

ESC/BSC Power Problem

This is why more expensive or complex models should have separate battery for the receiver!

The ESC/BEC problem has existed since ESC/BEC devices hit the market the problem is NOT the Rx or the Rx rebooting time (which is almost instantaneous now.) Typically the BEC quits which then shuts down the RX the RX does not reboot till the BEC returns to operation.

Rx don't just quit then restart but BECs which are subject to heat - DO quit -then cool then return --- this is what makes troubleshooting tricky.

Present ARFS are pretty good at having BECs which are up to the task-- until you change the load (usually servo upgrade or you upgrade the battery which allows more power thru the ESC/BEC . Running a ESC/BEC and more than 3 -4 LIPOs motor power puts you on the watch out list. Spending money on an upgraded unit may solve your problem -or just reduce the chances.

This is why the gadget guys have come up with BEC and battery and crossover devices which are supposed to jump between power sources if the BEC stops working. More gadgets in the circuit. But some guys love gadgets.

Best bet ? Separate battery power which feeds Rx and matches the servo loads . The foamie guys typically don't like this approach which leaves the next choice of higher capability BEC which hopefully (I hate using hope as a tool) will do the job

Actually, a much lighter and more compact solution is to install a separate switching BEC of about 3-5 amps capacity. When I added flaps and digital servos with a stabilizer to one of my planes I put in a good SBEC and have never had a problem - even with an overloaded flap servo from a sticky flap linkage (I found out by seeing a trail of smoke and a flap that wouldn't retract)...

A better rule is as many amps as your model requires. I'll use a 3 amp BEC on small models, and typically around 10 amps on larger more energetic stuff. It's also a good idea to pay attention to the type of BEC because linear BECs typically produce WAY below their rated output at higher voltages. For example I once had an ESC that was marked 2-4S Lipo and 3 amp BEC. But the linear BEC couldn't even produce 3 amps at 2S and was failing at about 1 amp at 3S. I didn't even bother trying 4S.

It's the servos under load that are consuming most of the power, not the receiver (let alone the transmitter.) However, as Andy mentioned earlier, receivers made in the last 6?? years reboot much faster than the earliest ones. I believe you can still send old ones in and get them flashed to code that will reboot much faster.

Even for switching BECs it's good to read the fine print. Some BEC's are actually rated for different currents depending on the input voltage. For example, the castle creations 10 amp BEC is actually only rated for 5 amps on 6S, and the 20 amp is only rated for 9 amps on 12S.