



Connecting a BMS should follow these steps:

1. Confirm the cells in the pack are as closely balanced as possible before assembling. The BMS has only a limited amount of balancing capacity, it is not intended to balance big differences in state of charge between cells, but can do so after a prolonged time period if required.
2. Connect the balance wires to each of the series cells whilst it is disconnected from the BMS. Do not under any circumstances try to terminate the balance wires with the balance plug connected to the BMS, a mistake WILL damage the BMS. Double check connections are correct with the black cable connected to the negative of the pack and the red wires connected to the positive of each series cell as detailed in the drawing. Measure each balance wire, referenced to the black negative wire. Confirm the voltage on each wire increases by 3.6V or 4.2V as applicable, to the cell type used (for example, 3.6, 7.2, 10.8, 14.4 etc).
3. Connect large BMS cables as detailed in the drawing. Do not connect the BMS to the battery pack unless the charge and controller supply are isolated or better yet fit them into the plugs you intend to use. Once the BMS is linked to the battery Pack the other cables and the metal parts of the BMS present a potential short circuit point so treat with caution.
4. Ensure the heavy cables used on the pack are adequately isolated. A short between an output cable, from the BMS will be protected against, but if anything shorts to the supply from battery there is no protection.
5. Take care to isolate the bolts used to assemble the BMS. Whilst there is some insulation on them, I recommend you do not rely on this and you should take steps to ensure there is adequate isolation between the cells in the pack or any live wires within the pack.
6. I strongly advise you use a pre-charge resistor as per the drawing, which will be included with the BMS. I have found the BMS is likely to be damaged if this is neglected, for sure the connectors will be damaged and the controller can also be damaged without a pre-charge.

