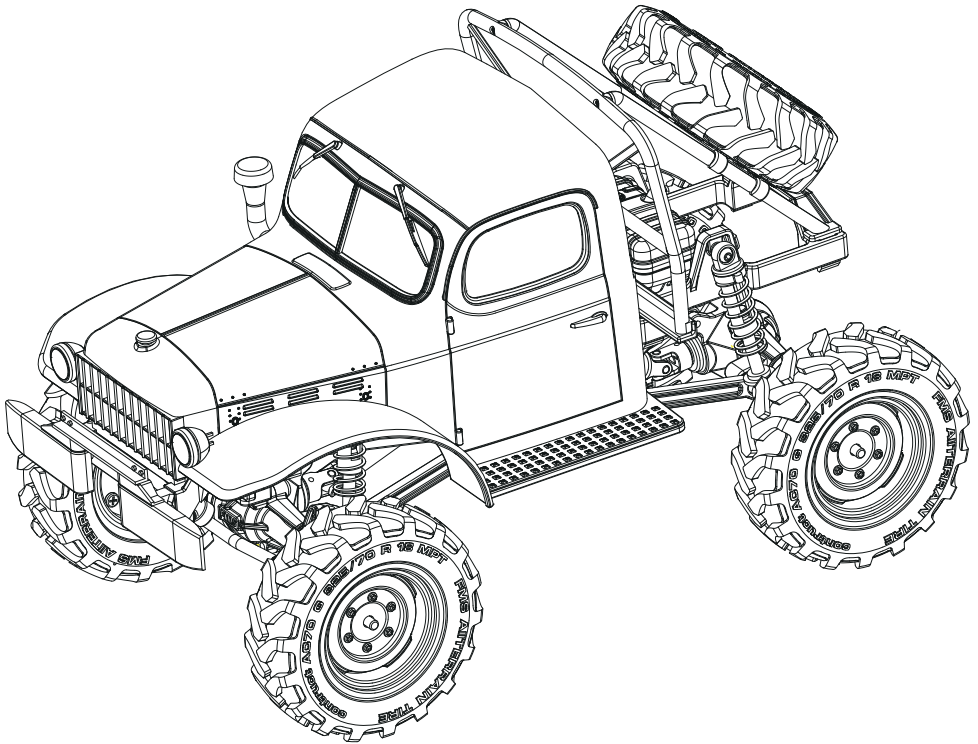




# 1:24 FCX24 POWER WAGON



# SAFETY PRECAUTIONS 安全保障措施

## Introduction 指引

Thank you for purchasing our products.

This manual is written to assist you in properly operating, maintaining and repairing the vehicle. As many of the components used are unique to this product, please retain this manual as a future reference. Composed of precision-made components, this product is not a toy, thus it is not suited for children under 14 years of age. Minors should be accompanied by an adult when operating. Failure to operate or maintain this product in a safe manner can result in bodily harm. It is the owner responsibility to operate this product in a safe manner. FMS and its distributors are not responsible in any way for any and all bodily harm and/ or property damage that may result from the use of this product.

感谢您购买我们的产品。

本手册旨在帮助您正确操作、维护和修理车辆。由于本品所涉部件多数为特有部件，请保留本手册作为未来参考之用。

本产品由精密部件组成，并非玩具，因此不适合 14 岁以下的少年或儿童使用。未成年人操作时应有成人陪同。未能以安全的方式操作或维护本产品可能会导致人身伤害。以安全的方式操作本产品是所有者的责任。FMS 及其分销商对使用本产品可能导致的任何和所有人身伤害和/或财产损失概不负责。

## Safety, precautions and warnings 安全、预防措施及警告

- Replace damaged components with original factory-parts.
- Pay special attention to the polarity of all vehicle wiring.
- Use common sense when selecting the environment to operate your vehicle. Do not operate near power cables, cellular/radio towers, water or unstable terrain. The operator is solely responsible for their actions.
- The product is composed of precision electrical components. It is critical to keep the product away from moisture and other contaminants.
- Always check the radio range of the vehicle prior to operation in order to prevent radio loss or interference.
- Operate this product within your ability. If the vehicle is dangerous to retrieve, it never worth the risk.
- Always turn on the transmitter before connecting the battery on the model. When turning off the model, always disconnect the battery first, and then turn off the model, always disconnect the battery first, and then turn off the transmitter. If this order is reversed, the model may become uncontrollable and cause serious damage.
- Never allow transmitter batteries to run low as it may cause loss of vehicle control.
- Plastics on the vehicle are susceptible to damage or deformation due to extreme heat and cold climate. Do not store the model near any source of heat such as oven or heater. Store the model indoors, in a climate-controlled, room temperature environment.
- 请使用原厂部件更换损坏的部件。
- 特别注意所有车辆接线的正负极。
- 务必选择合适的环境操作遥控模型，所选环境需远离电缆、无线电台、水域及不稳定地形。本品操作者对其行为全权负责。
- 本品由精密电子部件构成。请勿将本品暴露于潮湿的环境或者其他污染物中，以免损坏。
- 确保每次操作前检查车辆的无线接收范围，以防止无线信号丢失或受干扰。
- 在您的能力范围内操作此产品。在任何时候，如果车辆操作有危险，则绝对不值得冒险。
- 通电方式：务必先开遥控器再将车通电。断电方式：务必先将车断电再关遥控器。以上顺序如逆转，则可能引起遥控模型失控，导致人身伤害或财产损失。
- 遥控器电池电量不足时，不要操作模型车，以免失控。
- 模型产品上的塑胶件容易因极冷或极热气候出现变形或损坏的状况。所以请将模型产品存放在气候受控的室温环境中，切勿靠近任何热源，如烤箱或暖器等。

This product is not a toy! (14+) Recommended for ages 14 and up. Adult supervision required for ages under 14 years old. Contains small parts, keep out of reach of children 3 years of age and younger.

使用前请仔细阅读本手册。我们对任何故意损坏或不当使用负责。这个产品不是玩具！建议14岁及以上者使用。14岁以下的用户，需要在成年人监督下使用。本产品部分包含小零件，请务必保证3岁及以下儿童不能接触本产品。



MADE IN CHINA

## Certifications 认证相关

### DoC Declaration DoC 自我说明

Hereby, we declare that the Radio Equipment [ FMS-G3&FMS-R3A] is in compliance with RED 2014/53/EU.  
特此，我们声明无线电设备【FMS-G3&FMS-R3A】符合 RED 2014/53/EU。

### CE Warning CE 警告语

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

发射机的天线必须距离所有人员或其他发射机至少 20 厘米的间隔距离。必须将天线安装说明和满足射频讯号辐射的发射机操作规范提供给终端用户和安装人员。

### Appendix 1 FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example use only shielded interface cables when connecting to computer or peripheral devices).

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

#### Caution!

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.

1. Move all your channels to the desired position.
2. Select [All channels] and then [Yes] in the confirmation box.

### Environmentally friendly disposal

Old electrical appliances must not be disposed of together with the residual waste, but have to be disposed of separately. The disposal at the communal collecting point via private persons is for free. The owner of old appliances is responsible to bring the appliances to these collecting points or to similar collection points. With this little personal effort, you contribute to recycle valuable raw materials and the treatment of toxic substances.






## RADIO SYSTEM 无线电系统

### Safety symbols 安全符号

Pay close attention to the following symbols and their meanings. Failure to follow these warnings could cause damage, injury or death.

仔细阅读以下符号及其相关说明，如不按照以下指引进行操作，可能会导致设备损坏或人员伤亡。

 <b>Attention</b> 注意	Not following these instructions may lead to minor injuries. 如果使用者不按照说明方法操作，有可能导致操作者或他人受到轻微伤害。
 <b>Warning</b> 警告	Not following these instructions may lead to major injuries. 如果不按照说明方法操作，可能导致操作者或他人遭受较大伤害。
 <b>Danger</b> 危险	Not following these instructions may lead to serious injuries or death. 如果不按照说明方法操作，可能导致操作者或他人严重受伤，甚至遭受生命危险。

## Safety Guide 安全信息

- Do not use the product at night or in bad weather like rain or thunderstorm. It can cause erratic operation or loss of control.
- Do not use the product when visibility is limited.
- Do not use the product on rain or snow days. Any exposure to moisture (water or snow) may cause erratic operation or loss of control.
- Interference may cause loss of control. To ensure the safety of you and others, do not operate in the following places:
  - Near any site where other radio control activity may occur
  - Near power lines or communication broadcasting antennas
  - Near people or roads
  - On any body of water when passenger boats are present
- Do not use this product when you are tired, uncomfortable, or under the influence of alcohol or drugs. Doing so may cause serious injury to yourself or others.
- The 2.4GHz radio band is limited to line of sight. Always keep your model in sight as a large object can block the RF signal and lead to loss of control.



### Prohibited 禁止

- 请不要在夜晚或雷雨天气使用本产品，恶劣的天气环境有可能导致遥控设备失灵。
- 请不要在能见度有限的情况下使用本产品。
- 请不要在雨雪或有水的地方使用本产品。如果有液体进入到系统内部，可能会导致运行不稳定或失灵。
- 信号干扰可能导致设备失控。为保证您和他人的安全，请不要在以下地点使用本产品：
  - 基站附近或其他无线电活跃的地方
  - 人多的地方或道路附近
  - 有客船的水域
  - 高压电线或通信广播天线附近
- 当您感到疲倦、不舒服，或在摄入酒精或服食导致麻醉或兴奋的药物后，不要操作本产品。否则可能对自己或他人造成严重的伤害。
- 2.4GHz无线电波段完全不同于之前所使用的低频无线电波段。使用时请确保模型产品在视线范围内，大的障碍物将会阻断无线电频率信号从而导致遥控失灵模型失控。



### Mandatory 强制

- Misuse of this product may lead to serious injury or death. To ensure the safety of you and your equipment, read this manual and follow the instructions.
- Make sure the product is properly installed in your model. Failure to do so may result in serious injury.
- Make sure to disconnect the receiver battery before turning off the transmitter. Failure to do so may lead to unintended operation and cause an accident.
- Ensure that all servos operate in the correct direction. If not, adjust the direction first.
- Make sure the model stays within the systems maximum range to prevent loss of control.
- 遥控设备使用不恰当可能导致操作者或他人严重受伤，甚至死亡。为保证您和设备的安全，请仔细阅读使用说明书并按照要求进行操作。
- 使用前必须确保本产品与模型安装正确，否则可能导致模型发生严重损坏。
- 关闭时，请务必先关闭接收机电源，然后关闭发射机。如果关闭发射机电源时接收机仍然在工作，将有可能导致遥控设备失控或者引擎继续工作而引发事故。
- 操控时，请先确认模型所有舵机的动作方向与操控方向一致。如果不一致，请调整好正确的方向。
- 当遥控距离较远时，有发生失控的可能，请适当缩短遥控距离。



## Background 产品背景

The MUD MASTER is held every June in Manchac, near New Orleans, Louisiana, where there are dense swamps, rugged rocks, and dead woods, making it difficult for off-road vehicles to move.

Legend has it that this area was cursed by the Queen of Voodoo Mary Poppin, and there is a mysterious singing that attracts people to get lost in the jungle, and there is no return. The swamp is also home to giant alligators that can devour adults..The stories were chilling, but they drew waves of young people who ventured into this no-man's land, deep into the swampy hinterland, and garnered attention by sharing their location on Twitter. There are many people going in, and there are occasional unfortunate disappearances. But instead of deterring people from entering, it acts like a magnet to attract more visitors.

In fact, this is a very beautiful ancient forest. The founder of the race, Chandler Bing, was born and raised on a nearby farm. He believes that no matter how powerful the vehicle is, it is difficult to pass here, and no matter how deep the rut is, it is difficult to maintain a week. Human beings are insignificant in front of nature and should live full of humility and awe under the protection of nature. Therefore, in 2007.01.01, the MUD MASTER cross-country race was established to test the limits of people and machines, and at the same time, let the audience feel the pure power of nature. Mary Poppin is his college teacher and his second wife, alligators are a traditional local delicacy, and Gator Tail Bites is the most popular dish among racers.

The race is open to anyone with a minimum FIA C1 licence. However, it does not accept registrations or sponsorships from car manufacturers' teams, and does not allow the manufacturer's logo to be exposed. The purpose is to limit the entry of large capital and high technology, and to make the competition pure and simple. A significant portion of the competition's operating income is donated to local active environmental organizations for conservation and earth science education.

After 12 years of development, the scale and influence of the event has expanded year by year. In 2019, it was absorbed by the Amazon Rainforest Challenge and became the largest off-road racing carnival in the world. In recent years, with the advancement of electric vehicle technology, the proportion of hybrid racing cars is getting higher and higher, and pure electric vehicles have begun to join in 2021. Due to the extremely complex environment, most racing cars choose to install tractor tires. The huge herringbone pattern has a good mud removal effect. The customized short wheelbase chassis ensures the longitudinal passability of the racing car, and the portal axle is just starting line.

The initial participants were mostly local farmers, ranchers and crocodile breeders who had years of experience scrambling around in the mud, which is why their cars looked so much like tractors. William Butch is a newcomer to the event in 2020. His father is a large local cattle farmer, and he himself is responsible for the slaughter and beef sales. People nicknamed him Butcher. His car uses a lot of parts from agricultural vehicles, and the casing comes from the legacy of his uncle Douglas Butch, a 1949 POWER WAGON.

Because of the sturdy driving style, not playing cards according to common sense, and being familiar with the local climate and terrain, he has repeatedly won by surprise. Soon, the name of "Butcher Butch"spread.

To be continued...

## PRODUCT INTRODUCTION 产品信息

MUD MASTER泥地大师越野赛，每年6月在路易斯安纳州新奥尔良附近的曼查克举行，这里沼泽密布，怪石嶙峋，枯木虬曲，普通越野车寸步难行。传说这个地区遭到当地Voodoo沃都女王Mary poppin诅咒，有神秘的歌声吸引人迷失在密林中，是有去无回之地。沼泽里还栖息着能否咬成年人的巨型短吻鳄。。。这些故事让人不寒而栗，但却引得一波又一波年轻人，冒险进入这片无人区，深入沼泽腹地，在推特上分享自己的位置，博取关注。进去的人多了，偶尔也有玩脱的不幸失踪事件发生。但这非但没有阻止人们进入这里，反而像磁铁一样引来更多访客。事实上这一片非常美丽的古老森林，赛事创始人Chandler Bing 在附近的农场出生、长大，他认为再强大的车辆，也难以在这里通行，最深的车辙也维持不了一周的时间，人类在自然面前是渺小的微不足道的存在，应该满怀谦卑和敬畏的在大自然的庇佑下生活。于是在2007.01.01创立了MUD MASTER泥地大师越野赛，考验人和机器极限的同时，让观众感受自然的纯粹力量。Mary poppin是他的大学老师，也是他第二任妻子，短吻鳄则是当地人的传统美食，Gator Tail Bites是最受车手欢迎的一道菜。

这项比赛向所有人开放，只要获得国际汽联最低等级的C1执照就可以参赛，但不接受汽车厂商车队的报名或者赞助，也不允许厂商logo露出，目的是限制大资金和高科技的进入，让比赛纯粹和简单。比赛运营收入的很大一部分会捐赠给本地积极的环保组织，用于环境保护和地球科学教育。经过12年的发展，赛事规模和影响力逐年扩大，2019年被亚马逊雨林挑战赛吸纳，一跃成为世界上规模最大的越野赛车嘉年华。近几年电动汽车技术的突进，混动赛车的比例越来越高，2021年开始有纯电动车加入。由于环境极端复杂，大多数赛车都选择安装拖拉机轮胎，巨大的人字纹有很好的排泥效果，定制的短轴距底盘确保赛车的纵向通过性，门式车桥则是基础配置。

最初的比赛参与者大多是当地的农民，牧场经营者和鳄鱼养殖户，他们有多年在泥巴地摸爬滚打的经验，这也是他们的赛车看起来这么像拖拉机的原因。William Butch威廉·布奇是2020年开始参加这项赛事的新手，他父亲是当地的养牛大户，他本人负责宰杀和牛肉销售工作，人们给他起了个绰号叫Butcher。他的车使用了很多农用车的零件改装，外壳来自他叔叔Douglas Butch的遗产，一辆1949年的POWER WAGON。因为驾驶风格彪悍，不按常理出牌，同时也熟悉当地气候和地形，屡屡出奇制胜，很快，屠夫布奇的名字就传开了。

未完待续.....

### About Model 产品介绍

FCX24 is positioned as a high-performance crawler chassis. The carframe is made of high-strength nylon. Compared with the trapezoidal beam spliced by metal side beams and plastic trusses, the overall weight is lighter and the strength is higher. The mid-mounted power assembly has a low center of gravity and integrates the 2-speed transmission, transfer case and 130 motor. The power is transmitted to the front and rear axles through the universal joint drive shaft. The axles are equipped with wheel side reducers, commonly known as "portal axle", which can increase the ground clearance of the differential tooth pack and improve the passability.

The crawlers are generally equipped with front and rear straight axles to simulate the locked state of the real car differential to improve off-road passing ability. The FCX24 is equipped with a straight axle by default, but the planetary gear differential can also be replaced with high-viscosity silicone oil to simulate the driving effect of an LSD limited-slip differential. After installing the differential, the ultimate climbing ability will be reduced, but a smaller turning radius and a more stable high-speed driving quality can be obtained. Simply put, the straight axle is suitable for extreme climbing, and the limited-slip differential is suitable for high-speed off-road. The choice is yours.

The two-speed gearbox uses the CH3 of the remote control and is operated by a 9G steering gear. The low gear reduction ratio is 99, which is larger than that of similar products currently on the market. The torque output is strong, and easy for extreme climbing. The high gear reduction ratio is 24.75, and the speed is higher than that of all similar products currently on the market. You can experience the fun of high-speed breakthrough, small jump, and even heading up.

As the first product of the FCX24 series, the car body is the POWER WAGON in 1949, which appeared in the form of a mud off-road truck. We put the reason and future development in this story to share with you.

2.4GHz digital proportional remote control system, in addition to normal driving and steering control, the CH3 is used to control shifting. It is also equipped with a lighting control module. In addition, interfaces for taillights and turn lights are reserved for players to modify.

Unlike previous FMS products, FCX24 focuses more on sports performance. A large number of upgraded and modified parts such as metal gears, shock absorbers, high-performance motors, radiators, and wheel hub counterweights will be launched simultaneously. Players from all over the world, look forward to you creating your own unique FCX24.

# PRODUCT INTRODUCTION 产品信息

FCX24的定位是高性能攀爬底盘，车架采用高强度尼龙一体成型，相比金属侧梁加塑胶桁架拼接的梯形大梁，整体重量更轻，强度更高。中置动力总成重心低，将2档变速机构、分动箱和130电机整合为一体。动力通过万向节传动轴传输到前后两个车桥，车桥装有轮边减速度器，俗称“门桥”，可以加大差速器牙包的离地间隙，提高通过性。

攀爬车一般搭配前后直轴，模拟真车差速器锁止状态，以提高越野通过能力。FCX24默认搭载直轴，但也可以更换行星齿差速器，搭配高粘度硅油，模拟LSD限滑差速器的行驶效果。安装差速器后极限攀爬能力将会降低，但可以获得更小的转向半径，更稳定的高速行驶品质。简单的说直轴适合极限攀爬，限滑差速器适合高速越野，任君选择。

两档变速箱使用遥控器第三通道，通过一颗9G舵机操作，低速档减速比99，大于目前市面上的同类产品，低扭输出强劲，极限攀爬游刃有余。高速档减速比24.75，车速大于目前市面上所有同类产品，可以体验高速冲破，小跳，甚至抬头的乐趣。

作为FCX24系列的第一款产品，车壳是1949年的POWER WAGON，以泥地越野卡车的形态亮相，这其中的缘由和未来的发展我们放在这个故事里和大家分享。

2.4GHz 数字比例遥控系统，除了正常行驶、转向控制外，第3通道用于控制换挡。此还搭载有灯光控制模组，另外还预留了尾灯、转向灯的连接口供玩家改装。

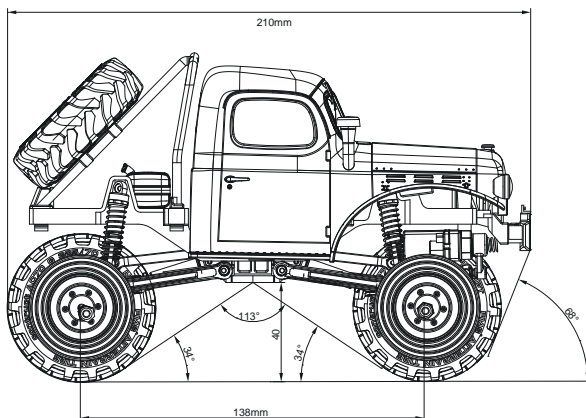
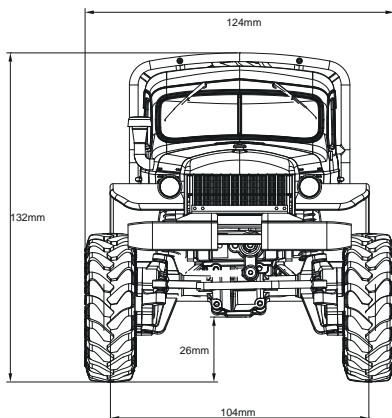
和FMS以往产品不同，FCX24更偏重运动性能，包括金属齿轮、避震器、高性能电机、散热器、轮毂配重等大量升级改装零件会同步推出，世界各地的玩家，期待你们打造出自己独一无二的FCX24。

## Features 产品特点

- Ready to run model
  - Two speed transmission
  - Portal axle
  - Metal gears steering servo
  - Four link suspension
  - High strength integrated nylon frame
- Power wagon hard body
  - Rapid separation car body
  - Nylon roll cage
  - Painted body
  - Original personalized stickers
- 组装完成品
  - 微型两档机械变速
  - 门式车桥
  - 金属齿转向舵机
  - 4连杆悬挂
  - 高强度混纤尼龙一体成型车架
- POWER WAGON卡车硬塑料车壳
  - 车壳快拆结构
  - 尼龙防滚架
  - 喷涂完成车壳
  - 原创个性化贴纸

# PRODUCT INTRODUCTION 产品信息

## Specification 产品参数



- Length: 210mm
- Width: 124mm
- Height: 132mm
- Wheelbase: 138mm
- Tire F/R :  $\Phi 60 \times 20\text{mm}$
- Minimum Ground Clearance: 26mm
- Approach Angle:  $68^\circ$
- Departure Angle:  $> 90^\circ$
- Reduction ratio: (High Gears ) 24.75  
(Low Gears ) 99

- 车长: 210mm
- 车宽: 124mm
- 车高: 132mm
- 轴距: 138mm
- 轮胎:  $\Phi 60 \times 20\text{mm}$
- 离地间隙: 26mm
- 接近角 Approach Angle:  $68^\circ$
- 离去角 Departure Angle:  $> 90^\circ$
- 减速比: 高速挡 24.75 低速挡 99

- Motor: 130 Brushed motor
- Battery : 2S Lipo 7.4V 380mAh x1
- Remote control distance: 30m
- Approx. operating duration time: 20mins
- Remote control: G3+ R3A transmitter, receiver with  
ESC group control board
- Key functions: Two Speed Transmission/Smart light effect

- 电机: 130有刷电机
- 电池: 2S Lipo 7.4V 380mAh
- 遥控距离: 30m
- 续航: 20mins
- 遥控: G3 + R3A 发射器, 接收机/电调(二合一)
- 主要功能: 两档变速/灯效切换

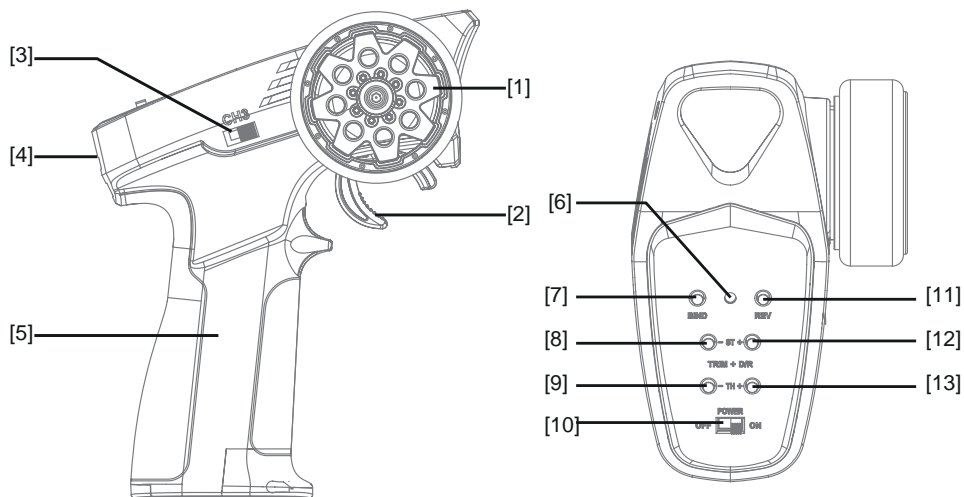
# Transmitter instruction 发射机概览

## Transmitter instruction 发射机介绍

The product adopts the 2.4GHz AFHDS 2A-BS Automatic Frequency Hopping Digital System which consist of FMS-G3 transmitter and FMS-R3A receiver. It supports two-way transmission, featuring 3-channel and compatible with variety of car models.

本系统采用 2.4GHz AFHDS 2A-BS 协议，由 FMS-G3 发射机和 FMS-R3A 接收机组成。支持双向传输、共输出 3 个通道、兼容多种车模型。

## Transmitter instruction 发射机概览



[1] Steering Wheel CH1  
方向手轮 CH1

[2] Throttle Trigger CH2  
油门扳机 CH2

[3] Three-position Switch CH3  
三档开关 CH3

[4] Lanyard Eye  
挂绳孔

[5] Handle (AAA\*4 batteries can be installed inside)  
手柄( 内可安装 AAA\*4 电池)

[6] LED  
指示灯

[7] BIND Button (Binding, turn on or off the car light or reset data)  
BIND 按键 (对码) (对码、开启关闭车灯或数据复位)

[8] ST- Button (To decrease the trim and travel value of CH1)  
ST- 复位按键 (减小 CH1 微调 and 舵量)

[9] TH- Button (To decrease the trim and travel value of CH2)  
TH- 复位按键 (减小 CH2 微调 and 舵量)

[10] Power Switch  
电源开关

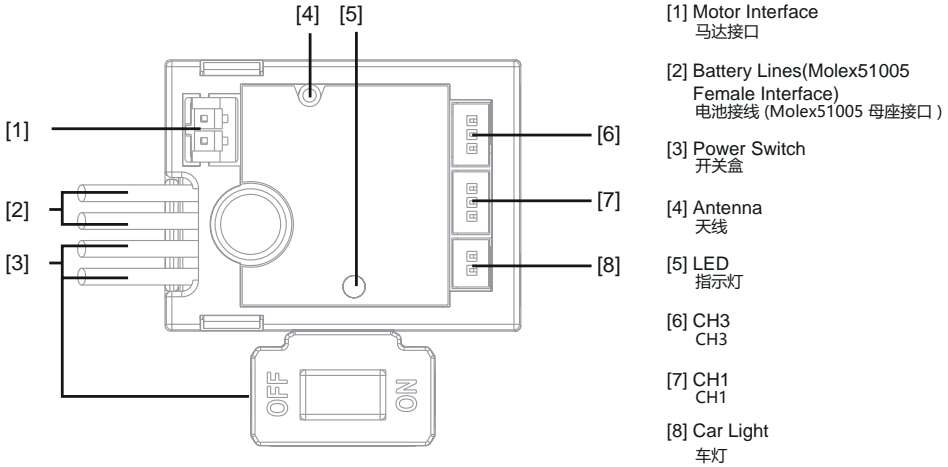
[11] REV Button (To reverse the CH1 or CH2)  
REV 复位按键 (控制 CH1 或 CH2 方向)

[12] ST+ Button (To increase the trim and travel value of CH1)  
ST+ 复位按键 (增加 CH1 微调 and 舵量)

[13] TH+ Button (To increase the trim and travel value of CH2)  
TH+ 复位按键 (增加 CH2 微调 and 舵量)

# Transmitter instruction 发射机概览

## Overview 接收机概览



## The LED Status of the Receiver 接收机指示灯

The LED status indicates the power supply state of the receiver and its working state.

Off: The receiver is not powered on.

Light on in red: The receiver is connected to the power supply. It works normally.

Fast flashing: The receiver is in the bind mode.

Slow flashing: The LED flashes slowly when the transmitter is powered off, unbound, or no signal.

接收机状态指示灯用于指示接收机的电源及工作状态。

灭：接收机电源未接通。

红灯常亮：接收机已连接电源，并正常工作。

快速闪烁：接收机处于对码状态中。

慢速闪烁：发射机未开机或未对码，无信号情况。

## Interface 接口

All the servos' interfaces and the car light interface are 1.25 mm standard pins, and the motor interface is PH2.0 female interface. They are for connecting the receiver to each terminal part of the model.

所有接口均为 1.25 mm 的标准端子座，用于连接接收机与模型各个终端部件。

## Antenna 接收机天线

It is an external antenna.

本接收机天线为外置单天线。



Do not pull the antenna of the receiver. Do not tie the antenna and the servo cable together.  
不要拉扯接收机的天线，也不要将天线和舵机连接线绑在一起。



Note  
警告

Do not put the antenna close to the metal materials, because this will affect the signal strength of the receiver. Keep the receiver's antenna at least 1cm away from conductive materials such as carbon or metal.  
接收机天线需远离导电材料，例如金属棒和碳纤维物质。为避免影响正常工作，请确保接收机天线和导电材料之间至少有 1cm 以上的距离

# Getting Started 使用前准备

## Transmitter Antenna 发射机天线

The transmitter has a built-in antenna. When the transmitter starts to work, the antenna automatically operate, without additional operations.

本发射机天线为内置天线，发射机开始工作，天线自动工作，无需单独进行操作！

## Receiver and Servo Installation 接收机与舵机安装

Make sure that the receiver is mounted in an appropriate location within the model, to ensure a stable signal,

### Pay attention to the following when installing the receiver:

1. Make sure the receiver is not installed near ESCs or other sources of electrical noise.
2. Keep the receivers antenna away from conductive materials such as carbon or metal. To ensure normal function make sure there is a gap of at least 1cm between the antenna and the conductive material.

请结合相应模型的结构选择合适的位置安装接收机，同时为了确保接收机的性能和遥控距离的稳定，并防止外界干扰，

### 安装过程中请注意以下事项：

1. 确保接收机安装在远离电机，电子调速器或电子噪声过多的区域。
2. 接收机天线需远离导电材料，例如金属棒和碳纤维物质。为了避免影响正常工作，请确保接收机和导电材料之间至少有 1 厘米以上的距离。



小心

To prevent damage do not power on the receiver during installation.  
准备过程中，请勿连接接收机电源，避免造成不必要的损失。

## Installing Transmitter Battery 发射机电池安装



危险

Only use specified battery (X4 AAA batteries).  
仅使用厂家指定的电池。



危险

Do not open, disassemble, or attempt to repair the battery.  
请勿打开、拆卸或自行维修电池。



危险

Do not crush/puncture the battery, or short the external contacts.  
请勿挤压、刺穿或接触电池的金属端子。



危险

Do not expose to excessive heat or liquids.  
请勿将电池置于高温环境或液体中。



危险

Do not drop the battery or expose to strong shocks or vibrations.  
请注意防止电池跌落、碰撞或振动。



危险

Always store the battery in a cool, dry place.  
请将电池存放在干燥阴凉的环境中。



危险

Do not use the battery if damaged.  
如果电池损坏，请立即停止使用。

Battery Type: AAA

Follow the steps below to install the batteries:

1. Open the battery compartment cover.
2. Insert 4 AAA batteries with the correct polarity. Make sure it is connected with the correct polarity to avoid damage.
3. Replace battery compartment cover.

Low battery alarm: When the battery is lower than 4.2V, the transmitter will give a alarm with the LED flashing slowly.



# Getting Started 使用前准备

电池类型使用：AAA 电池

请按照以下步骤安装发射机电池：

- 1. 打开电池仓盖。
- 2. 将 4 颗电量充足的 AAA 电池装入电池仓内，注意正负极方向并确保电池上的金属端子与电池仓内的金属端子接触。
- 3. 盖好电池仓盖。

低电量报警：当电量低于 4.2V 时，发射机即发出声音报警同时 LED 慢闪

## Operation Guide 操作指引

### Power-on 开机

Follow the steps below to turn on the transmitter:

- 1. Check to make sure that the batteries are fully charged and installed correctly.
- 2. Toggle the Power Switch to the [ON] position, and the LED will be solid on.
- 3. Connect the receiver to power.

Note: For safety always power on the transmitter before the receiver.

请按照以下步骤进行开机：

- 1. 检查系统状态，确电池电量充足并正确安装；
- 2. 将开关拨到 [ON] 位置，指示灯常亮；
- 3. 接收机通电。

注：为保障模型及人员安全，使用时请先打开发射机再给接收机通电



Operate with caution in order to avoid damage or injury.  
此时系统已启动，请谨慎操作，否则可能导致产品损坏或人员伤亡。

### The LED Status of the Transmitter 指示灯

The LED status indicates the power supply state of the transmitter and its working state.

Off: The transmitter is not powered on.

Fast flashing: The transmitter is in the bind mode.

Slow flashing: Low voltage alarm

Gradual: The transmitter is in Sleep mode or in Idle alarm state.

Three-flash-one-off: The transmitter is in standby state, while the bound receiver is powered off, unbound, or nosignal.

发射机状态指示灯用于指示发射机的电源及工作状态。

灭：发射机电源未接通。

快速闪烁：发射机处于对码状态中。

慢速闪烁：低电压报警。

呼吸灯闪烁：发射机处于休眠模式或闲置报警状态。

三闪一灭：发射机处于待机状态，但对码的接收机未开机、已关机或掉码。

### Binding 对码

The transmitter and receiver have already been bound at the factory.

However if the receiver needs to be replaced or additional receivers bound follow these steps:

- 1. Turn on the transmitter while holding the bind button to put the transmitter into bind mode. Meanwhile the LED will flash quickly, and release the bind button.
- 2. The receiver will power on and wait for 1 second,if without connection, it will enter the binding state automatically;
- 3. The receiver's LED is solid on, indicating the binding is successful.
- 4. Check to make sure the transmitter and receiver functions are working correctly, repeat steps 1 to 3 (binding process) if any problems arise.

Note: If the binding is not completed within ten seconds, the LED of the receiver will enter its slow flashing state.

## Operation Guide 操作指引

发射机和接收机在出厂前已对码成功。

如需更换其他的发射机或接收机，请按照下述步骤重新对码。本发射机支持双向传输，对码步骤如下：

1. 按住发射机的 BIND 键，并将 POWER 键拨至 [ON] 位置，发射机即进入对码状态，此时发射机指示灯快闪，松开对码键；

2. 接收机通电进入对码状态；

3. 接收机 LED 灯常亮，即对码成功（发射机对码成功后自动退出对码状态）；

4. 检查发射机、接收机是否正常工作。如需重新对码，请重复以上步骤。

注：若十秒内对码没有完成，接收机 LED 指示灯进入慢闪状态。

### Stick Calibration 摇杆校准

This function is used to set the neutral position for throttle trigger and steering wheel.

Every transmitter is calibrated before leaving the factory, however if recalibration is required, please follow these steps:

1. Turn and hold the wheel clockwise to the max travel point and push the throttle forwards as far as possible, then turn on the transmitter. It will enter calibration mode. The buzzer sounds shortly in cycle for prompt.
2. Turn the steering wheel to max and min travel point in clockwise and counterclockwise. Then push/pull the trigger to forward/backward as far as it will go. The wheel and trigger go back to the neutral position. Once calibration is finished by press the bind key to save and exit.
  - If the calibration is completed successfully, the transmitter will exit calibration mode by pressing BIND button, meanwhile the buzzer will prompt with one short beep, and afterwards, the transmitter is in standby mode with the LED in three-flash-one-off state.
  - If the calibration is failure, the transmitter can not exit the calibration mode by pressing BIND button.

用于方向手轮和油门扳机的中位角度修正。

发射机在出厂前已校准完成，如需要重新校准，请按照以下步骤执行。

1. 将发射机手轮顺时针打到最大，前推油门扳机至最大，并将 POWER 键拨至 [ON] 位置，即进入摇杆校准模式（指示灯常亮），蜂鸣器短响一声循环提示；
2. 将手轮和扳机行程打到最大和最小后，回至中位位置。然后按 BIND 键保存并退出校准模式。
  - 若校准成功按 BIND 按键可退出校准模式，蜂鸣器短响一声循环提示，随后发射机进入待机模式（指示灯三闪一灭）；
  - 若校准未通过，按 BIND 按键无效，即不能退出校准模式。

### Power Off 关机

Follow the steps below to turn off the system:

1. Disconnect the receiver power.
2. Toggle the transmitter's Power Switch to the OFF position.

请按照以下步骤关机：

1. 断开接收机电源；
2. 将 POWER 键拨到 [OFF] 位置，使发射机关闭。



Danger  
危险

Make sure to disconnect the receiver power before turning off the transmitter. Failure to do so may lead to damage or serious injury.

关闭时，请务必先关闭接收机电源，再关闭发射机，否则可能导致模型损坏、人员受伤。

## System Functions 系统功能

### Channel Description 通道说明

The transmitter outputs a total of 3 channels, the function assignment and settings are as follows.

该发射机共输出 3 个通道，功能分配及设置如下：

# System Functions 系统功能

Channel 通道	Assigned Control 已分配的控件	Function 功能
CH1	Steering Wheel 方向手轮	Steering (To make the model car to turn right or left.) 方向 (控制车子左右转向。)
CH2	Throttle Trigger 油门扳机	Throttle (To control the model car to move forward or backward.) 油门 (控制车子前后行驶。)
CH3	Three-position switch CH3 三档开关 CH3	Fast-/Median-/slow-position servo channel, to switch the speed positions of the model car. Toggle the control to switch between fast-position and slow-position. 快中慢档舵机通道, 切换车子速度档位。 拨动控件切换快档、中档和慢档。

## Drag brake function (default:0%) ,factory setting 100% + brake function (default: without brake) 拖刹功能(默认:0%),厂设为100% + 刹车功能(默认:没刹车)

Under normal power-on, quickly press the REV button twice within 1 second to enter the mode, and the green light will flash. Select the appropriate drag brake setting value as shown below, press the corresponding button, and then quickly press the REV button twice within 1 second to exit

ST-: 0%  
ST+: 50%  
TH-: 75%  
TH+: 100%

Press the BIND button to cycle through with and without brake

正常开机状态下, 1秒内快速按REV按键两下进入模式, 此时绿灯闪亮, 在下列按键里选取所需拖刹设定值, 按一下选定, 再快速按REV按键两下退出模式

ST- 为 0%  
ST+ 为 50%  
TH- 为 75%  
TH+ 为 100%

短按BIND按键循环切换带刹车和不带刹车功能

## Trims and travel of gear shift servo 换挡舵机微调/舵量

Under normal power-on, quickly press the BIND button twice within 1 second to enter the mode, and the green light will flash. Press the corresponding button to adjust to the appropriate state, and then quickly press the BIND button twice within 1 second to exit.

ST+/-: Increases /decreases adjustment step  
TH+/-: Increases /decreases servo travel

正常开机状态下, 一秒内快速按BIND按键两下进入模式, 此时绿灯闪亮, 短按下列按键调整至所需状态后, 快速按BIND按键两下退出模式。

ST-/+ 为换挡舵机微调  
TH-/+ 为换挡舵机舵量

## Channel Reverse 通道反向

To reverse the output direction of the channel.

- When the steering wheel is located in the maximum travel or minimum travel, press the REV button to reverse CH1. When you press once, it switches once.
- When the throttle trigger is at the maximum or minimum travel and the steering wheel is in the neutral position at the same time, press the REV button to reverse CH2. When you press once, it switches once. When the reverse action of the channel takes effect, the buzzer will sound shortly for prompt.

Note: Pay special attention on throttle channel reverse operation due to safety concern, as the model car will move in full speed when the trigger is at full throttle position!

该功能用于调整通道的动作方向。

- 方向手轮位于最大行程或最小行程时，按 REV 按键可使通道 1 反向，按一次切换一次；
- 油门扳机位于最大行程或最小行程时，同时方向手轮位于中位时，按 REV 按键可使通道 2 反向，按一次切换一次。通道反向动作生效时，蜂鸣器短响一声提示。

注：油门通道反向时，请注意安全（最大油门时车子会以全速运动）！

## Trim Setting 微调

To adjust the trim value of the channel.

- When the steering wheel is in the neutral position, press the ST+/- button to adjust CH1 trim.
  - When the throttle trigger is in the neutral position, press the TH+/- button to adjust CH2 trim.
- ST+/TH+: Increase the trim value. ST-/TH-: Decrease the trim value. Trim range: -150 us – 150 us; The step is 5us; by default, it is 0.

When the trim setting action takes effect, the buzzer will sound shortly for prompt. If you press and hold it, the value remains changes continuously. The buzzer will sound twice for prompt when the trim is across the neutral position. And when it reaches the endpoint, the buzzer will sound long for prompt.

该功能用于调整通道微调。

- 当方向手轮位于中位时，按 ST+/- 按键，可调整通道 1 微调；
- 当油门扳机位于中位时，按 TH+/- 按键，可调整通道 2 微调。

ST +/TH+: 增大微调值，ST -/TH-: 减少微调值，微调调节范围：-150us~150us，调节步进为 5us，默认为 0。

微调设置动作生效时，蜂鸣器短响一声提示，长按快速调节，微调过中位时，蜂鸣器响两声提示；到终点时长响一声提示。

## D/R Setting 舵量调节

To adjust the travel range value of the channel.

- When the steering wheel is located in the maximum travel or minimum travel, press the ST+/- button to adjust CH1 travel value.
  - When the throttle trigger is at the maximum or minimum travel, press the TH+/- button to adjust CH2 travel value.
- ST+/TH+: Increase the travel value. ST-/TH-: Decrease the travel value. Travel range: 0-120%, by default, it is 100%, the step is 5%.

When the travel setting action takes effect, the buzzer will sound shortly for prompt. If you press and hold it, the value remains changes continuously. The buzzer will sound long for prompt when reaching the endpoint.

该功能用于调整通道的舵量。

- 方向手轮位于最大行程或最小行程时，按 ST+/- 按键，可调节通道 1 舵量；
  - 当油门扳机方向手轮位于最大行程或最小行程时时，按 TH+/- 按键，可调节通道 2 舵量。
- ST+/TH+: 增加舵量值，ST-/TH-: 减小舵量值，调节范围：0-120%（默认 100%），步进为 5%。

舵量设置动作生效时，蜂鸣器短响一声提示，长按快速调节，舵量至终点时，蜂鸣器长响一声提示。

## Failsafe Setting 失控保护

The failsafe function is used to protect the model and personnel when the receiver is out-of-control. The CH2 will be in brake mode when the receiver is out-of-control.

By default, and the receiver will keep outputting the last channel value in case of out-of-control.

- When the transmitter is in normal working state, press and hold the BIND button for 3S to start the failsafe function. The current channel value is set as the failsafe value. The buzzer will sound long for prompt after the setting is successful.

Note: When the transmitter binds with a receiver once more, the failsafe setting will restore to default setting

此功能用于当接收机无法正常收到发射机的信号不受控制时，保护模型和操作人员的安全。失控后 CH2 通道进入刹车状态。

该发射机默认未设置时接收机通道保持最后输出。

- 开机正常状态下，长按对码按键 3S 触发失控保护设置，将当下的通道值作为失控保护值。动作设置成功时，蜂鸣器长响一声提示。

注：重新对码时恢复默认设置。

## Reset Data 数据复位

To reset the function data.

- Press and hold the BIND button and REV button while powering on the transmitter, to reset the function data, and the buzzer will sound long for prompt.

Note: The failsafe setting, binding information and stick calibration will not be reset.

此功能用于将发射机功能参数恢复为默认值。

- 按住发射机的 BIND 键和 REV 键后，并将 POWER 键拨至 [ON] 位置，即恢复数据，蜂鸣器长响一声提示。

注：失控保护设置、对码信息和摇杆校准数据不复位。

## Idle Alarm 闲置报警

The transmitter will go into idle alarm state when there is no operation over 10 minutes.

- When the transmitter is in idle alarm state, the transmitter LED is in gradual light state, the buzzer sounds twice quickly in cycle for prompt. Operations of any control on the transmitter will cancel the alarm, as a result of the exit of the idle alarm state.

当发射机未操作时间大于 10 分钟时，即进入闲置报警状态。

- 在此状态下，发射机指示灯为呼吸灯闪烁状态，蜂鸣器循环快响两声提示；操作发射机上的任意控件将解除并退出闲置报警状态。

## Sleep Mode 休眠模式

When the transmitter has been in idle alarm state over 2 minutes, it will enter the sleep mode.

- In this mode, the transmitter LED is in gradual light state, the buzzer is off and the RF is off. The transmitter will enter low power consumption state, and no responsive in case of operations of any control. To exit the sleep mode, power off the transmitter and restart it.

当发射机处于闲置报警状态时间大于 2 分钟时，即进入休眠模式。

- 在此模式下，发射机指示灯为呼吸灯闪烁状态，蜂鸣器关闭，RF 关闭，发射机将停止一切工作，进入低功耗休眠状态。此时操作任意控件发射机都无响应。必须关闭电源重启发射机才能退出休眠模式。

## System Functions 系统功能

### Low Voltage Alarm 低电压报警

When the transmitter voltage has lower than 4.2V, it will enter the low voltage alarm state.

- When the transmitter is in low voltage alarm state, the transmitter LED will be in gradual status and will sound shortly for prompt the buzzer.

Note: The RF is off when the batteries voltage is lower than 3.5V for the model's and the system's safety.

当发射机电池电压低于 4.2V 时，即进入低电压报警状态。

- 在此状态下，发射机指示灯为慢闪状态，蜂鸣器短响一声循环提示。

注：为保护系统和模型的安全，电池电压低于 3.5V 时，无线系统将停止工作。

### Offline Prompt 离线提示

When the transmitter is in normal state, once it detects the bound receiver has turned off, or disconnected over 2S, the transmitter LED will be in three-flash-one-off state for prompt.

Note: When the transmitter received the information of the bound receiver again, it will exit the offline prompt state.

当发射机在正常工作状态下，检测到已对码的接收机未开机、已关机或掉码时间大于 2S 时，发射机指示灯三闪一灭提示。

注：若收到已对码的接收机回传信息后，即退出离线提示状态。

## FMS-R3A Function Instructions FMS-R3A 功能说明

### Attentions 注意事项

- Make sure the product is installed and calibrated correctly, failure to do so may result in serious injury.
- Make sure the receiver's battery is disconnected before turning off the transmitter, failure to do so can result out of control. Unreasonable setting of the Failsafe may cause accidents.
- Make sure the receiver is mounted away from motors, electronic speed controllers or any device that emits excessive electrical noise.
- Keep the receiver's antenna at least 1cm away from conductive materials such as carbon or metal.
- Do not power on the receiver during the setup process to prevent loss of control.
- 使用前必须确保本产品与模型安装正确，否则可能导致模型发生严重损坏。
- 关闭时，请务必先关闭接收机电源，然后关闭发射机。如果关闭发射机电源时，接收机仍然在工作，将会导致遥控设备失控。失控保护装置不合理可能引起事故。
- 确保接收机安装在远离电机或电子噪声过多的区域。
- 接收机天线需远离导电材料，例如金属棒和碳物质。为了避免影响正常工作，请确保接收机天线和导电材料之间至少有 1 厘米以上的距离。
- 准备过程中，请勿连接接收机电源，避免造成不必要的损失。

### Protect Function 保护功能

The receiver has low voltage protection and overheating protection function.

Low voltage protection: When the voltage of the receiver is lower than 6.4V, all channels have no output.

Overheating protection: When the receiver temperature is too high, CH2 motor channel has no output and CH1 channel has normal output. When the temperature returns to be normal, the overheat protection function becomes unavailable, that is, the normal output of CH2 resumes.

本款接收机具有低压保护和过热保护功能。

低电压保护：接收机电池电压低于 6.4V 时，所有通道无输出。

电调保护功能：

- 过热保护：当接收机温度过高时，CH2 马达通道无输出，CH1 通道正常输出；当温度恢复正常时，则退出过热保护功能，即 CH2 恢复正常输出。

# FMS-R3A Function Instructions FMS-R3A 功能说明

## Car Light Control 车灯控制方式

When the receiver and the transmitter has connected normally, press the BIND button to turn on or turn off the car light. By default, the car light is off.

在发射机与接收机正常通信状态下，短按发射机 BIND 按键开或关闭车灯。默认为关闭状态。

## Failsafe 失控保护

The receiver supports the failsafe function, it needs to be set at the transmittter side, refer to Failsafe for details.

本接收机支持失控保护功能，需要发射机端设置，操作步骤请查看 [失控保护]。

## G3 Specifications G3 产品规格

### Transmitter Specifications 发射机规格

- Product Model: FMS-G3
- Compatible Receivers: FMS-R3A
- Compatible Models: 1:18, 1:24 simulation cars or climbing cars
- Number of Channels: 3
- RF: 2.4GHz ISM
- Maximum Power: < 20dBm (e.i.r.p.) (EU)
- 2.4G Protocol: AFHDS 2A-BS
- Distance: >100m (Ground distance without interference)
- Resolution: 1024
- Input Power: 6V DC or 1.5AAA\*4
- Working Current: 10mA (Static) ; 120mA/6V (Dynamic)
- 产品型号: FMS-G3
- 适配接收机: FMS-R3A
- 适配模型: 1:18、1:24 仿真或攀爬准模型车
- 通道个数: 3
- 无线频率: 2.4GHz ISM
- 发射功率: < 20dBm
- 无线协议: AFHDS 2A-BS
- 遥控距离: >100m (空旷无干扰地面距离)
- 通道分辨率: 1024 级
- 输入电源: 6V DC 或 1.5AAA\*4
- 工作电流: 10mA (静态) ; 120mA/6V (动态)
- Charging Port: No
- Low Voltage Alarm: < 4.2V
- Antenna: Built-in single antenna
- Data Port: No
- Temperature Range: -10℃ ~ +60℃
- Humidity Range: 20% ~ 95%
- Online Update: No
- Color: Blue
- Dimensions: 115.2\*75.5\*145mm
- Weight: About 113g
- Certification: CE, FCC ID: 2A2UNG300
- 充电接口: 无
- 低电压报警: < 4.2V
- 天线类型: 内置单天线
- 数据接口: 无
- 温度范围: -10℃~+60℃
- 湿度范围: 20%~95%
- 在线更新: 无
- 发射机颜色: 蓝色
- 外形尺寸: 115.2\*75.5\*145mm
- 机身重量: 113g 左右
- 认证: CE, FCC ID: 2A2UNG300

### Receiver Specifications 接收机规格

- Product Model: FMS-R3A
- Compatible Transmitters: FMS-G3
- Compatible Models: 1:18\1:24 simulation cars or climbing cars
- Applicable Motors: 180 brushed motor
- PWM Channels:2
- Number of Lights:1
- RF: 2.4GHz ISM
- 2.4GHz Protocol: AFHDS 2A-BS
- Input Power: 2S Lithium batteries
- Continuous / Peak Current: 10A/40A
- BEC Output: 5V/1A
- Maximum Power: < 20dBm (e.i.r.p.) (EU)
- Distance: >100m (Ground distance without interference)
- Antenna: External antenna
- Data Output: PWM
- Resolution: 1024
- Temperature Range: -10℃ ~ +60℃
- Humidity Range: 20% ~ 95%
- Online Update: No
- Dimensions: 32\*24.4\*12mm
- Weight: 8g
- Waterproof: PPX4
- Certification: CE, FCC ID: 2A2UNR3A00



- 产品型号: FMS-R3A
- 适配发射机: FMS-G3
- 适配模型: 1: 18, 1: 24 仿真或攀爬准模型车
- 适配电机: 180 有刷电机
- PWM 通道: 2
- 车灯组数: 1
- 无线频率: 2.4GHz ISM
- 无线协议: AFHDS 2A-BS
- 输入电源: 2S 锂电
- 持续 / 峰值电流: 10A/40A
- BEC 输出: 5V/1A
- 发射功率: < 20dBm
- 遥控距离: >100m (空旷无干扰地面距离)
- 天线类型: 外置单天线
- 数据输出: PWM
- 通道分辨率: 1024 级
- 温度范围: -10°C~+60°C
- 湿度范围: 20%~95%
- 在线更新: 无
- 外形尺寸: 32\*24.4\*12mm
- 机身重量: 8g 左右
- 防水等级: IPX4
- 认证: CE, FCC ID: 2A2UNR3A00

## VEHICLE SETUP 车辆设置

### Connecting the battery 连接电池

Step 1: Separate the car shell, the two buckles in the front of the car shell are opened inward, and the two buckles at the rear of the car shell are opened inward.

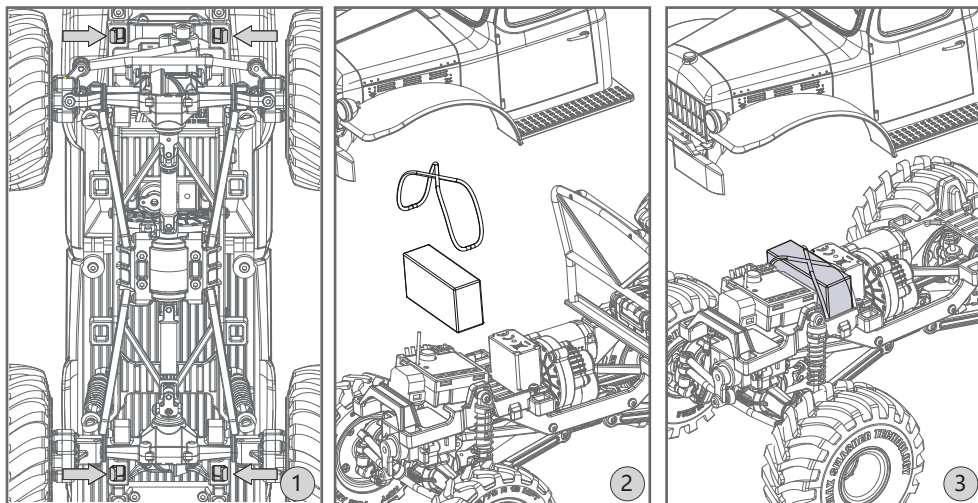
Step 2: Place the battery in the battery compartment on the frame and fix it with the attached rubber band.

Step 3: Connect the battery plug.

步骤1: 分离车壳, 车头前面的两个卡扣, 向内掰打开, 车头后面的两个卡扣, 向内掰打开;

步骤2: 将电池放置在车架上的电池舱位, 用附带的橡皮筋固定;

步骤3: 连接电池插头。



#### NOTE

1. If it is not in use for a long time, unplug and take off the battery to prevent battery leakage.
2. Do not open, disassemble, or attempt to repair the battery.
3. The battery needs to be disconnected from vehicle before it can be charged
4. Do not charge battery in vehicle.

## VEHICLE SETUP 车辆设置

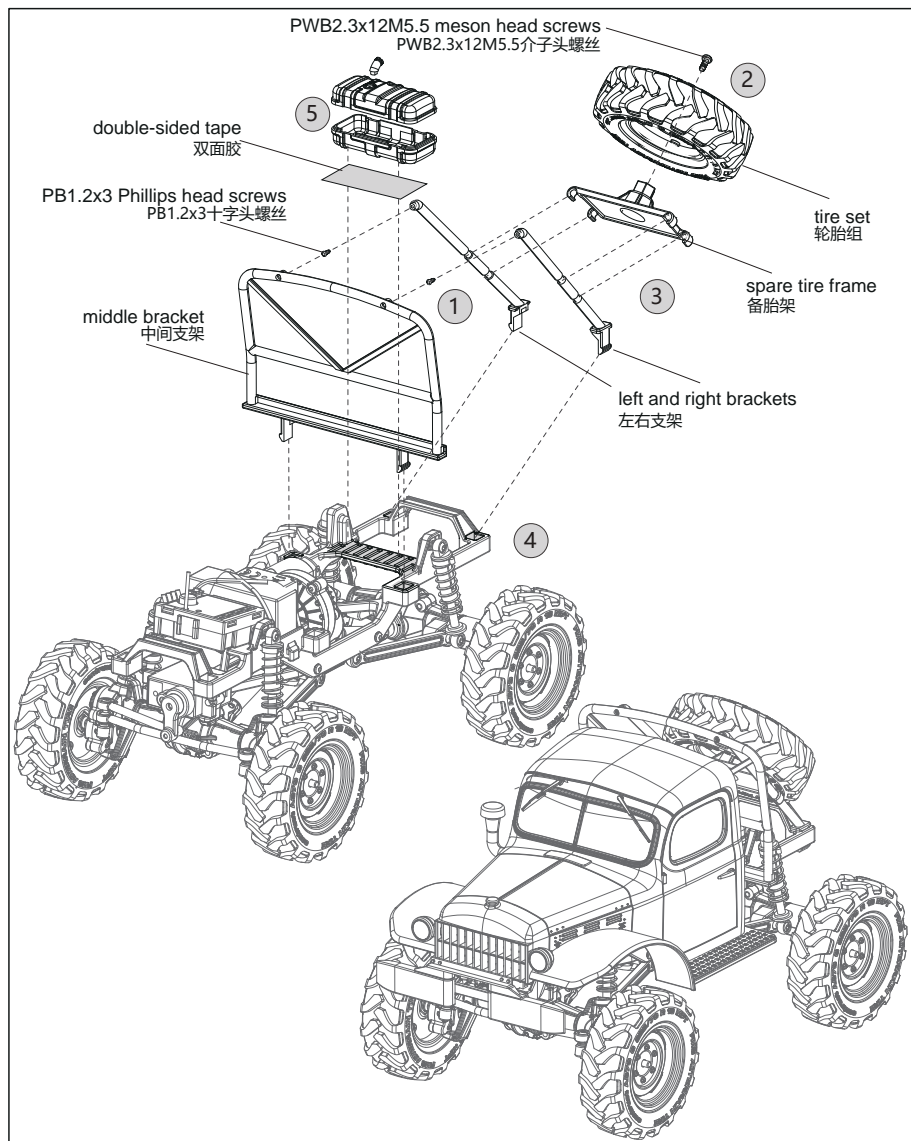
注意:

- 1、如果长时间不用, 请拔下电池, 以防电池损坏。
- 2、不要打开、拆解或试图维修电池。
- 3、在给电池充电之前, 需要先断开电池与车辆的连接。
- 4、请勿在车内给电池充电。

### Battery Precautions 电池注意事项

- Never charge a lithium polymer battery with a charger designed for Nicd, NIMH, or any other type of battery chemistry. Use ONLY charger designed for LiPo battery.
  - Do not leave LiPo battery unattended during charging.
  - Do not overcharge the battery.
  - Always charge LiPo batteries on non-flammable, heat-resistant surfaces.
  - Always use a LiPo-safe bag or container while charging. Do not allow LiPo cells to overheat at any time. Cells which reach greater than 140 Fahrenheit(60℃) will usually become damaged and will catch fire.
  - Do not charge the LiPo pack while it is still in the model. Never charge or store battery packs in a vehicle.
  - Do not discharge LiPo, doing so will damage the battery.
  - Do not expose LiPo cell to water or moisture at any time.
  - Do not store battery near open flame or heater.
  - Do not assemble LiPo cells or pre-assembled packs together with other LiPo cells or packs.
  - Always store LiPo battery in a secure location away from children.
  - Always remove the LiPo battery if model is involved in any kind of crash.
  - Carefully inspect the battery and connectors for even the smallest damage.
  - CAUTION: Cells may become hot after usage. Allow the pack to cool to room temperature prior to recharging.
  - Do not allow the electrolyte to get into eyes or on skin. Wash affected areas immediately if they come into contact with electrolyte.
  - Do not alter or modify connectors or wires of a LiPo battery pack.
  - Always inspect the condition of the battery before charging and operating.
  - Do not short circuit the LiPo battery.
  - Do not have contact with a leaky/damaged battery directly.
  - Do not charge battery out of recommended temperature range(0℃-45℃).
- 
- 不要使用Nicc、NIMH或任何其他类型的充电器给LIPO锂聚合物电池充电。请使用LIPO锂聚合物的专用充电器给LIPO锂聚合物电池充电。
  - 请勿在无人看管的情况下充电。
  - 电池请勿过充。
  - 请勿将电池放置在易燃、不耐热的表面上充电。
  - 总是使用安全袋或安全容器给电池充电。保证电池在任何时候都不过热。电池温度超过140华氏度(60℃)则易造成损坏, 甚至引发火灾。
  - 请勿将电池长期置于模型产品内, 更勿在模型产品内直接充电。
  - 请勿给电池放电, 以免损坏电池。
  - 任何时候请勿将电池暴露在水或湿气之中。
  - 请勿在明火或加热器附近存放电池。
  - 请勿与其他未组装或预组装的电池混用。
  - 需将电池存放在远离儿童的安全位置。
  - 模型如出现任何碰撞, 需立刻拆除电池。
  - 即使出现微小的损坏, 也需仔细检查电池和连接器。
  - 注意: 使用后电池可能会发热, 需让电池冷却到室温后再进行充电。
  - 请勿让电解液接触眼睛或皮肤。如电解液不慎接触到身体的任何部位, 请立即进行清洗。
  - 请勿替换或修改电池组的连接器或电线。
  - 在进行充电或其他任何操作之前需检查电池的状况。
  - 请勿造成电池短路。
  - 请勿直接接触已泄漏或已损坏的电池。
  - 请勿超出建议温度范围充电电池(0度-45度)。

# Roll Cage installation 防滚架安装



- 1: Use the included 2 PB1.2x3 Phillips head screws to install the left and right brackets on the middle bracket;
  - 2: Use the included PWB2.3x12M5.5 meson head screws to install the tire set to the spare tire frame;
  - 3: Install the assembled spare tire frame on the left and right brackets;
  - 4: Install the assembled roll cage on the frame;
  - 5: Use the included double-sided tape to stick the fuel tank to the corresponding position of the frame.
- 1: 使用附带的2颗PB1.2x3十字头螺丝把左右支架安装在中间支架上;
  - 2: 使用附带的PWB2.3x12M5.5介子头把轮胎组安装至备胎架;
  - 3: 把已安装好的备胎架安装在左右支架上;
  - 4: 把已经组装完毕的防滚架安装在车架上;
  - 5: 使用附带的双面胶把油箱粘至车架相应位置。

# Decal Application 贴纸应用

a **DOUG**

b **POWER WAGON**

b **POWER WAGON**

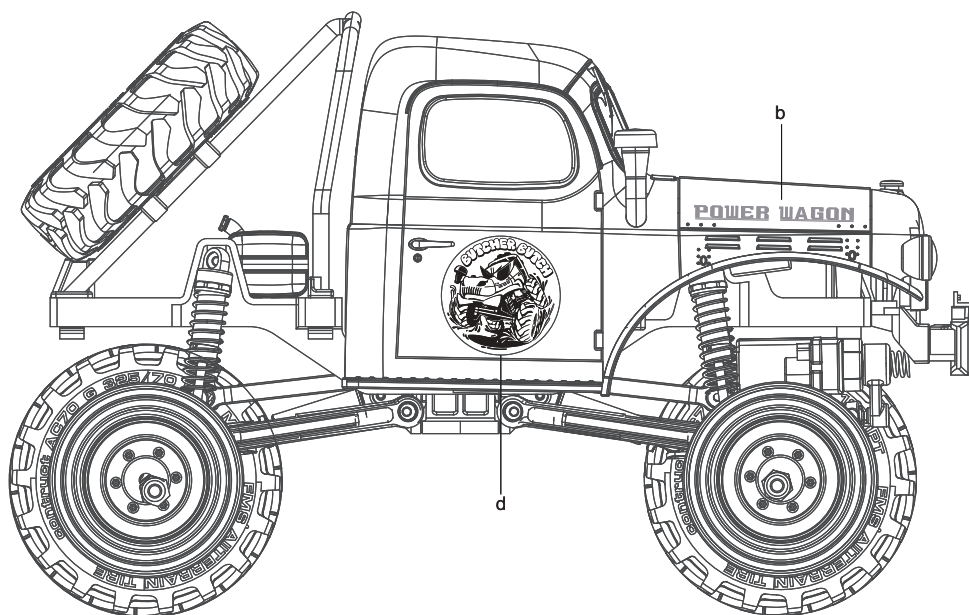
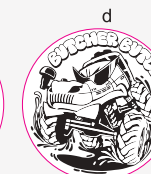
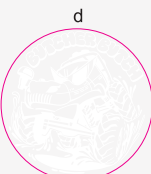
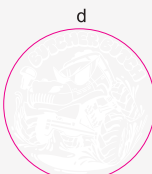
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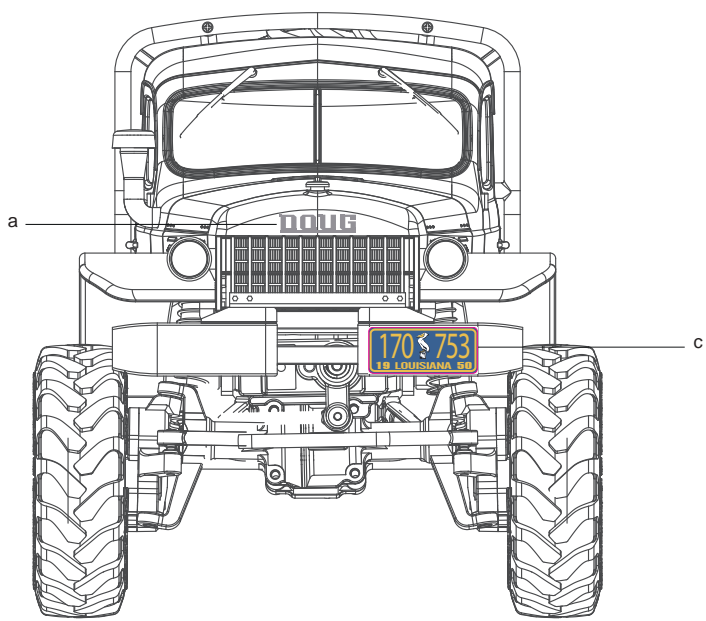
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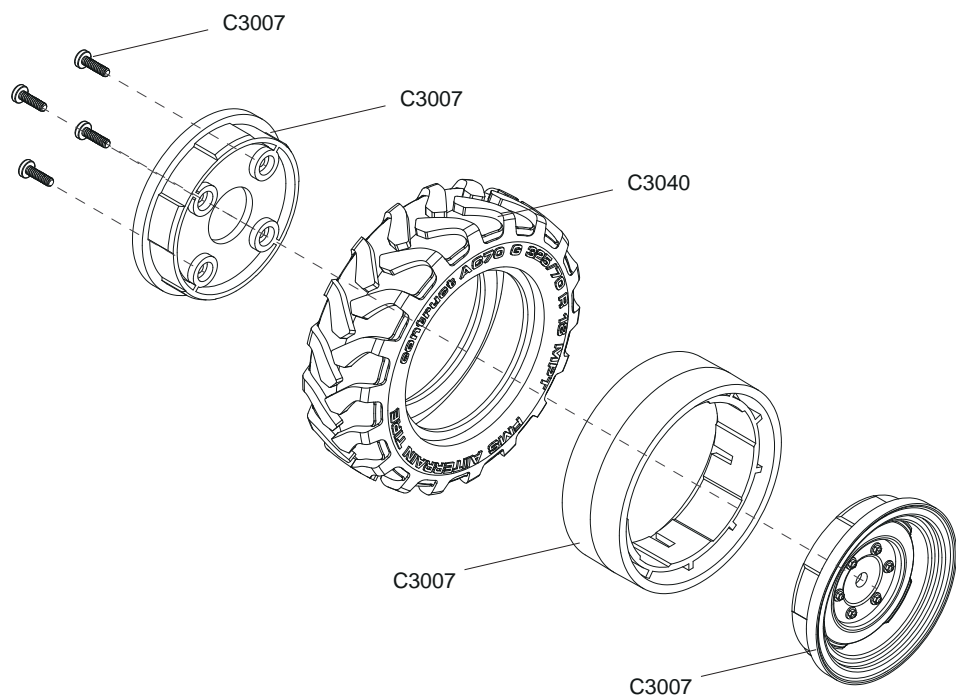
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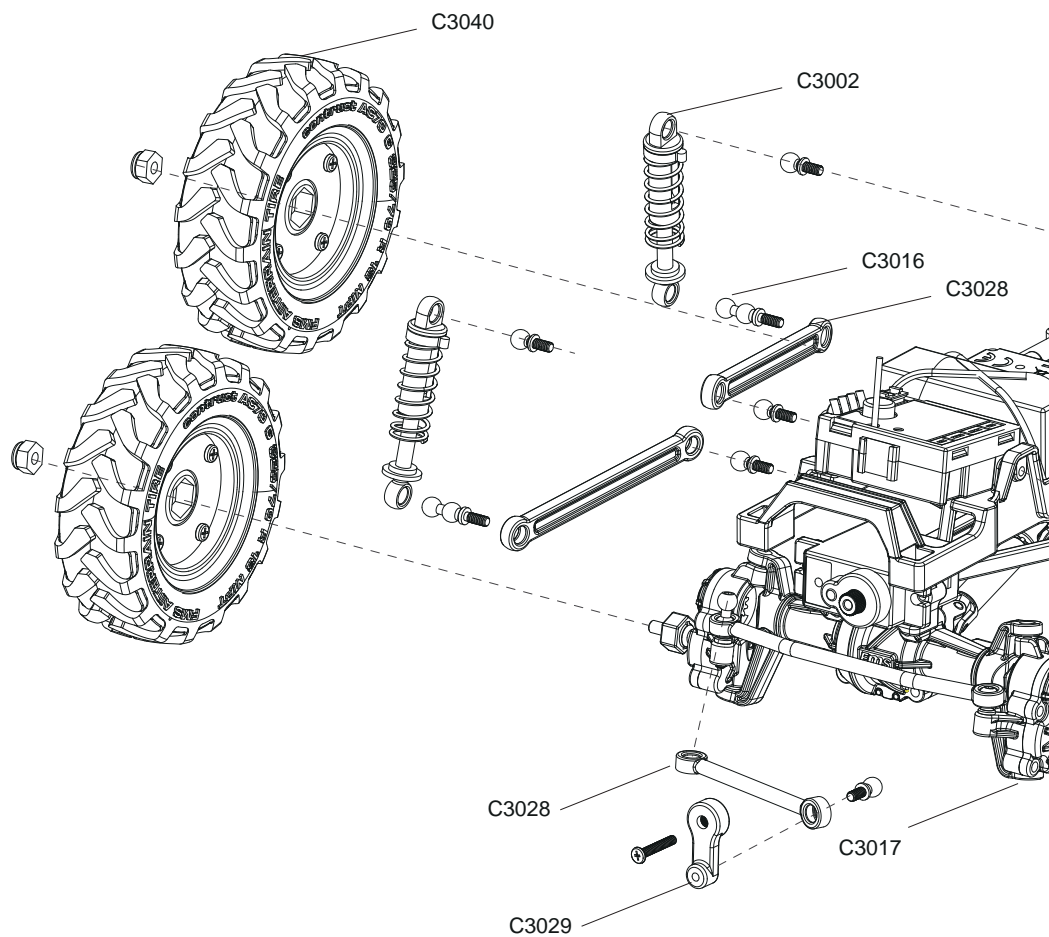


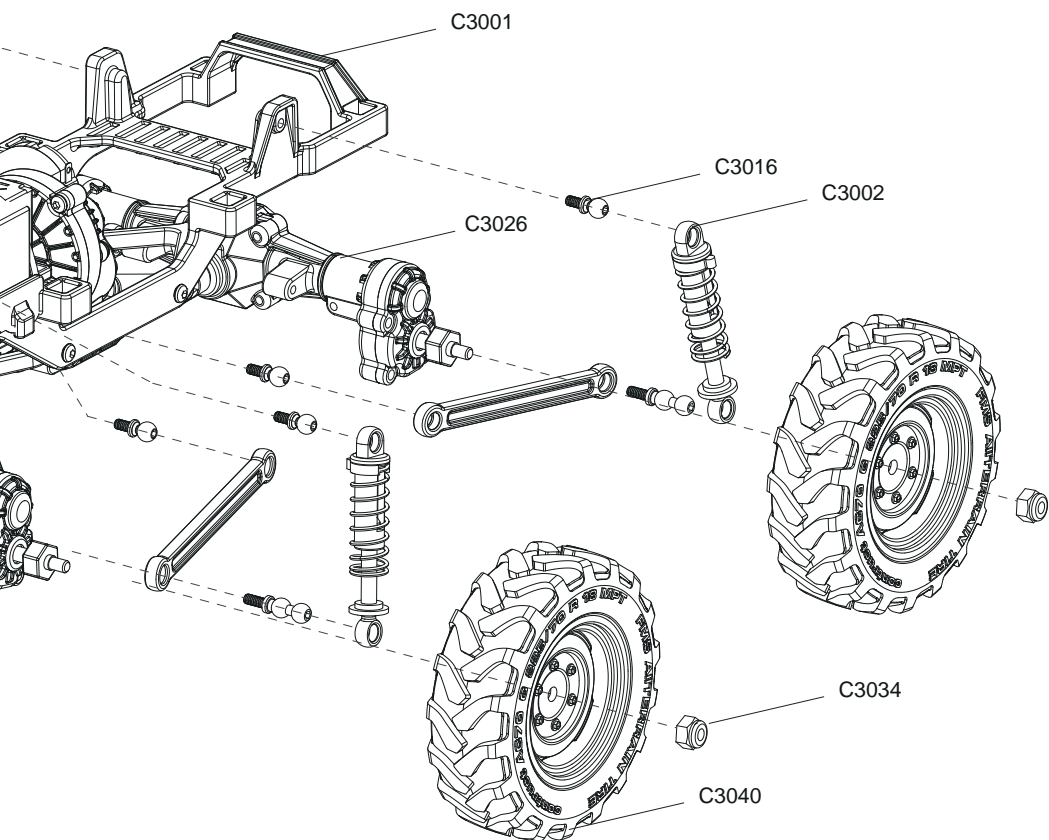
# Spare parts list 配件列表

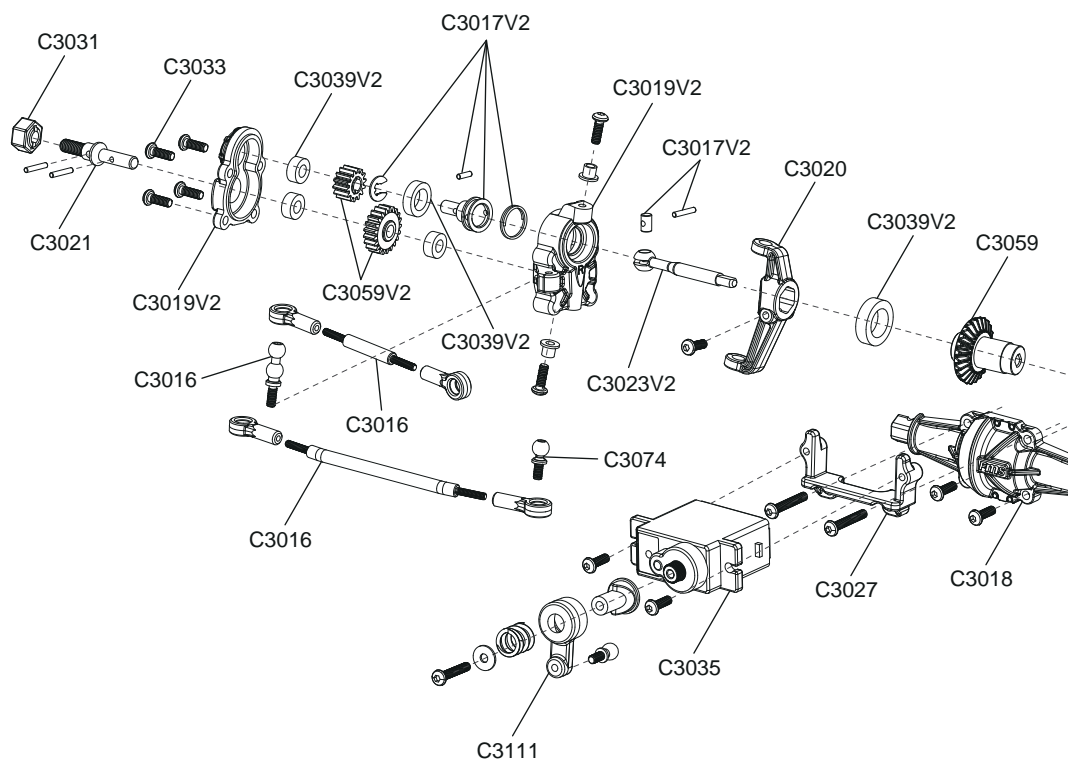
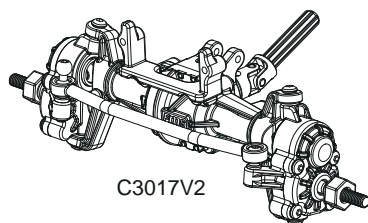
C3000	Nud tire	泥地轮胎	C3023V2	Front dog bone set V2	狗骨 V2
C3000	Front bumper	前防撞	C3025	CVD axle set B	传动轴 B
C3002	Oil shock absorbers assembly	避震器	C3026	Rear axle assembly	后桥总成
C3003	Wiper	雨刷	C3027	Servo mount	舵机座
C3004	Car boby w/o painted	车壳	C3028	Rod set	连杆
C3005	Windows	窗玻璃	C3030	Pinion gear	电机齿
C3006	Lens set	灯片	C3031	Wheel hex adpator	六角接合件
C3008	Snokle	涉水喉	C3032	130 motor	130电机
C3009	Side panel	踏板	C3033	Screw	螺丝套装
C3010	Exhaustion plate	面罩	C3034	Screw nut	螺母
C3011	Window frame	车窗支架	C3035	Steering servo	转向舵机
C3038	Car decal sheet	贴纸	C3036	Variable speed servo	换挡舵机
C3041	Fuel tank	油箱	C3037	LED light set	灯线
C3042	Anti roll bar	防滚架	C3039V2	Bearing set V2	五轴承承 V2
C3043	Spare tire bracket	备胎架	C3059V2	Portal axle metal gear V2	门桥金属齿轮 V2
C3007	Wheel	轮芯	C3063	CVD axle set A	传动轴A
C3017V2	Front axle assembly V2	前桥总成 V2	C3074	Ball head screw	单球头螺丝
C3029	Servo horn set	摇臂套装(黑色)	C3075	Double ball head screw	双球头螺丝
C3106	Car boby with painted red	车壳喷红	C3080	M4 aluminium ball head	M4铝波头
C3107	Car boby with painted blue	车壳喷蓝	C3081	Shift lever	换挡拉杆
C3108	Car boby with painted yellow	车壳喷黄	C3024	Pom differential set	赛钢差速器
C1389	Lipo battery 2S 7.4v 380mAh	电池7.4V 2S 380mAh	C3065	Car boby sp version	车壳擎天柱涂装版
C3054	G3 + R3A transmitter receiver set	G3 + R3A 发射器/电调接收器	C3068	Brass wheel counterweight	黄铜轮毂配重
C3055	G3 transmitter	G3 发射器	C3105	Car hopper	车斗
C3056	R3A receiver	R3A 电调接收器	C3060	All terrain wheel	全地形车轮成品
C3001	Girder	大梁	C3061	Metal differential	金属差速器
C3012	Transmission gear box assembly	驱动牙箱成品	C3062	Metal transmission gear	变速箱金属齿
C3013	Transmission box shaft	齿轮箱传动轴	C3064	Metal rod set	金属拉杆
C3014	Transmission gear box plastic	传动箱胶件	C3066	Metal drive gear	金属差速器驱动齿轮
C3015	Gear set	齿轮	C3067	130 motor heat sink	130电机散热片
C3016	Steering link set	转向杆	C3069	Metal universal joint drive shaft	金属万向节传动轴
C3018	Axle plastic parts	直桥胶件	C3070	130 high speed motor	130 高速电机
C3019V2	Front portal axle cover V2	前门桥胶件 V2	C3071	1:24 track unit set	履带模组
C3020	C hub set	C座套件	C3072	2.5 inches wheel with aluminum rim	铝合金轮毂轮胎 (套)
C3021	Portal axle set	门桥轴	C3073	1:24 aluminum shock absorber	1:24 铝合金减震器
C3022	Rear wheel shaft set	后轮轴	C3083	Metal y shape fornt/rear axle connecting rod	金属八字拉杆

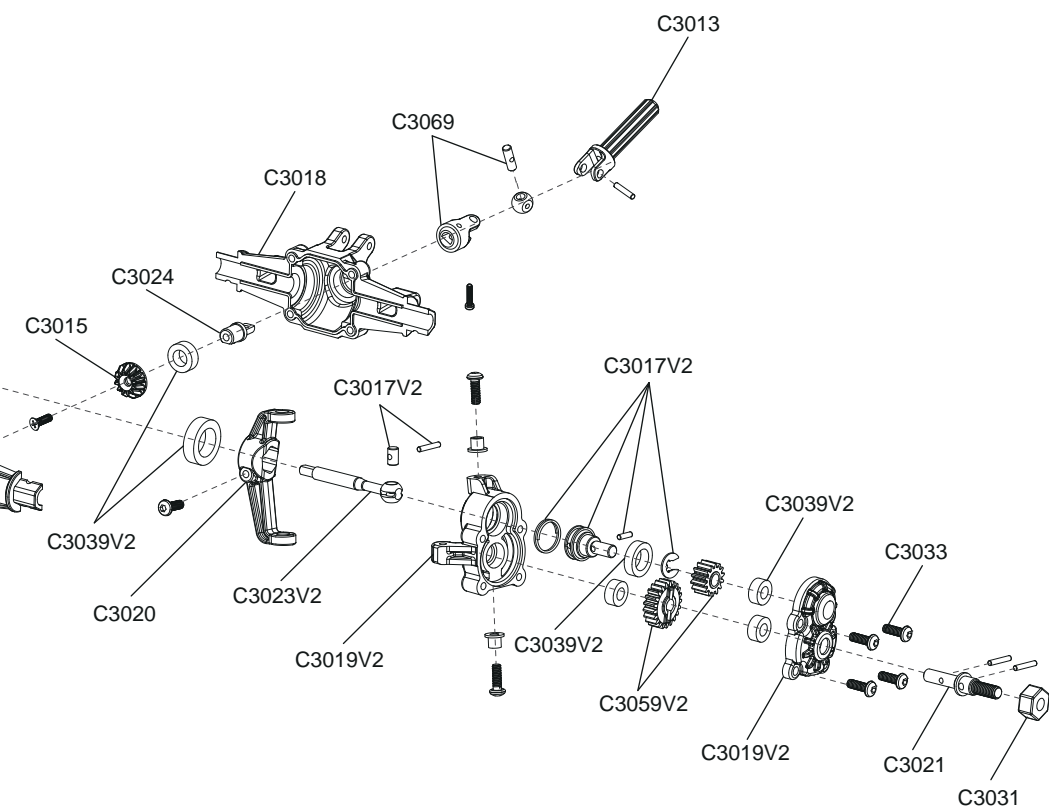


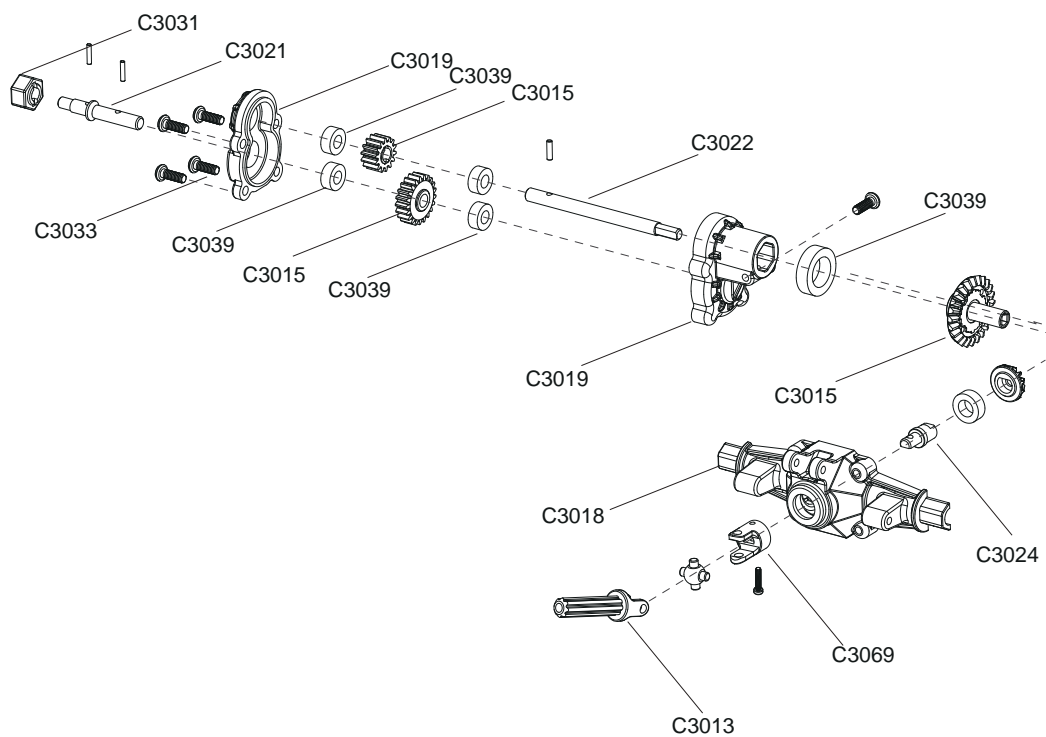


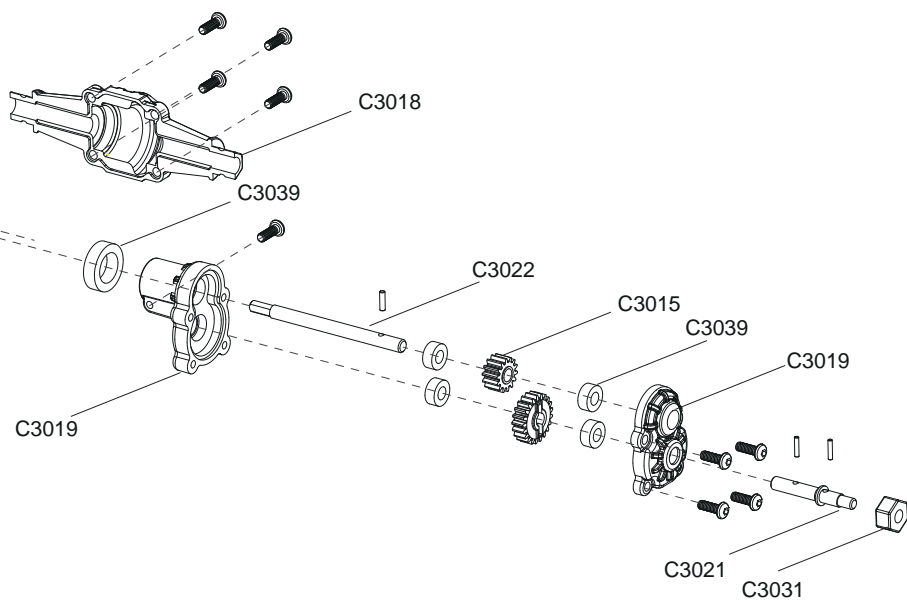
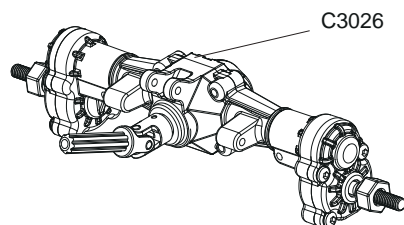


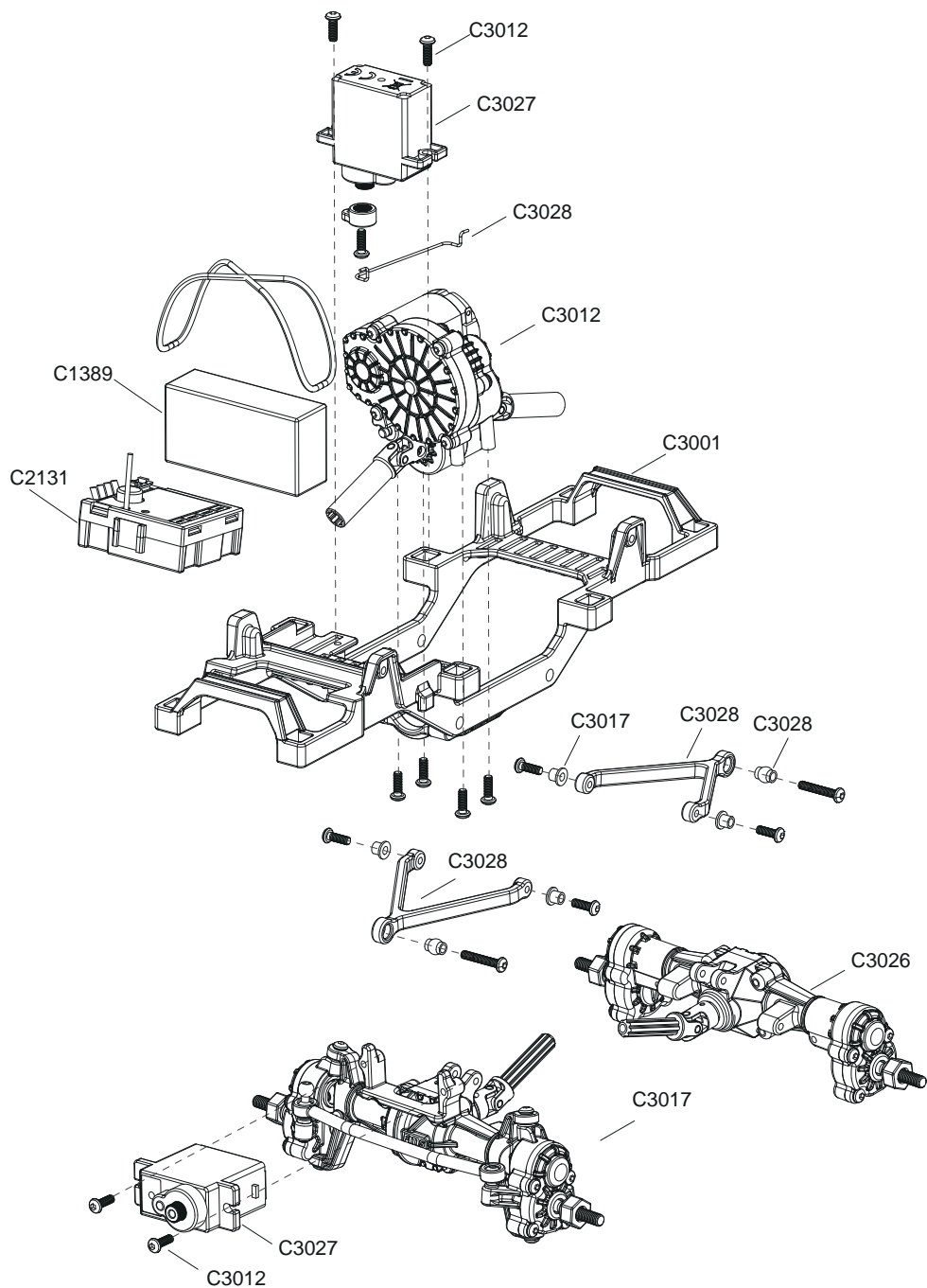




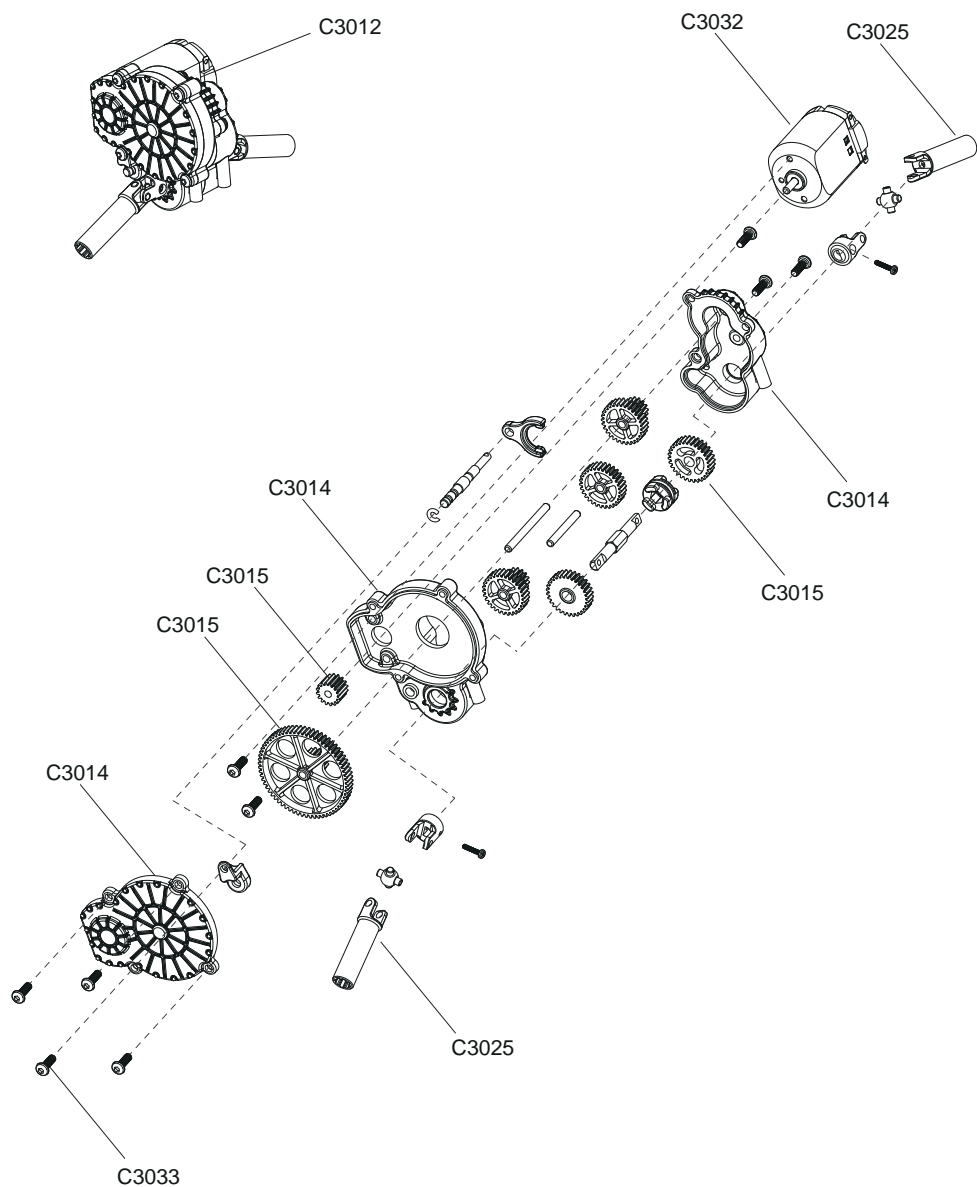


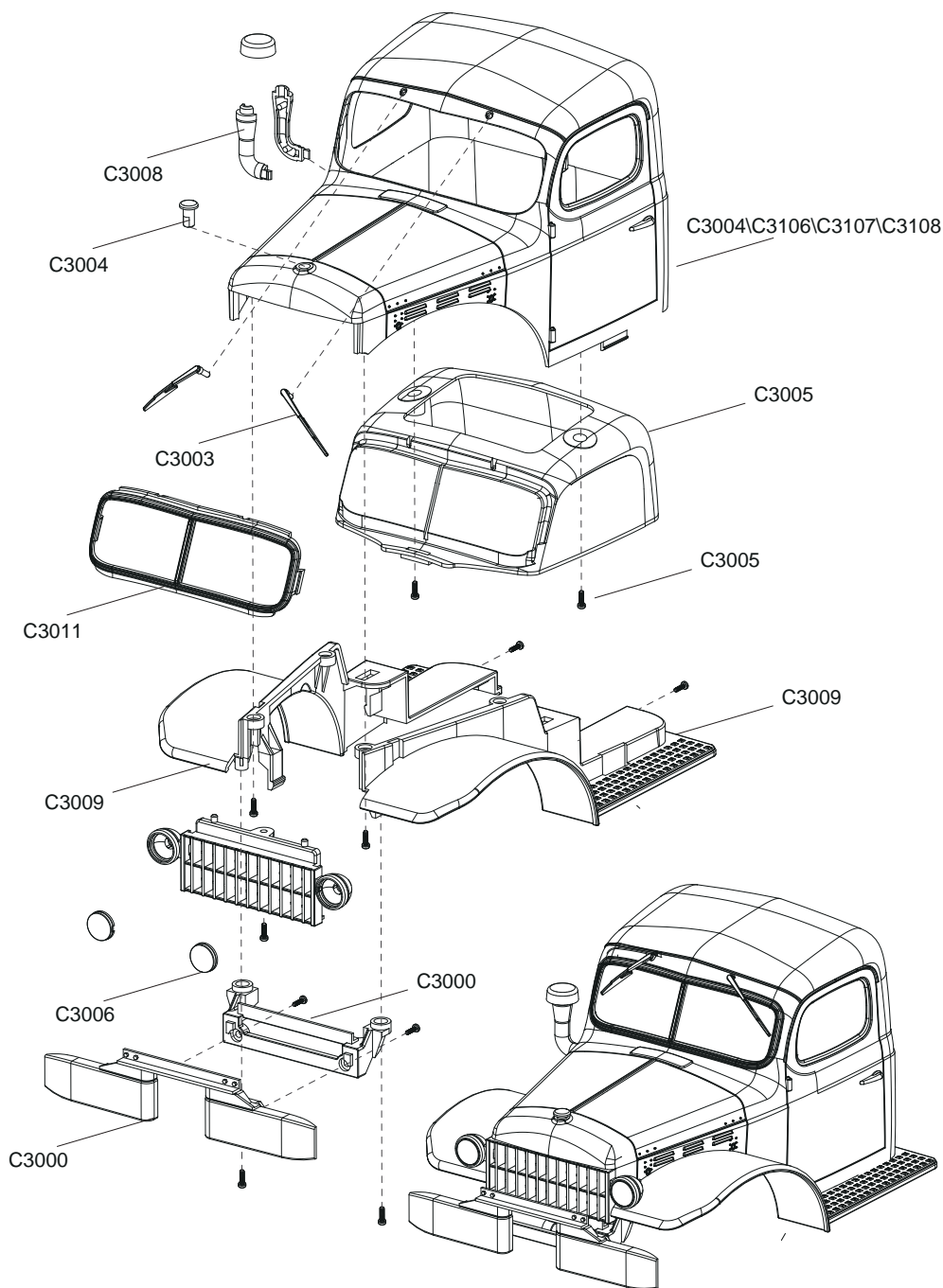






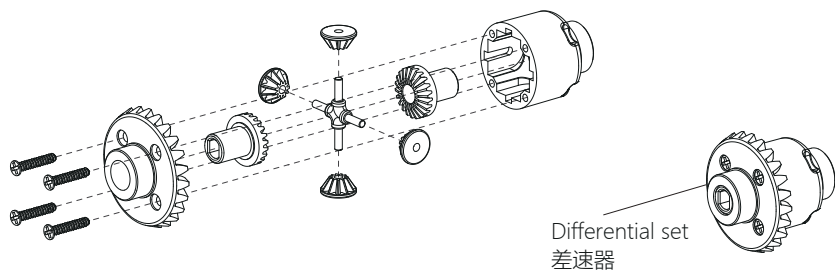






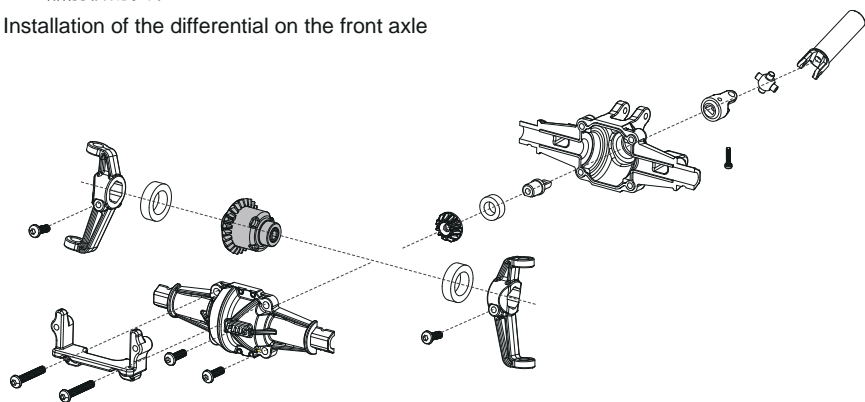
## EN: Installation instructions for optional upgrades

## CN:升级件安装



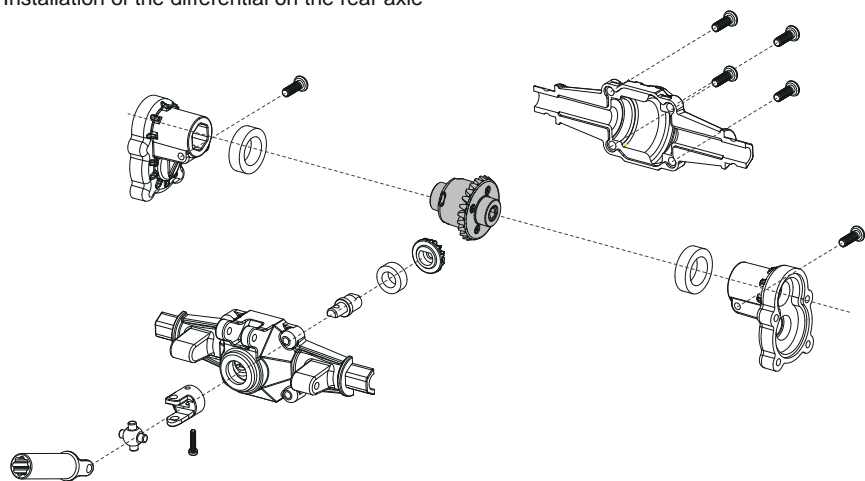
### 差速器前桥的安装

Installation of the differential on the front axle



### 差速器后桥的安装

Installation of the differential on the rear axle



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