility	Yes	Yes	Yes	Yes
Fully tested in Australian conditions	Yes	Yes	Yes	Yes
IP Rating	IP20	IP20	IP66	IP66
Operating temperature	-20°C to 50°C	-20°C to 80°C	-20°C to 80°C	-20°C to 80°C