

Specification

1. Input Voltage: 7.2V (NI-CD/MH) 7.4V (LI-PO) 14.8V (LI-PO)
2. Motor limit: Support 540L Brushless Motor over 4.5R/7.4V(2S)
3. BEC: 5.75V / 3A 540L Brushless Motor under 2000 KV/14.8V(4S)
4. Size/Weight: 47.4 mm X 65.3 mm X 42 mm/165 g

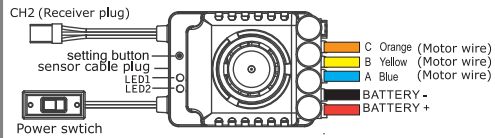
Over temperature protection

1. Default setting : The ESC will turn on over temperature protection when temperature reach 100°C.
2. The ESC will be turn off intermittently, when it reaches around 90°C/95°C/100°C/105°C (±3~5°C) by users setting.
3. The production will not be turned on , when setting mode adjusts to off.
4. The production can be set by programming card (B6093).

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 better 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 the car immediately after termination. Don't solder ESC wires directly to the battery. A proper connector is a must to be used in between.
4. When using programming card (B6093), please turn off ESC Power and take the servo wire out of the receiver, then insert the set up card according to the electrode sign on the card. After setting programming card, needs to turn off power at the same time, then take servo wire into of the receiver.
5. Always make sure connecting the ESC to a proper power source that has the correct voltage & 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.

ESC wiring diagram



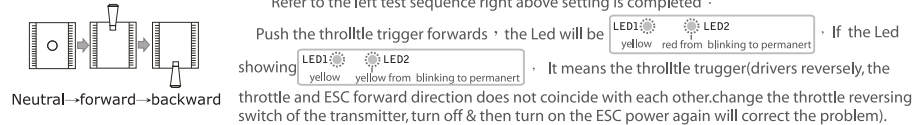
Receiver plug, plug into Ch2
Polarities only match with JR & Futaba receiver
Be careful to check for other brand receivers before plugging.



Test of throttle direction coincidence

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 :



Check the function

Phase out Protection:
Protection will be activated to stop motor running, when any one of the motor wires or sensor falls off.

| | Throttle | Forward | Backward | Neutral doesn't saved |
|---------------------|---|--|---|---|
| Led Display | LED1 yellow, LED2 yellow | LED1 yellow, LED2 red from blinking to permanent | LED1 yellow, LED2 yellow from blinking to permanent | LED1 yellow, LED2 yellow blinking |
| RX Signal interrupt | LED1 yellow, LED2 yellow and red blinking | LED1 red flashes three times, LED2 yellow | LED1 red flashes four times, LED2 yellow | LED1 red flashes two times, LED2 yellow |

Safe gear ratio test

※ 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.

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

※ It's ok to replace a higher gear ratio or a higher KV 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 KV value of the original motor is very low enough, It should replace a motor with lower KV 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 by the side of list on the current changed inside motor while input voltage is changed.

Set process

Led indication: Red for selection of setting mode.,

Yellow for selection of mode parameter

Set Detail: (Number of ● = Blinking times, for example

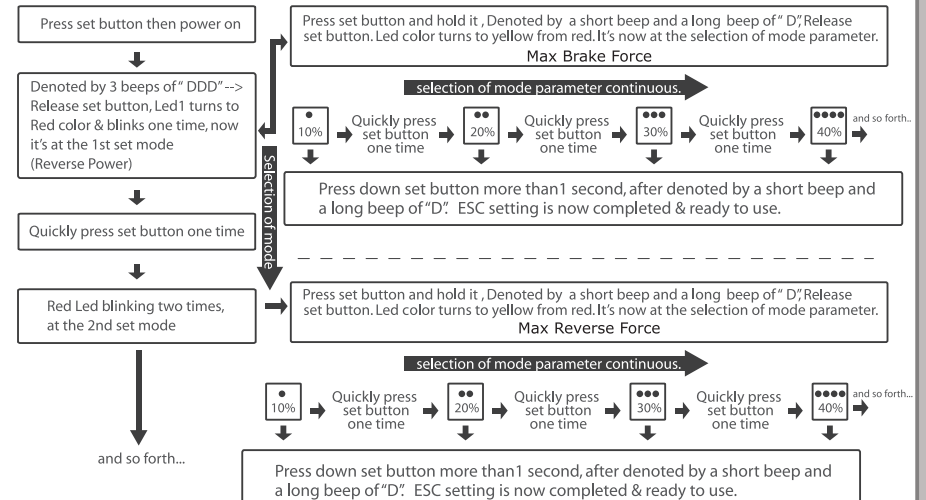
- = 1 time,
- = 2 times and so forth)

Setting mode (Red)

| Mode select Led | Setting mode (Red) | Selection of mode parameter |
|-----------------|----------------------------|--|
| RED ● | Max Brake Force | 10 phase(10% 20% 30% 40% 50% 60% 70%~100%) |
| RED ●● | Max Reverse Force | 10 phase(10% 20% 30% 40% 50% 60% 70%~100%) |
| RED ●●● | Running Mode | 3 phase(Forward + Brake Forward + Brake + Backward Forward + Backward) |
| RED ●●●● | Battery Type | 3 phase(NI-MH LI-Po LI-Fe) |
| RED ●●●●● | Motor Reverse(sensor only) | 2 phase(normal reverse) |

Setting mode (Yellow)

| | ● | ●● | ●●● | ●●●● | ●●●●● | ●●●●●● | ●●●●●●● | ●●●●●●●● | ●●●●●●●●● | ●●●●●●●●●● |
|-------------------|--------|---------|-------|------|-------|--------|---------|----------|-----------|------------|
| Max Brake Force | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |
| Max Reverse Force | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |
| Running Mode | FB | FBR | FR | | | | | | | |
| Battery Type | NI-MH | LI-PO | LI-FE | | | | | | | |
| Motor Reverse | normal | reverse | | | | | | | | |



Above Led indications are from Led mounted on the ESC. The other Led on the ESC switch can only display a red color. Optional programming card is available to do above settings.

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