



860 S. 19<sup>th</sup> St. Unit A, Richmond CA 94804  
Tel: 1-510-525-2328 Fax: 1-510-439-2808

## Instruction on how to assembly a 25.6V 12.5Ah LFP Pack (prod id: 6070)

Note: this instruction is just a simple instruction showing how to build the above pack. It is expect the end user will have basic knowledge on electronic and understand the risk of building a pack. We are not liable for any lost or damage due to mis-assembling or any wrong doing.

### Items need or purchased from us:

1. Part no: PV-280 x 1 ( not currently available due to out of stock)
2. Part no: PCM-LFP25.6V100A x 1 (PCM)
3. Fish Paper x 1
4. #6 AWG (30") x 1 Red wire
5. #6 AWG (30") x 1 Black wire
6. #14 AWG (20") x 1 Red wire
7. #14 AWG (20") x 1 black wire

### Procedure:

1. Layout the 40 cells as shown in picture 1 (5 x8 layout)



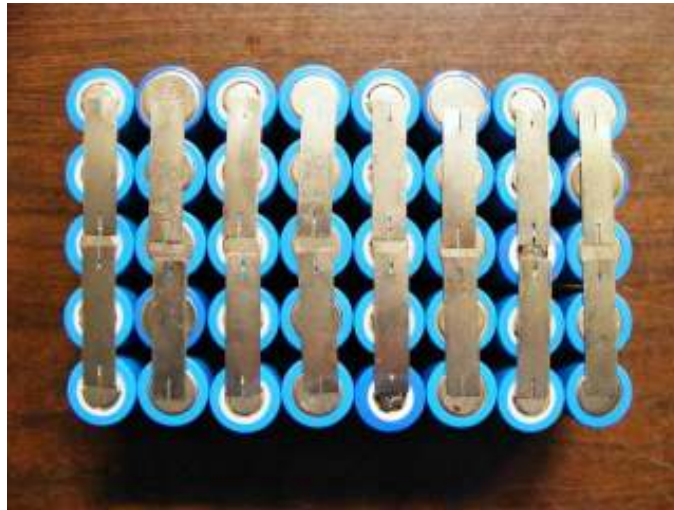
Picture 1



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Note: The cell with “white ring” is the positive of the battery. Check the voltage of each cell to ensure all of them are closely matched before assemble them to be a pack.

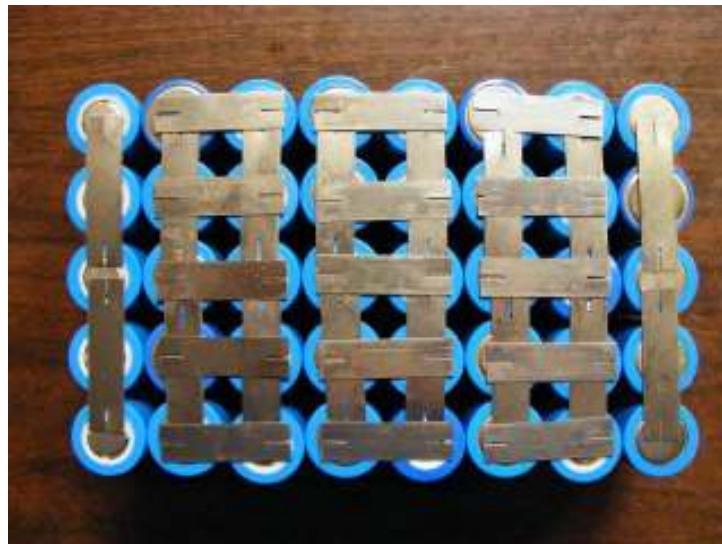
2. Weld or solder batteries together by first connect 5 cells in parallel to increase capacity of the cell. Ex: each is 2.5Ah x 5 = 12.5Ah. See picture 2 on how the cells are combine together with tabs



Picture 2

Note: you will do the same on the other end of battery pack.

3. Now you will solder or weld the tabs together in series to make it into a 25.6V pack. See picture 3 (top view).



Picture 3



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Note: you will solder on the other end to complete the serial connection

4. Solder the open end sense wires from the PCM's ribbon cable connector to the appropriate location of the pack. Please view the block/schematic on the pdf file. See link below for it:

[http://www.batteryspace.com/prod-specs/2956\\_3.pdf](http://www.batteryspace.com/prod-specs/2956_3.pdf)

Note: you will need to determine how long the sense wires need to be from the pack to the PCM's ribbon cable connector before you cutoff excessive length of wires.

5. Solder both the #6 AWG Red wire & #14 AWG Red wire (you need to determine how long the wire need) to Positive of Battery #8. **This is the P+ which is the positive of the PCM and is the same point for your positive connection to the charger (#14 AWG wire) and your device (#6 AWG wire)**
6. Use the #6 AWG Black wire (you need to determine how long the wire need) as the connection from Negative of Battery #1 to B- on the PCM

Note: before you solder the battery wires to PCM, add the Fish Paper (you need to cut to size) as insulation between PCM and pack. See picture 4 and 4A



Picture 4 (top view)



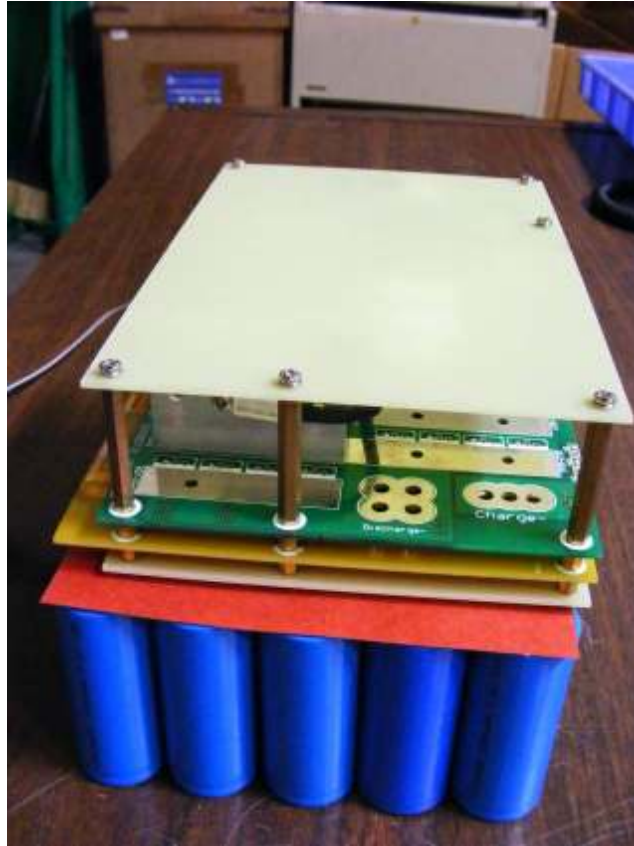
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Picture 4A (side view)

Note: Add the Fisher Paper to bottom of pack for insulation. If you like you can add the Fish Paper to both side for additional insulation and protection. One side of Fisher Paper has glue on it so you can just glue it to the pack.

7. Now lay the PCM on top of the battery pack. See picture 5

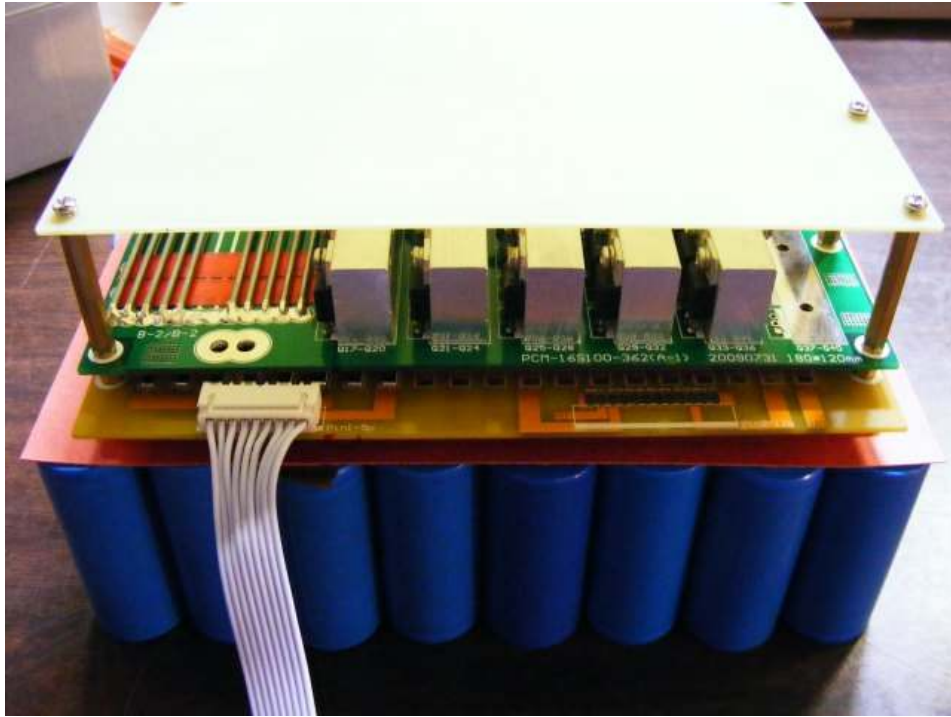


Picture 5

8. Determine the exact location of the PCM, use double side tapes to glue the PCM on top of the Fisher Paper



9. Plug the ribbon cable connector to the mating socket on the PCM. See Picture 6



Picture 6

10. Solder the B- (#16 AWG black wire) to the B- of the PCM
11. Solder a #16 AWG black wire to the P- of the PCM. This is for your Negative of your device
12. Solder a #14 AWG black wire to the P- of the PCM. This is for the Negative of your charger.
13. You now completed the assembly of the 25.6V 12.5Ah LFP pack.



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### **Testing / troubleshooting the pack:**

1. If you hook the DVM across B+ of battery and P- at PCM, you should read around 25.6V. This means you have successfully assembled this battery pack.
2. If you don't read any voltage on the DVM on B+ and P-, connect the DVM between B+ and B- and you should read around 25.6V. If you do read this, the battery pack is build correctly. You now connect the 25.6V charger across B+ and P- should "reset" the PCM and your pack should be operational.
3. If you don't read 25.6V at B+ and B- or the voltage is way too low, then you need to check to make sure the pack is build correctly as you measure each 3.2V 12.5Ah pack, you should read around 3.2V. If not, check your wiring and battery to make sure you don't have any bad cell or open connection somewhere.