



Li-Po Battery Addendum

Through thorough testing and experience in the field, we have found that Li-Po batteries with C ratings below 25 cannot maintain their voltage under high current spikes and their performance deteriorates when using high-powered brushless motor systems. These voltage drops may not be detected with standard voltmeters because the voltage drops occur very quickly – usually in a few milliseconds – yet this can be long enough to cause a vehicle’s electronics to function improperly.

Because of the sheer number of battery brands and models, we cannot test every battery’s quality and compatibility with our brushless systems. For this reason, we give only a general Li-Po battery recommendation.

Application	Li-Po Battery
1/10-scale	25C or higher
1/8-scale and monster truck	30C or higher

The addition of a [Glitch Buster Capacitor](#) (Novak [#5626](#)) can help prevent these voltage drop outs. To ensure consistent operation without voltage drop outs or false Li-Po cut-off readings, use Li-Po batteries with C ratings of 25 or higher and verify that all of the battery connections are in good condition.

Overheated or poorly soldered connectors can add resistance and, therefore, add heat and higher voltage drop, resulting in drop-out type problems, such as false Li-Po cut-off readings, rotor-lock error codes and other similar issues. It is recommended to use high quality low-loss connectors, such as Deans Ultra Plugs or Novak’s [Low-Loss Power Connectors](#) ([#5721](#), [#5731](#) & [#5741](#)), to ward off these issues.

Novak’s Li-Po Cut-Off Devices and internal BECs

Novak’s Li-Po Cut-Off Devices act like a battery monitor and only remove power from the system when the battery’s charge is depleted and its resting voltage is close to the recommended safety cut-off value.

Novak’s internal BECs regulate the voltage of an input voltage source down to six volts, which is the proper operational value for most receivers and servos.

These devices were not designed to act like a current limiter, which prevent the current draw from dropping below the safety voltage threshold. Adding this type of circuit, most likely, would result in slow acceleration and soft throttle response.