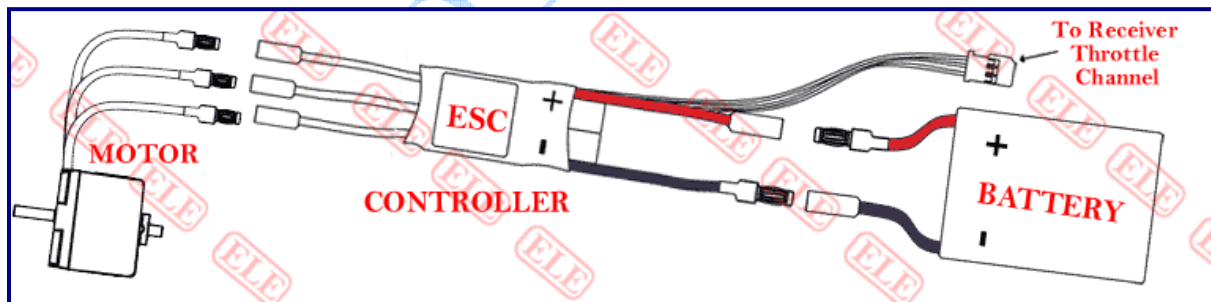


**ADVANCE Series controllers USERS MANUAL****(10-30A@BEC)****SPECIFICATION:**

Model	Continuously working current	BCE (input <12V)	Input voltage	Size	Weight
ADVANCE 10 BEC	10A	1A	Ni-Mh 6 ~	25X21X5 mm	7g(0.25oz)
ADVANCE 12 BEC	12A	1A	12cells	25X21X6.5 mm	9g (0.32oz)
ADVANCE 25 BEC	35A	3A	Li-ion 2 ~	42X23.5X8 mm	21(0.75oz)
ADVANCE 30 BEC	45A	3A	3cells	46X23.5X8 mm	25(0.88oz)

MAIN FUNCTIONS:

1. Safety mode: the motor won't start no matter what the position of the control stick is when switched on the RC unit.
2. Brake setting: on/off (factory setting is off)
3. Three point battery type and low voltage selection.
4. Software reversion of motor turning direction.
5. Low current protection: ignore/reduce power/shut off
6. Temperature protection: reduce power when the temperature reaches 120 degree C.
7. PWM frequency: 8KHZ/16KHZ
8. RPM setting: 20,000RPM/50,000RPM/100,000

**FACTOR DEFAULT SETTINGS:**

Brake: Off
 Battery type: 3 Li-poly
 Under voltage: Reduce power
 Soft start: Enable
 Timing: Auto
 Frequency: 8KHz
 Active Control: Off

ESC program procedure**Normal start up:**

When throttle stick is off, you will hear one beep for Brake on or two tones for Brake off.

Program:

When throttle stick is at full power connects battery and switch on, and wait for 5 sec. setup mode is entered:

1. Brake Mode On/Off

To change brake mode, pull the throttle stick within 5 seconds of first setup mode tones **__ --**

After changing the brake mode, the ESC responds with these confirmations:

Brake mode changed to OFF **_ -** (double tone)

Brake mode changed to ON **_** (single tone)

2. Battery type

NiMH/NiCd: **.....**

2S Lithium: **.....**

3S Lithium: **.....** (3-tone series, 5 times)

3. Rotation reverse

Reverse Motor Rotation: **W W W W W**

4. Low Voltage Cutoff Behavior

Soft Auto-Cut (reduce rpm): **- - - - -** (normal for sport models)

Hard Auto-Cut (full stop): **_ - - - -** (normal for gliders)

5. Soft start (Acceleration)

Enable: **V V V V V**

Disable: **VV VV VV VV VV**

6. Timing (advance timing)

Auto 7~30 degrees: **- - - - -**

Soft 7 degrees: **- - - - -**

Hard 22 ~ 30 degrees: **- - - - -**

7. Switching Frequency

8 kHz: **\\ \\ \\ **

16 kHz: **// // // //**

8. Restore Factor Default Settings **-----**

9. Active RPM Control (Governor Mode)

rpm control off: **-----**

low rpm range: **-----**

middle rpm range: **-----**

high rpm range: **-----**

Notice:

1. Make sure the connection for battery positive and negative are right. Reversing the connection will damage the ESC permanently.
2. Use the suitable batteries. Do not exceed the working voltage of ESC.
3. The company keeps the right to change design, function or package, without notice.
4. Take care in using safely. Incorrect use may cause injury to the body. The company will not be responsible for any damage or loss caused by incorrect operation.