Welcome to the cutting edge of battery technology. With the Draganflyer Extreme Battery System you can fly longer, climb faster, and recharge in just 25 minutes.

The battery included with this package is the Thunder Power 3s 2100mAh. It functions just like the standard Draganflyer 3s 1320mAh battery, but the differences are important. The 2100mAh battery has more capacity (longer flight times), holds higher voltage under load (faster climbs), and has a balance connector to ensure long battery life.

To recharge the 2100mAh battery you will be using an exceptionally powerful and safe charger, the Thunder Power 1010C. The power and safety features allow faster charge rates than normal, meaning less waiting and more flying. The Thunder Power 205V balancer ensures long battery life, optimal battery performance, and enables the safety features – don't charge without it!

In every way, the Extreme Battery System is the best for your Draganflyer. Additionally, we've made it plug-and-play easy. Simply follow these instructions for extreme results.

Step 1: Wiring Connections Step 2: Charger Set-up Step 3: Charging Process Battery Log

Step 1

Make these wiring connections:

- Thunder Power 1010C charger "INPUT" ← banana plugs → Pro Peak 20A power supply -or- 1010C charger "INPUT" ← alligator clips → 11-15 VDC power source (i.e. gel cell)
- Pro Peak 20A power supply $\leftarrow \rightarrow$ 110VAC wall electricity
- 1010C "DATA" ← Data Link Cable → Thunder Power 205V balancer "DATA"
- 1010C "OUTPUT" \leftarrow banana plug Charge Cable \rightarrow 2100mAh battery
- 2100mAh battery Balance Connector (small, black) $\leftarrow \rightarrow$ 205V "2-3CELL"

Step 2

Set-up the Thunder Power 1010C Charger:

- 1. "Sel" will be flashing. Press "ENT" (the red button).
- 2. "3" will be flashing, indicating it is set to charge a 3s battery. If this number is anything but 3, press "+" or "-" to make it 3. Press "ENT" (doing nothing will also advance the selection).
- 3. "6.30" should be flashing, indicating 6.30A charge rate. This is the maximum safe charge rate for the 2100mAh battery. "+" and "-" can modify the charge rate. Press "ENT" to finalize the settings.
- 4. The charger display should be

LiPo CHARGE 3CELL/S C=6.30A

If it isn't, press "ENT" to advance your selection, and "+" and "-" to modify the selection.

6. The charger is now ready to charge the 2100mAh battery. Hold "ENT" to begin the charge.

Step 3

The 2100mAh battery should now be charging. The charger will be showing the battery's voltage. 12.6V open circuit indicates fully charged, and 11.1V open circuit indicates fully discharged. During charge, the voltage will be between these two values. Lithium polymers are charged with a constant current, then constant voltage, algorithm, so the first phase of the charge will be constant current 6.30A, the second phase will be constant voltage 12.6V. The 1010C is also showing time elapsed, present charge current, and charge capacity elapsed. Charge time on a fully discharged battery will be about 25 minutes.

You don't need to do anything during this Step. When the charge is complete – indicated by audio beeps and "END" displayed on the screen - you can disconnect the charger and the balancer from the battery. Your Draganflyer is now ready to fly.

Battery Log

To ensure a high cycle life from this lithium polymer battery, you should keep a log of your usage and the capacity put back into the battery. For instance, you fly the Draganflyer for 7 minutes. You then charge it, and the charger puts in 1425mAh (this value is displayed on the charger's screen when the charge has finished). The Extreme battery has a capacity of 2100mAh. The battery manufacturer recommends limiting discharge depth to 85% of capacity, which is 1785mAh. 7 minutes of flight only used 1425mAh, so next time you could try flying for 8 minutes and again record the capacity put back into the battery. Eventually you will find the flight time that safely nears 1785mAh, ensuring you achieve maximum battery cycle life *and* longest usage time.

Battery Log			
Battery Cycle #	Flight Time (minutes)	Battery Capacity Used (mAh) [1785 maximum]	Usage Description
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