Charging the Flight Battery

Your Apprentice can be ready to fly in as little time as it takes to charge the flight battery. Since this takes approximately 60 minutes, let’s get the battery charging right away so it’s on charge while you’re assembling your new Apprentice. That way you can start flying as soon as possible.

**Required Parts**

- Charger
- 3200 3S 11.1V LiPo battery
- Power supply or 12-volt battery (not included)

**Note:** The battery charger can be connected to a power supply or 12-volt battery. For the pictures in this manual we will show the use of a power supply.

1. Connect the charger to a 12-volt battery or 12-volt power supply. Connect the red lead to the positive (+) terminal of the power supply or battery. Connect the black lead to the negative (-) terminal of the power supply or 12-volt battery. Once your charger has been correctly powered up, there will be an approximate 3-second delay and then you will hear an audible “beep” and the green (ready) LED will flash.
2. Select the proper number of cells that you will be charging. Your Apprentice includes a 3-cell flight pack, so set the charger to 3 cells.

3. Set the charge rate for your battery to 3 amps.

**Warning:** Selecting a charge rate higher than 1x battery capacity may cause a fire. If the battery capacity is 3000mAh, then set your charger no higher than 3 amps.

4. Locate the balance charge lead on the battery pack. The charge lead of a 3-cell LiPo battery will plug into the larger 4-pin port on the bottom right of the charger. A 2-cell pack will need to plug into the 3-pin port on bottom left of the charger. Once the battery is properly plugged into the correct port, it will beep 3 times if it is a 3-cell, and twice if it is a 2-cell pack. Once this is done, you are ready to proceed to charge the battery pack.
5. Push the start button to begin the charging process. Once this is done, the charger will make an audible beep that matches the cell count, and then the red (charge) LED will begin to flash. Do not adjust the current once the charger has begun to charge.

**Note:** At times, the green LED may also flash during the charging process, indicating that the charger is balancing one or more of the cells at the same time it is charging the battery pack. When this is occurring, the red and green LEDs will both be flashing. It will not always be necessary for the cells to be balanced.

6. When the battery pack is fully charged, you will hear an audible beep for about 3 seconds, and the green LED will be solid. Always unplug the battery from the charger immediately upon completion. Failure to do so could cause a fire.

**Note:** Lithium Polymer batteries, commonly known as LiPos, are not quite like other batteries.

First, they do not develop any sort of memory characteristics due to partial use or partial charging. They can be used as little or as much as needed, then charged back up to capacity without any loss in performance.

Second, they do have one quirk that should be explained. If a LiPo battery is discharged to a voltage less than about 3.0V per cell (9.0 volts total for the battery in the Apprentice), then it will be permanently damaged and cannot be restored. The electronic speed control in the Apprentice is pre-set to a cutoff voltage that will not allow the battery to drain less than this amount.

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**Tail Installation**

**Required Parts**
- Fuselage Assembly
- Stabilizer/Elevator
- Fin/Rudder
- 2.5mm x 12mm sheet metal screw (2)

**Required Tools**
- Phillips screwdriver: #1

1. Position the stabilizer on the fuselage. Align the holes in the stabilizer with the holes in the rear of the fuselage. The decals on the stabilizer will face toward the top of the fuselage.