

Xiangtat Mini 1410 3500KV Combo

Xiangtat Rocket Mini 1410 3500KV Brushless Motor and 18A ESC Combo Instruction Manual

For 1/24, 1/28, and 1/32 RC Mini Cars and Motorcycles

1. INTRODUCTION

This manual provides essential instructions for the proper installation, operation, and maintenance of your Xiangtat Rocket Mini 1410 3500KV Brushless Motor and 18A Electronic Speed Controller (ESC) Combo. This high-performance power system is designed for 1/24, 1/28, and 1/32 scale remote control mini cars and motorcycles, offering enhanced speed and efficiency. Please read this manual thoroughly before use to ensure optimal performance and safety.

2. PRODUCT FEATURES

Motor Features:

- **Model:** Rocket Mini 1410 Brushless Motor (3500KV)
- **Design:** 2-Pole 3-Slot Hi-torque motor design
- **Construction:** CNC machined 6061 T6 billet aluminum heatsink can for efficient heat dissipation
- **Windings:** High purity copper windings to maximize efficiency
- **Bearings:** High RPM ABEC5 oversized bearings for smooth operation and reliability
- **Rotor:** Precision balanced rotor for smoothness and maximum RPM
- **Stator:** Super thin (0.2mm) laminations
- **Compatibility:** Universal fit for 1/24th and 1/28th brushless cars with M2.0 screw mounting system
- **Efficiency:** Precision engineered for maximum energy conversion

ESC Features:

- **Model:** Mini 18A Brushless ESC
- **Performance:** Specially designed for RC cars with excellent start-up, acceleration, and linearity features
- **Compatibility:** Compatible with sensorless brushless motors

- **Durability:** Strong resistant current capability and excellent heat dissipation
- **Protection:** Multiple protection features including low voltage cut-off (for Lithium or Nickel batteries), over-heat protection, throttle signal loss protection, and motor blocked protection
- **Programmability:** Easily programmed and compatible with pocket-sized program cards (sold separately)

3. PACKAGE CONTENTS

Please verify that all items are present and in good condition upon opening the package:

- 1x Rocket Mini 1410 3500KV Brushless Motor
- 1x Mini 18A Brushless Electronic Speed Controller (ESC)

BRUSHLESS POWER SYSTEM

MINI 1410 brushless motor with MINI 18A brushless ESC combo set

SUITABLE MINI CAR



Image: The Rocket Mini 1410 brushless motor and 18A ESC combo, shown in multiple color variations (red, orange, green, black/silver).
This image illustrates the complete product package.

4. SETUP AND INSTALLATION

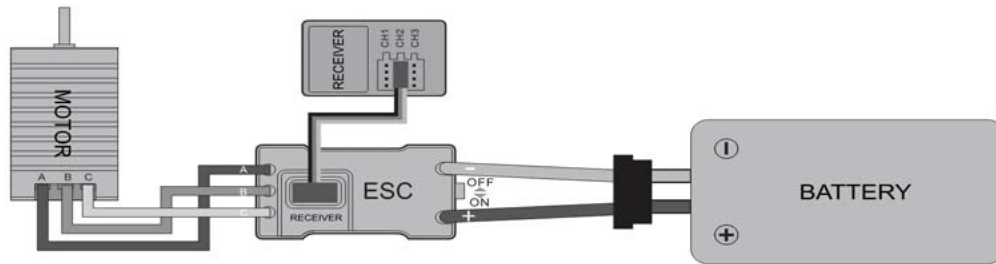
4.1 Motor Installation

1. Ensure your RC vehicle chassis is clean and free of debris.
2. Mount the Rocket Mini 1410 motor securely to the motor mount using appropriate M2.0 screws. Do not overtighten.
3. Adjust the gear mesh between the motor pinion and the spur gear. There should be a small amount of play (about the thickness of a piece of paper) to prevent binding and excessive wear.

4.2 ESC Connection

Refer to the wiring diagram below for correct connections. Incorrect wiring can damage the components.

1. **Motor to ESC:** Connect the three motor wires (labeled A, B, C) from the motor to the corresponding output wires on the ESC. The order of connection may affect motor rotation direction; if the motor spins in the wrong direction, swap any two of the motor wires.
2. **ESC to Receiver:** Plug the ESC's receiver cable (typically a 3-wire servo plug) into the throttle channel (usually channel 2) of your RC receiver.
3. **ESC to Battery:** Connect the ESC's power input wires to your battery pack. Ensure correct polarity: red to positive (+), black to negative (-).



◆ FEATURES:

1. Specially designed for RC car with excellent start-up, acceleration and linearity features.
2. Compatible with sensorless brushless motor.
3. The strong resistant current capability, excellent heat dissipation.
4. Multiple protection features: Low voltage cut-off protection for lithium or nickel battery / Over-heat protection / Throttle signal loss protection / Motor blocked protection/
5. Easily programmed and compatible with pocket-sized program card.

◆ ESC Specifications

Cont. Current/ Burst Current: 12A/36A	Battery: 1~2 cells Lipo , 3~4 cells NiMH
Motor Type: Sensorless Brushless Motor	BEC Output: 5V/300mA (analog mode)
Suitable Car: mini car	Dimension: 15x26x11.5mm

Image: A detailed wiring diagram showing how to connect the Mini 18A ESC to the motor, receiver, and battery. Labels indicate motor phases (A, B, C), receiver channels (CH1, CH2), and battery polarity.

Your browser does not support the video tag.

Video: This 15-second video showcases the Xiangtat Mini 1410 Brushless Motor with 18A ESC Combo, providing a visual overview of the product components and their design.

5. OPERATING INSTRUCTIONS

1. **Power On Sequence:** Always turn on your RC transmitter first, then connect the battery to the ESC.
2. **ESC Calibration (if needed):** If the ESC does not respond correctly to throttle inputs, it may need calibration. Consult your transmitter's manual for throttle endpoint adjustments and the ESC's specific calibration procedure (if available, typically involves holding full throttle, then full brake, then neutral during power-up).
3. **Initial Run:** Perform a short test run in a safe, open area. Check for smooth operation, correct steering, and throttle response.
4. **Power Off Sequence:** Disconnect the battery from the ESC first, then turn off your RC transmitter.

Safety Warning: Always operate RC vehicles responsibly. Keep hands and loose clothing away from moving parts. Disconnect the battery when not in use to prevent accidental activation.

6. MAINTENANCE

- **Cleaning:** Regularly clean the motor and ESC to remove dirt, dust, and debris. Use a soft brush or compressed air. Avoid using liquids directly on electronic components.
- **Connections:** Periodically check all electrical connections for tightness and signs of wear or corrosion. Ensure wires are not pinched or frayed.
- **Motor Bearings:** While the motor uses sealed bearings, extreme conditions may require inspection or lubrication. Consult advanced RC maintenance guides if necessary.
- **Heat Management:** Ensure adequate airflow around the motor and ESC during operation to prevent overheating. The aluminum heatsink is designed for this purpose.

7. TROUBLESHOOTING

If you encounter issues, perform the following basic checks:

- **No Power:** Check battery charge, battery connections, and ESC power switch.
- **Motor Not Spinning/Erratic:** Verify all motor-to-ESC connections. Ensure the ESC is properly calibrated with the transmitter. Check for any obstructions in the motor or drivetrain.
- **Overheating:** Ensure proper gear mesh. Check for excessive load on the motor. Verify adequate ventilation for both motor and ESC.
- **Loss of Control/Signal:** Check receiver connections and battery levels in both the vehicle and transmitter. Ensure no radio interference.

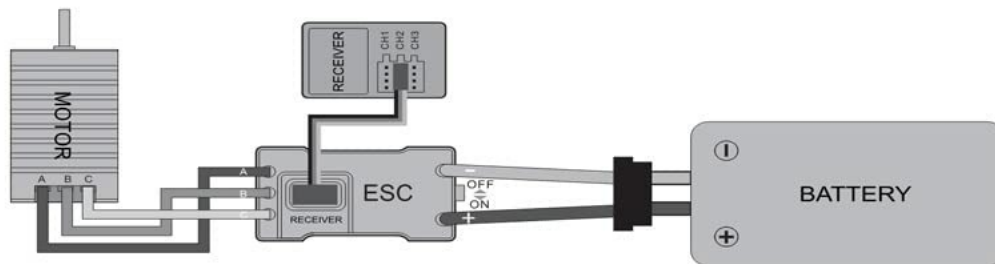
If problems persist after these checks, consult an experienced RC hobbyist or contact customer support.

8. SPECIFICATIONS



- 2 Pole 3 Slot Hi-torque Motor Design
- Stator - Super Thin (0.2mm) Laminations
- CNC Machined 6061 T6 Billet Aluminum Heatsink Can

Image: A collection of Rocket Mini 1410 brushless motors, showcasing different color options (red, orange, green, silver, black) and their compact design.



◆ FEATURES:

1. Specially designed for RC car with excellent start-up, acceleration and linearity features.
2. Compatible with sensorless brushless motor.
3. The strong resistant current capability, excellent heat dissipation.
4. Multiple protection features: Low voltage cut-off protection for lithium or nickel battery / Over-heat protection / Throttle signal loss protection / Motor blocked protection/
5. Easily programmed and compatible with pocket-sized program card.

◆ ESC Specifications

Cont. Current/ Burst Current: 12A/36A	Battery: 1~2 cells Lipo , 3~4 cells NiMH
Motor Type: Sensorless Brushless Motor	BEC Output: 5V/300mA (analog mode)
Suitable Car: mini car	Dimension: 15x26x11.5mm

Image: A close-up view of the Mini 18A ESC, highlighting its compact size and connection points for the motor, receiver, and battery.

Motor Specifications:

Feature	Detail
Model	Rocket Mini 1410
KV Rating	3500KV
Poles	2
Material	CNC Machined 6061 T6 Billet Aluminum
Weight	Approx. 17 Grams (0.6 ounces)
Application	1/24, 1/28, 1/32 RC Mini Cars/Motorcycles

ESC Specifications:

Feature	Detail
Model	Mini 18A Brushless ESC
Continuous Current	12A
Burst Current	36A
Motor Type	Sensorless Brushless Motor
Battery Compatibility	1-2 Cells LiPo / 3-4 Cells NiMH
BEC Output	5V/300mA (Analog Mode)
Dimensions (L x W x H)	15 x 26 x 11.5 mm
Suitable Car	Mini Car

9. WARRANTY INFORMATION

This product is covered by a limited manufacturer's warranty against defects in materials and workmanship. The warranty period typically begins from the date of purchase. Please retain your proof of purchase for any warranty claims. The warranty does not cover damage caused by misuse, improper installation, unauthorized modification, accidents, or normal wear and tear. For specific warranty terms and conditions, please refer to the product packaging or contact the retailer where the product was purchased.

10. SUPPORT

For technical assistance, troubleshooting, or further inquiries regarding your Xiangtat Rocket Mini 1410 3500KV Brushless Motor and 18A ESC Combo, please contact your retailer or the manufacturer's customer support channels. When contacting support, please have your product model number and purchase information readily available.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question