

### Specifcation

- 1.Input Voltage:  
14.4V(NI-CD/MH 7.2V x2)
- 2.Output:Rating 60A, Peak:150A
- 3.Out max power:60A/7.2V(MAX 432W)
- 4.Size/Weight:45mm×56m×28.3mm/120g
- 5.BEC:5V 2A
- 6.P.W.M:9.5KHz
- 7.Motor limit:19 turns 550 brushed motor ×2  
[≤7.2V(6 cells) or 7.4V(Li-Po 2 cells)]×2

### Over temperature protection

The motor will be intermittently turned off when the temperature reaches around 98°C ±3~5°C.Optional vent fan is available for selection to enhance the ESC ventilation.(LED2 is red when turn on over temperature protection)

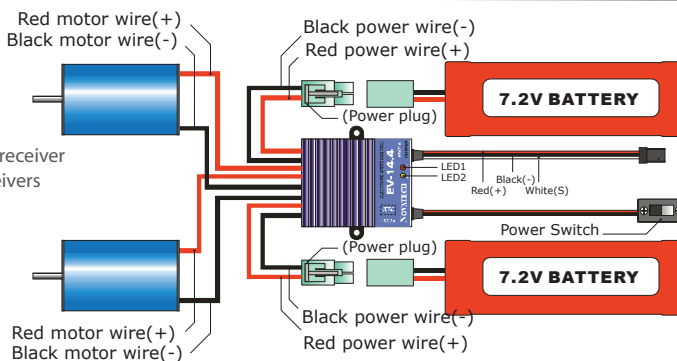
### Warning

- 1.Avoid touching ESC heat sink or motor casing right after operation for not burning your body or skin.
- 2.To avoid poor contact or overheat melting of connector and power abnormal cut off be sure to always use berrer current rated connector & wires while replacing the original ESC connector or elongating the connecting wires.
- 3.Connect the battery pack just before driving, disconnect & take it out of the car immediately after termination. Don't solder ESC wires directly to battery.A proper connector is a must to be used in between.
- 4.Always make sure connecting the ESC to a proper power soerce that has the correct voleage & polarity.Incorrect voltages or reversed polarity will damage the ESC. Don't solder ESC wires directly to the battery. A proper connector is a must to be used in between.

※This double power & motor ESC has used for double power at the same time.

### ESC wiring diagram

Receiver plug,plug into Ch2  
Polarities only match with JR & Futaba receiver  
Be careful to check for other brand receivers before plugging.



### Test of throttle direction conincidence

- 1 Wiring ESC according to above diagram.
  - 2 Switch on the transmitter.
  - 3 ESC denotes a sound and starts setting neutral.
  - 4 Denoted by another confirmation sound after succeed in setting neutral.
- Refer to the left test sequence right above setting is completed.  
Push the the throttle trigger forwards,quickly pull the throttle trigger backwards & hold it.If the system keeps braking, the throttle direction test is ok.Otherwise, if it drivers reversely, the throttle and ESC forward direction does not coincide with each other.Change the throttle reversing switch of the transmitter, turn off & then turn on the ESC power again will correct the problem.

Neutral→forward→backward

Transmission on the LED light (yellow & red)

	Neutral	Forward	Full throttle
LED1	Yellow	Red blinking fast	Red
LED2	X	X	X

Barke	Full Braking
Red blinking Slowly	Red
X	X

Backward	Full throttle
Red blinking Slowly	Red
X	X

### Safe gear ratio test

Input voltage	resistance	waste current
7.2V	0.18Ω	40A
11.1V	0.18Ω	61.6A

$$(V/R=1 \ 7.2V/0.18\Omega=40A)$$

$$(V/R=1 \ 11.1V/0.18\Omega=61.6A)$$

※Firstly, trial running starting with a small gear motor for 2~3 minutes, measure the temperatures of both Esc & motor. If both temperatures are close with each other, they are at good match. The gear ratio can then be properly adjusted to optimum according to the features of the courses. However, It's very important to always keep both temperatures under 100 °c, while adjusting the gear ratio. Otherwise the demagnetization of the motor will happen, the motor efficiency will drop dramatically & the temperature will also raise up very quickly. Most battery power is now wasted on heat nothing on motor efficiency.

※It's ok to replace a higher gear ratio or a fast running motor while the temperature of the ESC is under 80 °c. But it should be done according to para 6 described, from small to bigger. Unless the running value of the original motor is very low enough, It should replace a motor with lower running value when the input battery voltage is changed to a higher level. The ESC will be burnt if the motor doesn't be properly changed while input voltage is changed. See example below on the current changed inside motor while input voltage is changed.