

### **Additional tips for BEAT speed controllers with BEC**

The BEAT speed controllers have a 2A BEC. This allows in model air planes to supply 4 servos up to 12 cells.

In helicopters we recommend a problem free use up to 8 cells. We did tests in a LOGO10 helicopter with 12 cells, 4 servos DS361 (JR), gyro GY401 (Futaba), receiver DS19 (JR), a FUN 600-15 motor and a BEAT 40-6-12 speed controller. This worked in our application without problems. Attention - you do this on your own risk. It's absolutely necessary to have everything smooth running and good cooling conditions.

#### **In General**

- It is possible to use the BEC and a 4.8V receiver battery in parallel if a spare receiver connection is available. This will provide a redundant safeguard but care must be taken to ensure that the additional battery is fully charged since the BEC cannot provide any charge facility (Don't forget to charge time by time!). A discharged battery in parallel would actually reduce the supply to the receiver and servos.
- The KONTRONIK speed controllers have an integrated voltage cut-off which automatically switches the motor off if the battery voltage drops below 0.8V/cell. On every connection of a battery to the controller the specific cut-off voltage is computed to fit the battery's needs. This protects the battery from a deep discharge condition. The motor can be re-started by returning the throttle stick to the „motor off“ or „brake (off)“ position and advancing again. Now the throttle setting should be a little less as otherwise the battery voltage drops again and the speed control cuts off the motor again.
- It is **recommended** that the speed control is positioned to enable airflow above the flat surface (cooling plate) as this will provide cooling and so increase the load capacity. When using BEC all servo connections to the flying surfaces should be carefully checked for freedom of movement and minimum servo load. If the BEC should be enabled cut or isolate the positive wire in the receiver connection of the controller and replacing it with a separate receiver battery.