

ProBoost INSTALL GUIDE

BMPRO's ProBoost is a multi-stage DC-to-DC battery charger that enables the charging of a secondary battery using solar panels and/or a towing vehicle's 12V electrical system.

The ProBoost blends both solar and auxiliary inputs to ensure there is always a consistent charge to your battery. The ProBoost is available in two models, the ProBoost25 and the ProBoost40 to suit your charging needs.

PRECAUTIONS

Ensure the vehicle engine is turned off to prevent any short circuiting during installation.

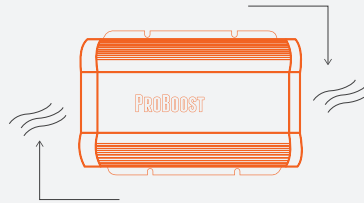
Use heat shrinkable tubing on all cables for insulation to prevent short circuits.

3. CABLE SIZE

Cable	Cable Colour	<5m	<10m
Solar	Green		
Alternator	Yellow	ProBoost25: 10 AWG ProBoost40: 8 AWG	ProBoost25: 8 AWG ProBoost40: 6 AWG
Output	Red		
Ground	Black		
Ignition	Blue	20 AWG	

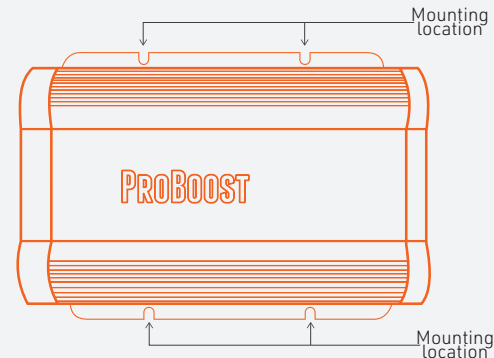
With cables between 10-8 AWG, BN8 Butt Splice Connectors are recommended.

1. LOCATION



Install the ProBoost in any orientation. Ensure the location is well-ventilated with airflow to prevent overheating.

2. MOUNTING



Securely mount the ProBoost to any strong flat surface, preferably close to the auxiliary battery.

4. VOLTAGE DROP CALCULATION

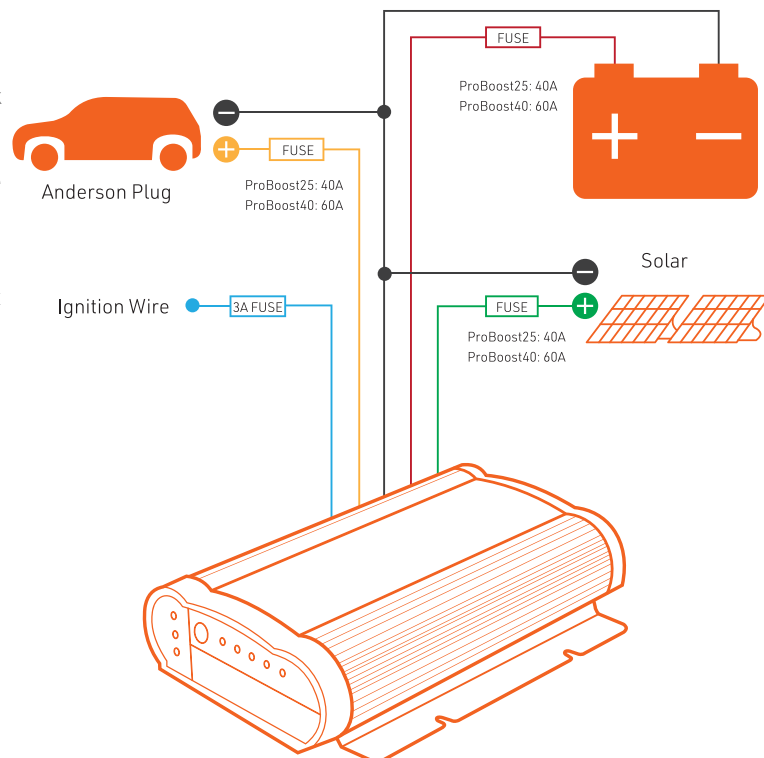
Scan the below QR code to determine the voltage drop of your wires.



<https://www.calculator.net/voltage-drop-calculator.html>

5. WIRING

1. Disconnect the negative pole of the starter battery.
2. Connect the red cable to the positive pole of the AUX battery.
3. Either connect the black cable to the negative pole of the AUX battery or connect both AUX battery negative terminals and the ProBoost black cable to the vehicle chassis ground.
4. Connect the yellow cable to the positive pole of starter battery.
5. Smart alternators: connect the blue cable to the ignition terminal of the vehicle (usually in the fuse box). If you do not have a smart alternator, leave the blue cable disconnected.
6. Solar panels: connect the green cable to the positive pole of the solar panel. Connect the negative terminal of the solar panel to the ProBoost black cable or vehicle chassis ground. If you do not have solar panels, leave the green cable disconnected.
7. Restore the negative connection of the battery.

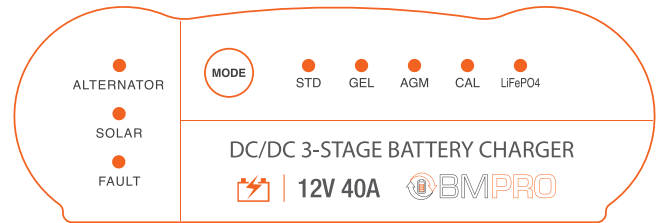


6. FUSING

Cable	Cable Colour	Fuse Recommendation	
		ProBoost25	ProBoost40
Solar	Green	40A	60A
Alternator	Yellow		
Output	Red		
Ignition	Blue	3A	

Fuses should be connected in series in circuit. Bolt down fuses are preferred. Blade type fuses and self-resetting circuit breakers are not recommended.

7. BATTERY TYPE SELECTION



Once installed, the battery type must be selected for the ProBoost to charge correctly. Press the Mode button until the LED is lit for the correct battery type.

8. LED CHARGE INDICATOR

LED FLASH KEY	
	Solid Colour
	Short Flash - 0.5s on, 0.5s off
	Long Flash - 1s on, 2s off
	LED Off

Charging Stage	Alternator LED/ Solar LED	Battery Type LED
Bulk or Absorption		
Float		

The LEDs on the ProBoost will illuminate to indicate the current charging stage. The flashing LED indicates the charging source (either alternator or solar). If both the alternator and solar LEDs are flashing, the charging source is from both the alternator and solar.

9. LED FAULT INDICATOR

LED STATUS KEY	
	Quick Flash - 0.2s on, 1.8s off
	No Light

Fault	Alternator LED	Solar LED	Battery Type LED	Fault LED	Solution
Low voltage detected at alternator input*					- Check battery voltage - Check if the battery is connected, or if there are broken cable connections at the battery
Low voltage detected at solar input					Check solar voltage
Low voltage detected at alternator or solar input					Check voltage at both alternator and solar panel
Overvoltage detected at output					Check auxiliary battery voltage and cable connections
High voltage detected at alternator output					Check battery voltage
High voltage detected at solar output					Check solar voltage
Overtemperature					Let the unit cool down or find a more ventilated area



PROBOOST MANUAL



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DOC PART 038643
REV 1.0

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