12S/40A ESC MANUAL

Disclaimer

Thank you for select this product. Please carefully read this manual before using this part. Using this part will indicate you agree with all the items in this manual. Please strictly follow these items for usage. We'll not commit any responsibility including but not limited to indirect loss or joint responsibility caused by improper usage, private modification and other faults. The maximum compensation will be not more than this part cost.

Attention

This part has strong power. High speed running propellers have certain safety risk. User must be older than 18 years and have relative professional knowledge.
Before usage, please carefully check if all the components are in good conditions.

Features

Quick response. it will take only 0.25 seconds from starting motor to full speed running.
Good compatibility and stability with special control algorithm for disc motors.
Synchronous freewheeling technology can bring better throttle linearity, driving efficiency and automatic energy

Protection Function

Over Current Protection

Once checking current is more than 60A and lasts 3 seconds, ESC will shut off power output, and will resume normal after making throttle zero.

Short Circuit Protection

Once checking instant current is more than 120A, ESC will power off, and will rework after trouble shooting and powering again.

Stalling Protection

Motor stall will trigger stalling protection. ESC will resume after making throttle zero and powering again.

Voltage Protection

Once checking voltage is less than 16V or more than 64V, ESC will alarm and will not start up motor. But it will be out of effect during flying.

Temperature Protection

When checking temperature is higher than 110 centigrade degree, ESC will output error signal. Once temperature exceeding 140 centigrade degree, ESC will shut off and will resume normal after making throttle zero.

Throttle Loss Protection

As checking throttle signal loss over 0.3 seconds, ESC will shut off and will rework after throttle signal recovery.

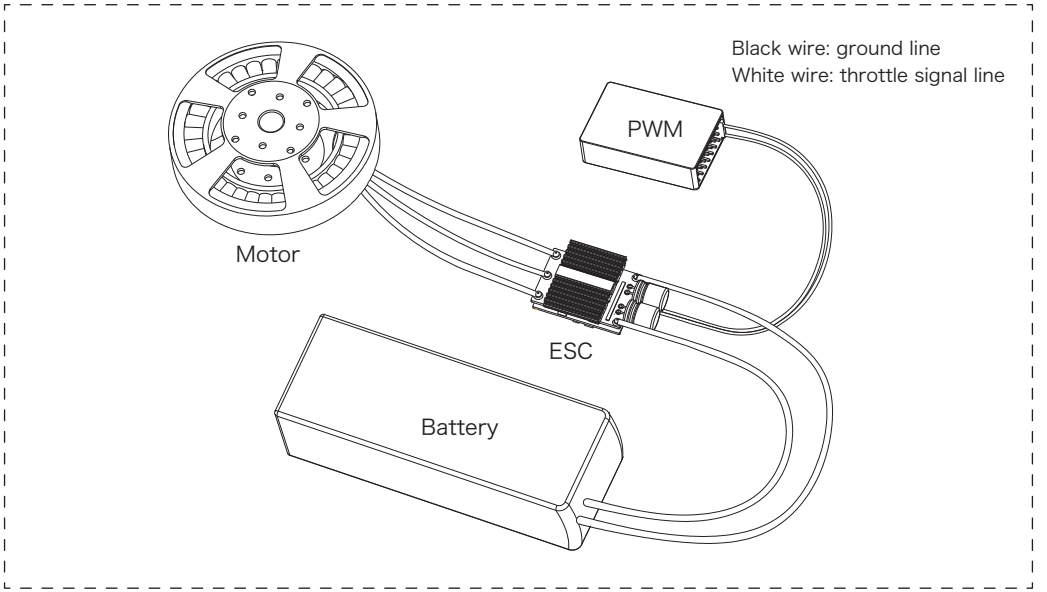
Start Protection

When motor is not started up after adding throttle for 10 seconds, ESC will shut off and will resume normal after making throttle zero.

Throttle Stroke Setting

First connect motor and adjust throttle top, then power on and ESC will beep two times. Second adjust throttle bottom and ESC will beep one time. After finishing these steps, throttle stroke will be set successful.

ESC Connection



ESC Parameter

Model: 12S/40A
BEC: No
PWM Input Signal Voltage: 3.3V/5V(compatible)
Online Update: not available
Throttle Loss Protection: available
Phase Short Circuit Protection: available
Size(L*W*H): 51.0*27.0*14.2mm
Power Line: 16AWG

Battery Section: 5~14S
Recommended Battery: 12S
Compatible Signal Frequency: 50-500Hz
Current Protection: available
Stall Protection: available
Error Signal Output: not available
Protection Grade: IPX4
Motor Line: 16AWG

Continuous Current: 40A (under good cooling conditions)
Instant Current: 60A (under good cooling conditions)
Throttle Pulse Width: default 1050us-1940us, throttle adjustment is available.
Voltage Protection: available
Temperature Protection: available
Speed Signal Output: not available
Weight(without lines): 22.5g
Working Environmental Temperature: -20~65℃

Trouble Shooting

Problem	Alarm	Cause	Solution
Motor can't start after powering on.	Quick noise of beep beep beep...	Throttle is not made zero.	Adjust throttle bottom
Motor can't start after powering on.	Beep, beep, beep... every 1 second.	Receiver has not throttle output signal.	Check sender and receiver co-work condition, check throttle control lines.
Voltage is less than 16V.	Beep beep, beep beep... every 1 second.	Battery voltage is too low.	Change full power battery.
Voltage is more than 64V.	Beep beep, beep beep...	every 1 second.	Change proper full power battery.
Temperature is higher than 110 centigrade degree.	Beep beep, beep beep... every 1 second.	ESC temperature is too high.	Make ESC cooling.