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BEC .5A 5V
LiPo 2S-4S
NiMh 6-12

6A
RoHS COMPLIANT

Programmable Brushless ESC

BM 6A Brushless Speed Controller w/BEC

Specs:
Amps: 6A continuous 8A burst
Cells: 2-4S Lipo Li-ion 5-12 Ni-MH NiCd
BEC Voltage: 5.0V
BEC Current: 0.5A
BEC type: LBEC (linear BEC)
Size: 22x12x5.0mm
Weight: 6.4g (with wires and JST plug) 1.8grams without wires or heat-shrink.

A1.Normal startup procedures
Move the throttle stick to the bottom position, switch on the transmitter, and connect the battery pack to the ESC. Several short "beep" tones should be emitted. The first short beep indicates the throttle range low point is confirmed, the next short beeps indicate the quantity of cells detected. Next the brake state confirmation, one long tone means the brake is on, two long tones indicates the brake is off. So for example…
Three short tones, followed by two long tones = Throttle low point detected, 2 cells detected, and brake is off
Four short tones, followed by two long tones = Throttle low point detected, 3 cells detected, and brake is off
Four short tones, followed by one long tone = Throttle low point detected, 3 cells detected, and brake is on

A2.Throttle range setting procedures (whenever you change a transmitter, a throttle range setting is recommended.) Switch on the transmitter, move the throttle stick to the top position. Connect a battery pack to the ESC. Two "beep" sounds should be emitted, meaning the top point of throttle range has been confirmed and saved. Move the throttle stick to the bottom position within 2s, You will hear one additional short beep followed quickly by the normal startup sounds. The ESC is now ready to go. If the throttle stick is not fully at the bottom or top position when the ESC is powered up, the ESC will make "beep" sounds.

B. Programmable parameters
B1. Brake Setting: There are two options: OFF / ON. The default is OFF.
B2. Battery Type: Li-ion/Lipo or NiMN/NiCd, the default is Li-ion/Lipo
B4. Rotation Direction: There are 2 options: Normal / Reverse. The default is Normal.
B5. Soft Start Mode: two options: Normal / Soft, the default is soft.
B6. Cutoff Mode: There are two options: Soft-Cut and Cut-Off. The default is Soft-Cut. Soft-Cut option: Gradually reduces power to 31% of the current power when the voltage is lower than the programmed low-voltage protection setting (B3). Cut-Off Option: immediate motor shutdown when low-voltage occurs. When in low-voltage protection mode, pushing the throttle stick to the bottom and then to the top, the motor will be restarted.
B7. Timing Mode: There are three options: Automatic, Low: 7°, and High: 30°. The default is Automatic.. Low advance timing is recommended for high inductance and low KV motors. High advance timing is recommended for low inductance and high KV outrunner motors. For some high KV motors, if it shakes while rotating at high rpm, the High timing mode is recommended.
B8. Heli Governor Mode: Two options: OFF / ON, the default is OFF.
B9. Factory Reset: Resets all parameters to factory defaults.

D. Programming via Transmitter
Step 1: Entering programming mode: switch the transmitter on, push the throttle stick to the top position, power up the ESC, wait 2 seconds, you will hear two "beep" sounds which denotes that the max. throttle has been confirmed, keep holding the throttle stick at the top position until you hear three sets of two short beeps, meaning that you have entered the transmitter programming mode. The ESC will start "counting out" the program parameters.

Step 2: Select program parameters: You would hear 7 different indicating sounds which correspond to 7 different parameters. Pulling the throttle stick to the bottom position (full off throttle) within 2 seconds after hearing the correspondent sound will bring you to the correspondent parameter setting status. The indicating sounds will repeat in turn as follows.

Tones	Settings	1 short tone (beep)	2 short tones (beep-beep)	3 short tones (beep-beep-beep)
1 short (beep)	Brake Setting	OFF	ON	
2 short (beep-beep)	Battery Type	Li-ion/Lipo	NiMN/NiCd	
3 short (beep-beep-,beep)	Cutoff Threshold	2.8V	3.0V	3.2V
4 short (beep-beep-beep-beep)	Rotation Direction	Normal	Reverse	
1 long (beep----)	Soft Start Mode	Normal	Soft	
2 long (beep----beep----)	Cutoff Mode	Soft-Cut	Cut-Off	
2 long (beep----beep----)	Timing Mode	Automatic	7°	30°
2 long & 1 short (beep----beep-----beep-)	Heli Governor Mode	OFF	ON	
1 long & 1 short (beep----beep-)	Factory Reset	Reset		*shaded cells indicate default

Step 3: Selecting program values: After pulling the throttle stick to the bottom immediately after the desired corresponding parameter setting status, continue holding the throttle stick at the bottom position. The ESC will count out the options in the same manner that it counts out the program selection parameters. After you hear the number corresponding to the desired parameter, push the throttle stick to the top position within 2 seconds, you should then hear a tune "♪3 2 1 ♪3 2 1", which means the correspondent value has been changed and saved. Hold the stick in the top position, return to the second step and continue programming.

Step 4: You can exit the programming mode at any time by cutting power to the ESC. You can also exit the program by pulling the throttle stick to the bottom position within 2 seconds after saving parameters.