

## **Differences POWERJIVE vs. HELI JIVE**

The KONTRONIK HELI JIVE has been optimized for model helicopters. Other applications are generally possible but not recommended. For standard applications the standard JIVE/POWERJIVE ESC is recommended.

Due to new features of the HELI JIVE some former features had to be skipped or adjusted (e.g. mode programming). Also, a third virtual PROGCARD III had to be implemented on the PROGDISC to adjust new parameters. In contrast, HELI JIVEs do not support PROGCARD I any longer.

Some standard parameters, which had been loaded during mode programming have been modified for helicopter models. Also, the HELI JIVE is no longer supporting NiCd and NiMH battery packs.

A completely new feature is the autorotation. This allows pilots to restart the rotor after an autorotation with a shorter spool up time.

The HELI JIVE is characterized by a small but crucial internal hardware change. This makes a software update from POWERJIVE to HELI JIVE impossible. To use all features of the HELI JIVE a PROGDISC is necessary.

## **Available modes for HELI JIVE**

### **1. Reset/APM**

This mode generally coincides with the former APM mode with individual parameters being optimized for helicopter pilots. If this mode is selected all parameters of the HELI JIVE are being reset to factory settings.

### **2. Motor (Gas mode)**

This mode is characterized by fixed-throttle operation over the complete speed but with longer spool up times than in fixed wing flying.

### **3. Combination**

The new combination mode 3 is characterized by mixed operation. Via virtual PROGCARD III settings a percentage of throttle way can be set. Until this percentage (X%) the HELI JIVE operates with fixed-throttle control (gas mode). From X% to X% + 16% the fixed-throttle control merges into governor. From throttle position X% + 16% the HELI JIVE operates completely in governor mode. In this mode, like in former mode 11 the ESC is learning a fixed RPM. The necessary calibration happens as soon as the throttle reaches position X for the first time. This mode allows to fly low RPM figures in gas mode and higher RPM figures in governor. Especially F3C pilots should be interested in this mode.

### **4. Heli mode**

Mode 4 is the former heli mode 4 and has been adopted unchanged.

### **5. Continuous RPM control**

In contrast to mode 4 the pilot can choose speed values smaller than 50%. The governor is active during complete operation.

### **6. KSA**

Identical to former mode 10.

**Description of autorotation**

The autorotation allows the motor to spool up in a shorter time to higher RPM. This allows for abrupt interception manoeuvres. The spool up time in autorotation mode is depended on the set RPM spool up time and is 1/6 of this value. If a general spool up time of 12 seconds is set, in autorotation mode the spool up time is now 2 seconds.

Autorotation has to be activated via PROG CARD III and Full Speed, Motor-Off and Brake positions have to be set. The autorotation spool up time is activated if the pilot moves the throttle from Motor-On position to Motor-Off position. Next spool up will be with autorotation values. Autorotation is deactivated after 1/3 of the set spool up time. For a 12 seconds spool up time it means that autorotation is deactivated after 4 seconds motor-off time.

If this quick spool up is not wanted, the throttle has to be in Brake Position. Autorotation will be deactivated for the next one motor spool up. Due to security considerations the quick spool up will also be deactivated for the next one spool up, if the throttle is in Motor-Off position for more than 15 seconds.