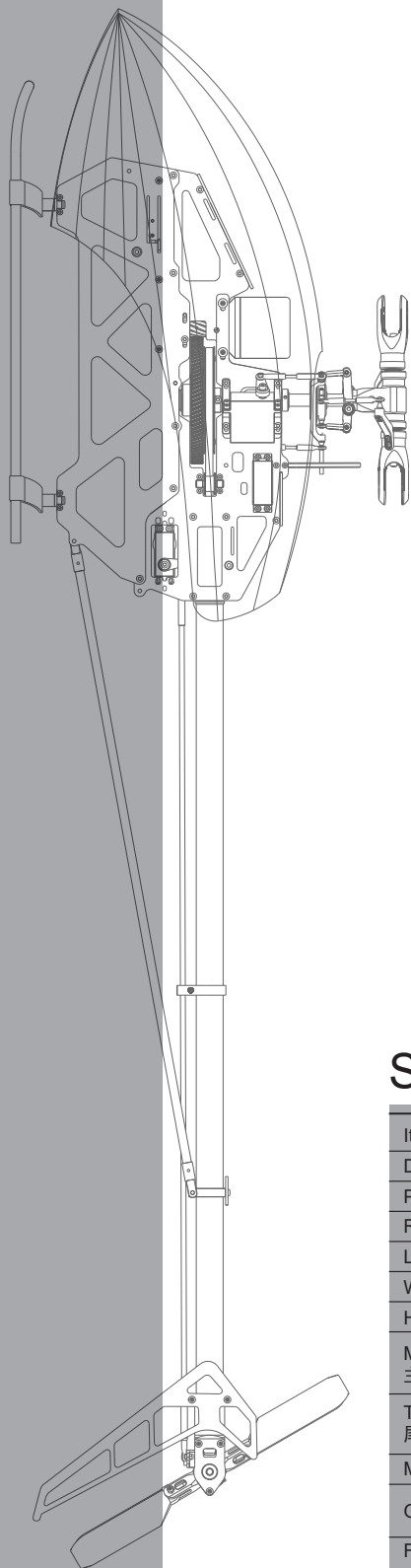


# E680 PHECDA

## Instruction Manual

# 天玑星 E680

## 组装说明书



### SPECIFICATION / 规格表

Item No. / 产品编号	68000	
Description / 产品名称	PHECDA E680	天玑星 E680
Power / 动力	Electric Motor	电动无刷马达
Rotor Head / 主旋翼头型式	Flybarless	无副翼控制系统
Length / 总长度	1238 mm / ( 48.74" )	
Width / 总宽度	176 mm / ( 6.92" )	
Height / 总高度	328 mm / ( 12.9" )	
Main Rotor (Req'd) 主旋翼	Length / 长度	670 mm / ( 26.37" )
	Diameter / 旋翼直径	1489 mm / ( 58.62" )
Tail Rotor (Req'd) 尾旋翼	Length / 长度	92 mm / ( 3.62" )
	Diameter / 回转直径	255 mm / ( 10" )
Main Gear / Pinion 主齿轮 / 马达驱动齿轮	96 T Main Gear / 11T(Standard) 10/12/13T(OP)	
Gear Ratio (E:M:T) / 齿轮比	8.72 (11T) : 1 : 4.89	
Full Equipped Weight 全备重量	3520 g (6S 5300mAh) (124.2 oz)	
Recommended of servo specifications 建议使用舵机规格	Mini Servo for Swashplate 中型舵机 (倾斜盘用) Mini or Standard Servo for Tail 中型或标准舵机 (尾舵用)	
Recommended Power Configuration 动力搭配建议	Battery: 12S (6S x 2) 2600~4500mAh 6S 4200~6200mAh ESC: 120A+ (6S) 100A+ (12S) Motor: 900~1100KV (6S) 450~540KV (12S)	

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## INTRODUCTION / 简介

Thank you for purchasing the RVE RC radio control helicopter. This new helicopter is the latest innovation by RVE RC. It has the perfect combination of flying stability and the agility for F3C and 3D flying. This helicopter is an excellent choice for flying enthusiasts like you. For convenient assembly and safe operation of the helicopter, please read the instructions carefully. Retain the user manual in case you need it for any information or reference.

感谢您购买畅翔航空科技遥控直升机产品，本项产品为畅翔航空科技全新开发机种，兼具高度稳定性与F3C及3D飞行特性是热衷遥控直升机的您不可错过的选择。请于使用本产品前详尽阅读使用手册，以利于组装工作顺畅进行与安全操控本产品。请妥善保管使用说明书，以利后续调整与维修参考用途。

## CAUTION / 警告

1. R/C models are not toys. This product is a high-precision flying machine. Possibilities of unexpected crashes may occur due to electronic interference, incorrect operation, or poor mechanical maintenance. Although it is a R/C model helicopter, the rotor blades rotate at high speeds, which may cause serious damage, injury, or death if the model hits people or property. Therefore, extreme caution must be exercised during operation.
  2. RVE RC ensures parts packaged in this product is of the highest quality. However, after assembly and usage, parts damaged due to wear or misuse will not be replaced under any circumstances. If you have any questions regarding its operation and repair, RVE RC service agents are able to provide free technical guidance.
  3. This product is only recommended for users ages 16 and up. Because flying a R/C helicopter is difficult, beginners must receive guidance and supervision from experienced pilots to minimize unexpected danger. Practice in spacious areas, far away from obstacles such as buildings, trees, electrical towers, or crowds.
  4. To decrease the cost of repair and maintenance for beginners, it is recommended to fly the helicopter with a practice rack and to learn basic flying skills with a computer R/C flying simulator. (Crashes in simulators are free to repair!)
1. 本项遥控直升机产品并不是玩具，是一项结构精密、高专业度模型产品，如果未经正确组装与操控，将可能对操控者或其他人造成身体伤害。使用者必须了解，若未确实进行飞行前安全检查或操控不当，而造成人员受伤或物体损坏，使用者必须负起法律责任。
  2. 本产品由高品质零组件组成，畅翔科技对于安装过程、使用过后..等人为因素造成损坏事件不负损坏赔偿之责。如您需本相关产品相关组装、调整或其他协助，可与畅翔航空科技各地经销商联系。
  3. 本项产品禁止十六岁以下青少年与孩童使用。强烈建议初学者应取得技术支援后再进行飞行，以避免危险发生。请于空旷地区操控本产品，并避免于建筑物、树木、电塔..等障碍物区域飞行。
  4. 建议初学者可安装练习架或透过电脑模拟软体练习，可达到实际练习效果与符合经济效益。

## AMA INFORMATION / 特别注意事项

Operating a model helicopter requires a high degree of responsibility and skill. If you are a newcomer to the hobby, it is best to seek help and guidance from accomplished model helicopter pilots. This will greatly speed up the learning process and have you flying successfully in a reasonable amount of time. We also would strongly urge you to join the Academy of Model Aeronautics, if you are in States. The AMA is a non-profit organization that provides its members with a liability insurance plan as well as monthly magazine entitled Model Aviation. All AMA charter aircraft clubs require all pilots to hold a current AMA sporting license prior to operation of their models at club fields. For further information, contact the AMA at:

Academy of Model Aeronautics

5151 East Memorial Drive

Muncie, IN 47302

(317) 287-1256

<http://www.modelaircraft.org>

操控遥控直升机对于飞行安全要求极高，需要高度的负责任态度配合，以及较高的操控技巧。如果您是一位初学者，建议您必须向当地专业模型经销商，或是遥控直升机相关组织以及经验丰富的玩家寻求相关协助，以获得您所需要的讯息以及专业知识。如此可有效协助您缩短学习的时间，更容易学会遥控直升机的组装、设定与操控技巧。同时我们也强烈建议您加入中国航空运动协会会员，以合法合规的参与航空模型飞行运动。

如何参加中国航空运动协会，请参考以下网址了解详情：[www.asfc.org.cn](http://www.asfc.org.cn)

## FLIGHT SAFETY CHECKLIST / 飞行前安全确认工作项目

1. Make sure that the transmitter battery is fully charged before flying.
  2. Make sure all control surfaces are operated properly before flying.
  3. Do a range check of the radio before the first flight. The electronic equipment must operate properly at a range of at least 5 meters (18 ft) even with the transmitter antenna collapsed.
  4. Make sure there are no other pilots using the same radio frequency with yours and that there are no other radio interference on your frequency.
  5. Be sure to turn on the transmitter first with the throttle stick in the idle position. Plug the battery into the ESC last.
  6. The main rotor and the tail rotor spin at very high RPM. Make sure nothing can come in contact with the rotor blades during flight.
  7. Always maintain a safe distance from the helicopter during flight.
  8. Never fly the helicopter in the rain or in excessive wind conditions.
  9. Always operate and fly the helicopter in a safe and responsible manner.
  10. Never fly the helicopter over other pilots, spectators, cars or anything that could result in injury or property damage.
1. 确认接收机与发射机电池，均已确实充电完成。
  2. 确认所有操控介面运作顺畅。
  3. 确认无其他无线电波干扰，且不与其他同好同时使用相同频率。
  4. 确实将油门摇杆放置于低速，再将发射机电源开启，然后再将电池接上。
  5. 确认遥控器发射器与接收机工作正常，将机体放至于距离5公尺外，确认遥控器是否正常，机体控制动作是否正确。
  6. 主旋翼与尾旋翼转速相当高，运转时须避免任何障碍物与旋翼接触。
  7. 飞行时，需与遥控直升机保持安全距离。
  8. 勿于下雨天或是强风的状态下操控遥控直升机。
  9. 请以安全为第一考量，并以高度负责任的态度参与遥控直升机活动。
  10. 禁止于人群、车辆、或任何其他障碍物上方飞行遥控直升机，避免意外发生。

## POST FLIGHT INSPECTION / 飞行结束安全检查事项

1. Inspect the model thoroughly to insure no parts have come loose or become damaged during the flight and landing. Replace damaged parts and tighten loose screws before flying again.
  2. Clean the helicopter body.
  3. Lubricate all moving parts to ensure smooth operation for the next flying.
  4. Replace any worn ball links and damaged bearings.
  5. Store the model in a cool, dry place. Avoid putting it under direct sunlight or near a source of heat.
- Following these simple rules will allow you to enjoy the thrill of model helicopter flying for many years.
1. 飞行结束后确认机体所有的零件与螺丝是否有损坏或松动，更换损坏零件与确实固定松动的螺丝。
  2. 机体清洁干净。
  3. 检查所有活动零组件是否运作顺畅，以利下次飞行。
  4. 更换所有松动的连杆、接头，以及损坏的轴承。
  5. 将机体存放于阴凉通风处，避免机体放置于阳光直射处或接近热源。  
确实执行上述几项简单的步骤，将可确保您的爱机维持数年的寿命！

## CAUTION / 注意事项

When the model has crashed, inspect the flybar, rotor shaft and the blade spindle to make sure they are not bent. If any item is damaged, it must be replaced with a new part to ensure safe operation. Do not glue any broken or damaged plastic parts. Do not repair broken rotor blades.

Always inspect the following items:

Gears, Ball links, Link rods, Bearings, Main shaft, Flybar, Spindle, Tail boom and support, Fins, Tail rotor shaft, Main blades, Tail blades, the Motor, the Speed control and the Battery.

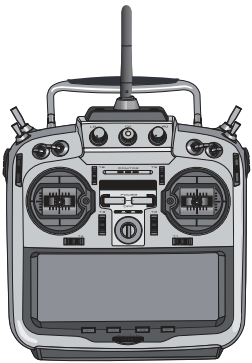
机体一旦发生坠落事件，请确实检查平衡杆、主轴、横轴是否有弯曲变形，如果有任何的损坏，请立即更换原厂新的零组件，确认机体操作安全！切勿使用任何接着剂尝试黏合塑胶零件；请勿使用修复过的主旋翼。

发生机体坠落事件后，请确实检查下列项目：

齿轮组、球头连杆、连杆头、轴承、主轴、横轴、尾轴、平衡杆、平衡片、尾管、尾管支撑架、垂直与水平尾翼、尾驱动轮、主旋翼、尾旋翼、马达、速控器、电池。

## OTHER ITEMS REQUIRED / 其它需求设备配件

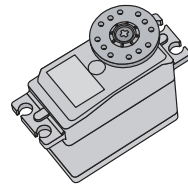
### RADIO SET / 遥控器系统



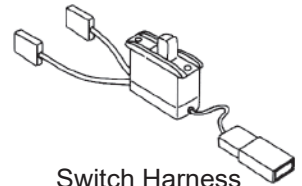
Receiver  
接收机



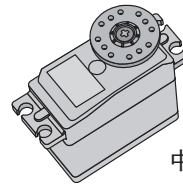
Rx Battery  
接收机电池



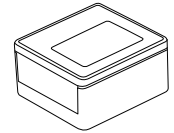
Mini Servos  
(For Swashplate)  
中型舵机倾斜盘用



Switch Harness  
电源开关组



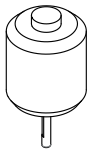
Mini Servos or  
Standard Servo  
(For Tail Gyro)  
中型或标准舵机尾舵用



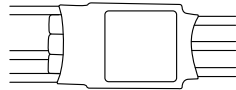
3-AXIS Gyro  
3轴陀螺仪

Transmitter (helicopter type  
only, 6 or more channels)  
发射机 (需具备直升机控制功能  
的6通道以上遥控器)

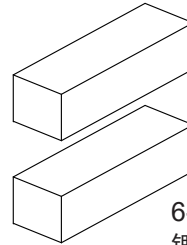
### POWER SYSTEM / 动力系统



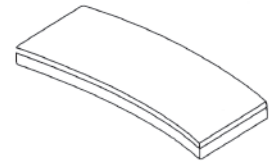
Electric Brushless Motor  
无刷马达



Electronic Speed Controller  
电调

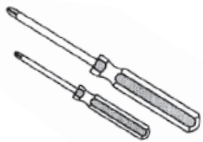


6-12S Li-Po Battery Pack  
锂电池组



Foam  
双面胶带

## TOOLS REQUIRED FOR ASSEMBLY / 需要准备的工具



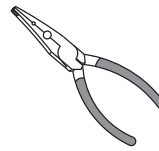
Screw Driver  
各种规格的螺丝刀



Needle Nose Pliers  
尖嘴钳



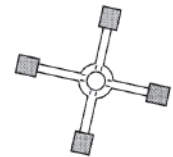
Nipper  
斜口钳



Ball Link Pliers  
连杆钳



Scissors  
剪刀



Metric 4-way Wrench  
十字套筒板手

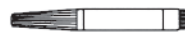
5.5mm  
7mm  
8mm



Hobby Knife  
美工刀



C.A Glue  
502快干胶



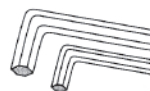
Threadlocker  
螺丝防松胶



Grease  
润滑油



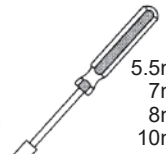
Epoxy  
环氧树脂



Hex Wrench  
六角板手



5.5mm  
7mm  
Wrench  
开口板手



5.5mm  
7mm  
8mm  
10mm  
Socket Drivers  
套筒螺丝刀

# A GUIDE TO THE INSTRUCTION MANUAL / 说明书使用说明

- A: Indicates the assembly step number and the parts bags that are to be assembled.
- B: Displays actual size drawings, and part quantities used.
- C: Refer to parts drawing or exploded view in the last few pages of this manual, order the corresponding item no. for correct replacement parts.
- D: This instruction manual uses several symbols. Pay careful attention to them during construction. Details are given at the bottom of each page.

- A: 显示组立步骤及需要组装的零件顺序
- B: 请比对零件名称和零件数量
- C: 零件的图形与尺寸对照以及数量
- D: 请参照组立说明符号, 可有效协助组装过程对于各部位零组件的操作

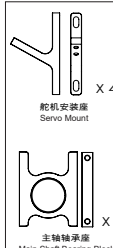
Example 说明范例

**Step 2-2 Upper Frame Bearing Block assembly**  
内侧板轴承座组装

No.	Parts Description	零件名称	Qty
1	Main Shaft Bearing	主轴轴承	3
2	Main Shaft Bearing Block	主轴轴承座	3
3	Frame Reinforcing Plate	侧板加强件	2
4	Servo Mount	舵机安装座	4
5	Socket Screw M3X8	杯头内六角螺丝 M3X8	6
6	Socket Screw M3X8	杯头内六角螺丝 M3X8	2
7	Socket Screw M3X12	杯头内六角螺丝 M3X12	8

**2-2 内侧板轴承座组装**  
Upper Frame Bearing Block assembly

**主轴轴承座**  
Bearing Block assembly



舵机安装座 X 4  
Servo Mount

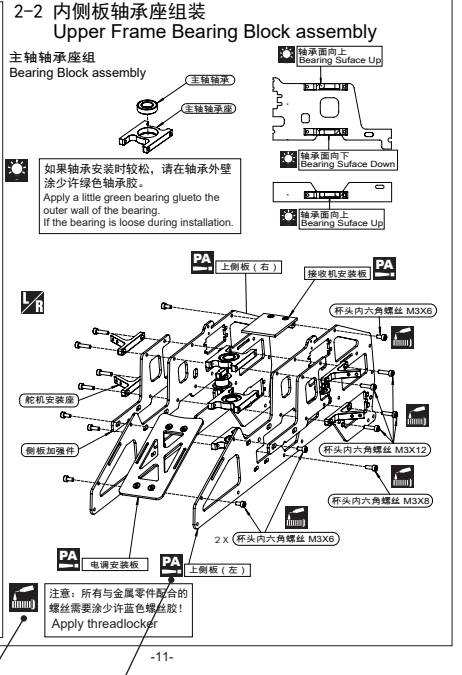
主轴轴承座 X 3  
Main Shaft Bearing Block

主轴轴承 X 3  
Main Shaft Bearing

侧板加强件 X 2  
Frame Reinforcing Plate

如果轴承安装时较松, 请在轴承外壁涂少许绿色轴承胶。  
Apply a little green bearing glue to the outer wall of the bearing.  
If the bearing is loose during installation.

注意: 所有与金属零件配合的螺丝需要涂少许蓝色螺丝胶!  
Apply threadlocker








接收舵机安装板 PA  
杯头内六角螺丝 M3X8  
杯头内六角螺丝 M3X12  
杯头内六角螺丝 M3X8  
2 x 杯头内六角螺丝 M3X8  
正侧板 (右)  
正侧板 (左)






# SYMBOLS USED THROUGHOUT THE MANUAL / 符号说明

The parts in the KIT are packed according to each major assembly steps. The part number and quantity are always shown in the table on each page. As good practice, only open up the bag that you need for the particular assembly. 零件均依照组立步骤包装, 请依照组立顺序, 逐一开启零件包, 避免零件遗失。

**Note / 注意**  
Assembly drawings will contain icons that indicate use of Threadlocker or CA glue as needed. Examples of the icons are as right shown: 请依组立步骤图示, 使用防鬆胶、接着剂或AB胶环氧树脂。图示范例如右:

-  T22 (#262) → THREADLOCKER / 螺丝防鬆胶
-  CA → CA GLUE / 速干胶
-  AB → EPOXY GLUE / 环氧树脂AB胶

-  Apply C.A Glue  
使用速干胶
-  Apply threadlocker  
使用螺丝防鬆胶
-  Apply Epoxy Glue  
使用环氧树脂AB胶
-  Assemble as many times as specified  
依指示组立所需数量
-  Assemble left and right side the same way  
左右侧组件相同

-  Apply Grease  
需要涂专用润滑油
-  Ensure smooth, non-binding movement when assembling  
确认组件顺畅度
-  Previously assembled  
先前组立完成组件
-  Not Includ Must be purchased separately  
套件不包含需另购
-  Assembly Tips  
组立提示

Step 1-1 Tail Belt Tension Pulley assembly / 尾皮带压带轮组装  
 1-2 ESC Mount Assembly / 电调固定座组装

No.	Parts Description	零件名称	Qty
1	Belt Pulley Mount	皮带导向轮安装座	4
2	Collar 3X5X2.3	垫圈3X5X2.3	4
3	Stainless Steel Pin 3x16	不锈钢轴 3x16	2
4	Bearing d3xD7xW3	轴承 d3xD7xW3	4
5	Belt guide pulley	皮带导向轮	2

No.	Parts Description	零件名称	Qty
1	ESC Mounting Plate	电调安装板	1
2	Frame Spacer	内侧板支撑柱 L32	2
3	Flat Socket Screw, M3x10	平头内六角螺丝M3x8	4



**X 4**  
 皮带导向轮固定块  
 Belt Pulley Mount

**X 2**  
 皮带导向轮  
 Belt guide pulley

**X 4**  
 皮带导向轮轴套  
 Belt guide pulley Collar


**X 2**  
 不锈钢轴 3x16  
 Stainless Steel Pin 3x16

**X 4**  
 滚珠轴承 d3xD7xW3  
 Bearing d3xD7xW3

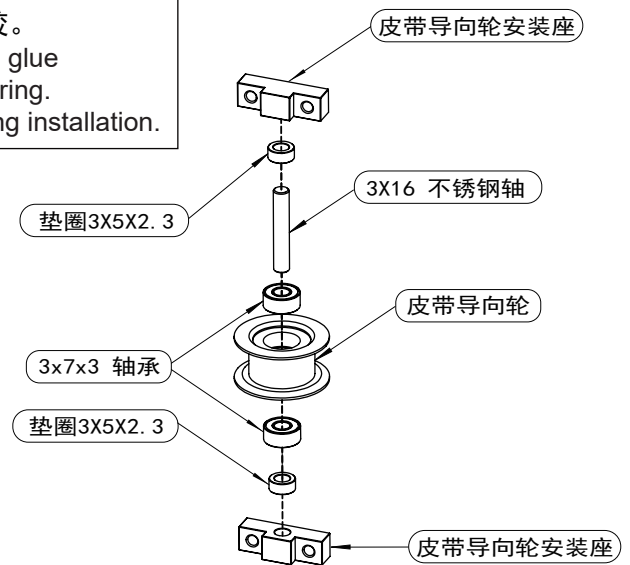
**X 1**  
 电调安装板  
 ESC Mounting Plate

**X 2**  
 内侧板支撑柱L32  
 Frame Spacer L32

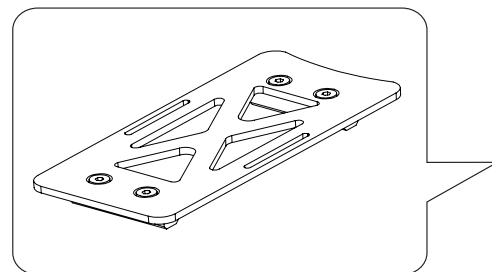
## 1-1 尾皮带压带轮组装 Tail Belt Tension Pulley assembly


 如果轴承安装时较松，请在轴承外壁涂少许绿色轴承胶。  
 Apply a little green bearing glue to the outer wall of the bearing.  
 If the bearing is loose during installation.

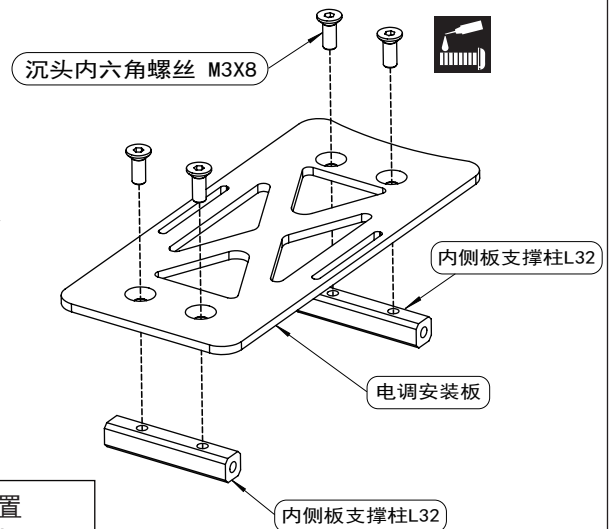
**X 2**  
 制作两组  
 Assembly 2 Sets



## 1-2 电调固定座组装 ESC Mount assembly



 总装时请注意圆弧边朝向电机安装位置  
 When assembling, please pay attention to the arc edge facing the motor installation location.

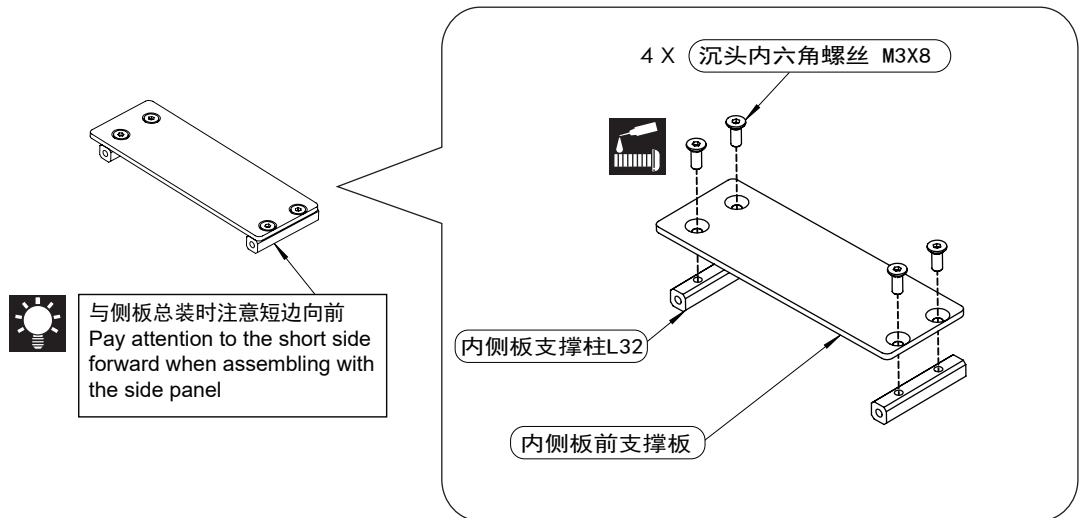
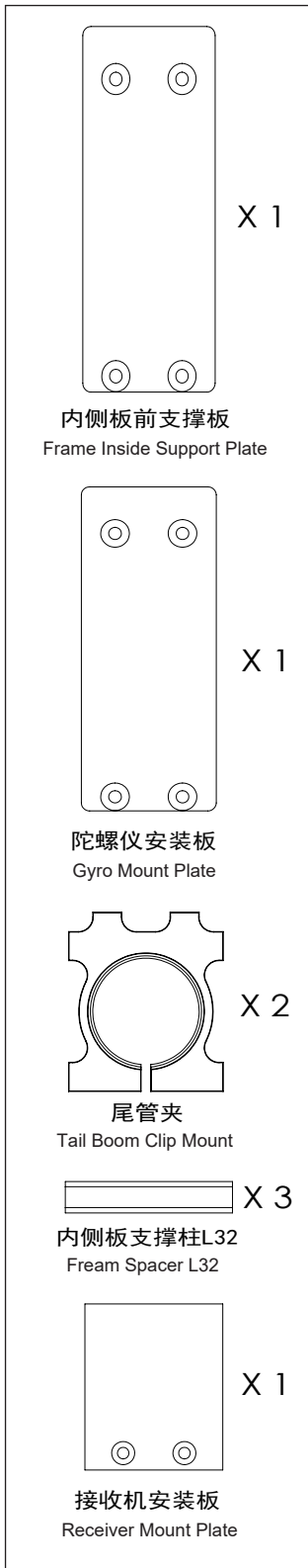


Step 1-3 **Frame Inside Support Mount & Gyro, Receiver Mount assembly**  
 内侧板前支撑板、陀螺仪、接收机固定座组装

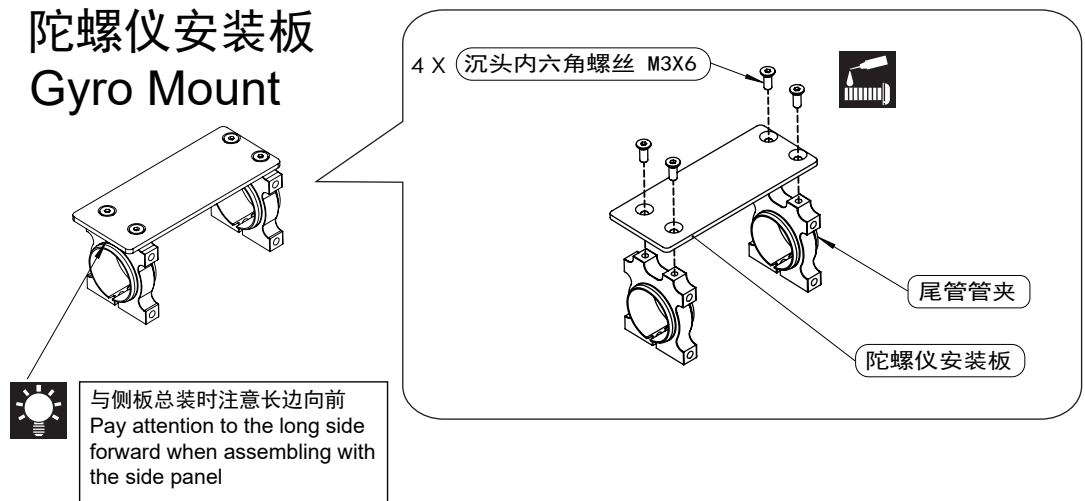


No.	Parts Description	零件名称	Qty
1	Frame Inside Support Plate	内侧板前支撑板	1
2	Fream Spacer	内侧板支撑柱L32	3
3	Gyro Mount Plate	陀螺仪安装板	1
4	Tail Boom Clip Mount	尾管管夹	2
5	Receiver Mount Plate	接收机安装板	1
6	Flat Head Socket Screw, M3x8	沉头内六角螺丝 M3X8	6
7	Flat Haed Socket Screw, M3x6	沉头内六角螺丝 M3X6	4

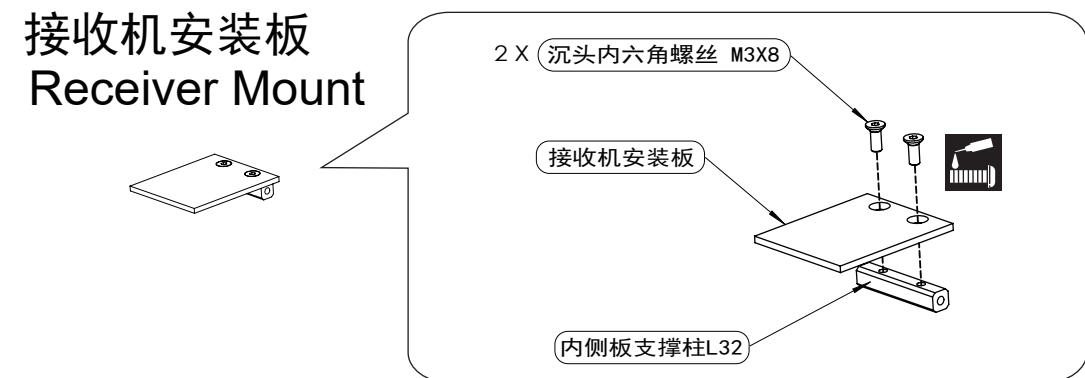
1-3 内侧板前支撑板 Frame Inside Support Mount



陀螺仪安装板 Gyro Mount



接收机安装板 Receiver Mount



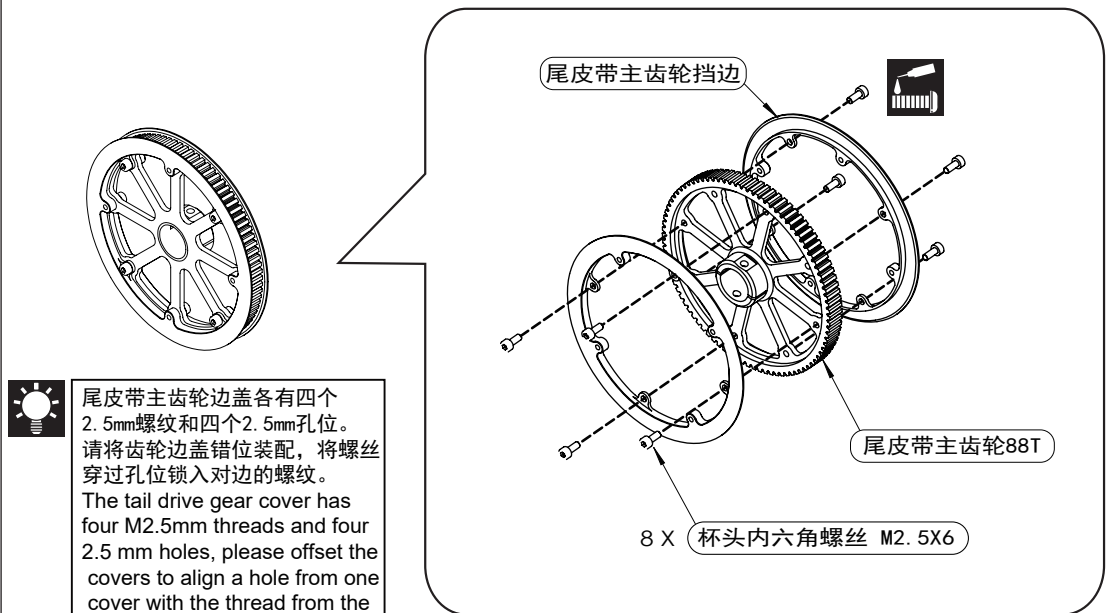
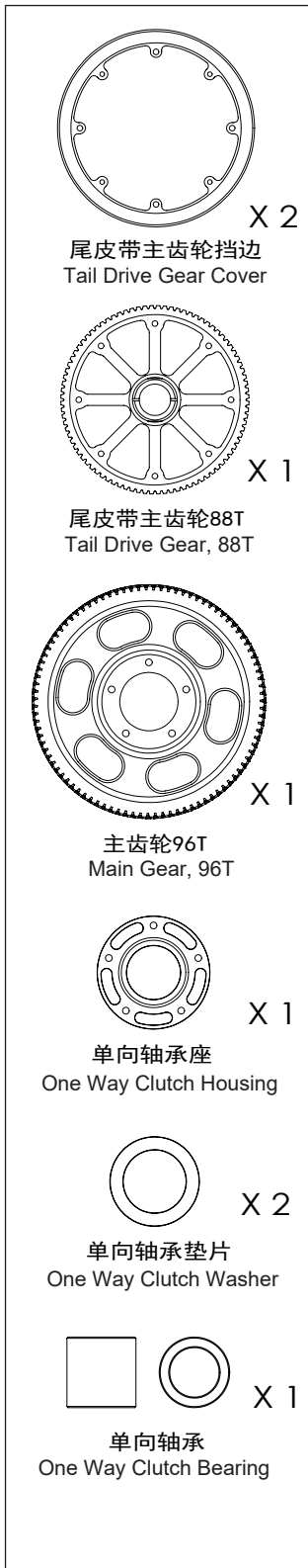


Step 1-4 Tail Drive Gear & Main Gear Set assembly  
1-5 尾传动齿轮及主齿轮组装

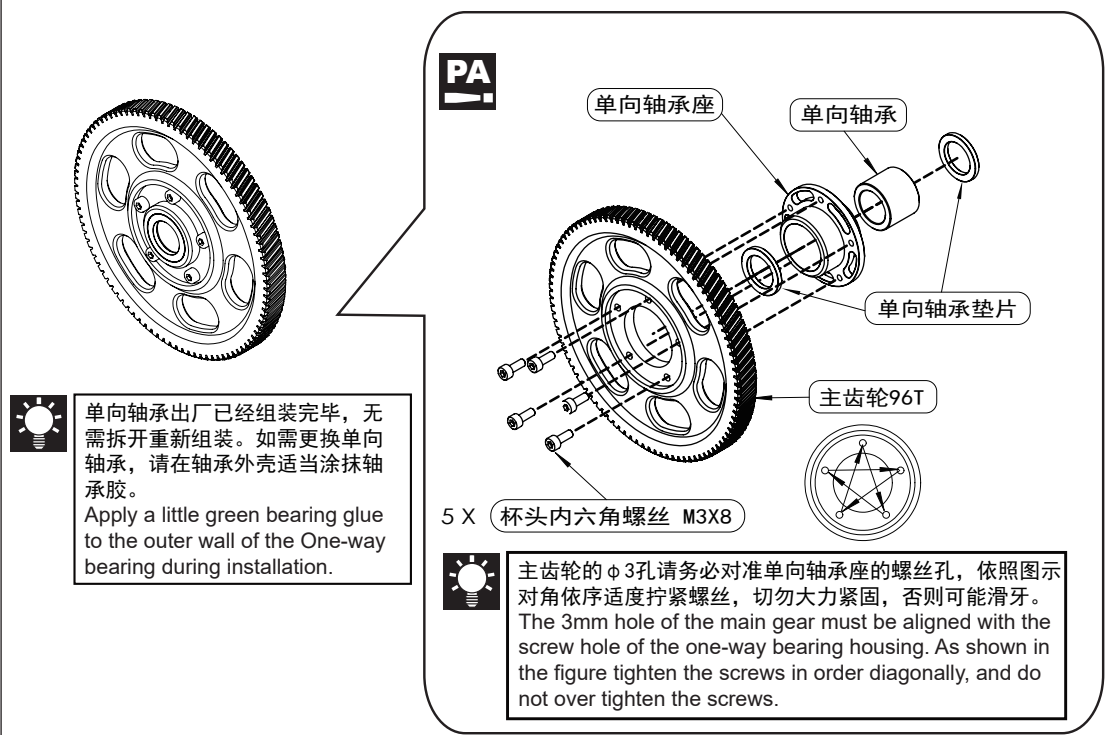
No.	Parts Description	零件名称	Qty
1	Tail Drive Gear Cover	尾皮带主齿轮挡边	2
2	Tail Drive Gear, 88T	尾皮带主齿轮 88T	1
3	Socket Screw, M2.5x6	杯头内六角螺丝 M2.5X6	8

No.	Parts Description	零件名称	Qty
1	Main Gear, 96T	主齿轮 96T	1
2	One Way Clutch Housing	单向轴承座	1
3	One Way Clutch Washer	单向轴承垫片	2
4	One Way Clutch Bearing	单向轴承	1
5	Socket Screw, M3x8	杯头内六角螺丝 M3X8	5

## 1-4 尾传动大齿轮 Tail Drive Gear assembly



## 1-5 主齿轮 Main Gear Set Assembly

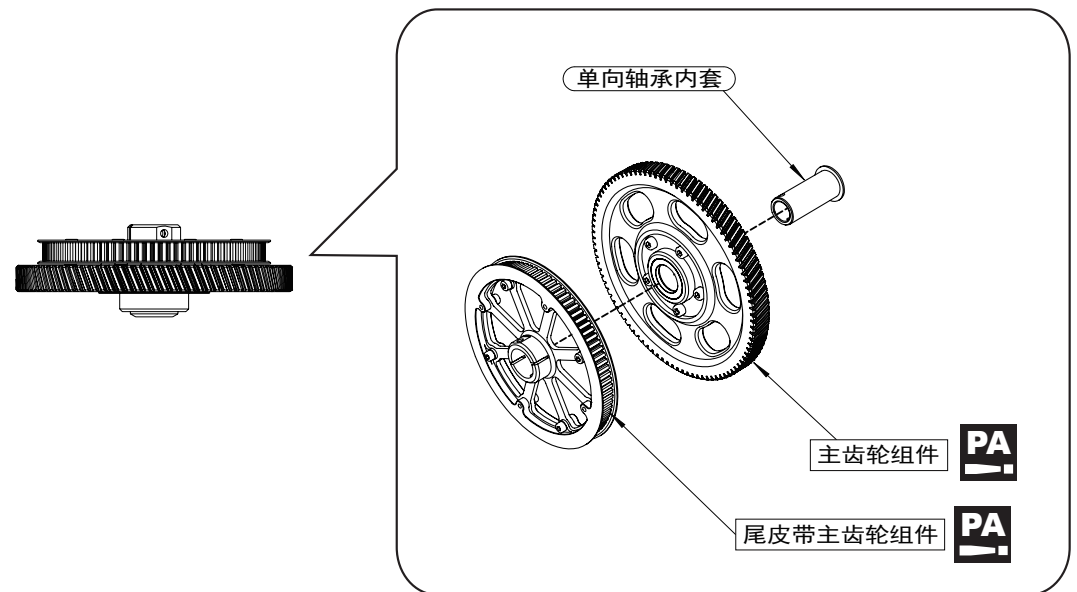
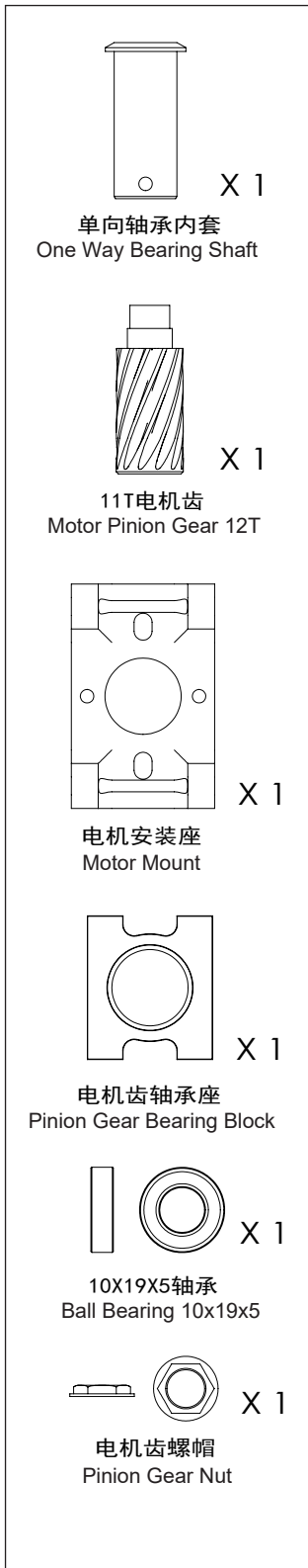


Step 1-6 Main Gear Set & Motor Mount assembly  
1-7 主齿轮、电机固定座組裝

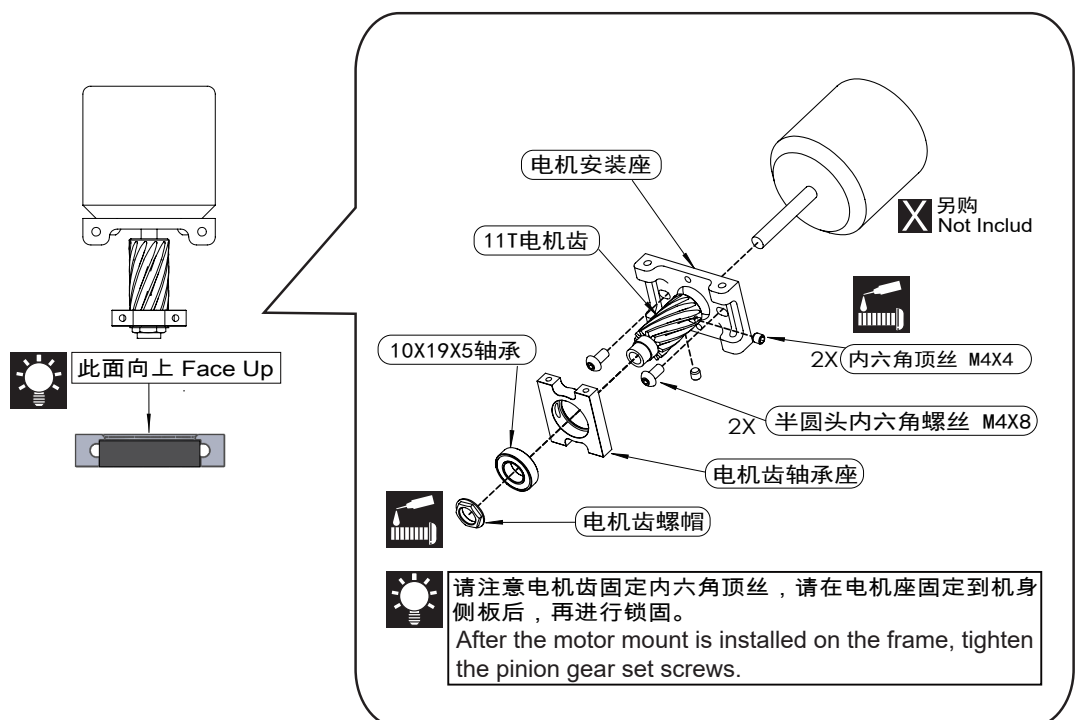
No.	Parts Description	零件名称	Qty
1	One Way Bearing Shaft	单向轴承内套	1

No.	Parts Description	零件名称	Qty
1	Motor Pinion Gear 12T	11T电机齿	1
2	Ball Bearing 10x19x5	轴承10X19X5	1
3	Pinion Gear Nut	电机齿螺帽	1
4	Pinion Gear Bearing Block	电机齿轴承座	1
5	Motor Mount	电机安装座	1
6	Button Head Socket Screw M4x8	半圆头内六角螺丝 M4X8	2
7	Set Screw M4x4	内六角顶丝 M4X4	2

## 1-6 大齿轮组合 Main Gear Set assembly



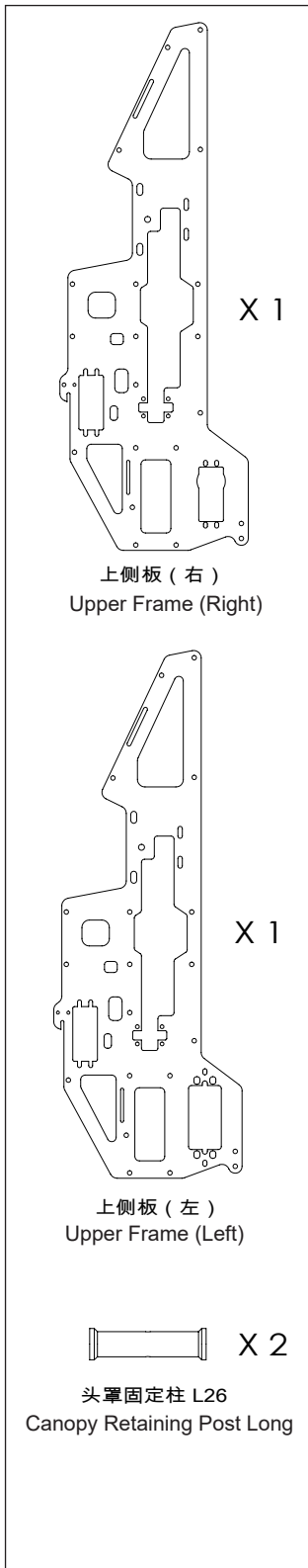
## 1-7 电机座组装 Motor Mount assembly




## Step 2-1 Upper Frame assembly 内侧板组裝

No.	Parts Description	零件名称	Qty
1	Upper Frame (Left)	上侧板 (左)	1
2	Upper Frame (Right)	上侧板 (右)	1
3	Canopy Retaining Post Long	头罩固定柱 L26	2
4	Socket Screw M2.5X6	杯头内六角螺丝 M2.5X6	8
5	Button Head Socket Screw M3x8	半圆头内六角螺丝 M3X8	2

### 2-1 内侧板组裝 Upper Frame assembly




 左侧板为标准尺寸尾舵机安装位置  
 Upper Frame (Left) for Standard size  
 Tail Servo.

**x2 L/R**


半圆头内六角螺丝 M3X8

头罩固定柱L26

4 X 杯头内六角螺丝 M2.5X6

上侧板 (左)

**PA** 皮带导向轮组


 右侧板为中型尾舵机安装位置  
 Upper Frame (Right) for Medium size  
 Tail Servo.

头罩固定柱L26

半圆头内六角螺丝 M3X8

皮带导向轮组 **PA**

上侧板 (右)

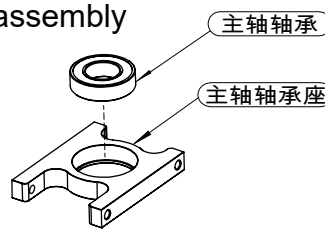
4 X 杯头内六角螺丝 M2.5X6


Step 2-2 Upper Frame Bearing Block assembly  
内侧板轴承座组裝

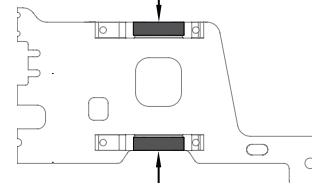
No.	Parts Description	零件名称	Qty
1	Main Shaft Bearing	主轴轴承 10*19*5	3
2	Main Shaft Bearing Block	主轴轴承座	3
3	Frame Reinforcing Plate	侧板加强件	2
4	Servo Mount	舵机安装座	4
5	Socket Screw M3X6	杯头内六角螺丝 M3X6	6
6	Socket Screw M3X8	杯头内六角螺丝 M3X8	2
7	Socket Screw M3X12	杯头内六角螺丝 M3X12	8


## 2-2 内侧板轴承座组裝 Upper Frame Bearing Block assembly

### 主轴轴承座组 Bearing Block assembly





 轴承面向上  
Bearing Surface Up

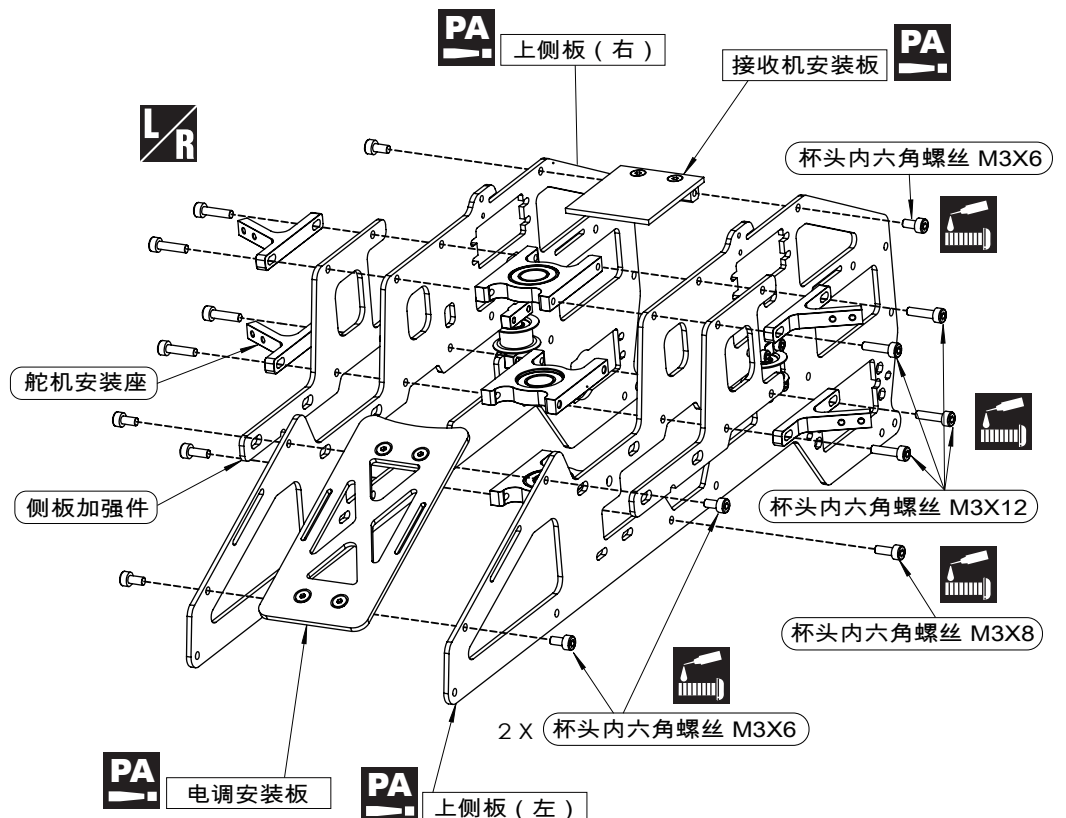


 轴承面向下  
Bearing Surface Down



 轴承面向上  
Bearing Surface Up

 如果轴承安装时较松，请在轴承外壁涂少许绿色轴承胶。  
Apply a little green bearing glue to the outer wall of the bearing.  
If the bearing is loose during installation.

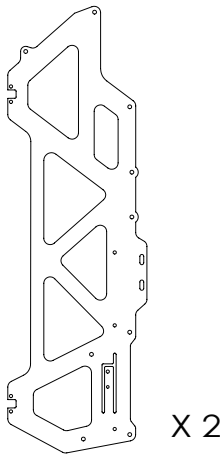


Step 2-3 Lower Frame assembly  
2-3B 2-4 外侧板组装

No.	Parts Description	零件名称	Qty
1	Lower Frame	外侧板	2
2	Battery Tray Rail	电池滑轨	2
3	Battery Tray Clip	电池卡扣	1
4	Landing Skid Brackte	脚架安装座	4
5	Canopy Retaining Post L=17	头罩固定柱L17	2
6	Button Head Socket Screw M3x8	半圆头内六角螺丝 M3X8	2
7	Button Head Socket Screw M2.5x5	半圆头内六角螺丝 M2.5X5	1
8	Button Head Socket Screw M2.5x5	半圆头内六角螺丝 M2.5X6	6

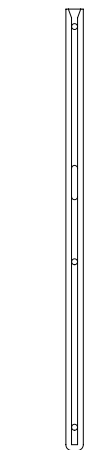
No.	Parts Description	零件名称	Qty
9	Socket Screw M2.5X6	杯头内六角螺丝 M2.5X6	8

## 2-3 2-3B 右外侧板安装组 Right Side Lower Frame assembly



外侧板  
Lower Frame

X 2



电池滑轨  
Battery Tray Rail

X 2



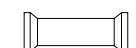
电池卡扣  
Battery Tray Clip

X 1



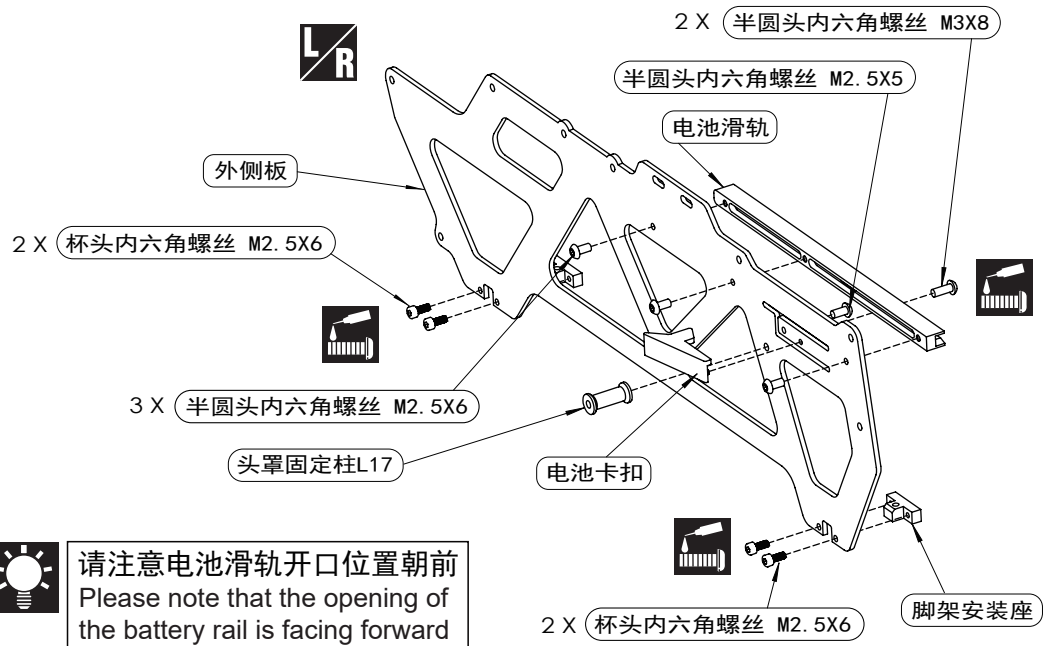
脚架安装座  
Landing Skid Brackte

X 4

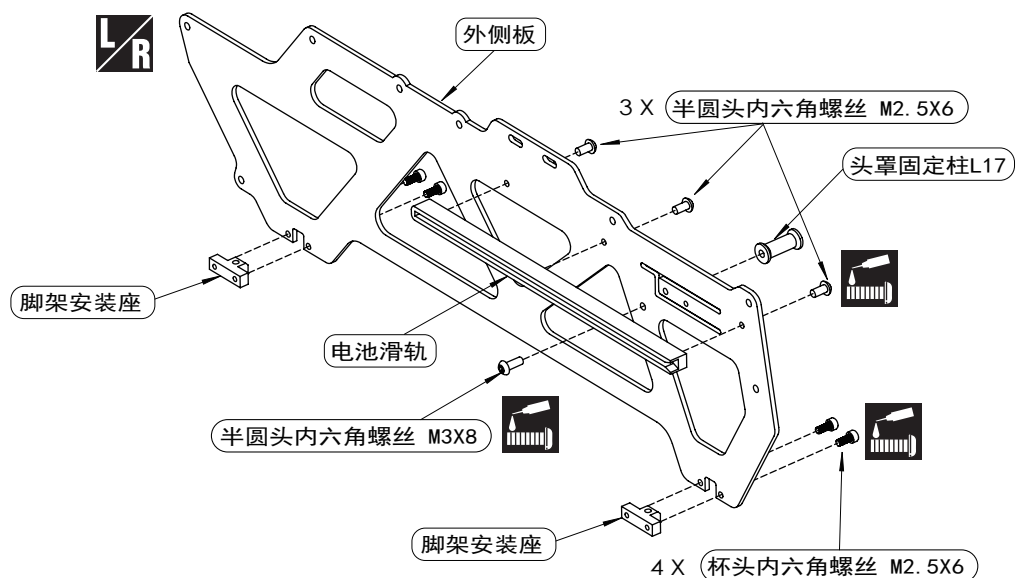


头罩固定柱L=17  
Canopy Retaining Post L=17

X 2



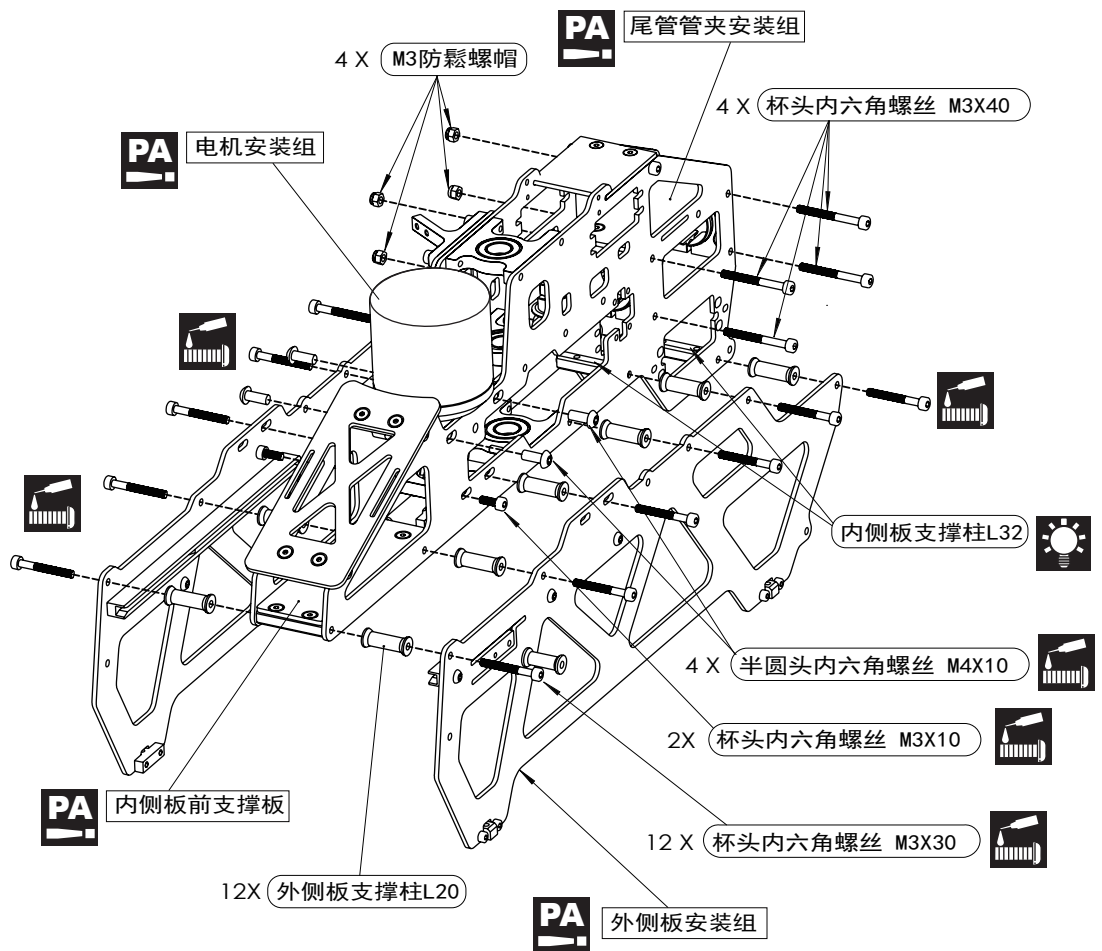
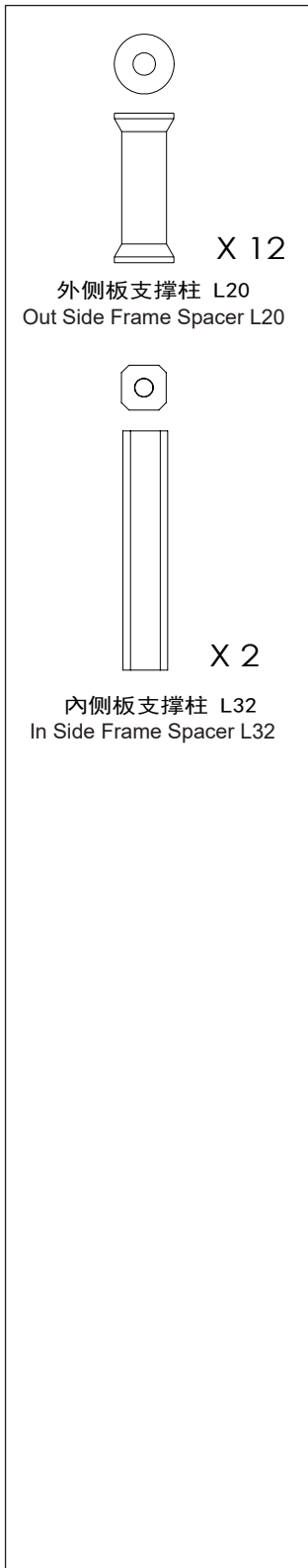
## 2-3B 2-4 左外侧板安装组 Left Side Lower Frame assembly





Step 2-5 Lower Frame & Upper Frame Unit assembly  
机架总组装

No.	Parts Description	零件名称	Qty
1	In Side Frame Spacer	内侧板支撑柱L32	2
2	Out Side Frame Spacer	外侧板支撑柱L20	12
3	Socket Screw M3X10	杯头内六角螺丝 M3X10	2
4	Socket Screw M3X30	杯头内六角螺丝 M3X30	12
5	Socket Screw M3X30	杯头内六角螺丝 M3X40	4
6	Button Head Socket Screw M4x10	半圆头内六角螺丝 M4X10	4
7	Nylon Nut M3	M3防鬆螺帽	4

## 2-5 机架总装 Lower Frame & Upper Frame Unit assembly




 请先不要锁紧电机安装组的固定螺丝，当主齿轮安装以后，我们需要调整齿轮间隙，然后再锁紧。  
 Please fix the screws of the motor mounting group first. Do not tighten the screws, after the main gear is installed, adjust the gear clearance, then lock.


 使用杯头内六角螺丝M3X30固定内外侧板时，请注意左右两侧的螺丝对称交替锁紧，以免造成机身内外侧板扭曲。  
 Please pay attention when using M3X30 Socket screws to fix the Lower and Upper frame unit. The left and right screws are slowly tightened at the same time, so as not to cause the Lower and Upper frame distortion.

Step 2-6 Install Main Transmission  
2-7 主传动系统组装

No.	Parts Description	零件名称	Qty
1	Main Shaft	主轴	1
2	Main Shaft Stopper	主轴定位环	1
3	Tail Boom	尾管	1
4	Tail Drive Belt	尾传动皮带	1
5	Socket Screw M3X22	杯头内六角螺丝 M3X22	1
6	Set Screw M3X3	内六角顶丝 M3X3	2
7	Nylon Nut M3	M3防鬆螺帽	1

## 2-6 2-7主传动系统组装 Install Main Transmission



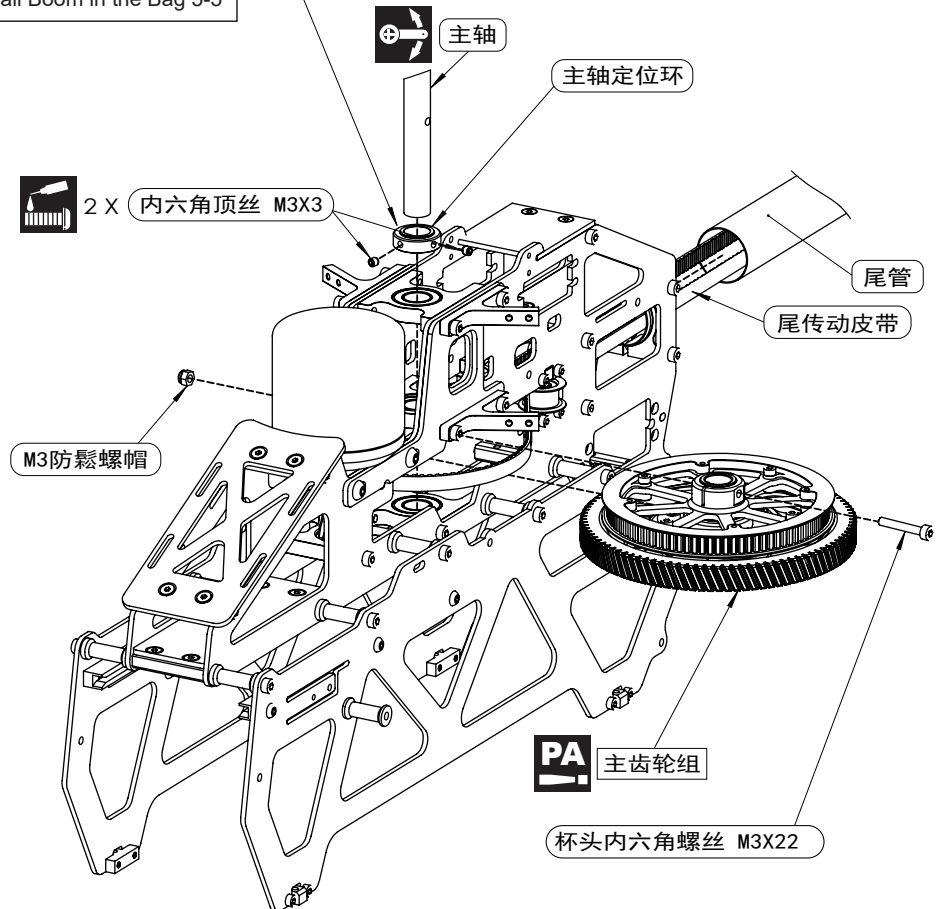
安装主齿轮组时请先把尾传动皮带套在尾传动大齿轮上。此处需要先把主齿轮与主轴固定好以后，向上提拉主轴，主轴定位环向下压然后锁紧定位环固定的内六角顶丝。上下移动主轴时应没有间隙。  
When installing the main gear set, first put the tail drive belt on the belt tail drive gear. After fixing the main gear and the main shaft, pull up the main shaft and the main shaft stopper presses down. Then tight main shaft stopper set screws. There should be no gap when moving the main shaft up and down.



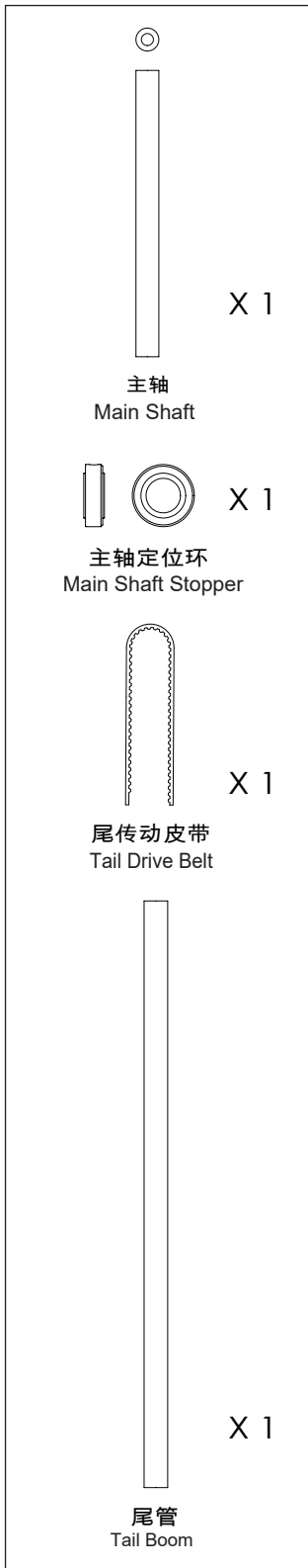
尾管在5-5零件包内  
Tail Boom in the Bag 5-5



2 X 内六角顶丝 M3X3



主齿轮安装好以后，需要调整主齿轮与电机齿的间隙。间隙过小会带来较大噪音、震动、还会加速齿轮磨损，间隙过大容易出现扫齿现象。建议齿轮间隙为0.1-0.2mm。  
After the main gear is installed, the gap between the main gear and the motor pinion needs to be adjusted. If the gap is too small, it will bring greater noise, vibration, and accelerate gear wear. If the gap is too large, it is prone to tooth sweeping. Recommended gear clearance is 0.1-0.2mm.

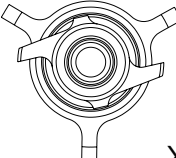


Step 3-1 Swashplate & FBL Washout Block assembly  
3-2 倾斜盘、相位摇臂组组装


No.	Parts Description	零件名称	Qty
1	Swashplate	倾斜盘	1
2	Swashplate Post	倾斜盘滑轨球头	1
3	Linkage Ball 3x3x5.5mm	3X3X5.5MM球头	6
4	Washout Arm	相位摇臂	2
5	Washout Arm Pin	相位摇臂轴销	2
6	FBL Washout Linkage A Arm	牛角摇臂	2
7	Flange Bearing 3x7x3	法兰轴承 F3X7X3	4
8	Collar 3x5x2.3	铜垫片 3X5X2.3	2

No.	Parts Description	零件名称	Qty
9	M2 E Clip	M2 E型卡	4


### 3-1 倾斜盘组装 Swashplate assembly



X 1  
倾斜盘  
Swashplate



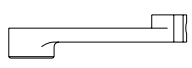
X 1  
倾斜盘滑轨球头  
Swashplate Post



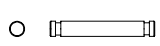
X 6  
3X3X5.5MM球头  
Linkage Ball 3x3x5.5mm



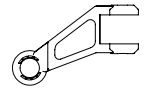
X 4  
法兰轴承 3X7X3  
Flange Bearing 3x7x3




X 2  
相位臂  
Washout Arm




X 2  
相位臂轴销  
Washout Arm Pin



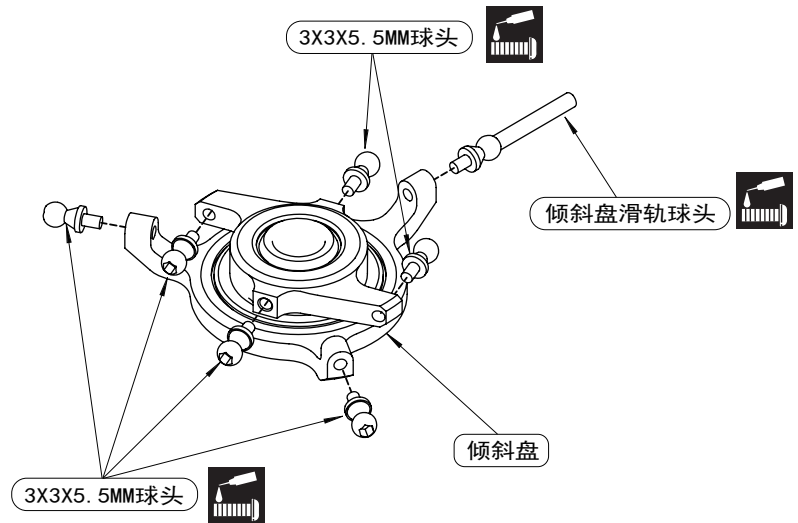
X 2  
牛角摇臂  
FBL Washout Linkage A Arm



X 4  
M2 E型卡  
M2 E Clip



X 2  
铜垫片 3X5X2.3  
Collar 3x5x2.3

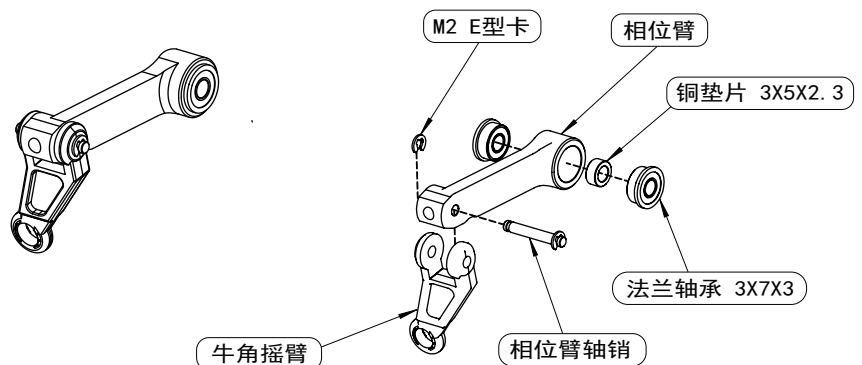


### 3-2 相位摇臂组 FBL Washout Block assembly



相位臂上的M3顶丝是选装件新机没有磨损出虚位的情况下无需安装。  
The M3 set screw on the washout arm is an optional part. The new machine does not need to be installed if it is not worn out.

X 2



如果轴承安装时较松，请在轴承外壁涂少许绿色轴承胶。  
Apply a little green bearing glue to the outer wall of the bearing.  
If the bearing is loose during installation.



Step 3-3 Rotor Grip & Rotor Head assembly  
3-4 桨夹组、旋翼头组裝



No.	Parts Description	零件名称	Qty
1	Rotor Grip	主桨夹	2
2	Rotor Grip Lever	桨夹摇臂	2
3	Rotor Head Hub	旋翼头中联	1
4	Rotor Head Damper 85°	旋翼头减震胶圈 85°	4
5	Spindle	横轴	1
6	Linkage Ball 3x3x7.5	3X3X7.5球头	2
7	Rotor Grip Collar	桨夹垫片	2
8	Rotor Grip Shim	桨夹间隙调整垫片	4
9	Nylon Nut M4	M4防松螺帽	2

No.	Parts Description	零件名称	Qty
10	Thrust Collar 12x16x0.5	桨夹推力轴承垫片12X16X0.5	2
11	Ball Bearing 8x16x5	桨夹轴承8X16X5	4
12	Thrust Bearing F8-16	推力轴承F8-16	2
13	Button Head Socket Screw M3x25	半圆头内六角螺丝 M3X25	2
14	Socket Screw M5X10	横轴固定螺丝 M5X10	2
15	Socket Screw M2.5X8	杯头内六角螺丝 M2.5X8	4
16	Washer M5	垫片M5	2
17	Socket Screw M4X30	杯头内六角螺丝 M4*30	2

### 3-3 桨夹组 Rotor Grip assembly

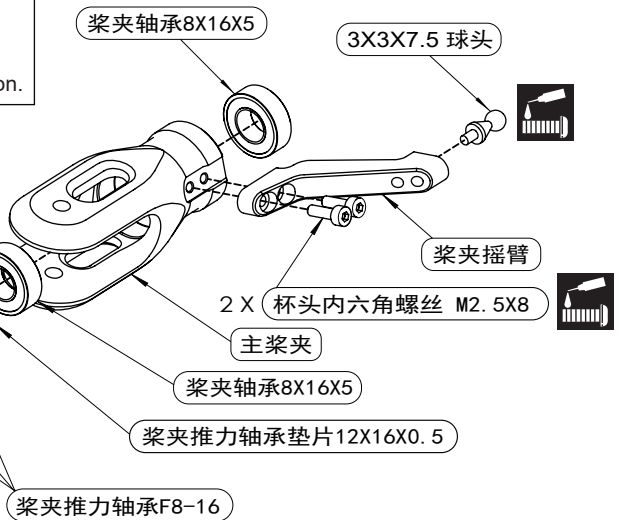
桨夹摇臂有两个球头安装孔位，F3C飞行用外孔，3D飞行用内孔。The rotor grip lever has two holes for linkage ball, The F3C please uses outer holes, 3D uses inner holes.

如果轴承安装时较松，请在轴承外壁涂少许绿色轴承胶。  
Apply a little green bearing glue to the outer wall of the bearing.  
If the bearing is loose during installation.

内孔大  
Large Internal Diameter

内孔小  
Small Internal Diameter

**x2**



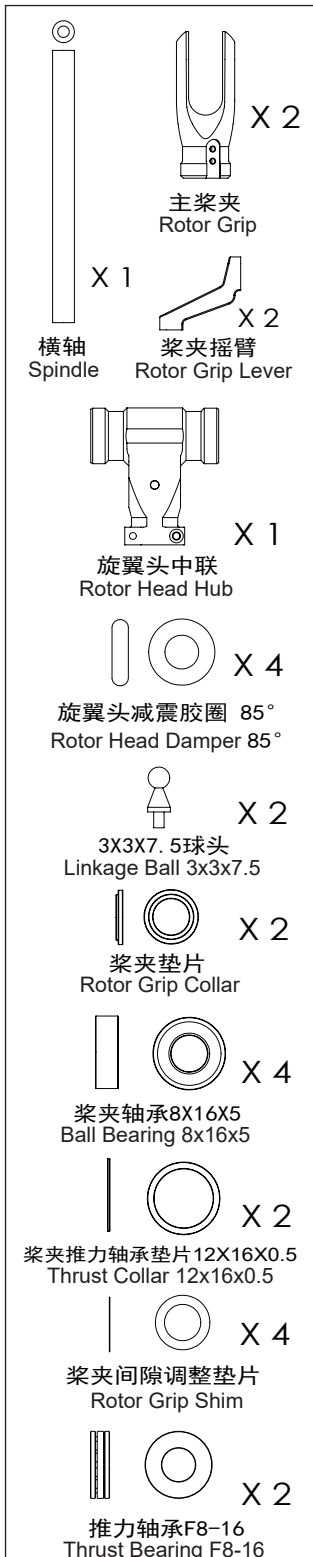
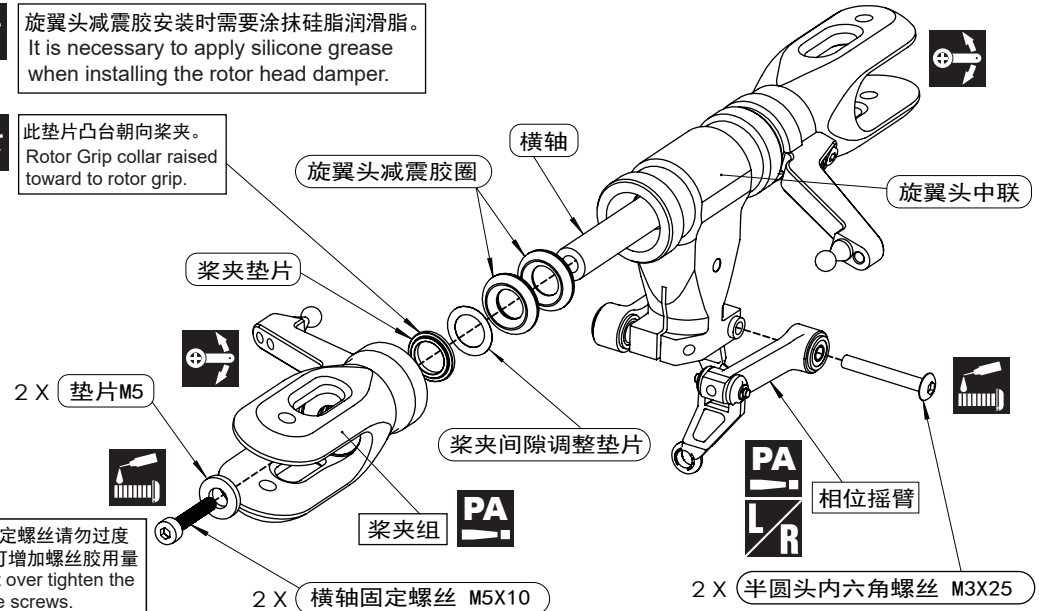
### 3-4 旋翼头组 Rotor Head assembly

桨夹间隙调整垫片有0.2和0.3mm两种厚度，可以根据飞行需求来调整旋翼头硬度。垫片越厚，减震胶的硬度越高，旋翼头的控制反应越直接，反之会越柔和。  
The Rotor Grip Collar has two thicknesses of 0.2mm and 0.3mm. The hardness of the rotor head damper can be adjusted according to flight requirements. The thicker the collar, more sensitive the control response of the rotor head. The thinner the collar, less sensitive the control response of the rotor head.

旋翼头减震胶安装时需要涂抹硅脂润滑脂。  
It is necessary to apply silicone grease when installing the rotor head damper.

此垫片凸台朝向桨夹。  
Rotor Grip collar raised toward to rotor grip.

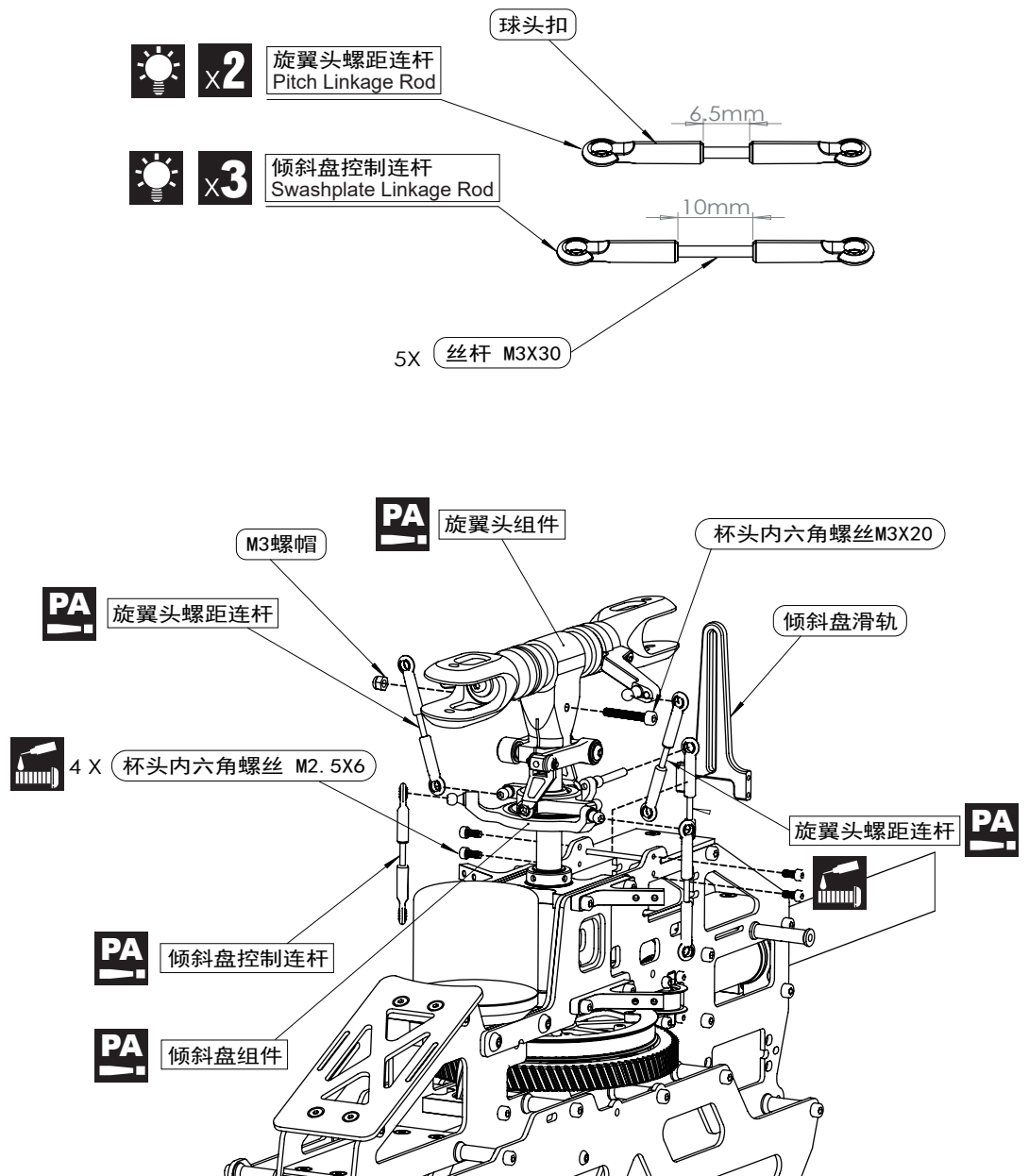
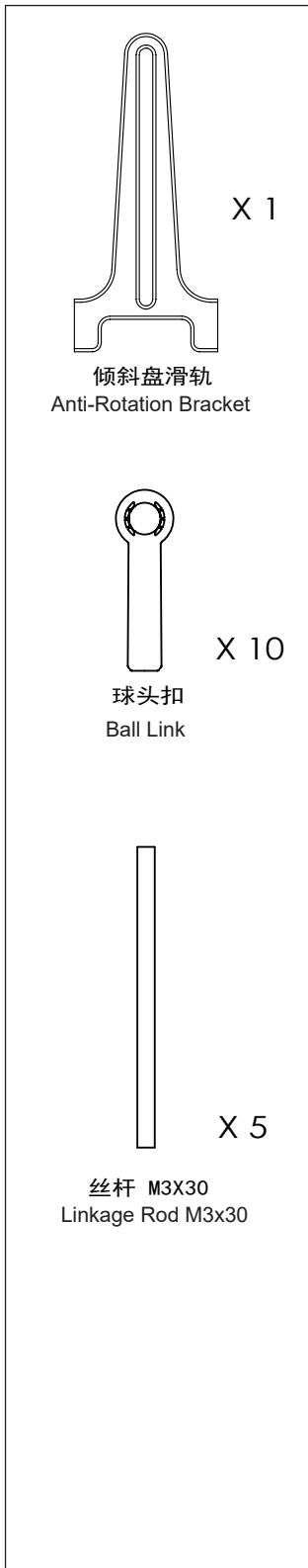
横轴固定螺丝请勿过度锁紧，可增加螺丝胶用量  
Do not over tighten the spindle screws.




Step 3-5 Rotor Head Linkage assembly  
旋翼头连杆组装

No.	Parts Description	零件名称	Qty
1	Anti-Rotation Bracket	倾斜盘滑轨	1
2	Ball Link	球头扣	10
3	Linkage Rod M3x30	丝杆 M3X30	5
4	Socket Screw M2.5X6	杯头内六角螺丝 M2.5X6	4
5	Socket Screw M3X20	杯头内六角螺丝 M3X20	1
6	Nylon Nut M3	M3防松螺帽	1

### 3-5 旋翼头连杆组装



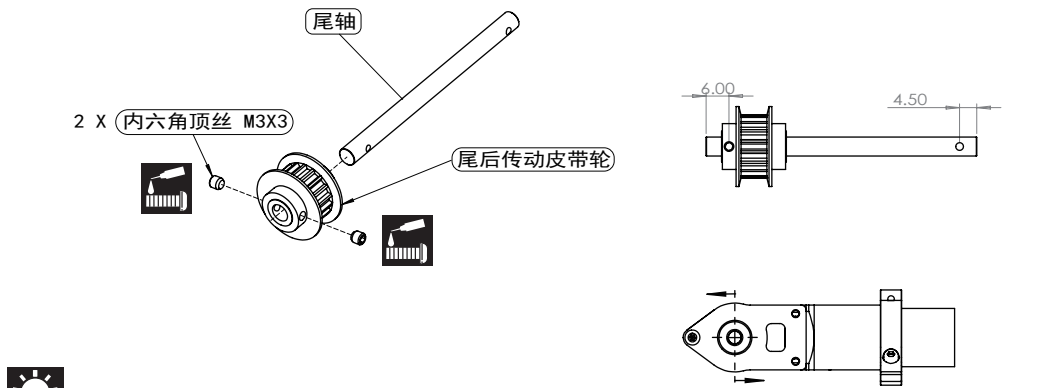
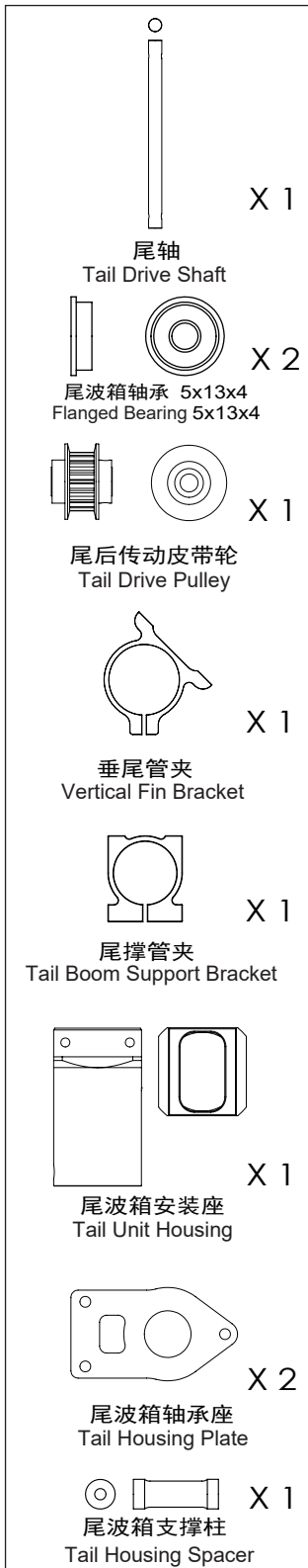
 请注意相位摇臂的牛角摇臂是连接在倾斜盘上部的短球头部位，长球头的部位连接螺距控制连杆。  
Please note that the washout linkage A arm is connected to the short balls on the upper plate of the swashplate, and the long ball head is connected to the pitch control linkage rod.

Step 4-1 Tail Gear Box assembly  
尾波箱組裝

No.	Parts Description	零件名称	Qty
1	Tail Unit Housing	尾波箱安装座	1
2	Tail Housing Plate	尾波箱轴承座	2
3	Tail Housing Spacer	尾波箱支撑柱	1
4	Tail Drive Shaft	尾轴	1
5	Tail Drive Pulley	尾后传动皮带轮18T	1
6	Tail Boom Support Bracket	尾撑管夹	1
7	Vertical Fin Bracket	垂尾管夹	1
8	Socket Screw M3X8	杯头内六角螺丝 M3X8	1

No.	Parts Description	零件名称	Qty
9	Button Head Socket Screw M3x6	半圆头内六角螺丝 M3x6	4
10	Set Screw M3x3	内六角顶丝 M3x3	3
11	Flanged Bearing 5x13x4	尾波箱轴承 5x13x4	2

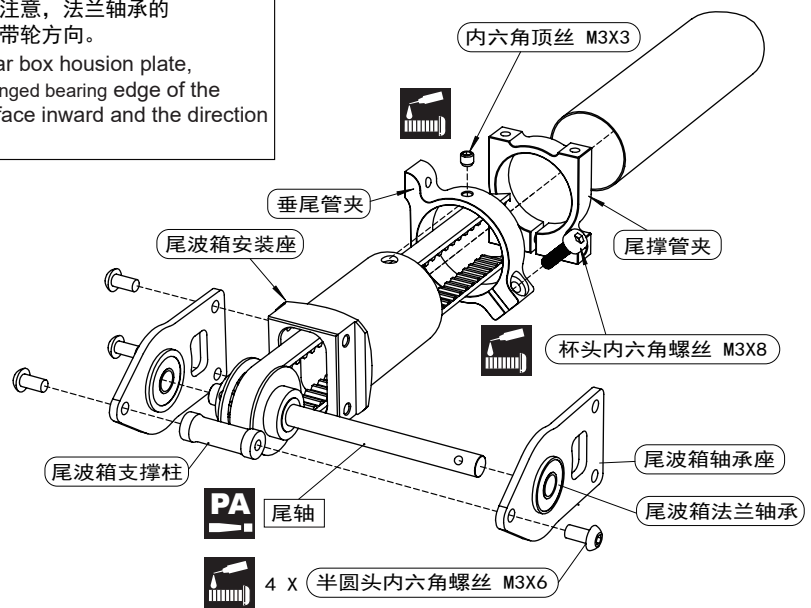
## 4-1 尾波箱组装 Tail Gear Box assembly



尾波箱安装座管夹的M3X8螺丝先不要拧紧，调整主轴与尾轴的夹角为90°时锁紧。M3内六角顶丝直接压在尾管上，请勿用力紧固。After checked the angle between the main shaft and the tail shaft is adjusted to 90°. Then tighten the M3 set screw is directly pressed on the tail pipe, please do not overthigten it.

主旋翼顺时针旋转时，从右侧观察尾轴旋转方向应是逆时针转动，如方向错误请调整皮带扭曲方向。When the main rotor rotates clockwise, the direction of the tail shaft should be rotates counterclockwise when viewed from the right side. If the direction is wrong, please adjust the direction of the belt direction.

尾波箱轴承座组装时请注意，法兰轴承的法兰边缘要朝向内，皮带轮方向。Assembling the tail gear box housion plate, please note that the flanged bearing edge of the flange bearing should face inward and the direction of the tail drive pulley.



尾波箱组装好以后需要调整皮带松紧。皮带过松会造成同步带轮跳齿皮带过紧会增大传动阻力还会加大皮带损耗。After the tailbox is assembled, the belt tension needs to be adjusted. If the belt is too loose, it will cause the tail belt pulley to slide. If the belt is too tight, it will increase the transmission resistance and increase the belt deterioration.

Step 4-2 Tail Pitch Control System assembly  
4-3 尾滑块、尾推控制组组装



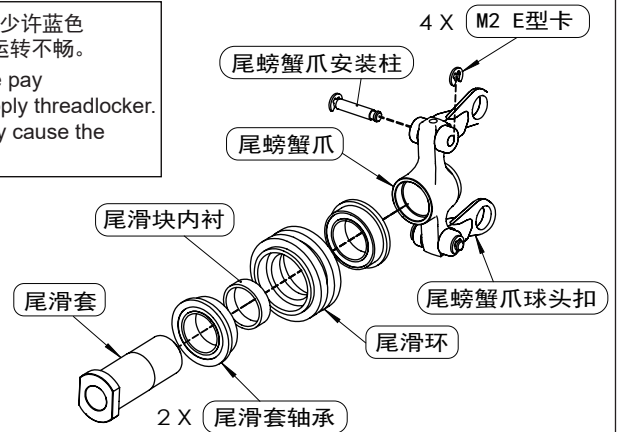
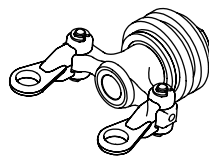
No.	Parts Description	零件名称	Qty
1	Tail Pitch Control Link	尾螃蟹爪球头扣	2
2	Tail Pitch Control Fork	尾螃蟹爪	1
3	Tail Pitch Control Slider Bushing	尾滑套	1
4	Tail Pitch Slider Collar	尾滑块内衬	1
5	Tail Pitch Slider	尾滑环	1
6	Tail Pitch Control Link Pin	尾螃蟹爪安装柱	2
7	Flange Bearing	尾滑套轴承	2
8	Tail Pitch Control Arm Screw	尾拨叉螺丝	2
9	Flange Bearing 4X7X2.5	尾推摇臂轴承4X7X2.5	2
10	Tail Pitch Control Arm	尾推拨叉	1

No.	Parts Description	零件名称	Qty
11	Tail Pitch Control Arm Collar	尾推轴承垫片	2
12	Tail Pitch Control Arm Lever	尾推摇臂	1
13	Tail Pitch Control Linkage Ball	球头2x5x2.5	1
14	Tail Pitch Control Arm Mount	尾推固定座	1
15	Button Head Socket Screw M3x8	半圆头内六角螺丝 M3X8	4
16	Socket Screw M2.5X8	杯头内六角螺丝 M2.5X8	2
17	Nylon Nut M2	M2螺帽	1
18	E Clip M2	M2 E型卡	4

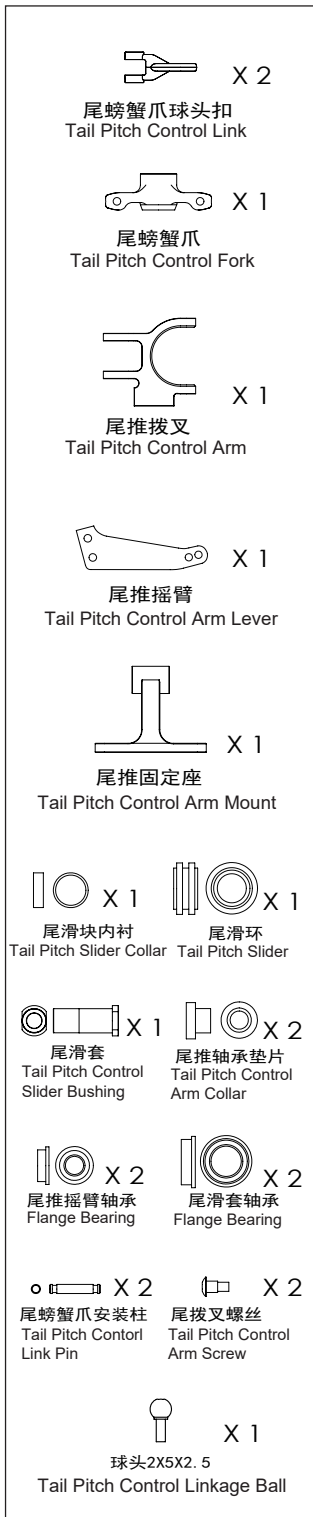
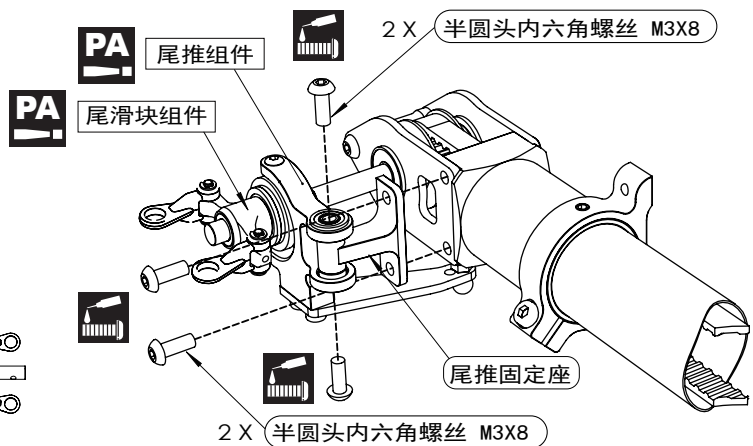
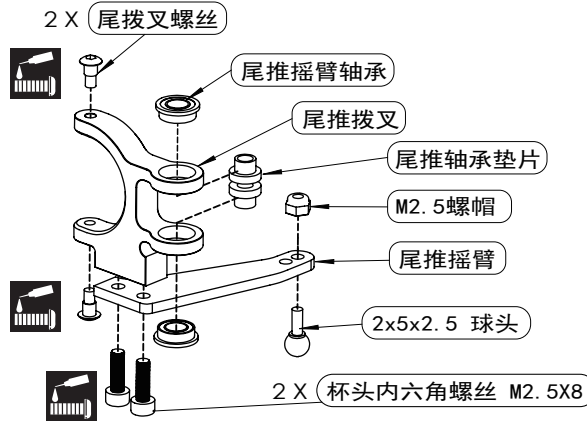
### 4-2 尾滑块组 Tail Pitch Slider Fork assembly



尾滑套为反牙螺纹，请注意锁紧方向。请涂少许蓝色螺丝胶，勿过度用力拧紧否则可能造成轴承运转不畅。  
The tail sliding sleeve is anti-thread, please pay attention to the locking direction. Please apply threadlocker. Do not tighten excessively, otherwise it may cause the bearing to run smoothly



### 4-3 尾推控制组 Tail Pitch Control Arm assembly



Step 4-4 Tail Rotor Grip assembly  
尾桨夹组裝

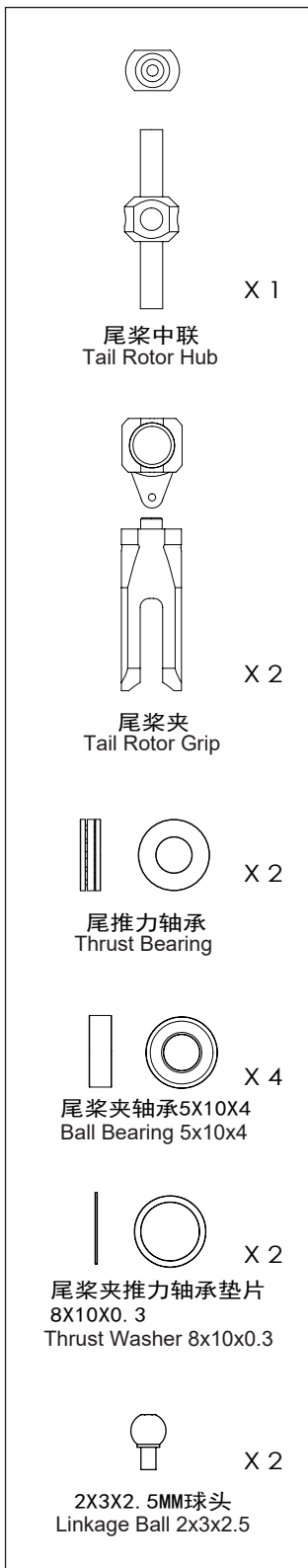
No.	Parts Description	零件名称	Qty
1	Tail Rotor Hub	尾桨中联	1
2	Tail Rotor Grip	尾桨夹	2
3	Thrust Bearing	尾推力轴承	2
4	Thrust Washer 8x10x0.3	尾桨夹推力轴承垫片8X10X0.3	2
5	Ball Bearing 5x10x4	尾桨夹轴承5X10X4	4
6	Linkage Ball 2x3x2.5	2X3X2.5MM球头	2
7	Washer M3	M3垫片	2
8	Nylon Nut M3	自锁螺母 M3	2

No.	Parts Description	零件名称	Qty
9	Socket Screw M3X8	杯头内六角螺丝 M3X8	2
10	Socket Screw M3X18	杯头内六角螺丝 M3X18	2
11	Set Screw M4x4	内六角顶丝M4X4	2
12	Tail Rotor L=90	尾桨 L=92	2

### 4-4 尾桨夹组裝 Tail Rotor Grip assembly



如果轴承安装时较松，请在轴承外壁涂少许绿色轴承胶。  
Apply a little green bearing glue to the outer wall of the bearing.  
If the bearing is loose during installation.



内孔大  
Large Internal Diameter

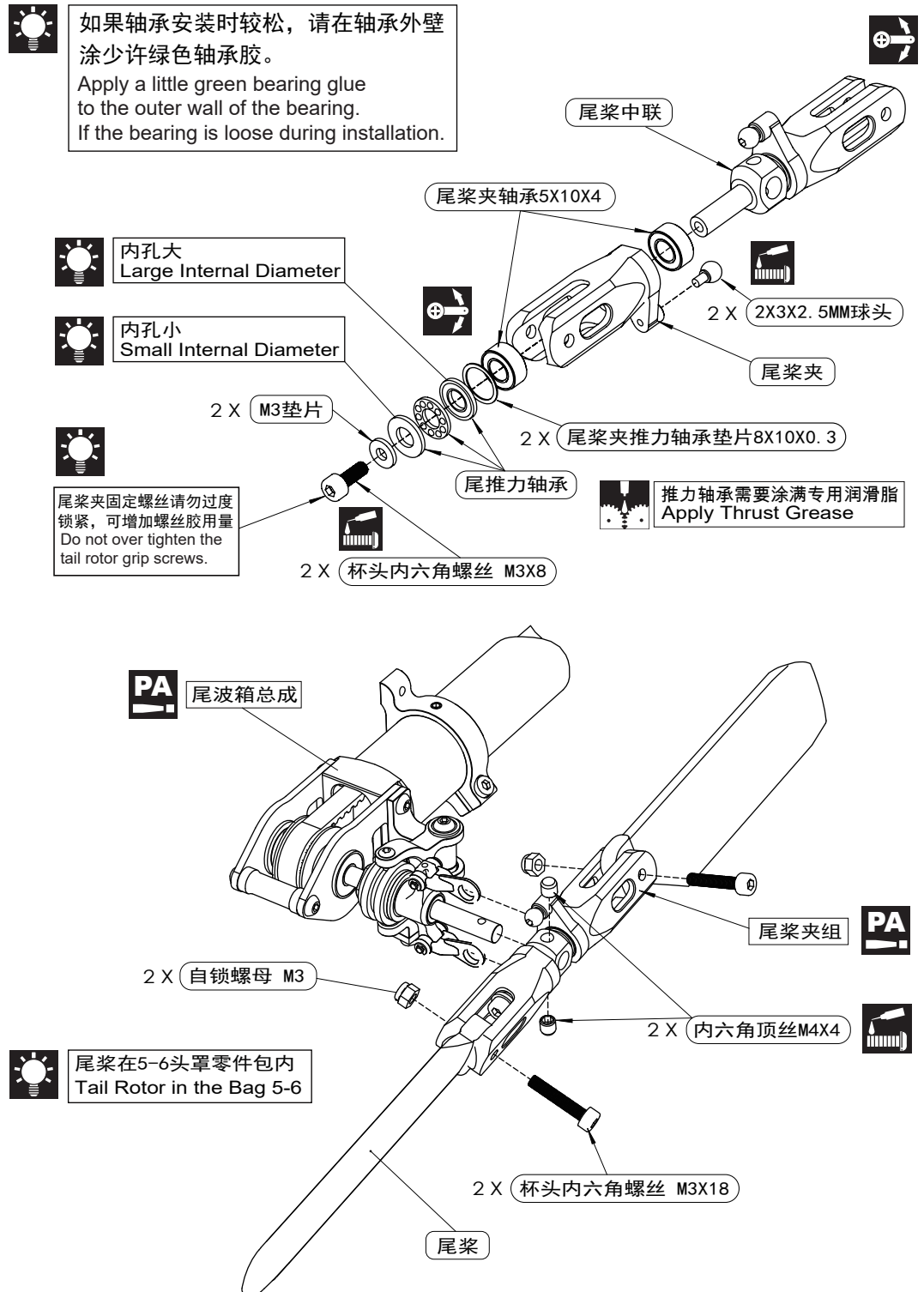


内孔小  
Small Internal Diameter



尾桨夹固定螺丝请勿过度锁紧，可增加螺丝胶用量  
Do not over tighten the tail rotor grip screws.

推力轴承需要涂满专用润滑脂  
Apply Thrust Grease



Step 5-1 Landing Skid & Tail Fin assembly  
5-1B 脚架、垂直尾翼组裝

No.	Parts Description	零件名称	Qty
1	Landing Skid	脚架	1
2	Landing Skid Damper	脚架减震器	4
3	Lower Frame Support Plate	下侧板碳纤维支撑片	2
4	Horizontal Fin	水平尾翼	1
5	Vertical Fin	垂直尾翼	1
6	Button Head Socket Screw M3x8	半圆头内六角螺丝 M3X6	4
7	Socket Screw M2.5X8	杯头内六角螺丝 M3X6	4
8	Washer M3	M3垫片	4

No.	Parts Description	零件名称	Qty
9	Battery Tray	电池安装板	1

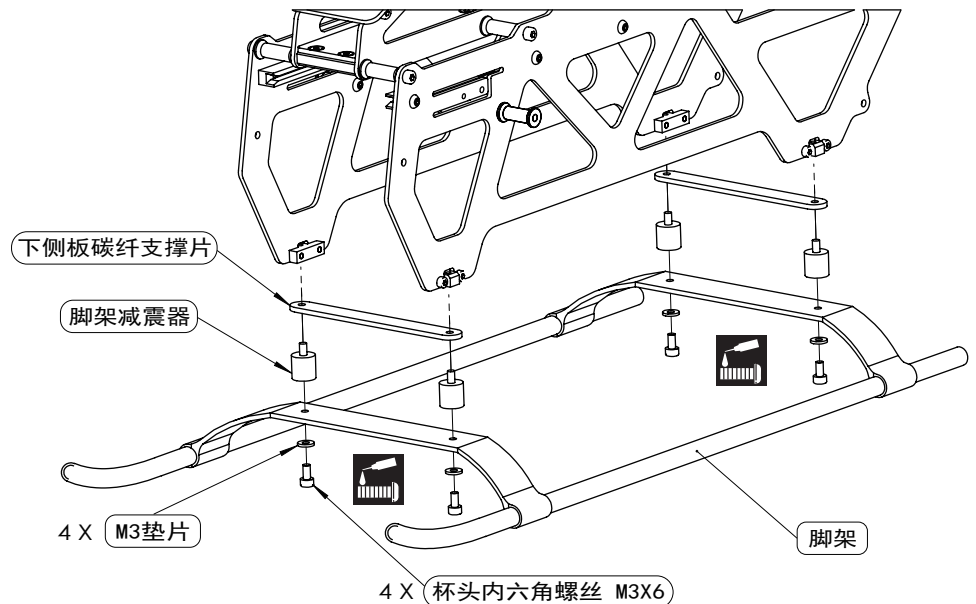
## 5-1 脚架组裝 Landing Skid assembly



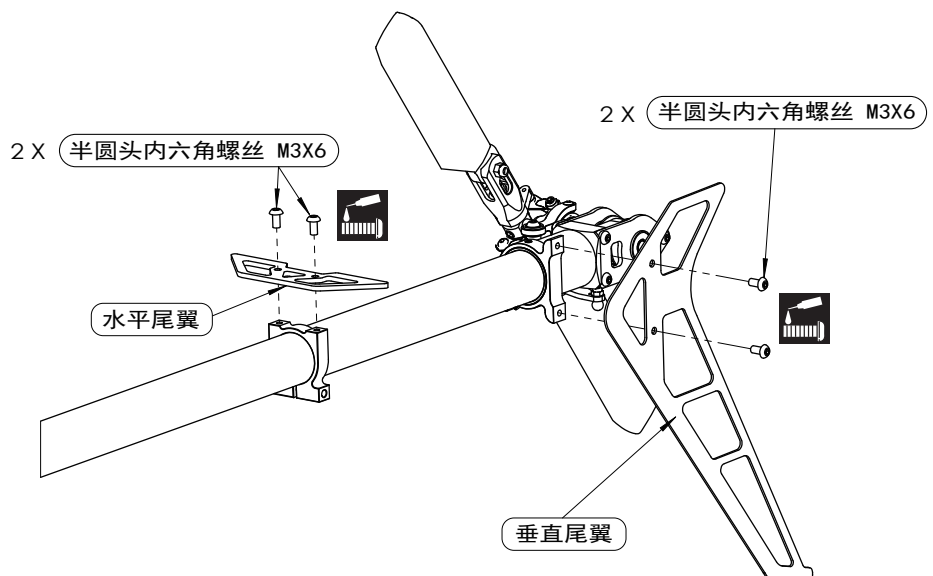
脚架固定螺丝和脚架减震器的固定螺丝，需要减少螺丝胶用量。  
Do not use too much threadlocker for Landing Skid damper screw.



脚架在5-6零件包内。  
Landing Skid in the Bag 5-6



## 5-1B 尾翼组裝 Tail Fin assembly



## Step 5-2 Tail Boom Support assembly 尾撑组组装

No.	Parts Description	零件名称	Qty
1	Carbon Tail Boom Support	碳纤尾撑杆	2
2	Tail Boom Support End	尾撑头	4
3	Socket Screw M3x10	杯头内六角螺丝 M3X10	2
4	Socket Screw M3x35	杯头内六角螺丝 M3X35	1
5	Socket Screw M2x11	杯头内六角螺丝 M2X11	4
6	Nylon Nut M3	M3自锁螺母	3
7	Nylon Nut M2	M2自锁螺母	4

### 5-2 尾撑组 Tail Boom Support assembly



X 4

尾撑头  
Tail Boom Support End



X 2

碳纤尾撑杆  
Carbon Tail Boom Support



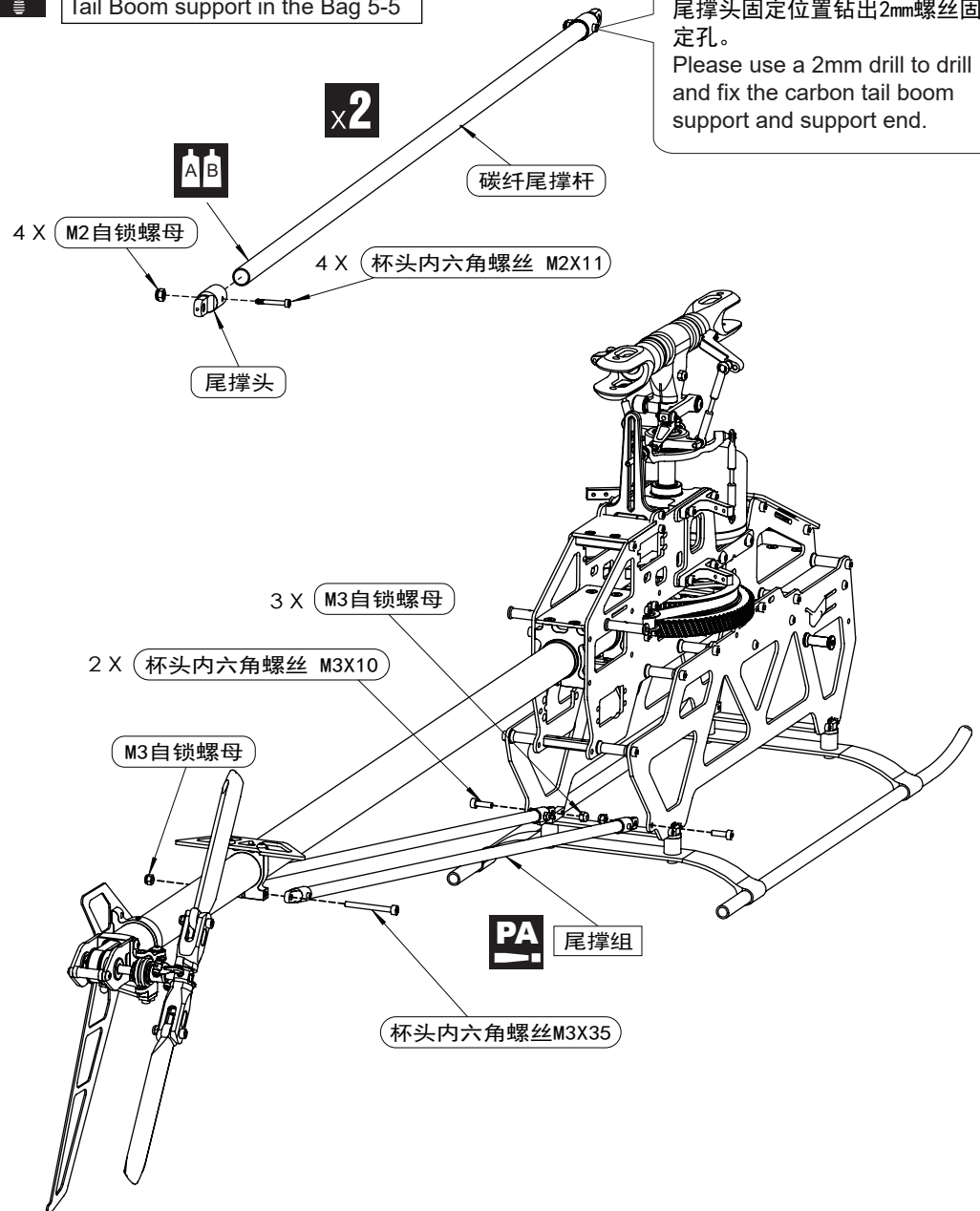
尾撑头与尾撑杆需要用AB胶粘合。  
Please use Epoxy bonding the carbon tail boom support and end tail boom support end part.



碳纤尾撑杆在5-5零件包内。  
Tail Boom support in the Bag 5-5



请使用2mm钻头在碳纤尾撑杆与尾撑头固定位置钻出2mm螺丝固定孔。  
Please use a 2mm drill to drill and fix the carbon tail boom support and support end.



Step 5-3 Tail Pitch Control Linkage assembly  
尾舵拉杆组组装

No.	Parts Description	零件名称	Qty
1	Tail Pitch Linkage Connector	尾拉杆接头	2
2	Tail Pitch Carbon Linkage Rod	尾拉杆	1
3	Rod Guide	尾拉杆导向环	1
4	Rod Linkage Screw	丝杆M2. 3X20	2
5	Ball Link	球头扣	2
6	Button Phillips Tapping Screw M2.5x10	半圆头内六角自攻螺丝M2. 6X10	1

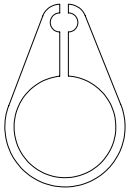
### 5-3 尾舵拉杆组

## Tail Pitch Control Linkage assembly



球头扣  
Ball Link

X 2



尾拉杆导向环  
Rod Guide

X 1



尾拉杆接头  
Tail Pitch Linkage Connector

X 2



丝杆2. 3X20  
Rod Linkage Screw

X 2



尾拉杆  
Tail Pitch Carbon Linkage Rod

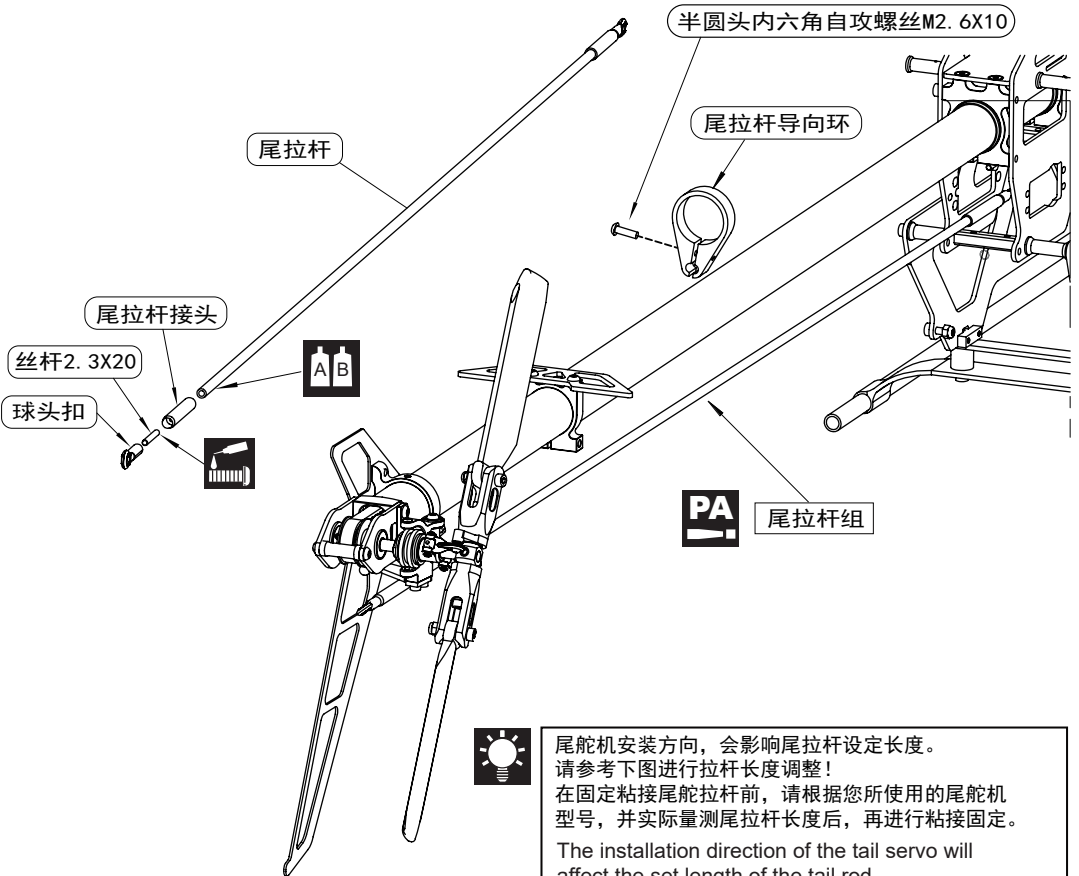
X 1



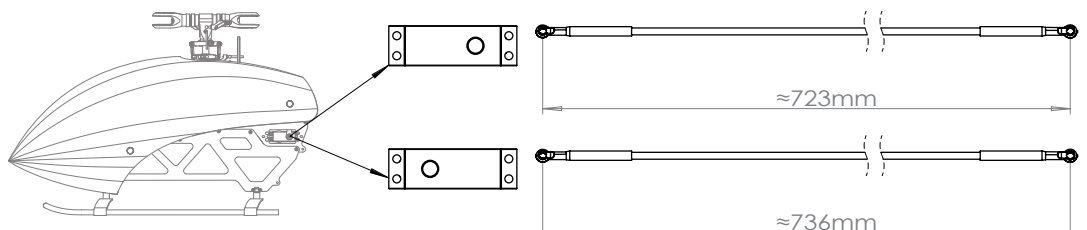
尾拉杆接头与碳纤维拉杆之间需要用AB胶粘合。请先用砂纸打磨碳纤维管粘接位置，增大粘接强度。  
The adhesive between the tail pitch linkage connector and the carbon linkage rod needs to be bonded with epoxy. Please use sandpaper to polish the bonding position of carbon linkage rod to increase the bonding strength.



尾拉杆在5-5零件包内。  
Tail Pitch Carbon Linkage Rod in the Bag 5-5



尾舵机安装方向，会影响尾拉杆设定长度。请参考下图进行拉杆长度调整！  
在固定粘接尾舵拉杆前，请根据您所使用的尾舵机型号，并实际量测尾拉杆长度后，再进行粘接固定。  
The installation direction of the tail servo will affect the set length of the tail rod. Please refer to the figure below to adjust the length of the tail rod! Before fixing and bonding the rudder tail rod, Please determine the length of the tail rod according to the rudder servo you are using.

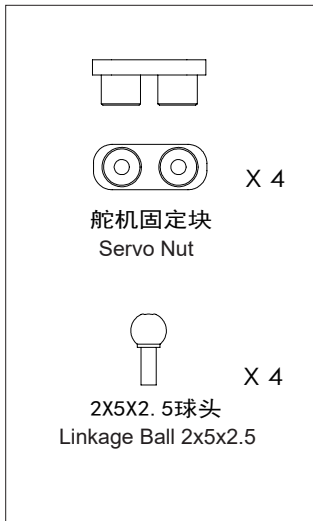




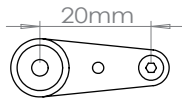
# Step 5-4 Servo Installation 舵机安装

No.	Parts Description	零件名称	Qty
1	Servo Nut	舵机固定块	4
2	Linkage Ball 2x5x2.5	2X5X2.5球头	4
3	Socket Screw M2.5X10	杯头内六角螺丝 M2.5X10	8
4	Socket Screw M2.5X8	杯头内六角螺丝 M2.5X8	8
5	Nylon Nut M2	自锁螺母 M2	4
6	Washer M2.5	M2.5垫片	12

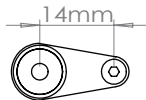
## 5-4 舵机安装 Servo Installation



倾斜盘舵机摇臂  
建议尺寸



尾舵机摇臂  
建议尺寸



x3

X 另购  
Not Included

塑料舵机摇臂

X 另购  
Not Included

塑料尾舵机摇臂

4 X

自锁螺母 M2

4 X 2X5X2.5球头

自锁螺母 M2

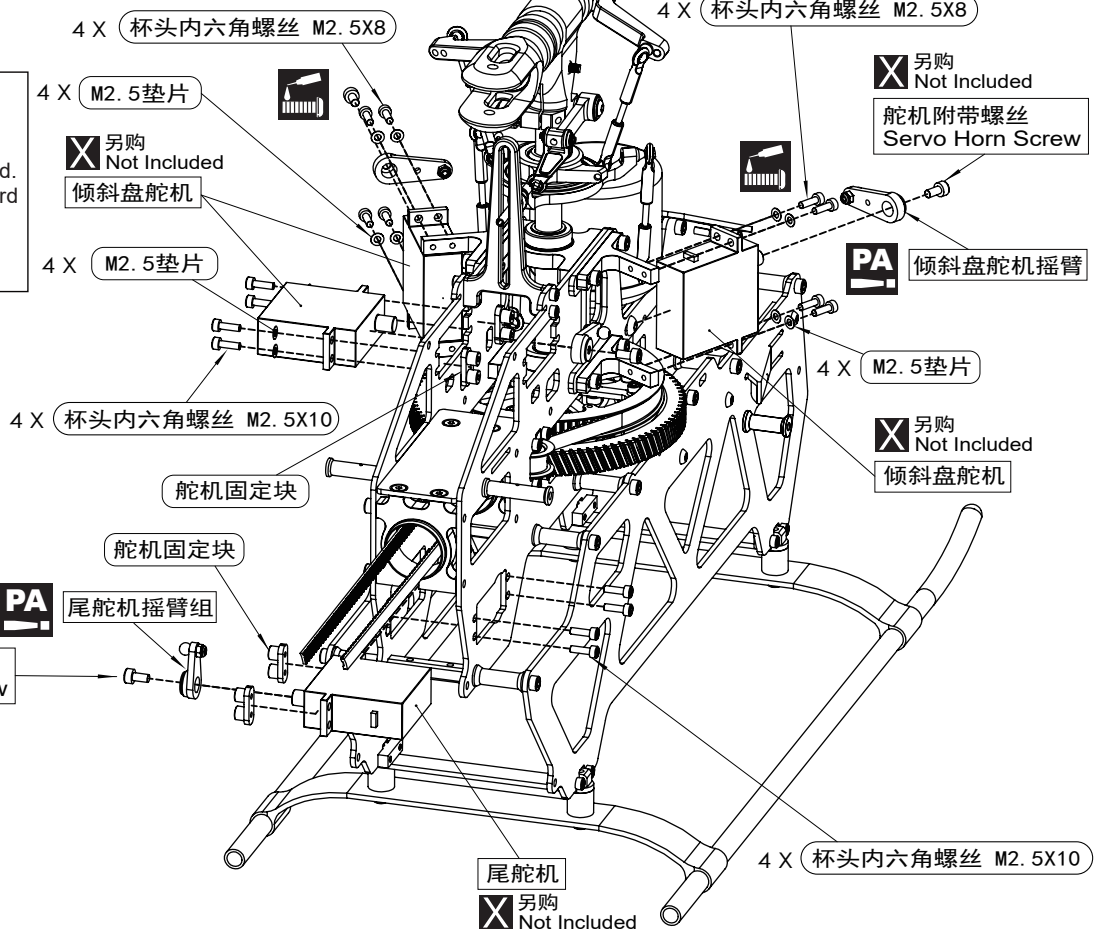
2X5X2.5球头



倾斜盘舵机规格请使用中型舵机  
Please use Mini-sized servo for swashplate.









尾舵机可以选用中型或者标准舵机。如使用标准舵机请安装在左侧内侧板安装位。  
For the Rudder servo mini or std. size can be used. If use standard size rudder servo please install the servo on left side of the frame.



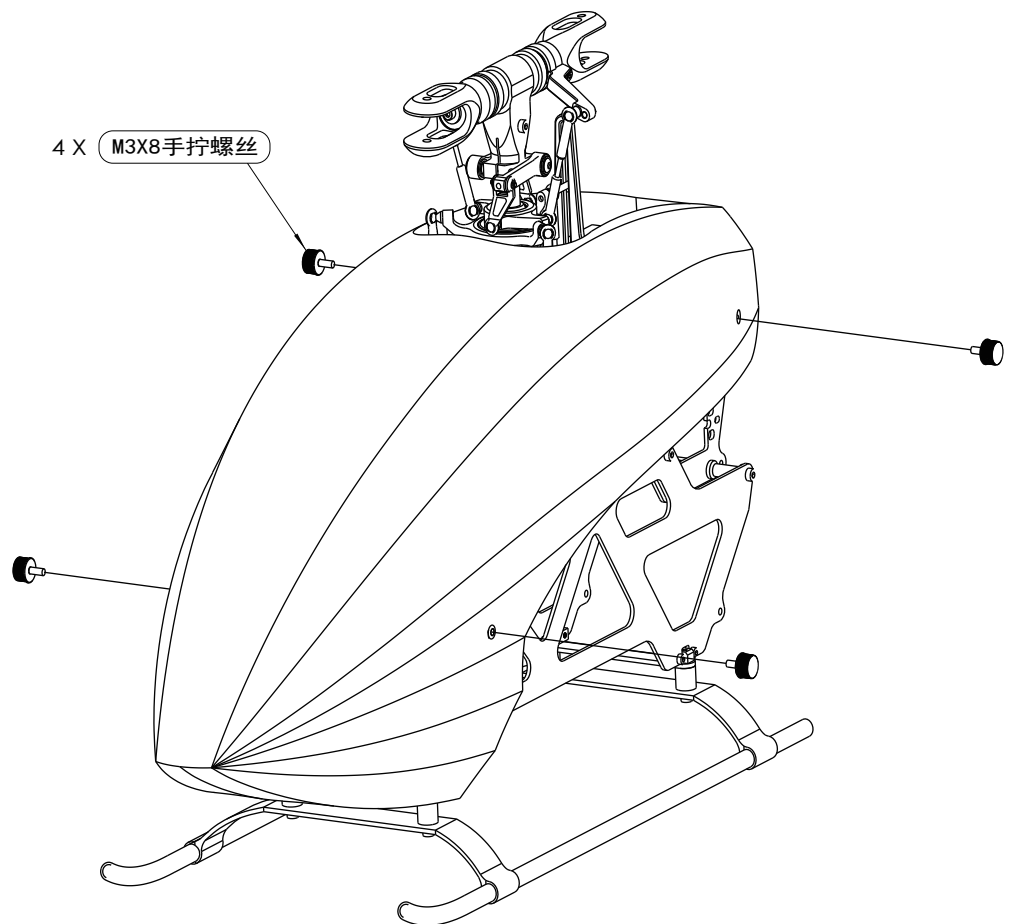
# Step 5-6 Canopy Installation 头罩安装

No.	Parts Description	零件名称	Qty
1	Hand Screw M3X8	手拧螺丝 M3X8	4
2	Main Blade Holder	桨托	1
3	Hook And Loop Tape	电池魔术贴	2
4	Hook & Loop Strap L	设备绑带L	1
5	Hook & Loop Fastening Tape L320	电池绑带 L320	2
6	Carbon Fiber Tail Blade 92mm	碳纤维尾旋翼 92mm	2
7	Painted Canopy	680彩绘头罩	1

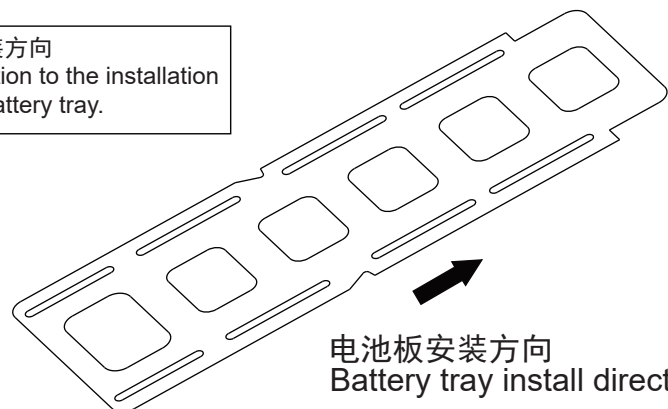
## 5-6 头罩安装 Canopy Installation

 X 4  
 手拧螺丝 M3X8  
 Hand Screw M3X8  
 X 1  
 桨托  
 Main Blade Holder  
 X 2  
 电池魔术贴  
 Hook And Loop Tape  
 X 1  
 设备绑带  
 Velcro Strap L  
 X 2  
 电池绑带  
 Battery Velcro Strap L320  
 X 2  
 92mm碳纤维尾旋翼  
 Carbon Fiber Tail Blade


手拧螺丝不需要用螺丝胶  
Canopy screws are not required for threadlocker.



请注意电池板安装方向  
Please pay attention to the installation direction of the battery tray.



电池板安装方向  
Battery tray install direction.

## ⚠ WARNING! / 警告!

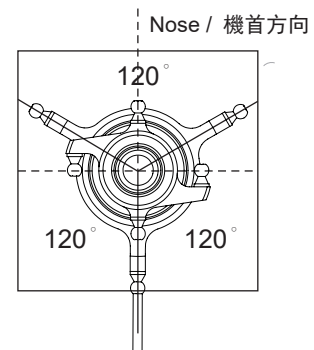
For safety, please ensure the motor has been deactivated and will not drive the main rotor head before performing following setting processes. You may just unplug 2 of the wires between the motor and the ESC or removing the motor pinion away from the main gear to avoid the rotor head rotating.

安全起见，执行下列设定程序时，请确认电机不会启动带动旋翼头。您可以拔除电机与电调间的任意两条连接线，或将电机齿轮與主齒盤脫離。

## Swashplate Type Setting / 倾斜盘模式設定

Follow the indications from your flybarless system manufacturer and configure the swashplate type in the transmitter accordingly.

本机倾斜盘为120度倾斜盘设计，混控模式请参照您的遥控器及陀螺仪说明书进行设定。



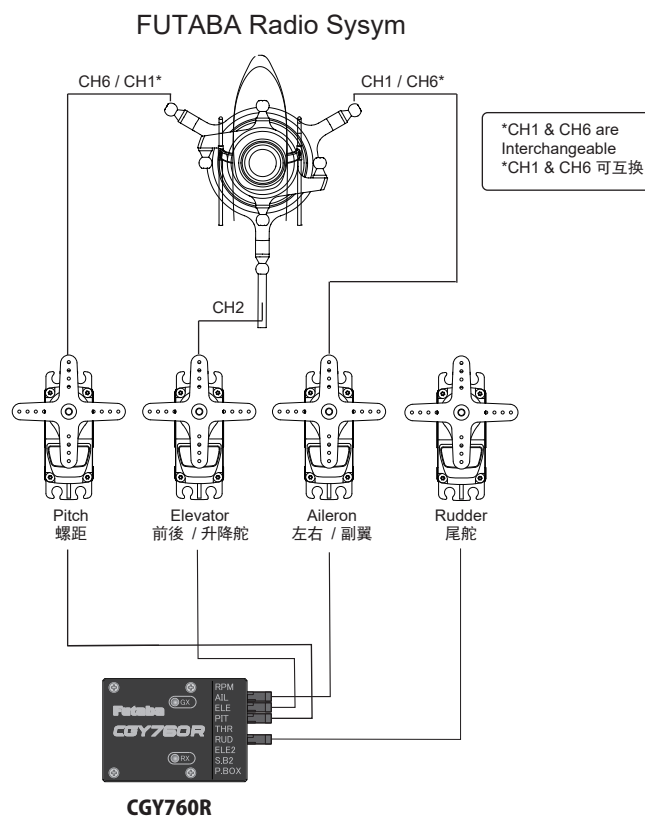
## Electric Device Connection / 遥控器设备连接说明

The PHECDA is a RC helicopter designed for flybar less system. For the connection method of the servos, please refer to the instruction manual of the 3-Axis gyro system you are actually using.

The following figure is an example of installation and connection, which is the connection method of FUTABA CGY760.

天玑星为无副翼操控设计的直升机，关于舵机的连接方式，请参照您实际所使用的无副翼三轴陀螺仪的说明书。

下列图示为安装连接范例，为FUTABA CGY760连接方式。



No. 编号	Parts Description	零件包名称
68001	MAIN SHAFT	主轴
68002	SPINDLE SHAFT	横轴
68003	ROTOR HEAD HUB	旋翼头中联
68004	MAIN BLADE GRIP Assy'	主旋翼夹
68005	ROTOR GRIP LEVER	桨夹摇臂
68006	WASHOUT ARM ASSEMB	相位摇臂
68007	SWASH PLATE ASSEMBLY	倾斜盘
68008	HG MAIN BLADE BOLT SET M4	主桨固定螺丝
68009	DAMPER RUBBER 85°(Φ8)	旋翼头胶圈 (85° )
68010	THRUST COLLAR 12X16X0.5	桨夹推力轴承垫片
68011	ROTOR GRIP COLLAR	旋翼头台阶垫片
68012	ROTOR GRIP SHIM	桨夹间隙调整垫片
68013	SOCKET HEAD BOLT M5x10	横轴螺丝
68014	MAIN SHAFT STOPPER	主轴定位环
68015	ANTI-ROTATION BRACKET	倾斜盘导轨
68016	SWASHPLATE POST	倾斜盘导轨球头
68017	ONE WAY CLUTCH HOUSING	单向轴承座
68018	ONE WAY CLUTCH WASHER	单向轴承铜垫片
68019	ONE WAY BEARING SHAFT	单向轴承内套
68020	MAIN GEAR T96	主齿轮 (96T)
68021	TAIL DRIVE GEAR 88T	尾皮带主齿轮 (88T)
68022	TAIL DRIVE GEAR COVER	尾皮带主齿轮挡边
68023	MAIN SHAFT BEARING BLOCK	主轴轴承座
68024	SERVO MOUNT	舵机安装座
68025	FREAM SPACER L32	内侧板支撑柱
68026	BELT PULLY MOUNT	皮带导向轮安装座
68027	BELT GUIDE PULLEY	皮带导向轮
68028	STAINLESS STEEL PIN 3X16	皮带导向轮轴销
68029	BELT GUIDE PULLEY COLLAR	皮带导向轮轴套
68030	MOTOR MOUNTING BLOCK	电机安装座
68031	PINION GEAR BEARING BLOCK	电机齿轮轴承座
68032	BATTERY TRAY RAIL	电池滑轨
68033	BATTERY TRAY CLIP	电池板卡扣
68034	TAIL BOOM CLIP MOUNT	尾管夹
68035	TAIL BOOM SUPPORT BRACKER	尾撑安装管夹
68036	TAIL UNIT HOUSING	尾波箱安装座
68037	TAIL HOUSING PLATE	尾波箱轴承座
68038	TAIL PITCH SLIDER BUSHING	尾滑套
68039	TAIL DRIVE SHAFT	尾轴
68040	TAIL PITCH CONTROL ARM MOUNT	尾拨叉固定座
68041	TAIL PITCH CONTROL ARM	尾推拨叉组
68042	ONE WAY BEARING	单向轴承
68043	LINKAGE BALL 2X5X2.5	不锈钢球头 2X5X2.5
68044	TAIL ROTOR GRIP	尾桨夹
68045	TAIL ROTOR HUB	尾桨中联
68046	TAIL DRIVE PULLEY T18J	尾后传动皮带轮
68047	SERVO NUT	舵机固定块
68048	TAIL BOOM	铝合金尾管
68049	TAIL BOOM SUPPORT L500	碳纤维尾撑组

No. 编号	Parts Description	零件包名称
68050	TAIL PITCH CARBON LINKAGE ROD	尾舵拉杆组
68051	TAIL DRIVE BELT	尾传动皮带
68052	CANOPY (Blue)	彩绘头罩 (蓝)
68055	RECEIVER MOUNT PLATER	接收机安装板
68056	ESC MOUNTING PLATE	电调安装板
68057	FRAME LNSIDE SUPPORT PLATE	内侧板前支撑板
68058	GYRO MOUNT PLATE	陀螺仪安装板
68059	CARBON UPPER FRAME (L)	碳纤维上侧板 (左)
68060	CARBON UPPER FRAME (R)	碳纤维上侧板 (右)
68061	CARBON LOWER FRAME	碳纤维外侧板
68062	FRAME REINFORCING PLATE	侧板加强件
68063	CARBON VERTICAL FIN	碳纤维垂直尾翼
68064	CARBON HORIZONTAL FIN	碳纤维水平尾翼
68065	CARBON BATTERY TRAY	碳纤维电池安装板
68066	CARBON TAIL BLADE 92mm	3K碳纤维尾桨92mm
68068	HAND SCREW M3X8	头罩手拧螺丝
75012	CONTROL BALL (L7.3*3)	不锈钢球头 (L7. 3*3)
75014	WASHOUT LINK	相位牛角摇臂
75016	CONTROL BALL (3x3x5.5)	不锈钢球头 (3x3x5.5)
75017	WASHOUT LINK PIN 2 SETS	相位臂轴销
75018	UNIVERSAL LINK	通用球头扣
75029	PINION NUT M9	电机齿螺母
75031	HELICAL PINION GEAR T10	电机齿 (10T)
75032	HELICAL PINION GEAR T11	电机齿 (11T)
75033	HELICAL PINION GEAR T12	电机齿 (12T)
75034	HELICAL PINION GEAR T13	电机齿 (13T)
75035	MOUNTING BLOCK	脚架安装座
75043	TAIL ROD GUIDE	尾舵拉杆导向环
75052	TAIL PC LINK B	尾蟹爪球头扣
75054	TAIL SLIDE RING	尾滑环
75059	TAIL PC LINK PIN	尾螃蟹爪轴销
75061	LOW PROFILE DURALUMIN SKID	低高度脚架
75071	CARBON FIBER SUPPORT SHEET	下侧板碳纤维支撑片
75073	FOOT SKID DAMPER	脚架减震器
75078	CROSS MEMBER L20	外侧板支撑柱
75079	CANOPY RETAINING POST L17	机壳安装柱 (L17)
75084	CANOPY RETAINING POST L26	机壳安装柱 (L26)
75086	LINKAGE BALL (2x3x2.5)	不锈钢球头 (2x3x2.5)
75087	TAIL PC SLIDE BOLT	尾拨叉螺丝
75097	TAIL GEAR HOLDER	垂尾安装座
75106	LINKAGE ROD M2.3 X 20	M2. 3*20拉杆
75107	LINKAGE ROD M2.3 X 30	M2. 3*30拉杆
75114	TAIL PC BEARING COLLAR	尾拨叉轴承套
75115	WASHER 8*10*0.3	尾桨夹轴承垫片
75133	MAGIC TAPE	电池魔术粘
75225	TR2 TAIL PC PLATE (EVO)	EVO 两尾桨螃蟹爪
75231	TAIL PLATE CROSS MEMBER L18	EVO 尾波箱支撑柱



**OPTIONAL PARTS / 改装配件**



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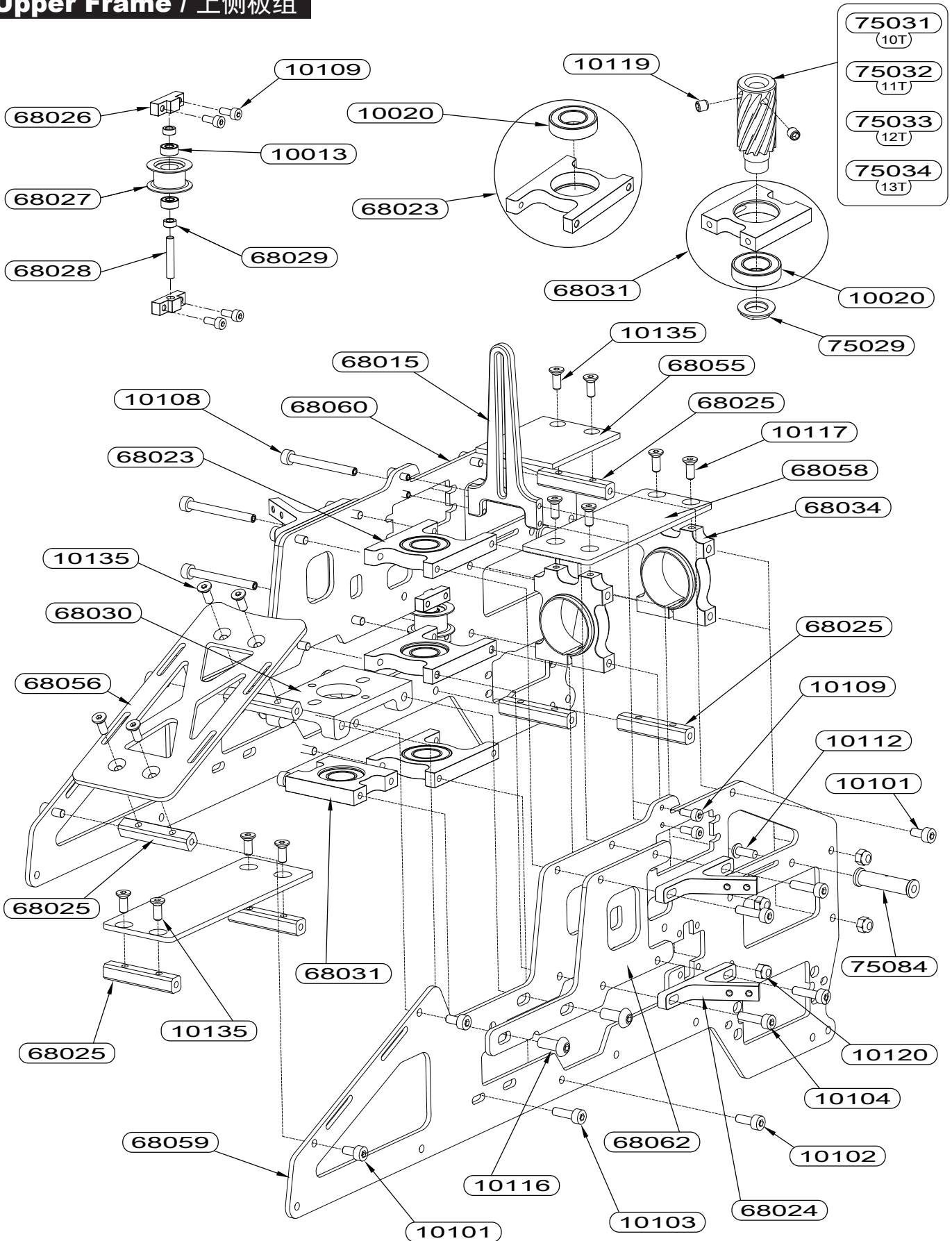
**ELECTRONIC DEVICE & ACCESSORY / 电子设备及配件**



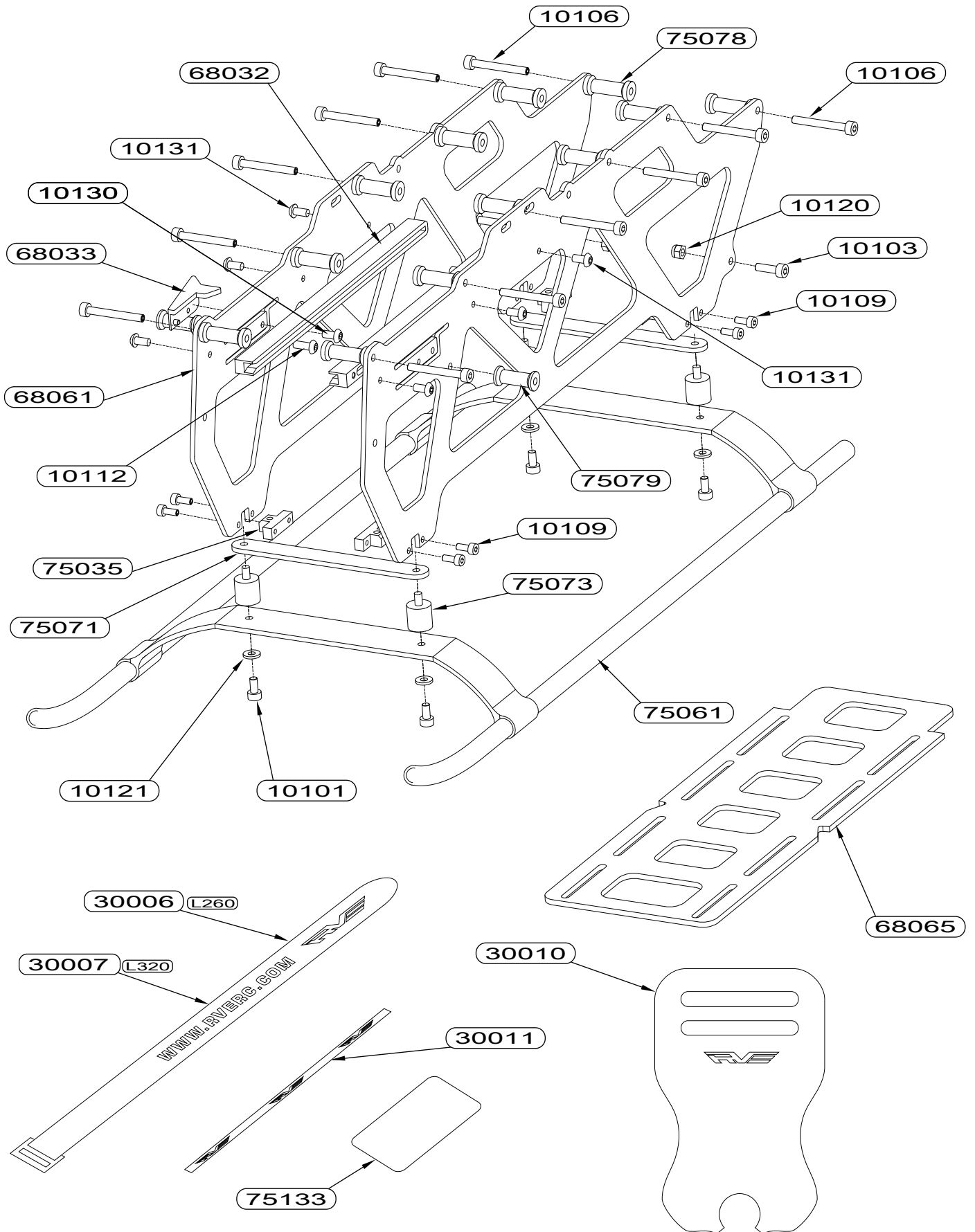
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Upper Frame / 上侧板组

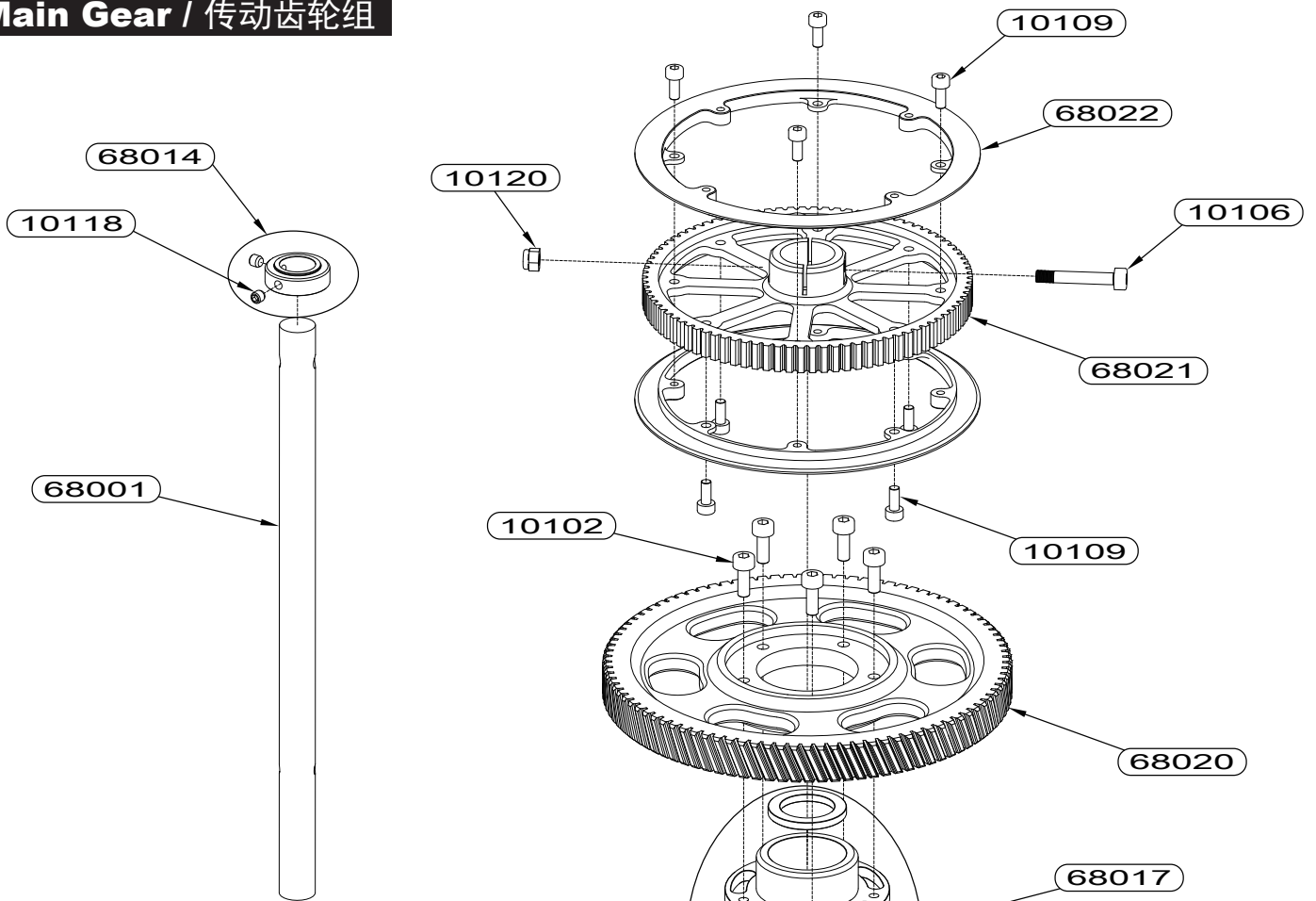


Lower Frame / 外侧板组

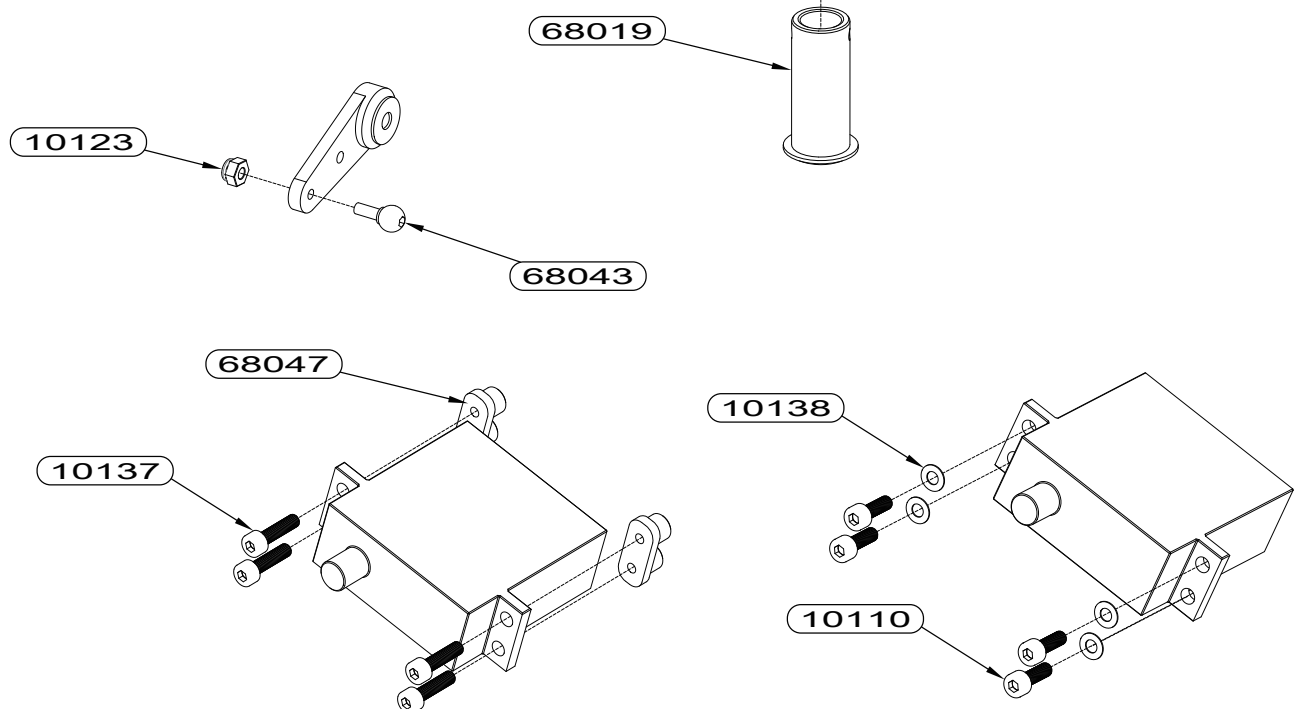




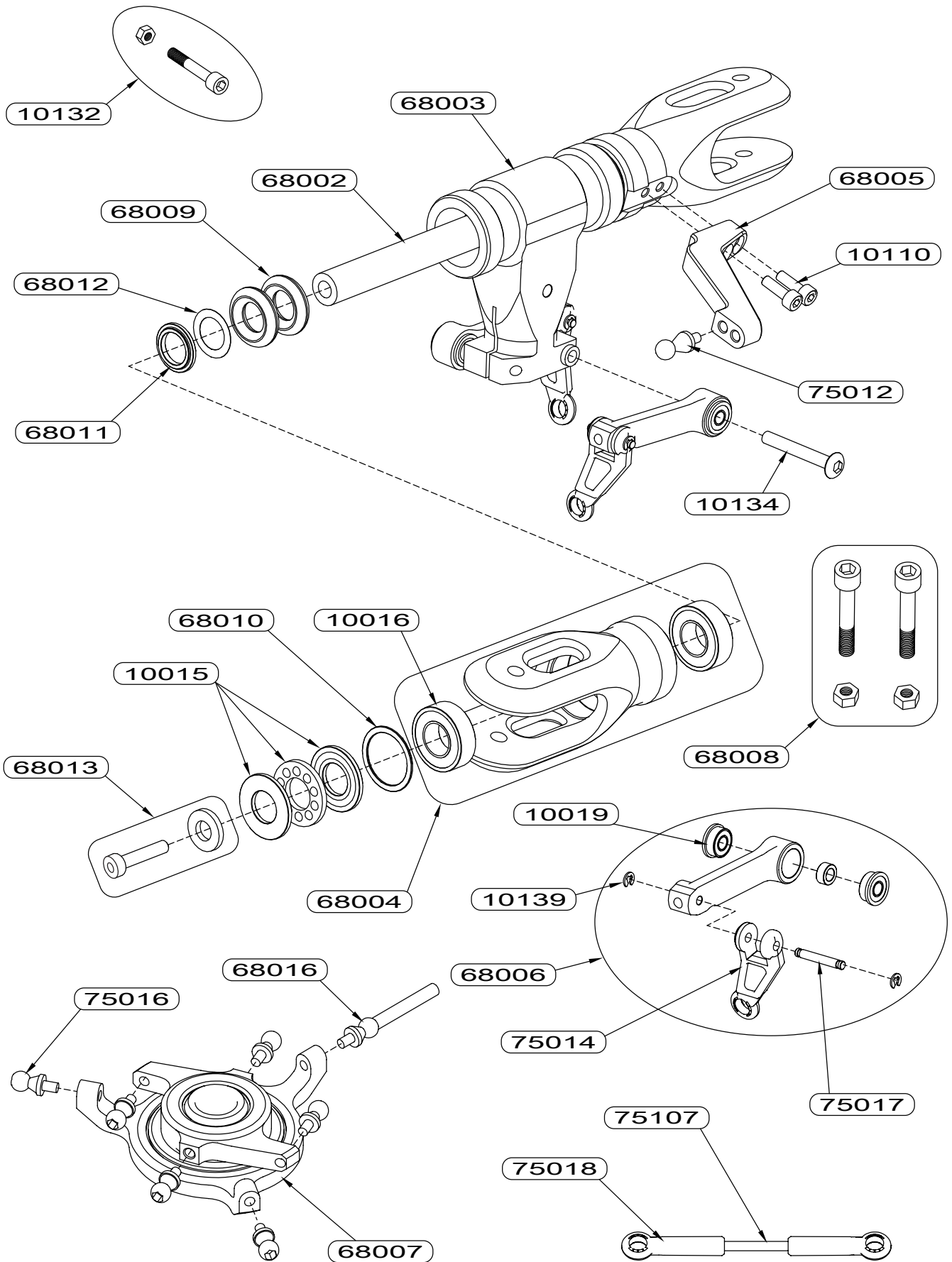
**Main Gear / 传动齿轮组**



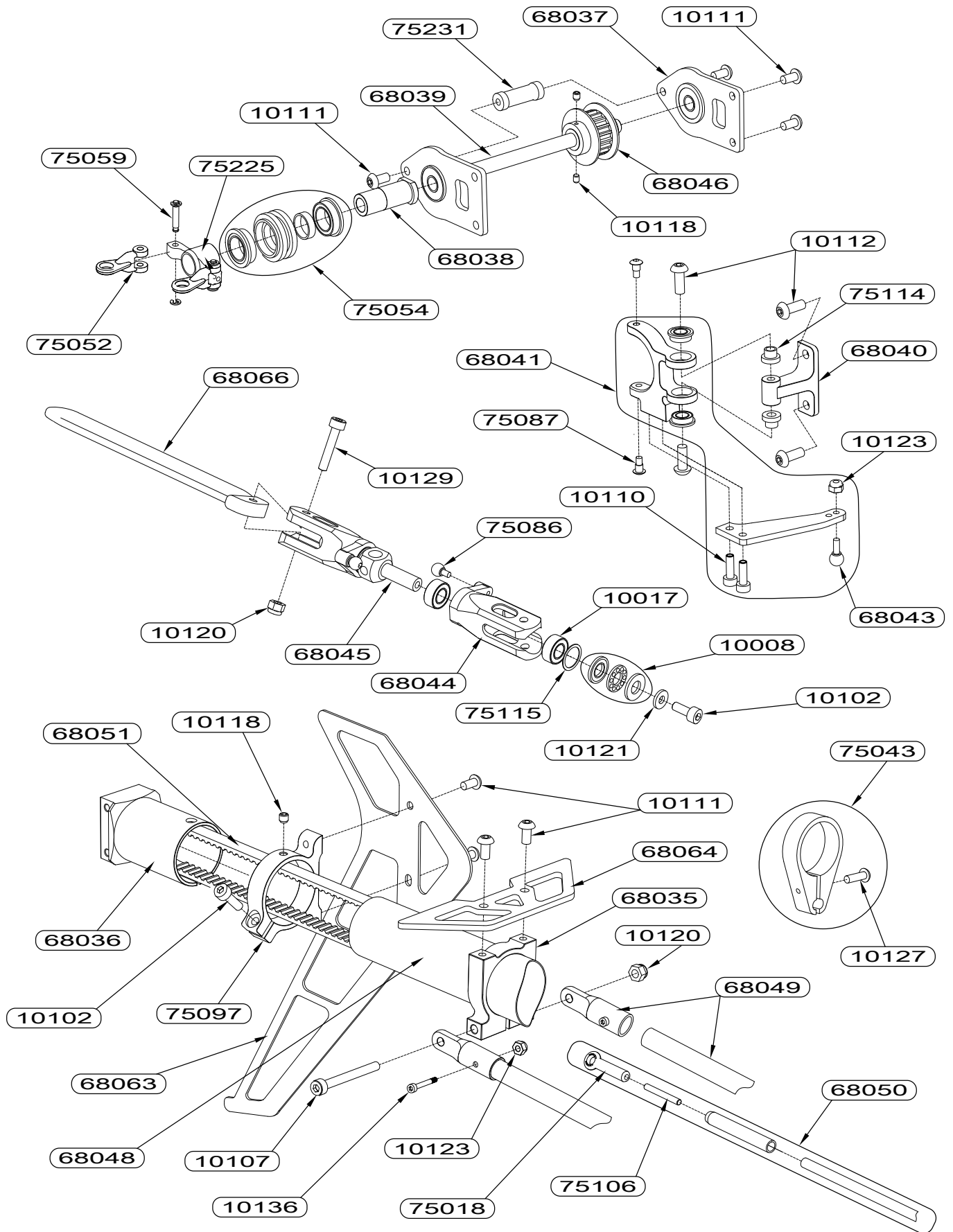
**Servo / 舵机控制组**



**Rotor Head / 旋翼头组**



**Tail Drive Unit / 尾波箱组**



Canopy / 头罩组

