



FLECTRONIC SPEED CONTROLLE

# DECLARATION Thank you for purchasing the RCOMG brand

RAPIDO series brushed electronic Speed

Controller (ESC) for RC Models! Incorrect

use may cause personal injury and equipment

damage, so please read this manual carefully

before using and operate as per the manual

guide strictly. We do not assume any liability

arising from the use of this product, including

but not limited to liability for incidental or

consequential damages; at the same time, we

do not assume any liability arising from

unauthorized modifications to the product.

We reserve the right to change product

design, appearance, performance and usage

requirements without notice.

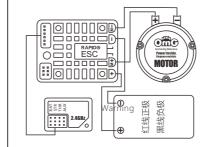
- Waterproof and dust proof, suitable for various climatic environments ◆ Three running modes (F/B mode, F/B/R
- mode, and F/R crawler mode), suitable for various RC cars:

**FEATURES** 

- 5V/3A BEC output capability:
- Automatic throttle stroke tuning, easy in operation, friendly for beginners;
- Unique design for air quide and cooling. better heat dissipation and stronger current
- Jumper setting for ESC parameter;
- Multi Protection Functions, including
- Motor overheat protection. low voltage cutoff and throttle signal loss protection.

### **ESC CONNECTTED**

This ESC does not have reverse power supply protection. If the power supply is reversed, an



instant irreversible damage to the ESC and the battery may happen.

So Please pay more attention to the polarity of the battery when using it. It is highly recommended to use the battery with antireverse function plua.

If the rotation direction of the motor is wrong, please exchange the two wires of the motor.

#### RAPIDO-DR-60A Forward:continuous current/peak current

60A/360A Reverse: continuous current/peak current

Voltage range: 2-3S Lipo Applicable models: 1/10 electric TC,

electric buggy, short-course truck, monster, Truck, crawlers BEC output: 3A / 6V (switch regulator mode)

Fan operating voltage: no fan

支持 电机 T 数	2节锂电	540 550 电机	≥12T或RPM 低于30000@7.2V
	2节锂电		≥18T或RPM 低于20000@7.2V

内阻(单桥臂): 正转: 0.001Ω, 反转: 0.002Ω Size:36.5x32x18mm Weight:39g

具有2对电机输出线,可驱动2个电机。当同时驱 动两个电机时,所支持的电机T数需要增加。这种 情况常见于低速双电机攀爬车。

# THROTTLE RANGE SETTING

Turn on the transmitter, set the "D/R", "EPA" "ATL" value of the throttle channel to 100% (if the transmitter has no display, turn the corresponding knob to the max), and set the throttle trim to "0" (if the transmitter has no display, turn the corresponding knob to the neutral point).

Please set the throttle channel direction to "REV" for FUTABA and similar transmitters. and set "NOR" for other branded transmitters

We strongly recommend to turn on the failsafe protection function of the transmitter. setting the no-signal protection ("F/S") function of the throttle channel to the output turn-off mode or turning the protection value to the neutral point, so that the motor can stop running when the receiver cannot receive signal from transmitter.

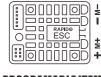
#### Direction of the position status of the transmitter throttle stick

打开电调开关 摇杆置于中点



# PARAMETER SETTING METHOD

ESC adopts jumper cap setting method, which can be set to running mode and battery type Setting method: It is recommended to use tweezers and refer to the diagram below, unpluging the jumper cap to set the parameter; if you want to set the battery type to "Lipo" mode, just insert the jumper cap into the two PINs on the left side of the battery.



#### PROGRAMABLE ITEM

1.Running mode: F/B/R mode, F/B mode, F/R crawler mode, the factory default value is F/R/R mode

The F/B/R mode, that is Forward/Reverse with Brake which provides a reverse function and is suitable for practice. The reverse function is engaged by a Double click method. On the first application of backwards throttle, brakes are applied. On returning to the neutral point, and then applying the backwards throttle for a second time, the reverse function will be engaged. However, if at this time the motor is still moving forward (i.e in a double braking action from high speed), the ESC will not go into reverse. The motor must be at 0 rpm to engage reverse. This is a protection function for a reversing by mistake.

The F/B mode, that is forward with brake mode. which only go forward and have brakes, but reverse is disabled. This mode is suitable for competition purposes.

The F/R crawler mode, that is Forward / Reverse mode which provide the single-click reversing function. When moving from the neutral point to the backward zone, the ESC will engage reverse immediately. This mode is intended for rock crawling applications.

"Boat" mode, which uses a new procedural algorithm designed entirely for RC boat

2.Battery Type: Lithium Battery (Lipo) / NiMH battery, the default is Lipo

# **Description of protection function**

1. Voltage cutoff: When the ESC detects that the battery voltage is lower than the protection threshold for 2 seconds, it will enter the lowvoltage protection state and and the red LED flashes (usually, the ESC has two levels of lowvoltage protection, the first level is to reduce the output power, and the second level is to shut off the output power completely).

Note: When setting to boat mode, the motor will stop running after entering the low voltage protection. At this time, please return the throttle stick to the zero-speed position, and then increase the throttle again to make the motor continue to run, but only half of the power output power available against normal conditions docking and stopping the boat immediately

2.Over-heat protection: When the internal temperature of the ESC is higher than 100°C, the output power will be reduced until the output power is cut off (when over-heat protection applied, the ESC will not cut off

the output power suddenly, so as to avoid accidents caused by sudden shutdown). After stopping running, the red light will flash, and when the temperature is lower than 80°C, the normal output power will be restored.

4.Throttle signal loss protection: When the ESC does not detect the throttle signal for 0.1 seconds. the output power will be shut off, and it will resume normal sunning immediately after the signal is restored. It is strongly recommended to turn on the fail-safe protection function of the transmitter, setting the no-signal protection("F/S") function of the throttle channel to the output turn -off mode or turning the protection value to the neutral point, so that the motor can stop running when the receiver cannot receive signal from transmitter. (Note: the output turn-off mode means that when the receiver cannot receive the signal from the transmitter, the receiver will not output any control signal to the ESC.

## Fault phenomenon (S) Solution Possible reasons

Powered on, no flash, no self-test. and no beep sound.

 ESC has no working power supply; the ESC switch is damaged.

Check whether the power input path from the battery to the ESC has bad welding. and re-weld it: replace the ESC switch.

Powered on, LED red flash. and the motor does not run.

The ESC throttle wire is inserted backwards or the channel is incorrect; the ESC cannot successfully complete the throttle selfchecking and tuning process.

Insert the ESC throttle wire into the receiver throttle channel (Throttle, channel 2) in the correct direction; set the throttle trim

to "0" or turn the corresponding knob to the neutral point

#### Throttle engage Forward but the car reverses

The direction of the throttle channel of the transmitter is incorrectly set or the wiring of the motor is incorrect.

Swap the two wires of the motor: reverse the throttle channel of the transmitter. Changing from the original "NOR" to "REV" or from the original "REV" to "NOR".

Throttle cannot reach to full speed, the Throttle stick is at the Max, and the LED not solid red

The transmitter settings are wrong.

Set the "D/R". "EPA". "ATL" value of the throttle channel to 100% or turn the corresponding knob to the max), and set the throttle trim to "0" or turn the corresponding knob to the neutral point.

## **□** Fault nhenomenon □ Solution Possible reasons

Switch on the ESC, with the transmitter stick at

neutral point, and wait until the ESC self-check

and auto-throttle calibration process finished

(within 3 seconds). It will be in normal running

after hearing the self-check success beep.

Number of battery cells and

self-test been sound indication

**LED Status In Normal Running** 

NiMH NiCd battery

2S lipo

ogil 28

4S lipo

Success of throttle self-

checking and tuning

the throttle stick is

in the neutral range

forward, brake, reverse

under non-full throttle

forward, brake,

reverse under full throttle

Can not reverse.

1 short beep sound

2 short beep sound

3 short beep sound

4 short beep sound

1 long beep sound

LED red no flash

LED red flash

LED red solid bright

"Running Mode" jumper cap is in the wrong position; the neutral point of throttle is offset.

Insert the "Running Mode" jumper cap into the correct position; set the throttle trim to "0" or turn the corresponding knob to the middle position.

During the running of the motor, it suddenly stops.

throttle signal is lost: the ESC enters the battery low voltage protection or overheat protection state.

Check whether the battery voltage of the transmitter is too low and whether the receiver works normally: ESC LED red flashes indicates low voltage or overheat protection, please replace the battery pack or check the temperature of the ESC.

and the LED status is normal. The connection between the ESC and the motor is broken; the motor is damaged.

The car can't move forward or reverse.

Check the connection between the motor and the ESC to make sure the connection is reliable; replace the motor with a new one.

When the motor starts, it accelerates rapidly. and the motor gets stuck or stops sometimes.

Battery discharging is not enough; the motor speed is too high and the gear ratio is too aggressive; there is a problem with the car transmission system.

Replace the battery with strong discharge capacity: replace the low-speed motor or increase the reduction ratio: Check the car transmission system to make sure it smooth.