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Program Card User Manual for FEIGAO Brushless ESC Series (OPTION ITEM)

PROGRAM CARD USER MANUAL (OPTION ITEM)

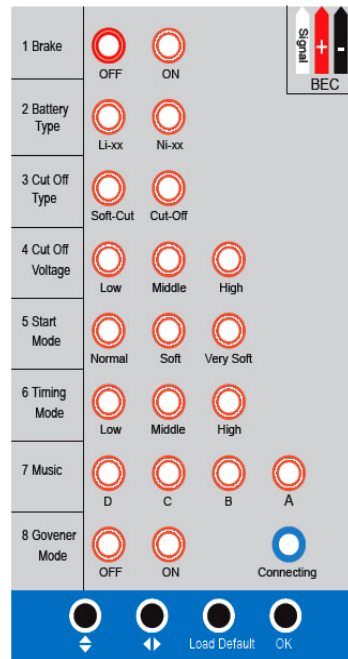
Thank you for purchasing FEIGAO Program Card for brushless motor electronic speed controller (ESC). This is a option item for our 18A, 25A, 30A, 40A and 60A brushless ESC. With this device, you can revise your ESC setting easily.

SPECIFICATION:

1. SIZE: 92.0mm*52.5mm*6.3mm
2. WEIGHT: 26g

FRONT PANEL:

1. Use "up/down" button to select programming item, use "left/right" button to select item value;
2. Brake: When "Brake " is ON, the motor will stop quickly after the throttle stick is moved to bottom;
3. Low Voltage Protection Mode (Cutoff Type): When "Soft-Cut" is selected, the ESC will reduce the output power; When "Cut-Off" is selected, the ESC will immediately cut off the output power to motor.
4. Low Voltage Protection Threshold (Cutoff Voltage):
 - For Li-xx battery (Li-ion or Li-poly), number of battery cells are judged automatically, Low / Medium / High cutoff voltage of each cell are: 2.5V/2.75V/3.0V. For example: 3 cells Li-Poly, when "Medium" cutoff voltage is set, the cutoff voltage is: $2.75 \times 3 = 8.25V$.
 - For Ni-xx battery (NiCad or NiMH), Low / Medium / High cutoff voltages are 60%/65%/70% of the startup voltage. For example: 6 cells NiMH battery, fully charged voltage is $1.44 \times 6 = 8.64V$, when "Low" cutoff voltage is set, the cutoff voltage is : $8.64 \times 60\% = 5.2V$.



5. Music: 4 LEDs has 16 possible states, representing 16 rhythms for ESC.

CONNECTING PROCESS:

1. Disconnect the power pack from ESC;
2. Disconnect the BEC cable (trio wires) from receiver, then connect it to program card;
3. Connect the power pack to ESC;
4. The LEDs on program card will light, shows the current programming value of the ESC;

Remark: THE SEQUENCE OF **STEP 2** AND **STEP 3** IS IMPORTANT! Please connect the BEC cable to program card first, and then connect the power pack to ESC. Otherwise, the program card may won't work properly.

OPERATION:

Press "up/down" button, you can select the program item, the corresponding LED will flash. Then press "left/right" button to select the item value, the flashing LED shows the value you select. Finally, press "OK" button, the blue LED will flash, means the programming value is transmitting to ESC. When the data transmission is finished, the blue LED stop flashing and the brushless motor begin to play music, that means the new settings are accepted.

MUSIC LIST:

● = RED LED is lighting

No.	LED				MUSIC
	D	C	B	A	
1	○	○	○	○	Disable the music playing function
2	○	○	○	●	Susanna (USA)
3	○	○	●	○	To Alice (Germany)
4	○	○	●	●	Ode to joy (Germany)
5	○	●	○	○	Take off your hood (China)
6	○	●	○	●	Jasmine (China)
7	○	●	●	○	Red river valley (Canada)
8	○	●	●	●	Auld Lang Syne (Scotland)
9	●	○	○	○	Jingle Bells (USA)
10	●	○	○	●	Song of Matador (Spain)
11	●	○	●	○	The end of the world (USA)
12	●	○	●	●	Rhythm of triumph (Germany)
13	●	●	○	○	Love is blue (USA)
14	●	●	○	●	Beautiful Spanish lady
15	●	●	●	○	Post carriage (Japan)
16	●	●	●	●	Love bird (China)

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