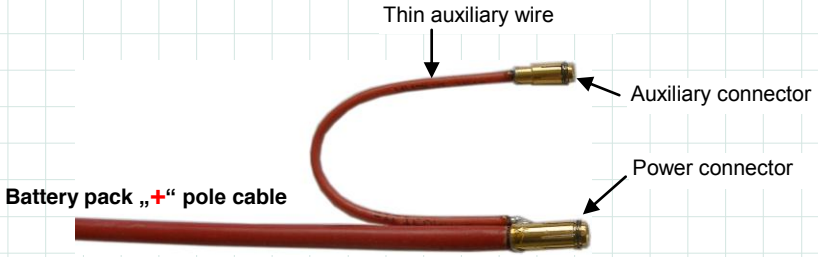
Antispark for X-SERIES controllers (25063, 40063)

How to use Antispark and its advantages:

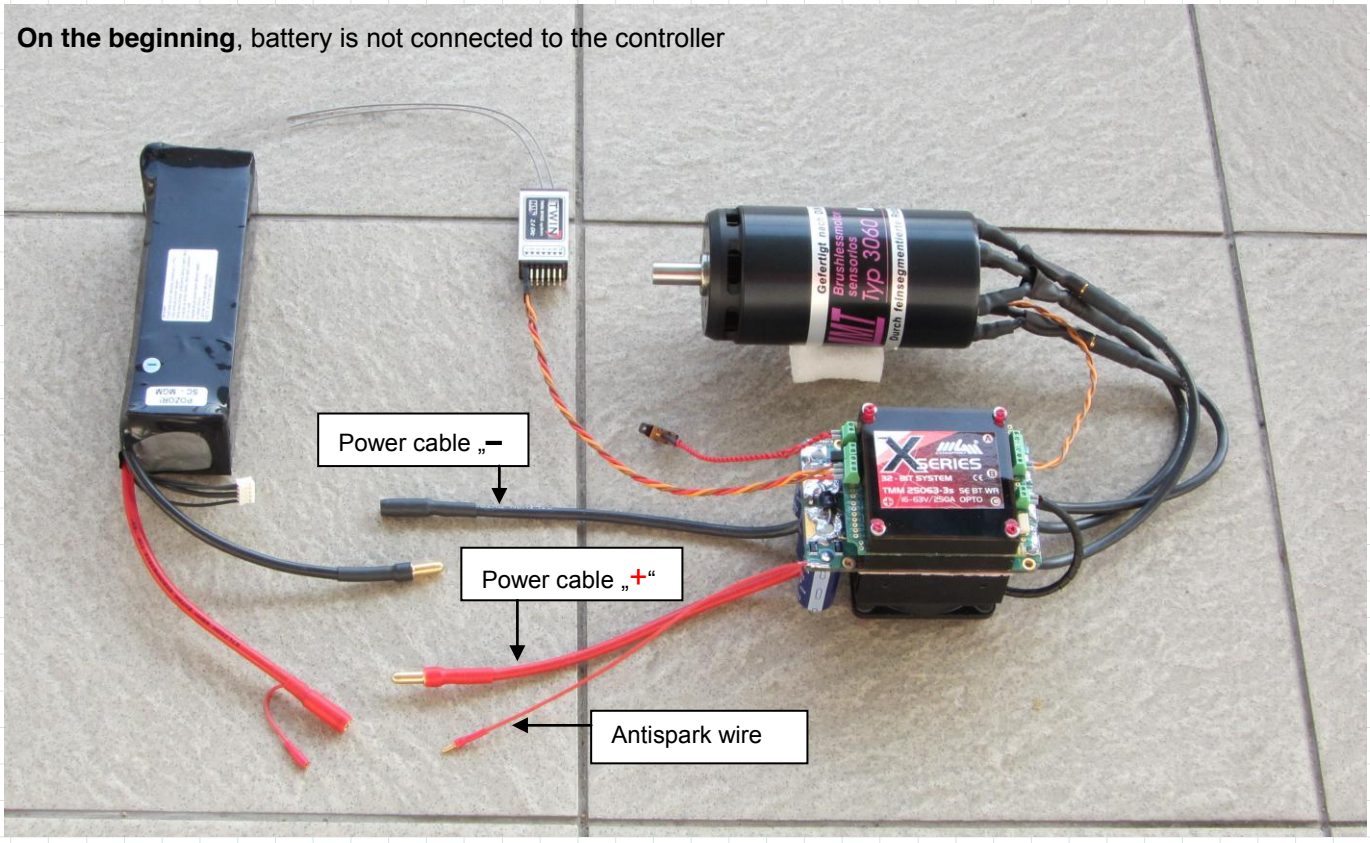
When connecting Li-xxx battery pack to the controller, strong sparking commonly occurs. This is caused by fast charging of controller's filter capacitors. Higher voltage (according to cell count), the lower cells internal resistance (better quality of the cell pack) generates more intensive sparking. Sparking also occurs depending on quality of used capacitors and its capacity. Better capacitors with higher capacity cause bigger sparks. MGM compro speed controllers are equipped with highest quality capacitors. This is why bigger sparking occurs when used with more cells and why it is recommended to use antispark. Beside the small shock that can be caused by sparking, the charging current of capacitors (in extreme cases) can be so high that can cause damaging of capacitors or its destruction!

Following few easy steps you can eliminate sparking when connecting the battery pack to controller. Both 25063-3 X-SERIES and 40063-3 X-SERIES are equipped with thin red wire that is used to eliminate this sparking.

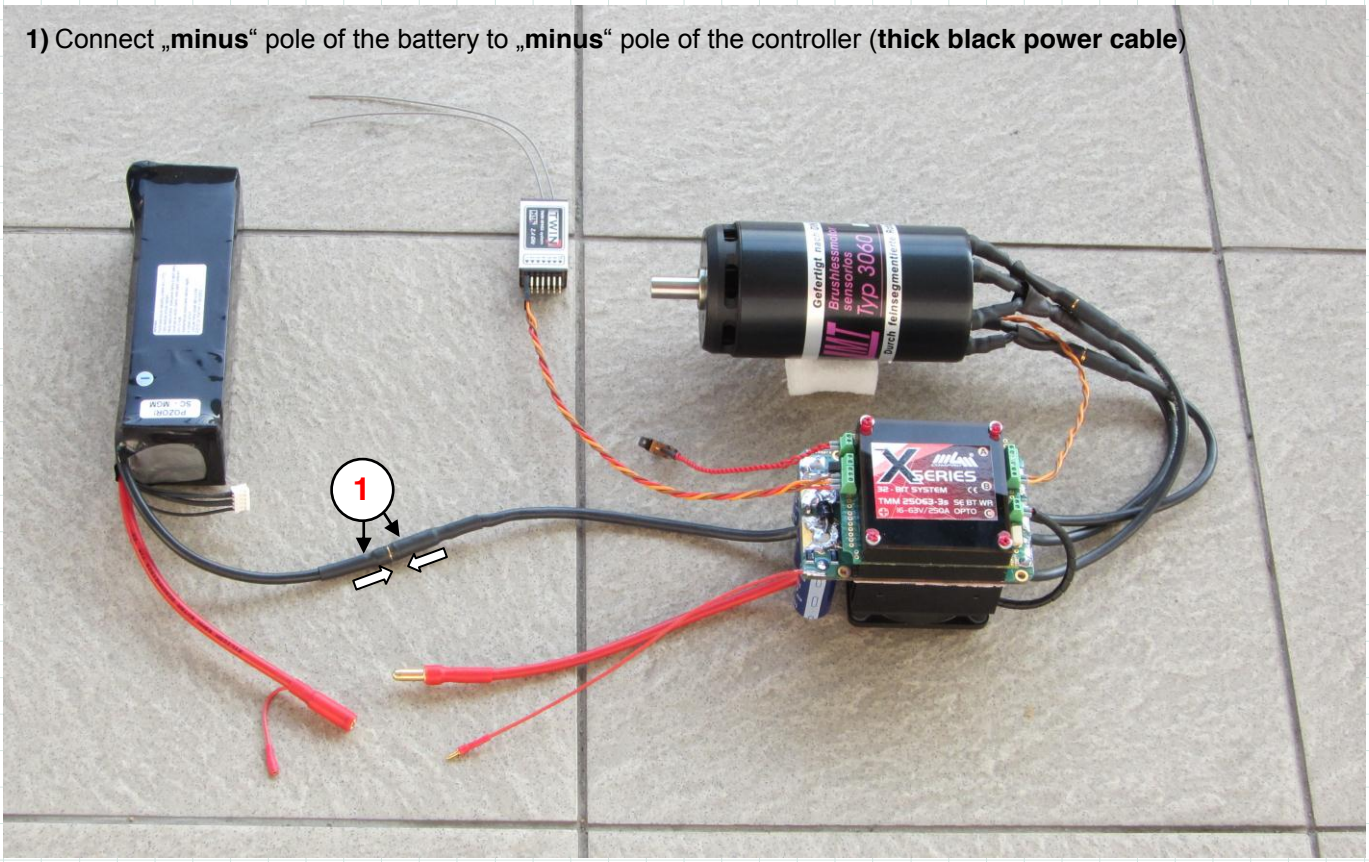
However for your battery pack (or, rather its „+“ pole cable) will be necessary to add small thin auxiliary wire (0,5 mm^2 cross-section is sufficient), best with silicone insulation. Solder small connector on this thin auxiliary cable and its counterpart to thin controller antispark wire (for example MP JET 1.8) according the picture below.



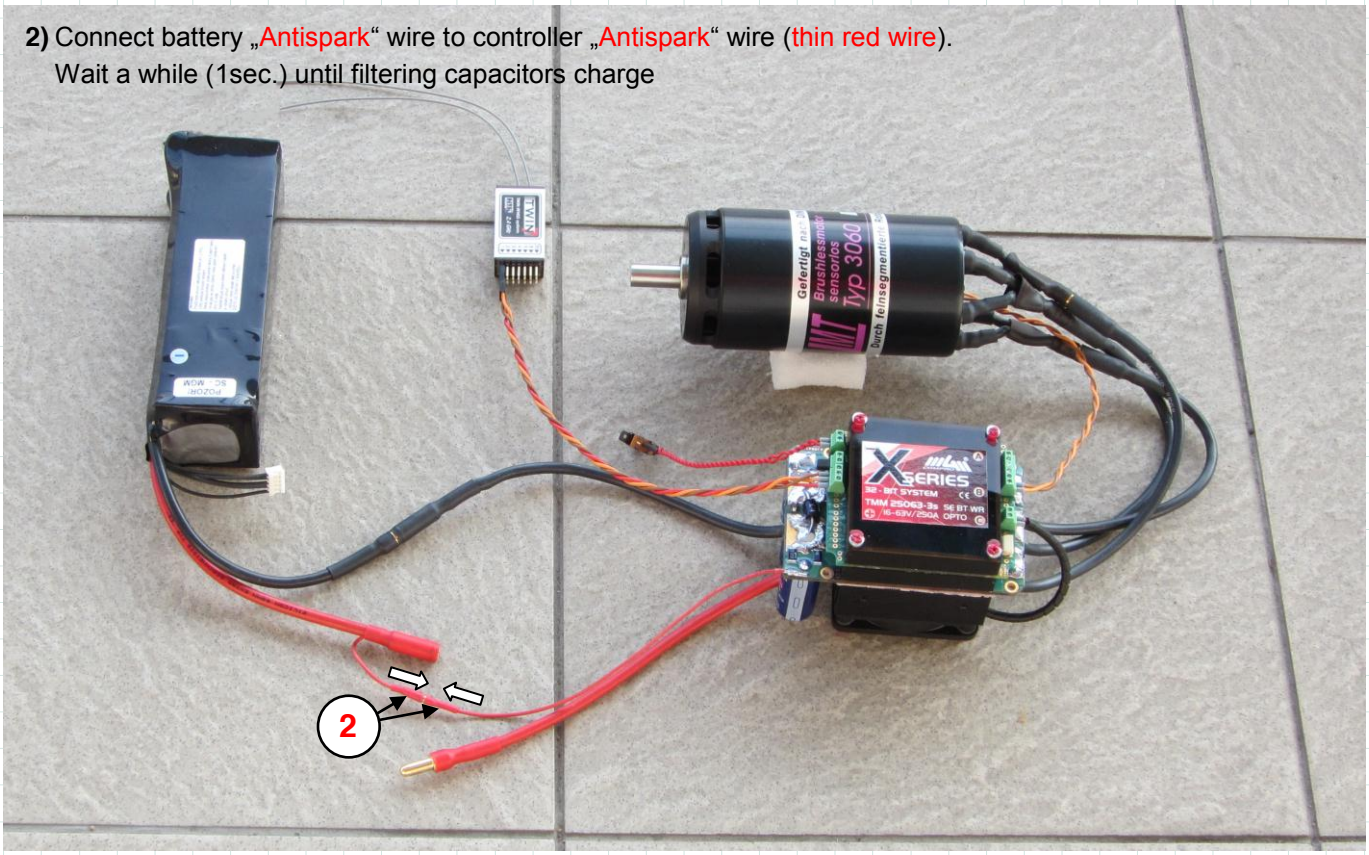
I. How to connect (one battery pack):



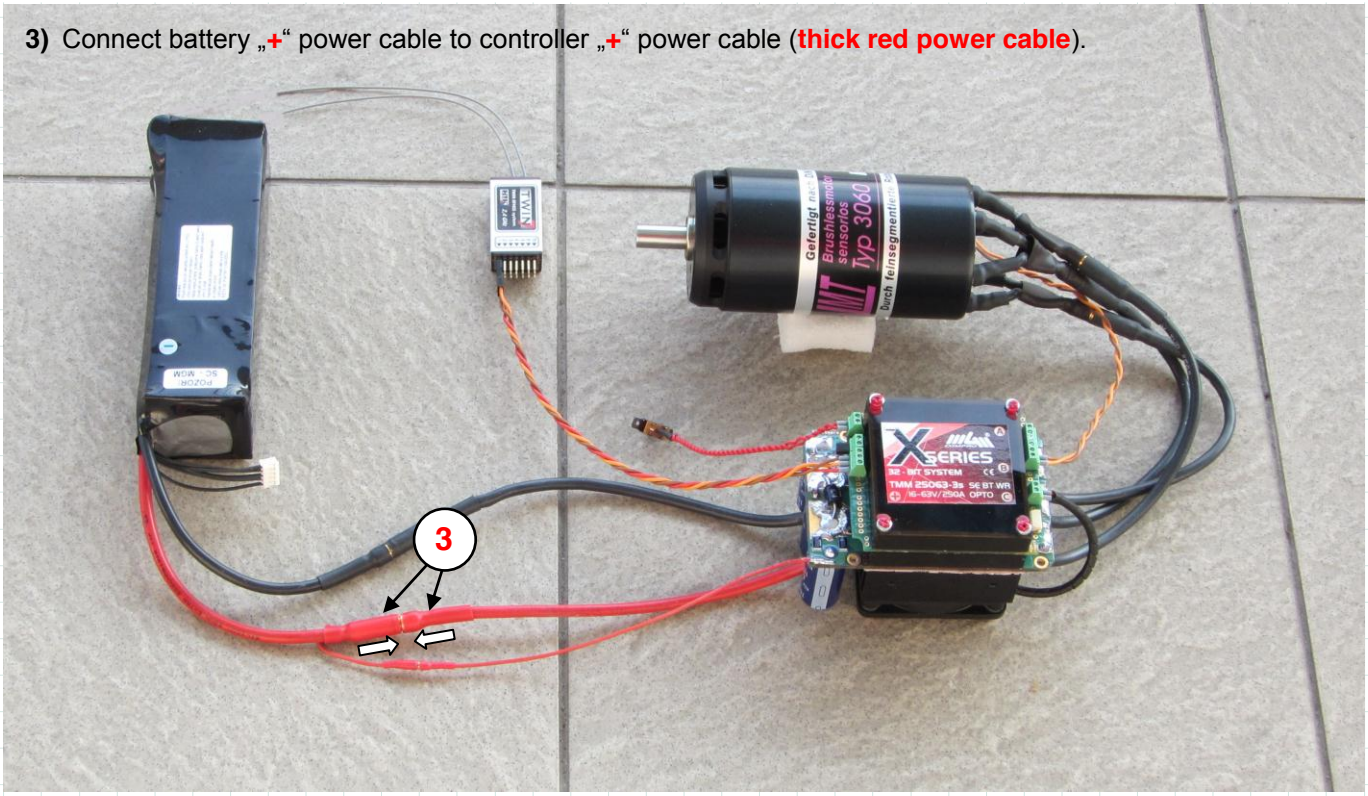
1) Connect „**minus**“ pole of the battery to „**minus**“ pole of the controller (**thick black power cable**)



2) Connect battery „Antispark“ wire to controller „Antispark“ wire (thin red wire).
Wait a while (1sec.) until filtering capacitors charge



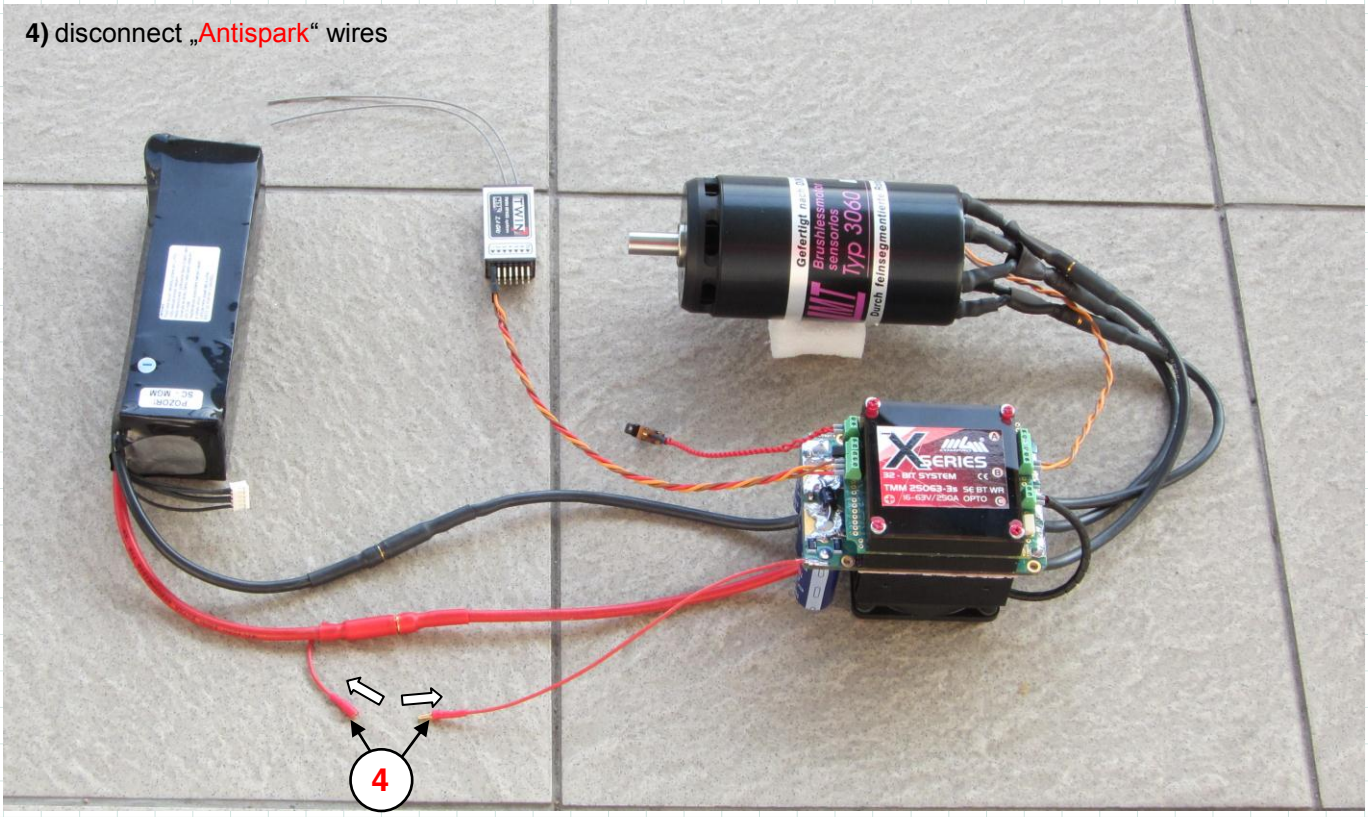
3) Connect battery „**+**“ power cable to controller „**+**“ power cable (**thick red power cable**).



Now you can turn-on the controller by on/off switch. Controllers without on/off switch are turned-on automatically at this moment.

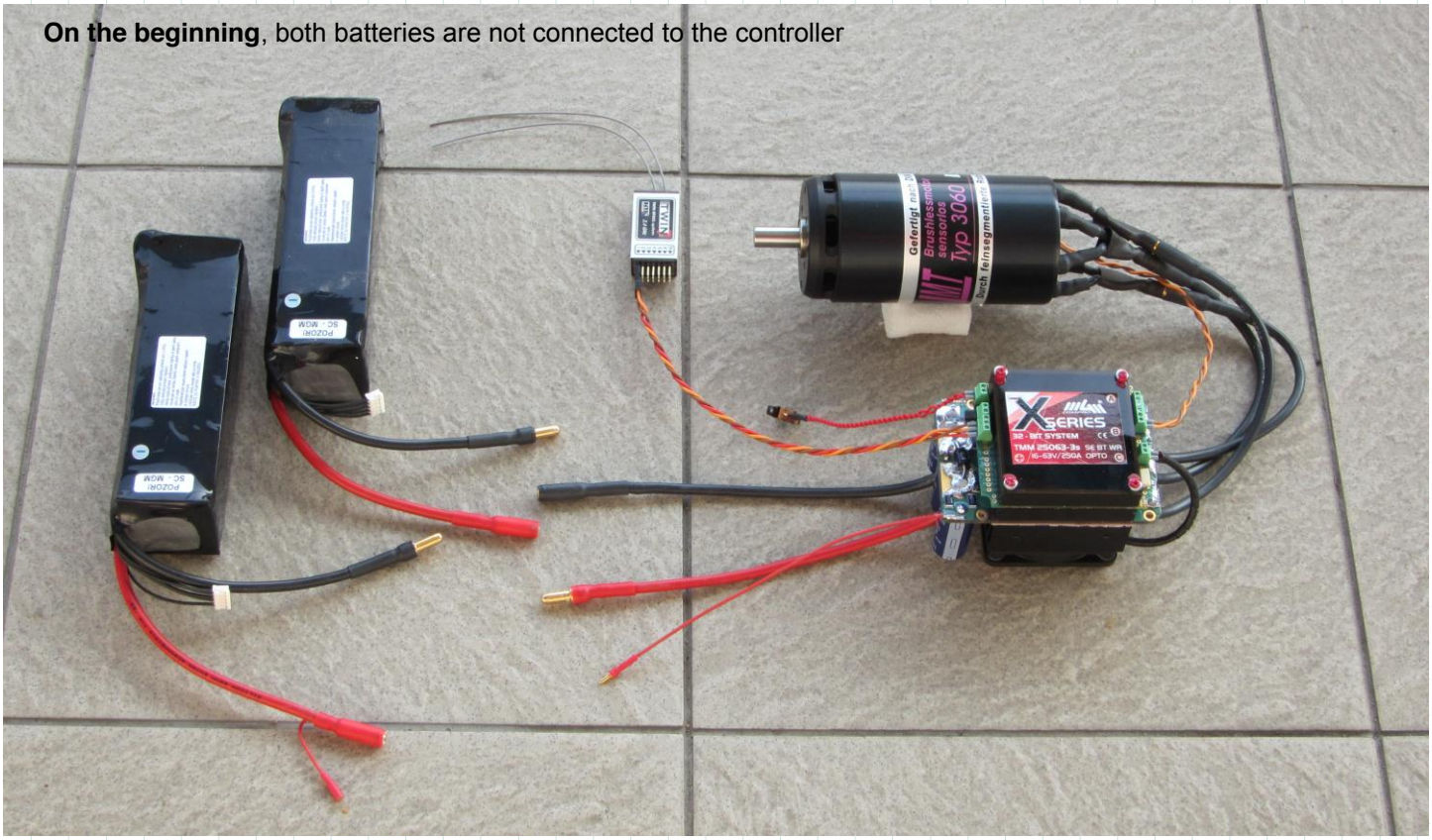
How to disconnect:

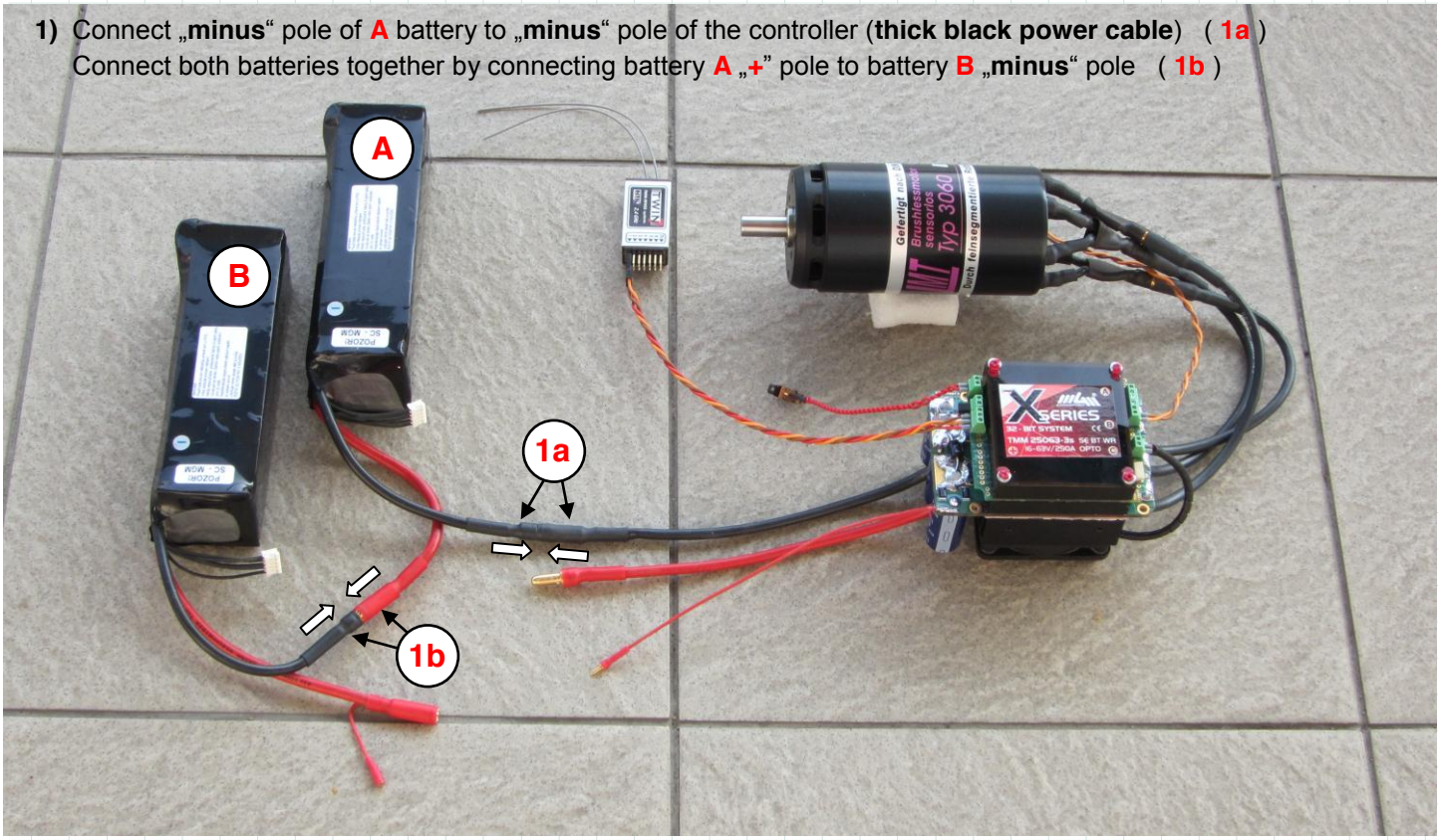
4) disconnect „Antispark“ wires



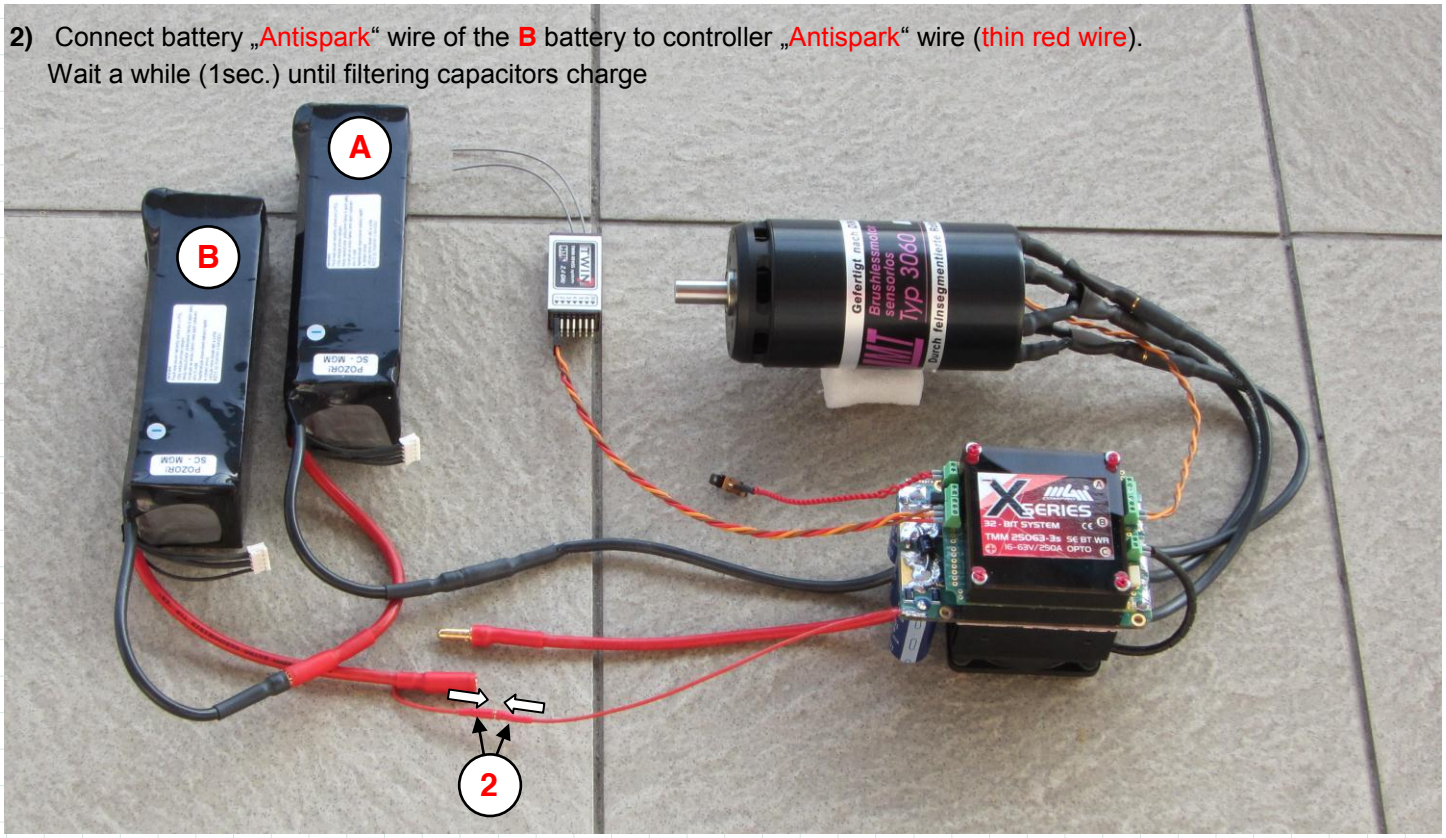
5) disconnect **red power** „**+**“ cables (3)
6) disconnect **black power** „**minus**“ cables (1)

II. How to connect (when using two battery packs connected in series):

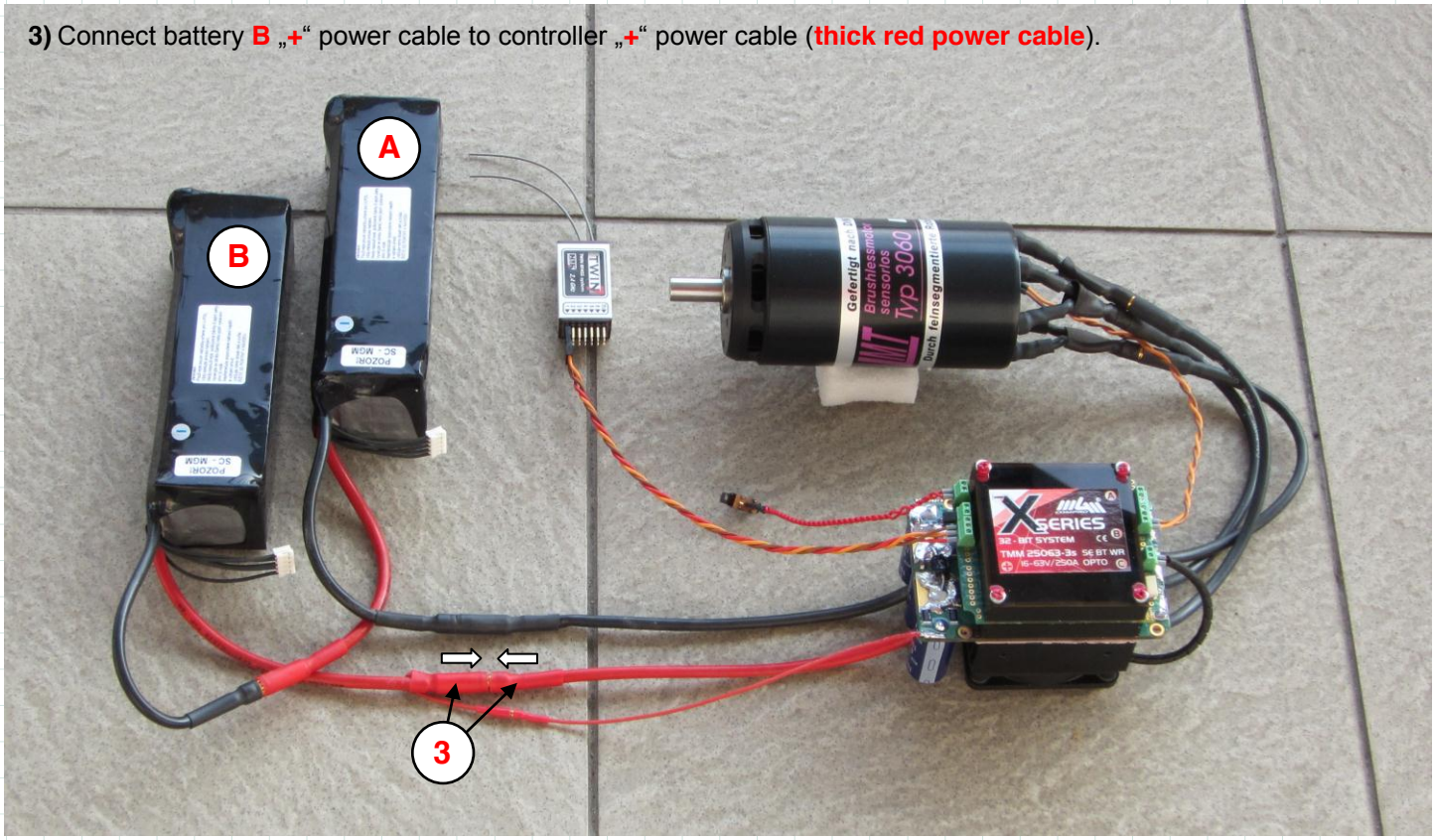




2) Connect battery „Antispark“ wire of the **B** battery to controller „Antispark“ wire (thin red wire).
Wait a while (1sec.) until filtering capacitors charge



3) Connect battery **B** „**+**“ power cable to controller „**+**“ power cable (**thick red power cable**).



Now you can turn-on the controller by on/off switch. Controllers without switch are turned-on automatically at this moment.

How to disconnect:

4) disconnect „Antispark“ wires (2)
5) disconnect **red power** „**+**“ cables (3)
6) disconnect **black power** „**minus**“ cables (1b / 1a)