Recommended installation method for Poweroad Infinity lithium batteries being connected in parallel.

Most lithium batteries designed for use in motorhome, campervans and caravans have a built-in battery management system – BMS. When connecting these batteries in parallel, it's important to bear in mind that the batteries should be able to work together and to avoid connecting them so that there could be conflict between the BMS's. Some batteries have more sensitive BMS's than others but, for maximum efficiency, we recommend using the following connection method whenever lithium batteries are being connected in parallel.

Note: For the Poweroad **Infinity** range of batteries, this method is mandatory. If Infinity batteries are connected in parallel without using this method, they may not work correctly and the warranty will be void.

- 1. For every battery that's to be connected, you'll need two identical lengths of 10mm cable. So, for 2 batteries, you'll need 4 cables, all the same length. For 3 batteries and 4 batteries, six and eight cables respectively.
- 2. Use two busbars or power-joining boxes, one for positive connections and one for negative.
- 3. Connect a cable from each positive battery terminal to the positive busbar/power-joining box and a cable from each negative battery terminal to the negative busbar/power-joining box.
- 4. Use the busbars/power-joining boxes as if they were the battery terminals and don't connect anything directly to the battery terminals. Connect everything to the busbars/power-joining boxes.
- 5. Before using the batteries, charge them to 100% state of charge SoC.

To enable the BMS's in **Infinity** batteries to work together, we recommend linking the batteries with the communication cable/s which we supply with two or more batteries. The batteries are connected as shown in the diagram below. For two batteries, you'll need one cable, for three batteries, two cables, for four batteries, three cables, etc.





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