

ESC-1M40A-8S

40A Brushless Electronic Speed Controller

User Manual



rev: 260506
Made in Taiwan

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INTRODUCTION

The **ESC-1M40A-8S 40A Brushless Electronic Speed Controller** is a reliable and efficient speed controller designed for fixed-wing RC aircraft and helicopters. It supports up to 40A continuous current and works with 3-8S LiPo batteries. The built-in 5V/8A BEC provides stable power for your receiver and servos.

PACKAGE CONTENTS

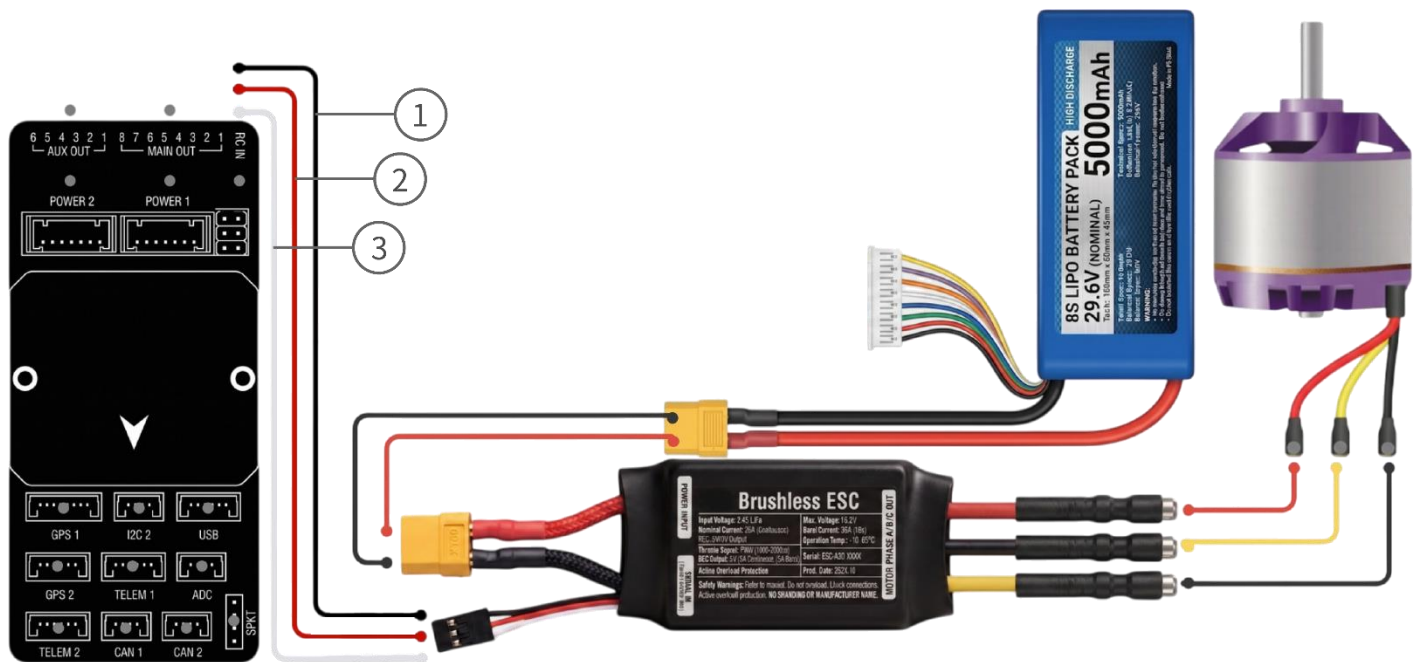
- 1x ESC-1M40A-8S

FEATURES

- High-Performance ESC
Equipped with a 32-bit microprocessor operating at up to 120MHz, the ESC is compatible with a wide range of brushless motors and delivers stable, responsive power.
- Continuous Current: Max 40A
- Peak Current: 60A
- Input Voltage: 3-8S LiPo
- BEC Output: +5V/Max 8A
- Weight: TBD
- Size (L × W × H): TBD

Note: If using a 3S battery, make sure the battery voltage is higher than 9.6V before use.

CONNECTION DIAGRAM



1. **Black Wire:** GND
2. **Red Wire:** BEC Output
3. **White Wire:** Throttle*

*Signal level: +3.3V

V_{IH}: TBD

V_{IL}: TBD

PROGRAM ESC

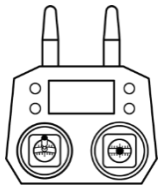
Normal Operation

Connect the ESC to the motor & control box, then power it on.

After 1–2 seconds, the motor will emit rapid beeps for 2–3 seconds, followed by a long beep **B~** (startup).

Throttle Calibration with Radio Control

1. Connect the ESC to the motor & control box, then turn on the radio controller.
2. Move the throttle stick to the maximum position.

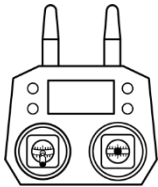


American RC

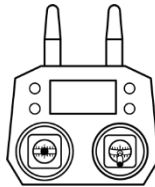


Japan RC

3. Power on the ESC. The motor will emit rapid beeps for 2–3 seconds, then beep (**B-B-B-B-B**).
4. Move the throttle stick to the minimum position (within 2 seconds).



American RC



Japan RC

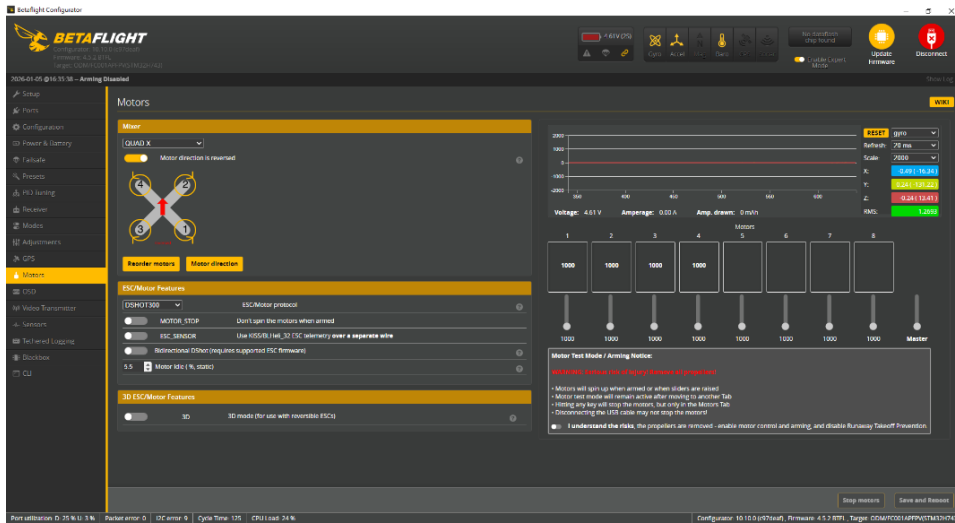
5. The motor will beep **B-B-B-B-B** again, indicating that calibration is complete.
6. After 2 seconds, the motor will emit a long beep **B~** (startup), and normal operation can begin.

Throttle Calibration with Ardupilot/Betaflight System

1. Ardupilot



2. Betaflight



ESC Programming

Connect the ESC to ESC-PROG.

Using ESC-PROG, you can:

1. Update the ESC firmware.
2. Modify ESC parameters (such as model name, beep sound, rotation direction, etc.).
For detailed settings, refer to the ESC-PROG documentation.

Hardware Option

<u>ESC-1M40A-8S</u> – <u>a-b-c-d</u> Model Name Wiring Spec

Wiring Spec		
	Spec Code	Code Definition
a	12	Wire cable 12AWG(200°C)
	14	Wire cable 14AWG(200°C)
	N	None
b	45	Bullet Connector: \varnothing 3.5mm
	49	Bullet Connector: \varnothing 4.3mm
	N	None
c	XT60	Connector Type: XT60
	XT90	Connector Type: XT90
	N	None
d	10	2-Pin Battery Cable, 10AWG(200°C)
	12	2-Pin Battery Cable, 12AWG(200°C)
	N	None

WARRANTY

The SELLER warrants the **ESC-1M40A-8S 40A Brushless Electronic Speed Controller** to be free from defects in the material and workmanship for 1 year from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surges.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables are limited to a 30 day warranty and cable must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. **Also, the technical information contained herein regarding the ESC-1M40A-8S features and specifications is subject to change without further notice.**