## PRODUCT FEATURES

1. 5-6V step-less adjustable BEC output allowing custom voltage setting to match servo specification.
2. BEC output utilizing linear power system, suitable for 7.4-11.1V (2S-3S) Li battery, with continuous current rating of 2A, and burst rating of 3A.
3. Three programmable throttle speed settings to support quick throttle response.
4. Include soft start and Governor Mode.
5. Small and compact PCB design for lightweight and simple installation.
6. Large heat sink for optimum thermal performance.
7. Highly compatible to work with 98% of all brushless motors currently on the market.
8. Ultra-smooth motor start designed to run with all kinds of brushless motors.
9. The power inlet utilizes a Japanese made "Low ESR" capacitor in order to provide stable power source.
10. The throttle has more than 200 step resolution that provides great throttle response and control.

WIRING ILLUSTRATION
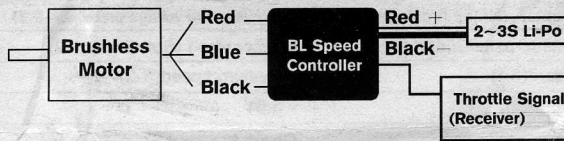
SPECIFICATION

Model	Continuous Current	Peak Current	BEC Output	Dimension	Weight
RCE-BL15X	15A	20A	Output voltage: 5-6V step-less adjustment Continuous current 2A; Burst current 3A	42x24x9.3mm	15g

1. Good temperature situation for working at the maximum current
2. Supporting motor types: 2 ~10 pole in/outrunner brushless motors.
3. Supporting maximum RPM: 2 pole → 190,000 rpm ; 6 pole → 63,000 rpm.
4. Input voltage: 5.5V ~ 12.6V(2~3S Li-Po)
    NOTE: When setting to the Quick throttle response speed, the accelerative peak current will increase.

FUNCTIONS

1. Brake Option - 3 settings that include Brake disabled/Soft brake/Hard brake.
2. Electronic Timing Option - 3 settings that include Low timing/Mid timing/High timing. Generally, 2 pole motors are recommended to use low timing, while 6 or more poles should use Mid timing. High timing gives more power at the expense of efficiency. Always check the current draw after changing the timing in order to prevent overloading of battery.
3. Battery Protection Option- 2 settings that include Li-ion, Li-poly High/Middle cutoff voltage protection. The default setting is high cutoff voltage protection. CPU will automatically determine cell number of input Lithium battery (2S~3S). This option will prevent over-discharge of the battery. The following reference is the guideline for setting the Battery Protection option.
   3-1 Li-ion/Li-poly High cutoff voltage protection-When the voltage of single cell drops to 3.2V, the first step of battery protection mode will be engaged by the ESC resulting in reduced power. The pilot should reduce the throttle and prepare landing. If the voltage of single cell drops to 3.0V, the second step of battery protection mode will be engaged resulting in power cutoff. (*Note 1)
   For 11.1V/3cells Lithium battery, the full charged voltage will be approximately 12.6V. According to this input voltage, CPU will determine that this is a 3cell battery.
   First step protection: 3.2V x 3cell=9.6V   Second step protection: 3.0V x 3cell= 9.0V
   When the voltage drops to 9.6V, the power will be reduced. When the voltage drops to 9.0V, the power will be cut off.
   3-2 Li-ion/Li-poly Middle cutoff voltage protection- This option is same as instruction 3-1, but when the voltage of single cell drops to 3.0V, the first step of battery protection will be engaged. When the voltage of single cell drops to 2.8V, the second step of battery protection will be engaged. (*Note 1)
   Note 1: Second step of battery protection only works when Aircraft mode is setting to the option 4-1. Aircraft
   NOTE: THIS OPTION IS ONLY SUITABLE FOR A FULLY CHARGED BATTERY PACK IN GOOD WORKING CONDITION.
4. Aircraft Option: 3 settings that include Normal Airplane / Helicopter 1 / Helicopter 2. Normal Airplane Mode is used for general airplanes and gliders. When flying Helicopters, you can choose Helicopter 1 Mode, or Helicopter 2 Mode. Helicopter 1 Mode provides Soft Start feature. Helicopter 2 Mode provides Soft Start and Governor Mode.
5. Throttle response speed: 3 settings that include standard/ Medium/ Quick throttle response speed.
   The default setting is "quick speed". Use this option to adjust the setting according to flight character. For example, setting at Medium or Quick speed for 3D and powerful flight to make the power response more quickly, but note the accelerative peak current and power expense will increase.
6. BEC output voltage setting: 5-6V step-less adjustment. This option allows custom voltage setting. Default setting is 6V; please adjust the voltage according to the specification of the servo (speed and resistance). Prior to entering the setup mode, a voltmeter needs to be connected to the power inlet of the receiver (as illustration) to monitor the selected voltage. The voltage is set by varying the throttle stick position from low (5V) to high (6V).
7. Thermal Protection: When the ESC temperature reaches 80° C for any reason, it will engage the battery protection circuit, reducing power to the ESC. We recommend mounting the ESC in a location with adequate air flow and ventilation.
8. Safe Power On Alarm: When the operator turns on the ESC, it will automatically detect the transmitter signal. If the throttle is set to the lowest position, the ESC will emit a confirmation tone and enter normal operation mode. If the throttle position is at full throttle, it will begin to enter Setup Mode. If the throttle is in any other position, the ESC will emit an alarm and not enter into user mode for safety precautions.
9. Aircraft Locator: If the aircraft should land or crash in an unexpected location and become lost, the pilot can enable the Aircraft Locator Option. The Aircraft Locator Option is engaged by turning off the transmitter. When the ESC does not receive a signal from the transmitter for 30 seconds, it will start to send an alarm to the motor. The sound of the alarm will aid the pilot to locate the aircraft. This option will not work with a PCM receiver that has SAVE function enabled, or with low noise resistant PPM receivers.

The voltmeter needs to be connected to any un-use inlets "+" and "-" to measure the selected voltage.

Illustration
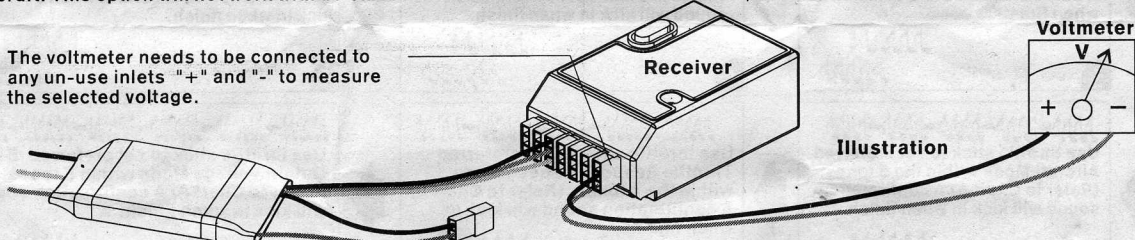
NOTE: Certain servos are designed to work with high voltage, while other servos are designed for lower voltage. To avoid damage to servos, please follow the servo's factory specification to determine the proper voltage setting.

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