LiFe Receiver Packs

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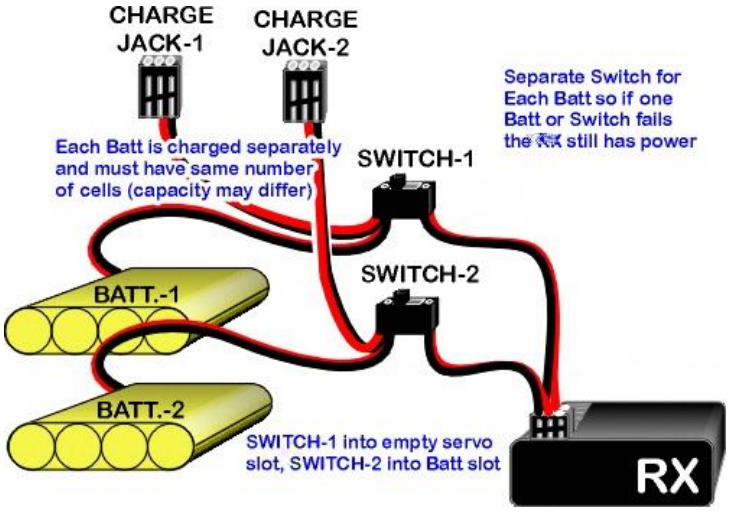
There has been some discussion and concern at the past few meets I've attended about using LiFe battery receiver packs. A few years ago, one pilot was having nothing but trouble with them in several of his airplanes and swore against using LiFe packs. After discussing with him what he was doing, it turned out that he had fully charged all of the packs then discharged them on his charger to see what the capacity was. This, I believe, was the cause of the batteries suddenly failing, losing voltage, and his airplane uncontrollably crashing. Another pilot was afraid of having packs go bad on him and asked, "How do you know if you have a bad pack?" I have never had any issues in flight with the dozen or so receiver packs that I have used for several years by following these rules of thumb.

1. Balance charge at 1C. This ensures that both cells are fully charged and not over taxed with a high current. While charging this way, you can get an idea of whether one of the cells is going bad if it takes more than an hour to fully charge. The charger will drop the amperage while balancing the pack by discharging the bad cell, which will reach the fully charged voltage first.

2. Storage charge. There are individuals who are smarter than I who put this option in the chargers, I strongly advise you to use it. If you don't have a flight-line charger setup, take care of your batteries as soon as you get home and storage-charge them.

3. Dispose of damaged batteries. This might seem like a simple concept, but I have seen some mangled packs still being used. For the few dollars it costs for a new battery pack, it just isn't worth the risk of having an airplane out of control and possibly striking someone.



4. Pre-season check-up. Getting back to how you know if a pack is bad, every spring before my first meet of the year. I always run my batteries through a check-up.

"How does one do this?" you might ask. I first balance-charge my battery packs. Next, I set the charger up to discharge at 1C and set a timer for 45 minutes. If any of the packs reach the low-voltage cut-off in the 45 minutes, that pack is bad and should be disposed of. After the 45 minutes, I stop the packs that are still discharging. If they made it to this point, that means they have at least 75% of the rated capacity, and that is good enough for me. A 700 mAh pack would have 525 mAh of proven capacity. Remember the second rule of thumb and storage-charge them after the check-up.