

Charging and Safety Instructions for Demon DL5040 Lithium Polymer 5000 mAh 7.4 Volt Battery Pack True 40C continuous rating



The DL5040 LiPo packs like most other packs for RC Car Racing are built as a 2S1P which means 2 x 3.7 volt cells in series. This gives a total nominal voltage of 7.4 volts. The 1C rating is 5 (amps).
Hard cased for rough handling and safety.
Size: 23mm thick, 46mm wide, 136.0mm long. Weight 274gm.
Built-in underside locating humps.
With 4mm sockets(Corally Style).
Standard JST XH Balance pin socket
It is recommended that LiPo cells be charged in a pouch such as the Demon S1 Safety Pouch.

Lithium-Polymer Battery

Charging LiPo batteries, specifically the Demon DL5040

1. You must use a Charger specifically made for LiPo charging. (You cannot use a NiMh charger).
Note: The battery when new has about 50% charge in it, so first charge will take less time
2. Set the charger's output voltage to match the nominal rated voltage of the entire LiPo battery pack, i.e. 2S or 7.4volt (or 3.7volt per cell) Or on some chargers set the final voltage to 8.40.
3. Connect the charger to the heavy duty 4mm sockets. Make sure the positive(+) goes to the red wire.
4. Connect the 3 pin balance lead to the 2S socket on the charger. (Note: You do not have to connect the 3pin connector to charge).
5. Set the charger's output current to **NO GREATER** than the "1C" rating of the battery. The Demon DL5040 has a 1C rating of 5 so set to no more than 5 amps MAX. It will take about 1 hour to charge from near flat at 5 amps)
6. After a race the battery can be charged immediately without any loss of performance. (It is not necessary to discharge to flat).
7. If your charger has a temperature probe. Set the charger's Maximum battery temperature to no more than 45°C
8. It is not necessary to discharge LiPo batteries, (there is no benefit from cycling or charging from flat) and they should never be taken below 6 volts. But if you want to it is best to use a balancer discharger. This has 3 wires and connects to the small 3 wire connector, which will discharge each of the 2 internal cells separately. Some chargers may also use the 3 wire terminal for monitoring during charge. (It is possible to charge through the 3 wire connector)
Note: Small 3 pin connector has Black and red wires to 7.4volt, and the centre blue wire is the 3.7volt centre tap).

Notes:

- Do not continue to run the battery when it is nearly flat (i.e.: vehicle starts to slow) as the battery can be damaged. Use a speed control with LiPo safety cutoff.
- If the battery has been discharged to a low voltage, it can be charged for a few minutes on a NiMh type charger at 2 amps until voltage recovers. Then charge as normal on LiPo charger.
- For storage it is recommended to charge the cell to approx 50% of their capacity. (there is no loss of performance charging the day before a race)
- If your charger will not charge the battery the first time, run it in a car for a few minutes to stabilize the voltage.
- Do not try re-peaking a fully charged LiPo as it will not increase the performance, and may cause the battery to be damaged.
- In very cold conditions (Winter outdoors 0 deg C) the batteries will perform better if warmed to 20degC on a warming tray during charge before racing.
- The balance lead is not essential, since after 50 charges the cells will still be matched.