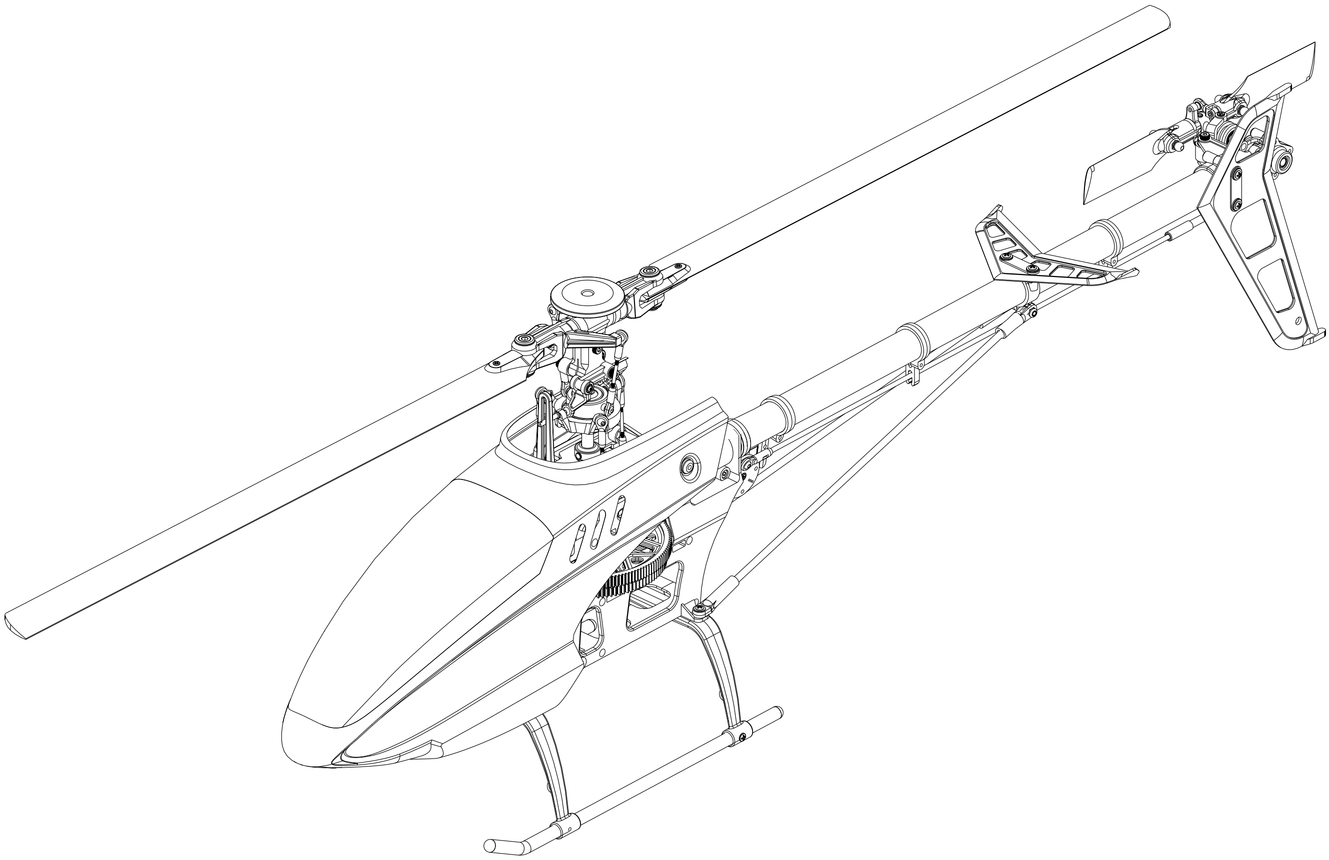
DTS450



Specifications

Length:645mm
Height:215mm
Main Rotor Diameter: Φ725mm
Tail Rotor Diameter: Φ145mm
Weight:Approximately 675g (with Battery)
2216 Brushless Motor
35A Brushless Motor ESC
GWY2013 3-axis Gyro
Swash Servos*3(1.2kg·cm,0.08s/60°)
Tail Servos*1(0.6kg·cm,0.04s/60°)
GWY 6TL V2 2.4GHz 6-Channel Transmitter
11.1V 2200mAh 30C Li-polymer Battery

※Before this model has being significantly changed to another new version, the parts, appearance and the existing version can be developed and modified that would lead to a slight difference from the original design. DTS reserve ALL the Rights of change of parts and contents WITHOUT specified notification.

Foreword

Thank you for choosing DTS's product. For better understand usage of DTS450 helicopter, please read this manual carefully before installation and operation. This can ensure proper usage and safe operation! For your convenience of adjustment, maintenance and other operation, please keep this manual in a proper manner.

For further information, please visit our website: www.zondahobby.com

Table of Contents

Statement

An RC Helicopter is not a toy! For avoiding accidents and damage, please operate the helicopter properly. Since the consumer have purchased the helicopter, they should take all the risks in the usage. To ensure your safety, if you are a beginner, you are recommended to consult or get assistance from experienced RC modelers or your local hobby stores.

You should buy the authorized DTS accessories when you choosing the accessories. Otherwise, some RC functions may not be matched or function unproperly.

Please keep instruction manual to properly maintain your model.

Warning Label Legend

⃠ FORBIDDEN	Do not attempt under any circumstances.
⚠ WARNING	Mishandling due to failure to follow these instructions may result in danage or injury.
⚠ CAUTION	Mishandling due to failure to follow these instructions may result in danger.

Safety Precautions and Warning

RC helicopter is controlled by radio signals. It may be interfered by other radio signals during operation. These interference may cause the helicopter lose control.

⚠ WARNING

1. An RC Model is not a toy! Improper operation or misuse may lead to serious damage or loss. It is prohibited for children under 14 years to operate this product.
2. Keep it away from high temperature environment and corrosive chemicals for storage and flight. (the operation temperature: from:-10℃ to 50℃)
3. If you are not an experienced pilot or have not flown this type of model before, we recommend that you get assistance of an experienced pilot for your first flights. Please avoid flying with other RC models with same frequency.
4. Please choose a open flight area and use the training gear set for your first fight in order to minimize your loss due to control mistakes.

⃠ FORBIDDEN

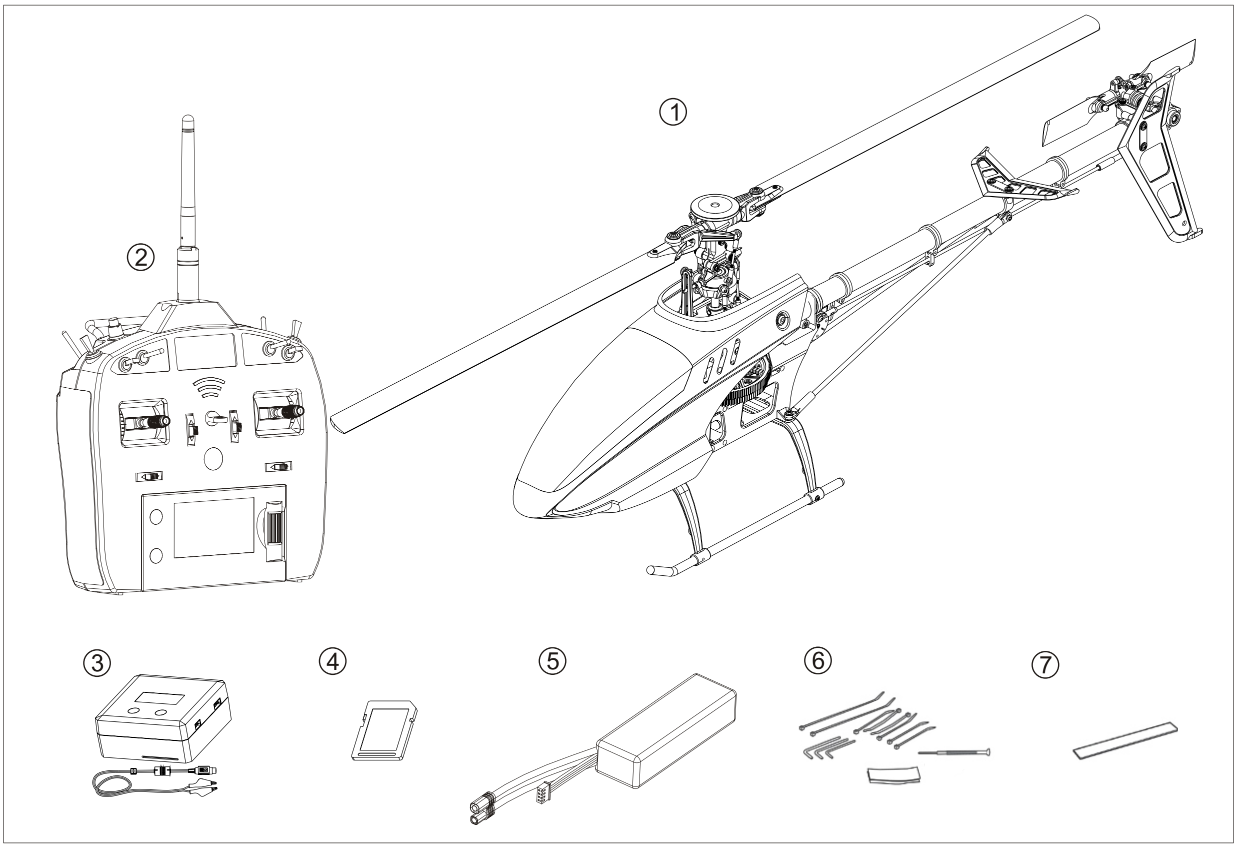
1. To avoid the loss of the property of others, please keep away from high tension power lines, high buildings or any other obstacles while flying!
2. Keep away from crowds in case of accidents!
3. Do NOT operate in rain, thunder, storms, lighting, strong wind or any other bad weathers to ensure your and the helicopter's safety!
4. Please avoid using in a bathroom or a rainy day to prevent moisture or water vapor from entering the helicopter inside which may lead mechanical or electronic components malfunction and cause unexpected accidents!
5. Do Not re-equip, upgrade or repair your helicopter with the accessories outside the DTS parts catalog in order to ensure the safety of the model structure!
6. Keep people and objects away from the spinning unit and parts in case of damage or injury!

Pre-flight check

1. Please make sure the helicopter frequency will not interfered with others before every flight.
2. You should confirm the batteries of your transmitter and helicopter are fully charged before every flight and your first flight.
3. Both the throttle stick (left-hand stick) and throttle trim MUST be in their lowest position before every flight. Each time before your flight, you must ALWAYS turn on the transmitter power first before connecting the flight battery to the receiver. After your flight, you should disconnect the flight battery from the receiver before turn off the transmitter.
4. Please make sure that every servos function properly with correct directions after powering on.
5. Make sure every connection of pushrods is proper and the helicopter battery placed in fixed position.

Check of package's parts and accessories

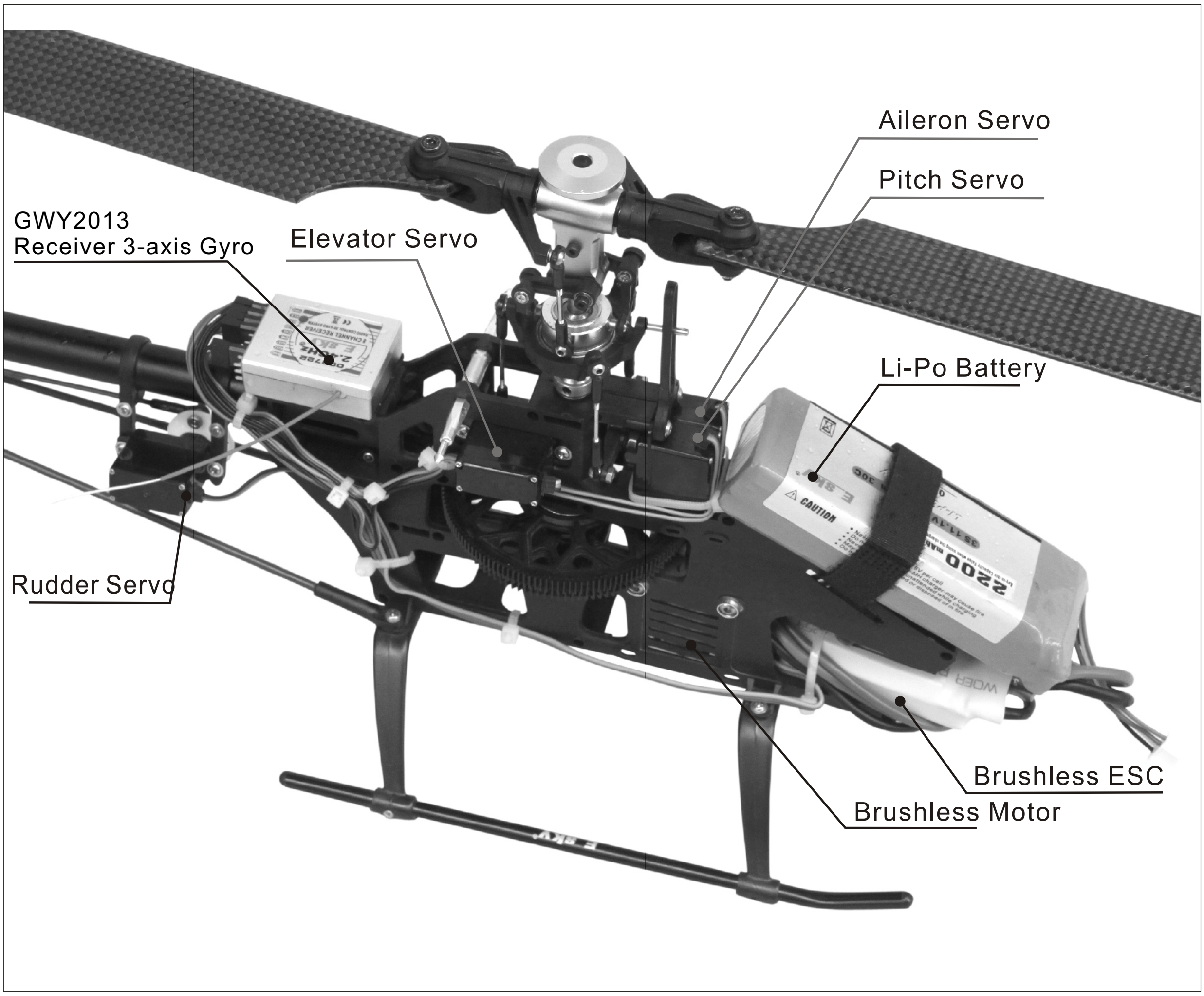
Please check the parts and accessories in the package. In the event of defective or missing parts, please contact the retailer for help.



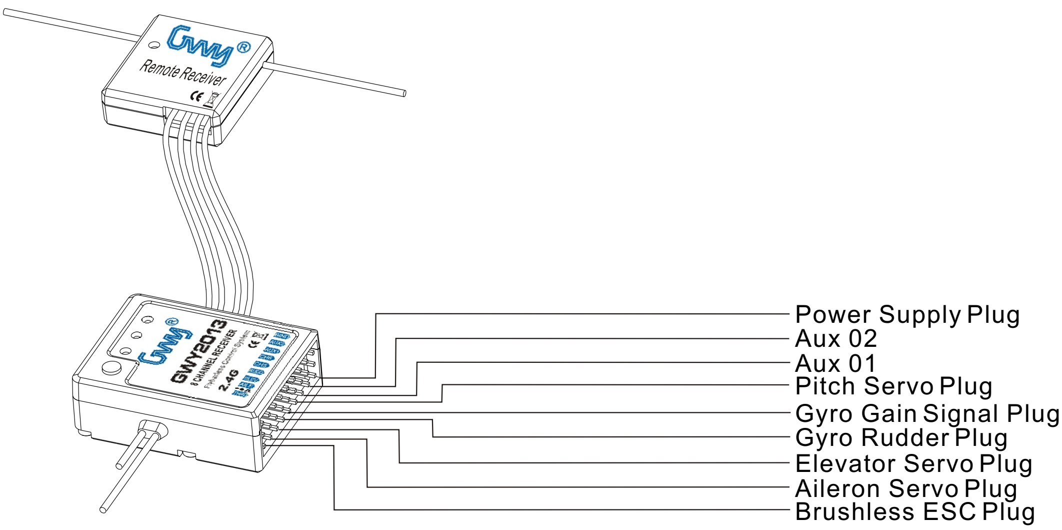
1.RC Helicopter	1
2.6TL V2 2.4GHz 6-Channel Transmitter	1
3.2S & 3S Batery Charger	1
4.SD Card	1
5.11.1 V, 2200 mAh Li-Po Battery	1
6.Tool Pack	1
7.Battery Bandage	1

Package Box Content	RTF	WOB	RFR	RFR with AH6 Radio System
DTS 450	√	√	√	√
6TL - 2.4GHz 6-Channel Transmitter	√	√		
AH6T - 2.4GHz 6-Channel Transmitter				√
GWY2013 - Receiver & Gyro	√	√		
G02 - Gyro			√	√
AH6R - Receiver				√
2S & 3S Battery Charger	√	√	√	√
Li-Po Battery : 2200mAh 3S1P 11.1V	√			
Battery Bandage	√	√	√	√
SD Card - Manual	√	√	√	√
Tool Pack	√	√	√	√

Electronic Parts and Connection Procedure



Receiver Connection Procedure

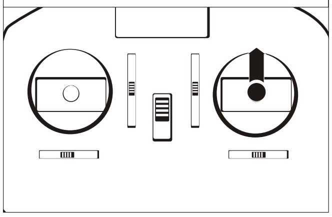


Pre-Flight Controls Test

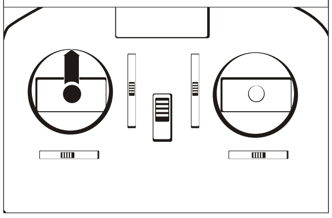
1.Control Test: Throttle

Push up the throttle stick slowly until the motor rotate. Make sure that the motor rotates clockwisely and the main blade rotates anti-clockwisely.

Throttle Position: Right



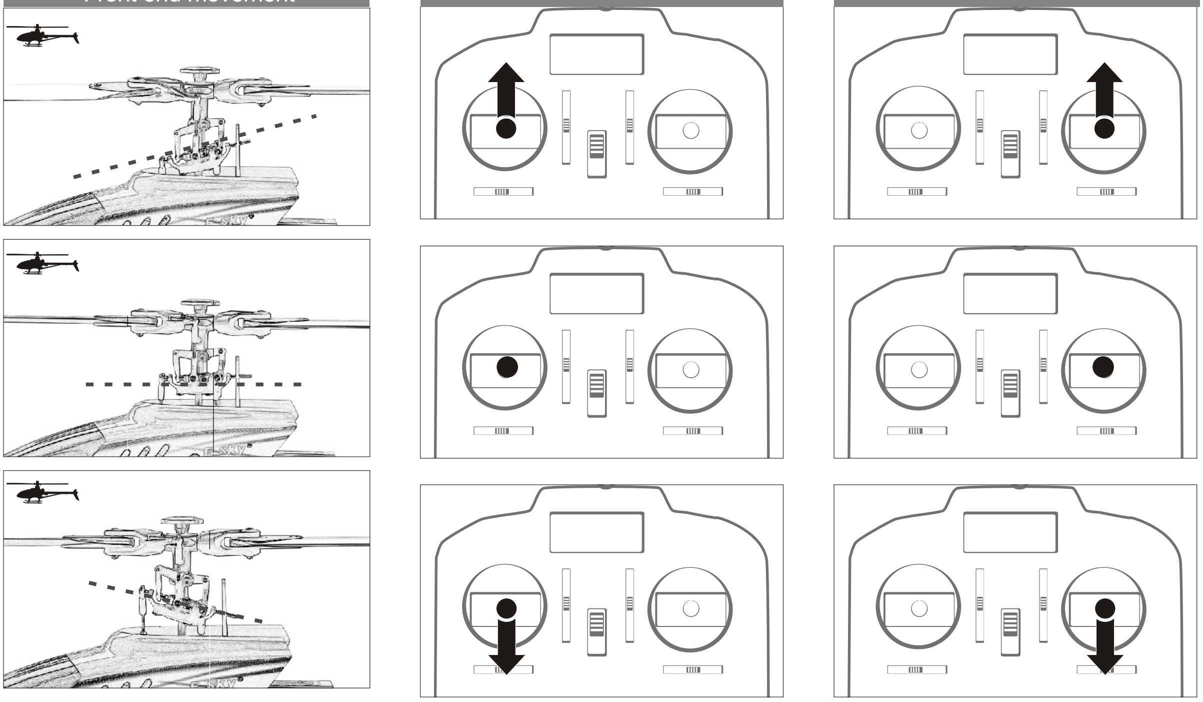
Throttle Position: Left



Please don't push the throttle stick upward over 1/5. The motor will spins at high velocity if the throttle stick is over pushed. This may cause damage on the product or self injury. Besides flight operation, when performing maintenance or adjustment and fine-tuning indoor, please remove the connection between the motor and the ESC. This can prevent the motor from unpredictable spinning and cause acidents.

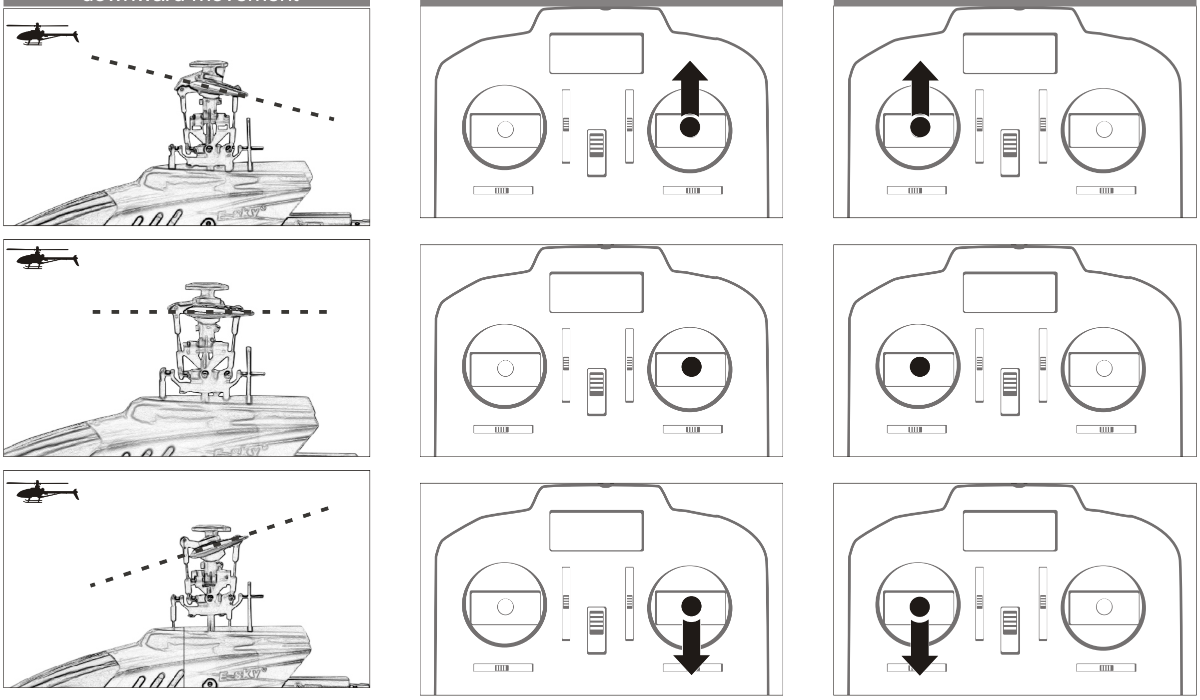
2.Control Test: Elevator

Swashplate's Back and Front end movement	Throttle Position: Right	Throttle Position: Left



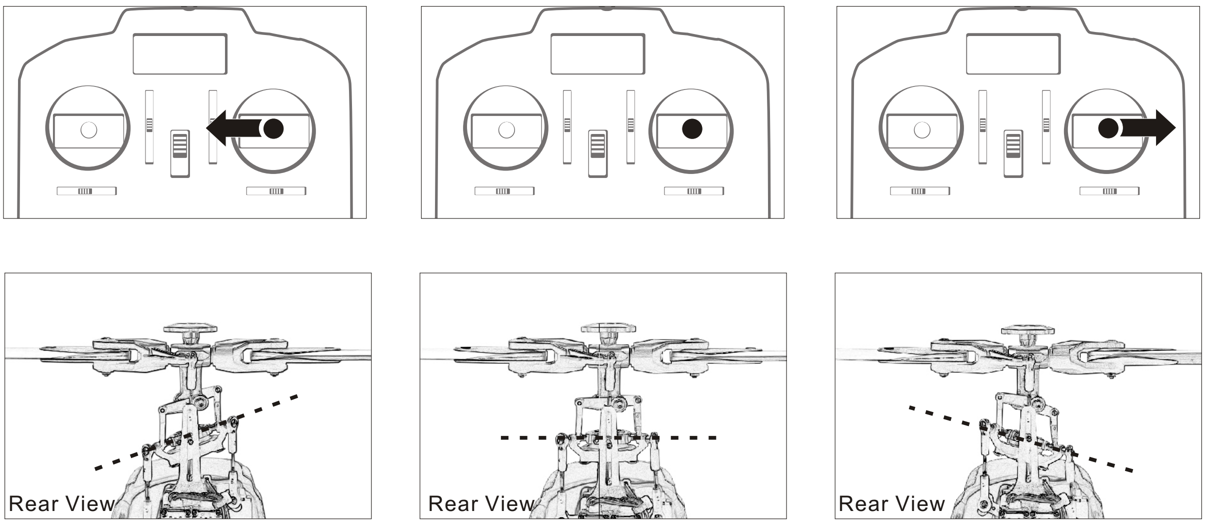
3.Control Test: Pitch (only aerobatics use)

Swashplate's upward and downward movement	Throttle Position: Right	Throttle Position: Left



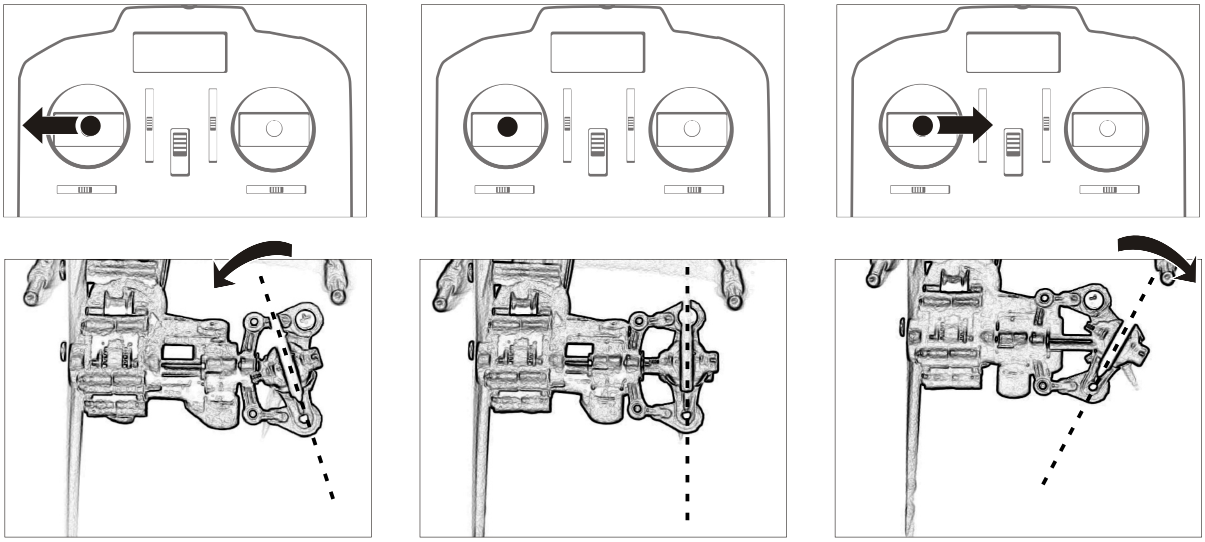
4.Control Test: Aileron

Swashplate's Left and Right declining movement (The rudder's control is the same in both left and right-hand throttle transmitter)



5.Control Test: Rudder

Tail rotor blades pitch change (The rudder's control is the same in both left and right-hand throttle transmitter)



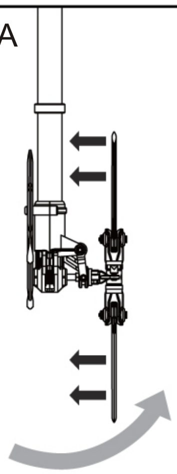
6.Gyro adjustment

Disconnect the connection between ESC and motor, turn on the power of the transmitter and helicopter, move the pushrod to check the sercos direction.

1. Hold the helicopter rotates around the main shaft, gyro will control the tail servo to compensate the movement of the rotation direction.
   E.g. When helicopter tail rotates rightward, the gyro will control the tail servo to rotates the tail leftward. (Picture A)
2. Hold the helicopter and tilt the fuselage to a certain direction, the swashplate will be tilted toward the opposite direction of the fuselage.
   E.g. When the helicopter tilted forward, the swashplate will be tilted backwards. When the helicopter tilted backward, the swashplate will be tilted foward. (Picture B)

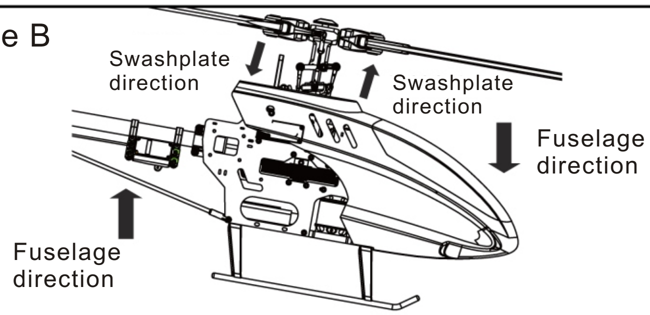
If the helicopter tilt laterally, the swashplate will be corrected in the opposite direction. (Picture C)
When the fuselage return to the initial horizontal position, the swashplate will also return to the initial position.

Picture A

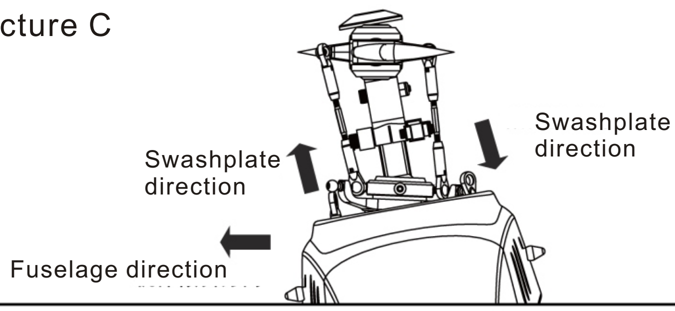


Tail Rotate Direction

Picture B

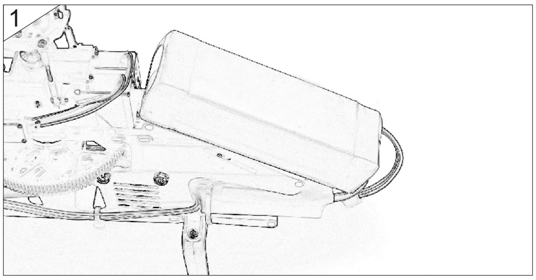


Picture C

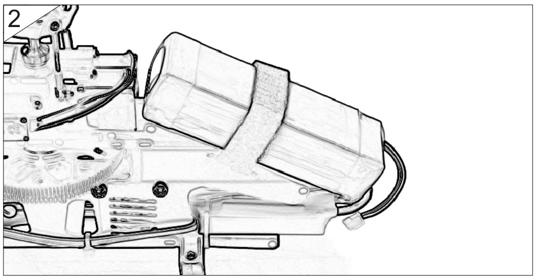


Flight Operation Procedure

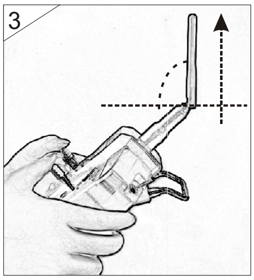
1.Take Off Procedure

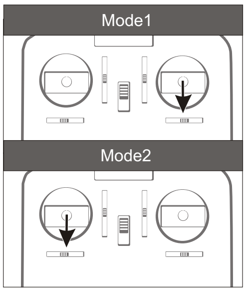


Insert the battery to the battery notch

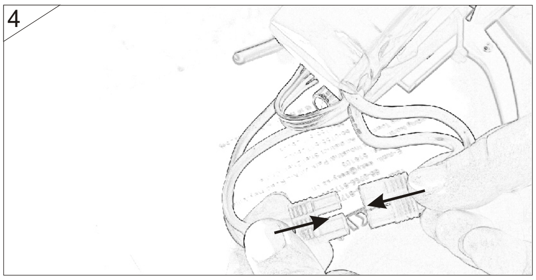


Fix the battery's position with the bandage



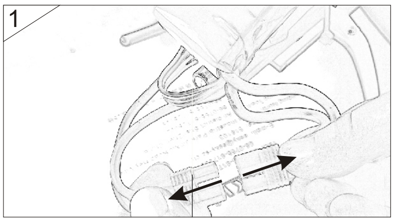


Adjust the antenna to the shown position. Pull the throttle to the most downward position then switch on the transmitter.

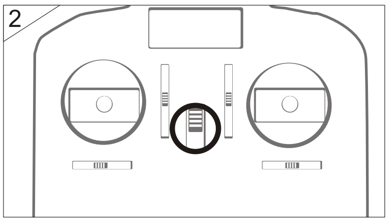


Connect helicopter's electricity

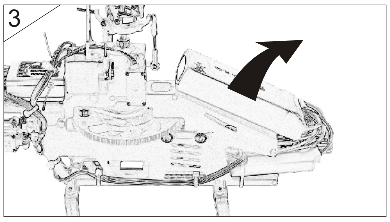
2.End-flight procedure



Disconnect the helicopter's electricity



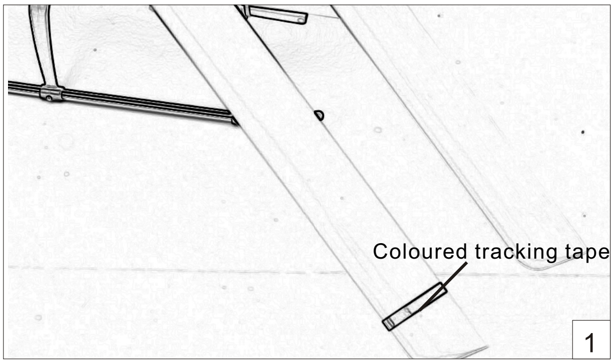
Switch off the transmitter

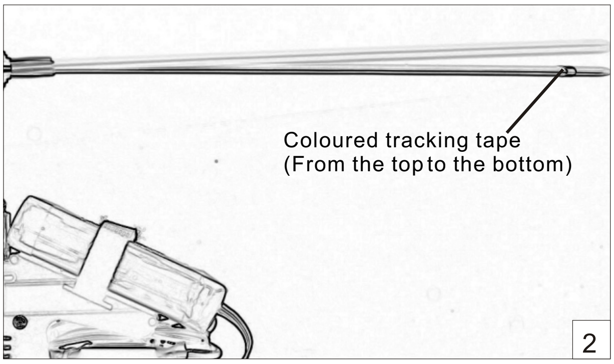


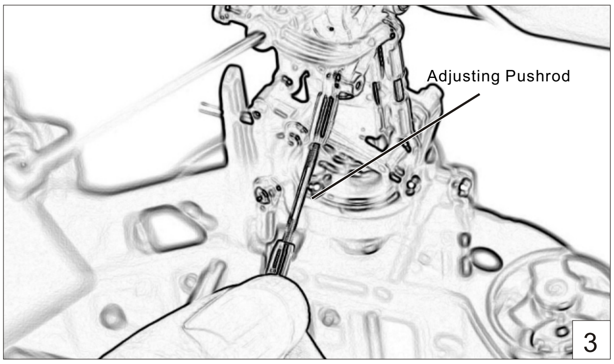
Take out the battery

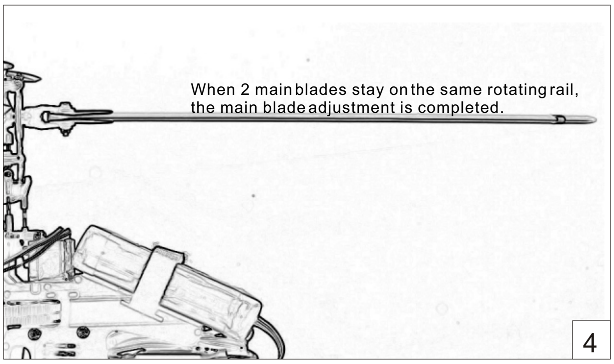
Main Blade Adjustment

Caution: Be sure to maintain a safe distance from the helicopter (3~5meter) when tracking the main rotor blades.









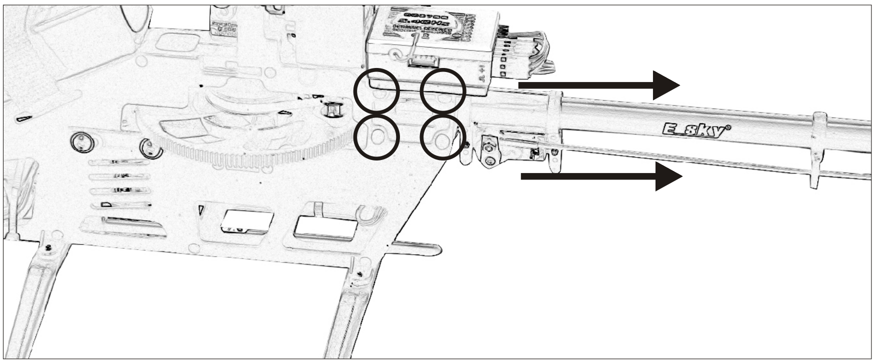
1 Blade tracking is an important step to affect the flight performance. Main rotor blades that are out of track may cause vibration and instability. Although the main rotor blades of each DTS 450 models are tracked at the factory, minor adjustment to blade tracking may be required after blade changes. Thus one of the main blades pasted a coloured tracking tape to identify which blade is running low or high in the blade tracking process.

2 After confirming which blade is running low and high, switch off the helicopter power supply before making any necessary adjustments to the linkage. You can increase the pitch of the low blade by shortening the "mixing arm to inner swashplate linkage." This is achievable by turning one of the Ball Link ends in by one-half to one full turn at a time. Or, you can decrease the pitch of the high blade by lengthening the same linkage.

3Remark: The blade you choose to raise or lower when making tracking adjustments will depend on the pitch of each blade. Open the 3D aerobatics (the tail motor power supply wire should be cut off) and the throttle/ collective stick in the middle position, both rotor blades should be close to 0 degrees. You can easily identify which rotor blade to adjust. If one blade is "lower" than 0 degree, raise it to match the other blade. If one blade is "higher" than 0 degree, lower it to match the other blade.

4 Generally, there is not much adjustment should be necessary to properly track the main rotor blades. If significant adjustments are required, be sure to double-check the length of both mixing arm to inner swashplate linkages. You should also check the blades for any damaged or twists. In fact, you should be able to get both blades tracking perfectly in the same helicopter. However, the small defects in the ball links and threaded linkage rods/ pushrods may not always be possible to affect the blade tracking. Don't worry, the helicopter should be able to have a good flying performance even the blade tracking is adjusted as close as possible.

Tail Drive Belt Adjustment



Loosen Belt is one of the reason for tail-lock fail besides gyro setting. Adjust by following the above: Loosen the screws that mounting the tail boom to the main frame, then pull the tail boom backward. Pay attention to the belt's elasticity. Fasten the screws back when the belt is adjusted.

Tail Drive Servo Adjustment

As this model is a precise craft, unexpected self-rotation during flight could because of several reasons. Could adjust through following procedure: (disconnect the motor and the ESC can avoid unexpected accidents) First switch on the transmitter. Then connect the helicopter with electricity, and tilt the rudder stick and trim to the middle position (Figure 1); Keep the tail drive servo boom mount and the tail boom perpendicular (Figure 2). Adjust the position of the tail drive servo and keep the distance between the Tail Pitch Control Slider Ring and the tail case (approximately 1/3 of the spindle) (Figure 3). Keep the servo and the servo arm perpendicular (Figure 4).

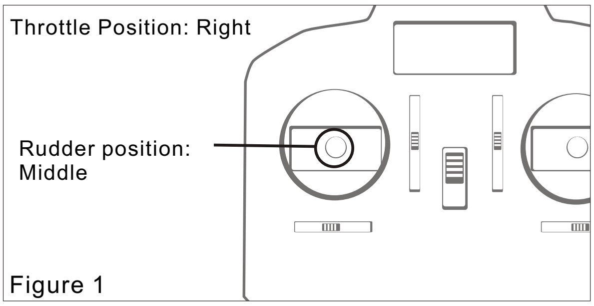


Figure 1

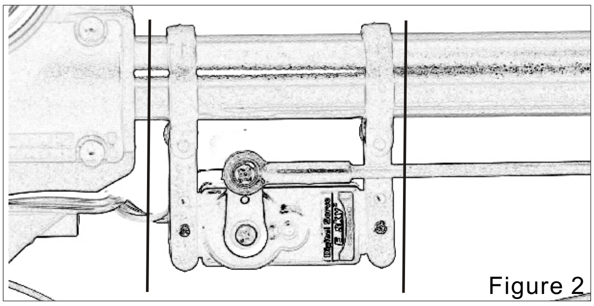


Figure 2

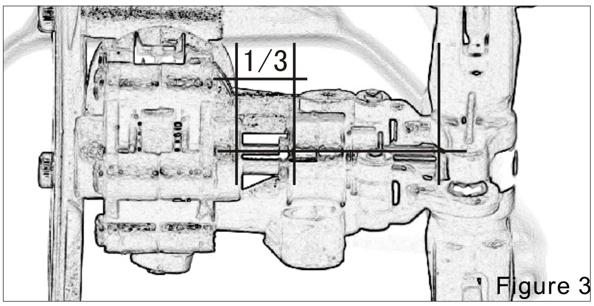


Figure 3

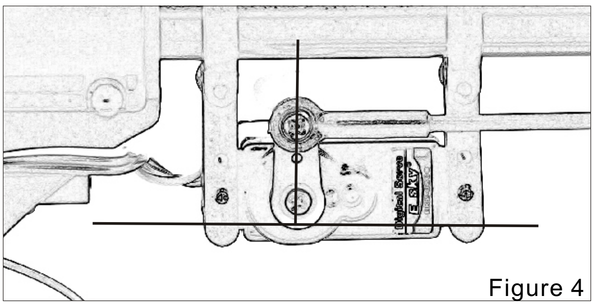


Figure 4

Main Blade Grip Assemble Procedure

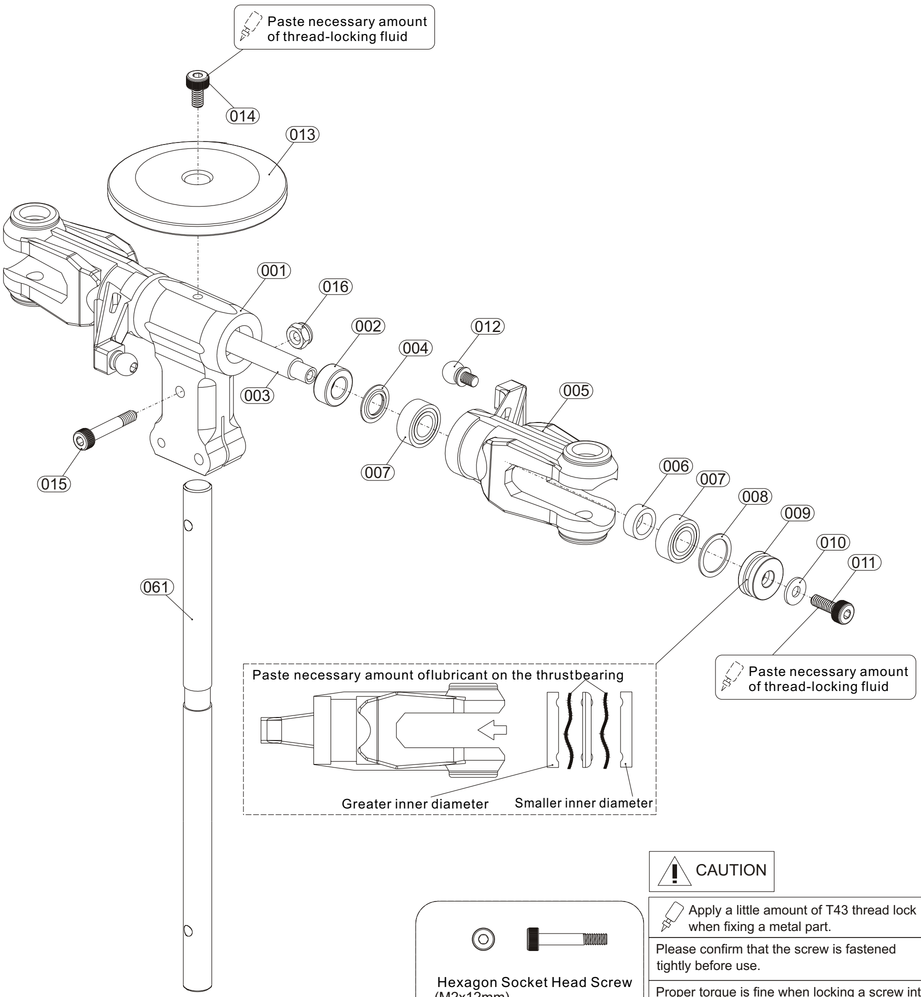
Hexagon Socket Head Screw
(M2*6)x2

Hexagon Socket Head Screw
(M2*5)x1

Ø4.0Linkage Ball(M2*6.36)

M2.0 Nylon Insert Lock Nut

No.	Name	Specification	Quantity
001	Main Rotor Head		1
002	O-ring	Ø3.6*Ø7.1*3.6	2
003	Spindle		1
004	Step Washer	Ø4*Ø7.5*0.5	2
005	Blade Grips		2
006	Brass Spacer	Ø4*Ø5.8*2.3	2
007	Bearing	Ø4*Ø8*3	4
008	Washer	Ø6.5*Ø8*0.3	2
009	Thrust Bearing	Ø3*Ø8*3.5	2
010	Spacer	Ø2*Ø5*0.5	2
011	Hexagon Socket Head Screw	M2*6	2
012	Linkage Ball	SØ4*6.36	2
013	Centre Hub Cap		1
014	Hexagon Socket Head Screw	M2*5	1
015	Hexagon Socket Head Screw	M2*12	1
016	Nylon Insert Lock Nut	M2.0	1
061	Main Shaft	Ø5*124	1



Paste necessary amount oflubricant on the thrustbearing

Greater inner diameter Smaller inner diameter

CAUTION

Hexagon Socket Head Screw
(M2x12mm)

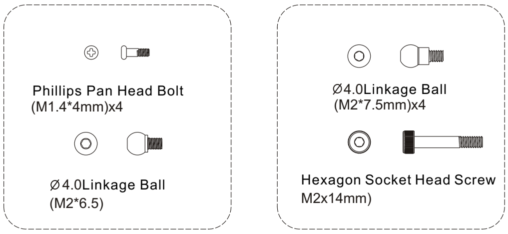
Apply a little amount of T43 thread lock when fixing a metal part.

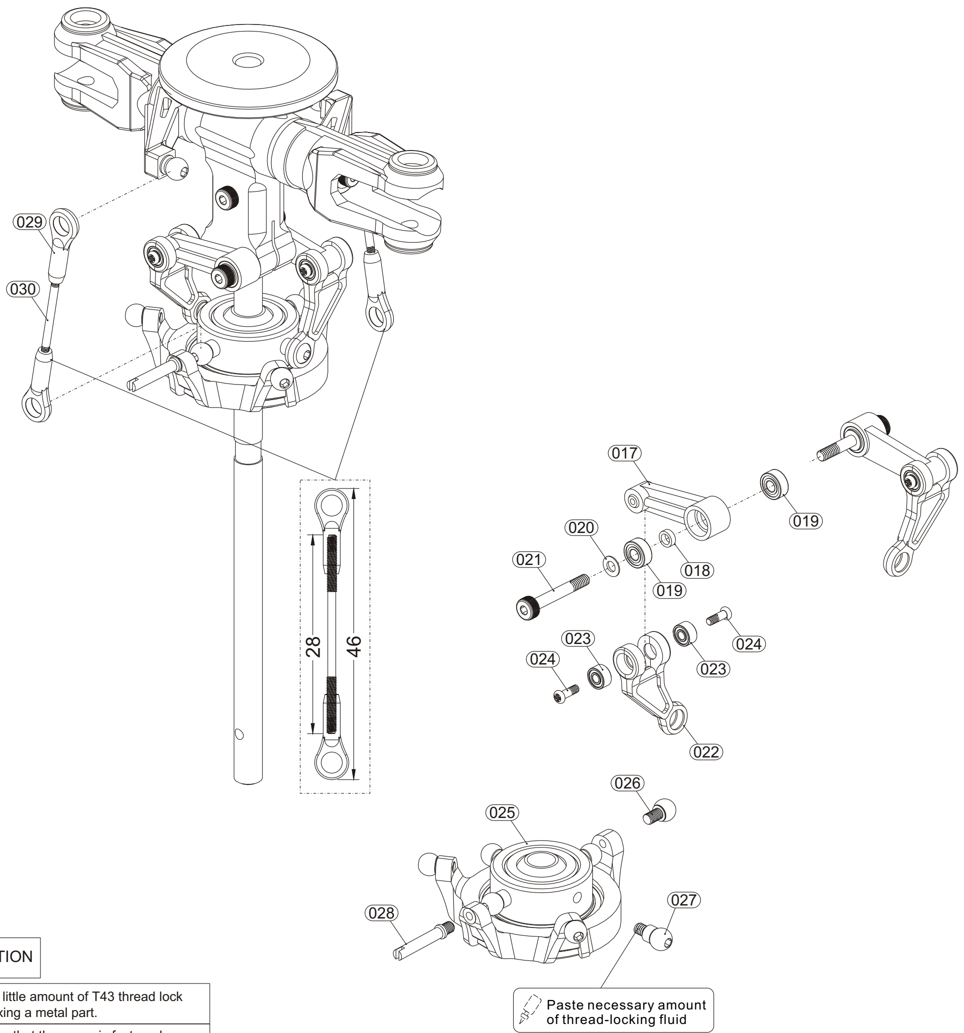
Please confirm that the screw is fastened tightly before use.

Proper torque is fine when locking a screw into plastic parts,redundant torque may lead to screw strip or fracture.

Hiller Control Arms Assemble Procedure

No.	Name	Specification	Quantity
017	Washout Control Arm		2
018	Brass Spacer	Ø2*Ø3*1	2
019	Bearing	Ø2*Ø5*2	4
020	Step Washer	Ø2*Ø3.8*0.4	4
021	Hexagon Socket Head Screw	M2*14	2
022	Washout Control Arm Link		2
023	Bearing	Ø1.5*Ø4*2	4
024	Phillips Pan Head Bolt	ST1.4*4	4
025	Swashplate		1
026	Linkage Ball	SØ4*6.5	4
027	Linkage Ball	SØ4*7.5	3
028	Anti-Rotation Pin	Ø2.0*14	1
029	Ball Link		4
030	Pushrod	1.4*28	2





CAUTION

Apply a little amount of T43 thread lock when fixing a metal part.
Please confirm that the screw is fastened tightly before use.
Proper torque is fine when locking a screw into plastic parts,redundant torque may lead to screw strip or fracture.

Main Frame Assemble Procedure

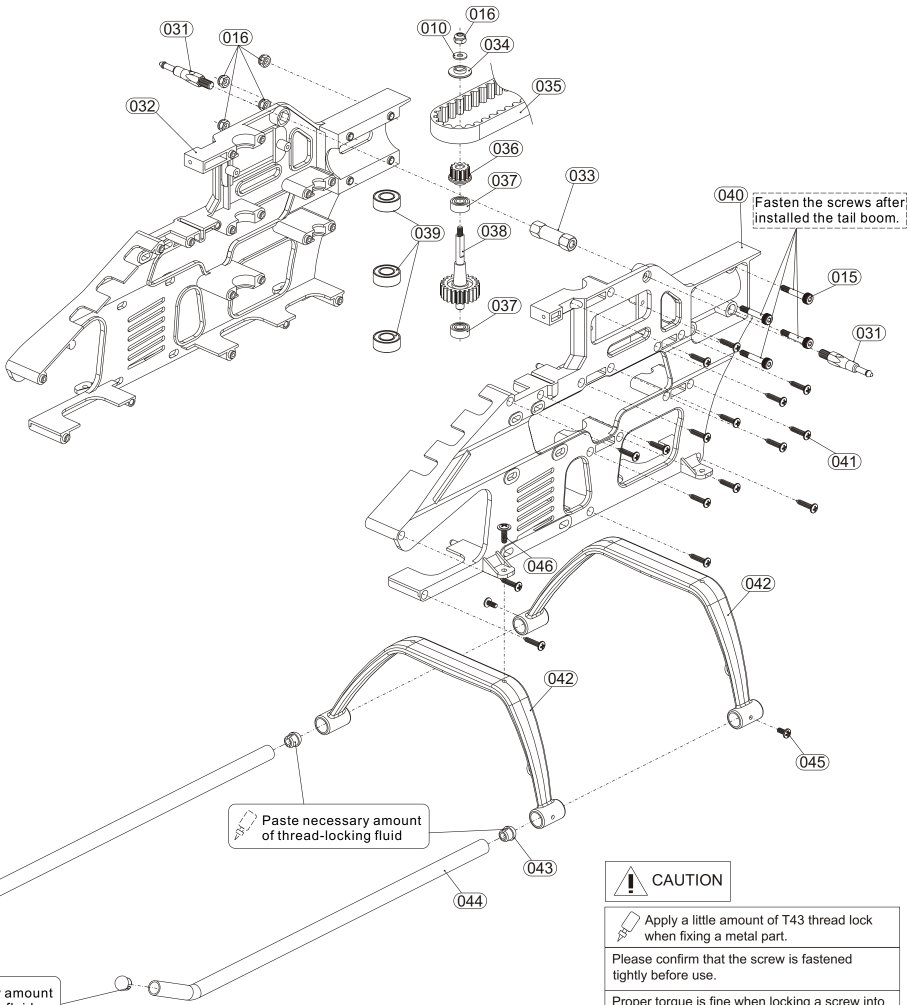
Pan Washer Head Phillips Screw
(ST2*6mm)x2

Pan Head Phillips Screw
(ST1.7*4mm)x2

Hexagon Socket Head Screw
(M2x12mm)x4

Pan Head Phillips Screw
(ST1.7 *9mm)x16

No.	Name	Specification	Quantity
031	Canopy Mount Rod		2
032	Main Frame, Right		1
033	Canopy Mount Rod Connector		1
016	Nylon Insert Lock Nut	M2.0	5
010	Spacer	Ø2*Ø5*0.5	1
034	Tail DrivePulley Cap		1
035	Tail DriveBelt		1
036	Tail DrivePulley		1
037	Bearing	Ø3*Ø7*3	2
038	Secondary TailDrive Gear		1
039	Bearing	Ø5*Ø10*4	3
040	Main Frame, Left		1
015	Hexagon Socket Head Screw	M2*12	4
041	Pan Head Phillips Screw	ST1.7*9	16
042	Landing Gear Strut		2
043	Landing Skid End Cap		4
044	Landing Skid		2
045	Pan Head Phillips Screw	ST1.7*4	2
046	Pan Washer Head Phillips Screw	ST2*6	2



CAUTION

Apply a little amount of T43 thread lock when fixing a metal part.

Please confirm that the screw is fastened tightly before use.

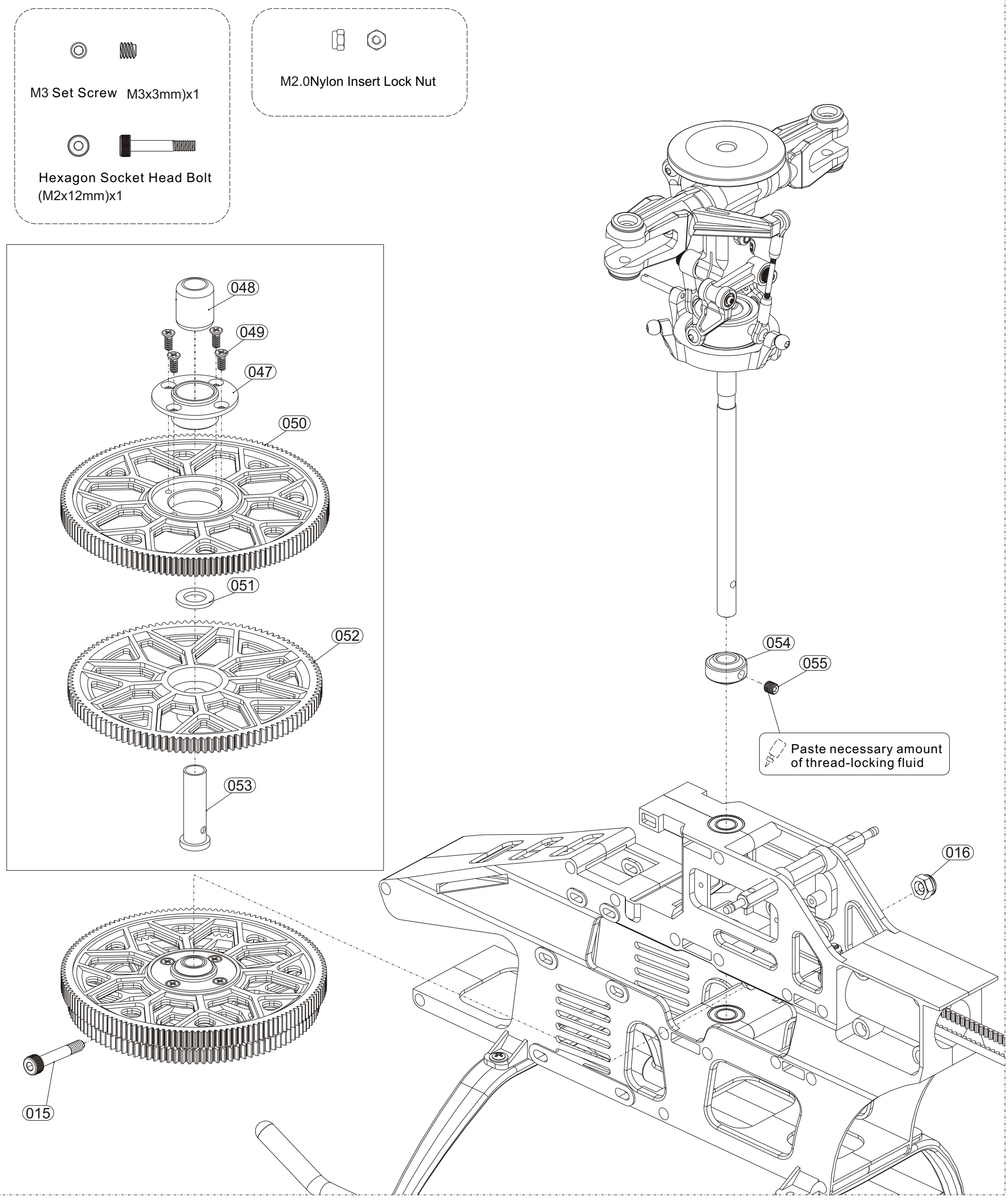
Proper torque is fine when locking a screw into plastic parts,redundant torque may lead to screw strip or fracture.

Main Gears Assemble Procedure

No.	Name	Specification	Quantity
047	One way bearing sleeve		1
048	One Way Bearing	Ø6*Ø10*12	1
049	Hexagon Flat Head Screw	ST2*6	4
050	Main Gear	140T	1
051	Spacer	Ø6*Ø10*1	1
052	Main TailDrive Gear	110T	1
053	One Way BearingShaft	Ø5*Ø6*22.2	1
054	Main Shaft Retaining Collar		1
055	Set Screw	M3x3	1
015	Hexagon Socket Head Bolt	M2*12	1
016	Nylon Insert Lock Nut	M2.0	1

CAUTION

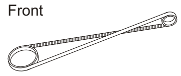
- Apply a little amount of T43 thread lock when fixing a metal part.
- Please confirm that the screw is fastened tightly before use.
- Proper torque is fine when locking a screw into plastic parts,redundant torque may lead to screw strip or fracture.



Tail Boom Assemble Procedure

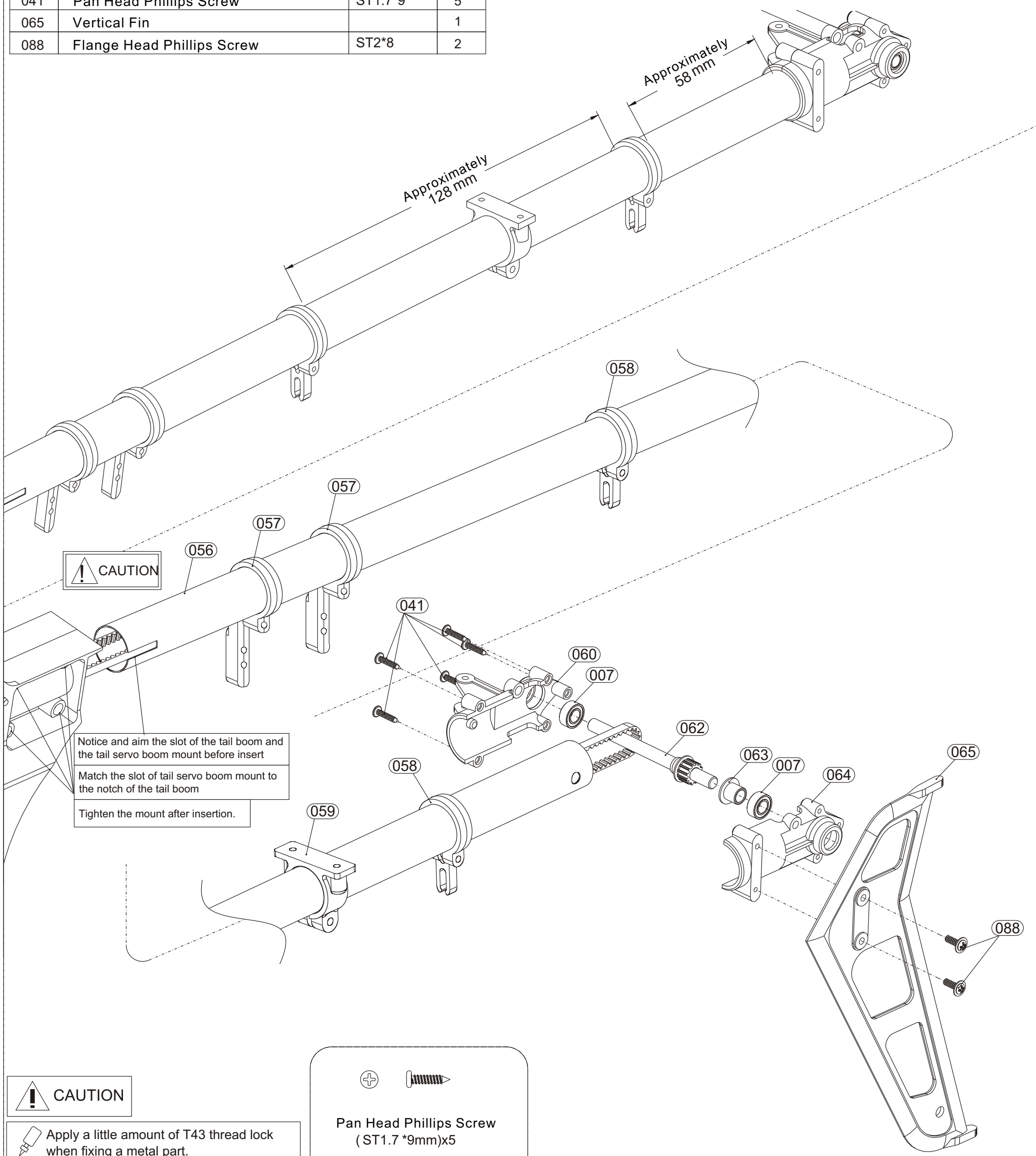
No.	Name	Specification	Quantity
056	Tail Boom		1
057	Tail ServoBoom Mount		2
058	Tail PushrodGuide		2
059	Horizontal Fin Mount		1
060	Tail Case,Right		1
007	Bearing	Ø4*Ø8*3	2
062	Tail RotorShaft Drive Pulley		1
063	Tail RotorShaft Drive Pulley Cap		1
064	Tail Case,Left		1
041	Pan Head Phillips Screw	ST1.7*9	5
065	Vertical Fin		1
088	Flange Head Phillips Screw	ST2*8	2

CAUTION



Drive belt illustration

1.Check to rotate the belt 90 degrees when assembling
2.Belt tension:Recommend to lightly tighten the drive belt after assembling tail boom to avoid vibration,belt friction and rotation slip



CAUTION

Apply a little amount of T43 thread lock when fixing a metal part.

Please confirm that the screw is fastened tightly before use.

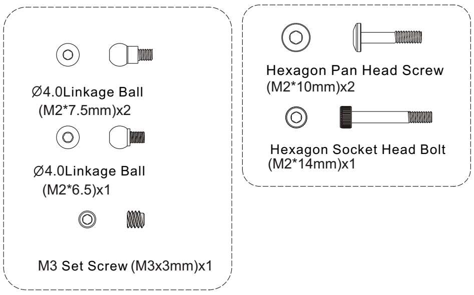
Proper torque is fine when locking a screw into plastic parts,redundant torque may lead to screw strip or fracture.

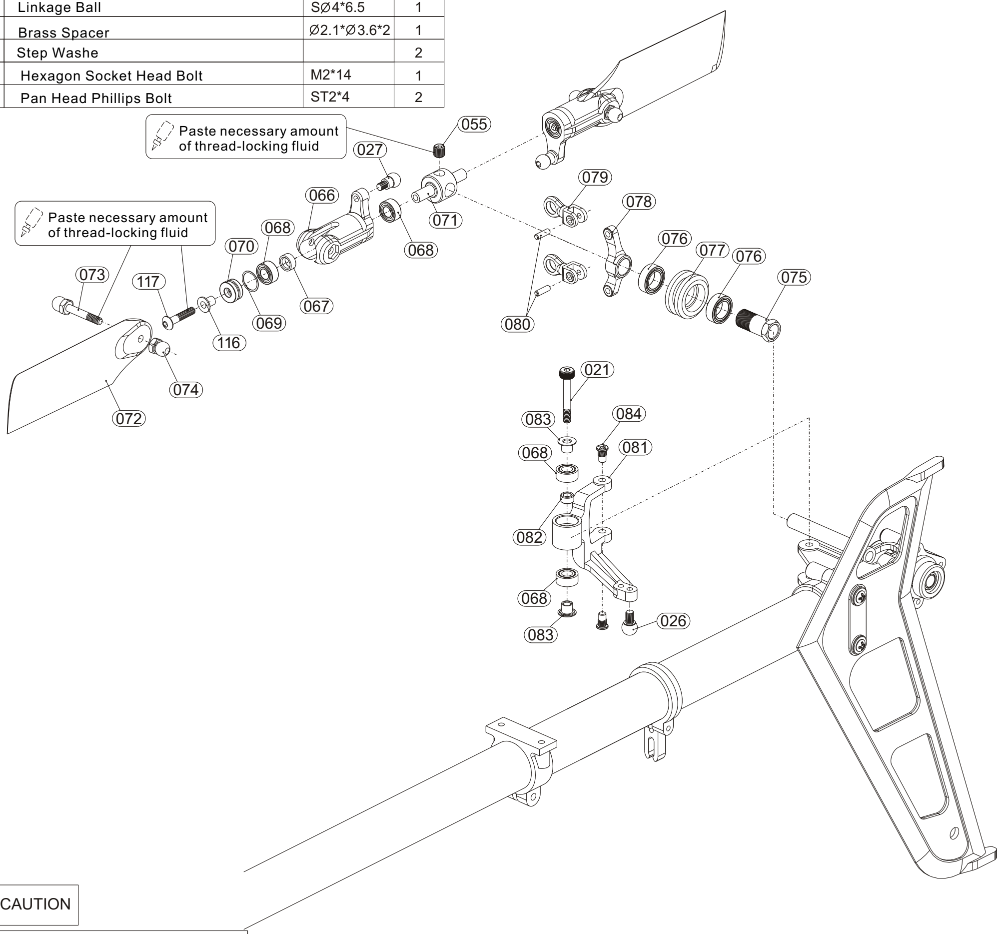
Pan Head Phillips Screw
(ST1.7 *9mm)x5

Flange Head Phillips Screw
(ST2*8mm)x2

Tail Rotor Blade Assemble Procedure

No.	Name	Specification	Quantity
066	Tail RotorBlade Grip		2
027	Linkage Ball	SØ4*7.5	2
067	Brass Spacer	Ø3*Ø4.5*1.6	2
068	Bearing	Ø3*Ø6*2.5	4
069	Washer	Ø5.1*Ø6*0.1	4
070	Thrust Bearing	Ø2.5*Ø6*3	2
116	Cap Washer		2
071	Metal TailRotor Hub		1
117	Hexagon Pan Head Screw	M2*10	2
072	Tail RotorBlade		2
073	Linkage Ball Bolt		2
074	Linkage Ball		2
075	Tail RotorPitch Control Slide Bushing		1
076	Bearing	Ø5*Ø8*2.5	2
077	Tail RotorPitch Control Slider Ring		1
078	Tail RotorPitch Control Fork		1
079	Tail RotorPitch Control Ball Link		2
080	Pin	Ø1.5*5	2
055	Set Screw	M3x3	1
081	Tail RotorPitch Lever		1
026	Linkage Ball	SØ4*6.5	1
082	Brass Spacer	Ø2.1*Ø3.6*2	1
083	Step Washe		2
021	Hexagon Socket Head Bolt	M2*14	1
084	Pan Head Phillips Bolt	ST2*4	2





CAUTION

Apply a little amount of T43 thread lock when fixing a metal part.

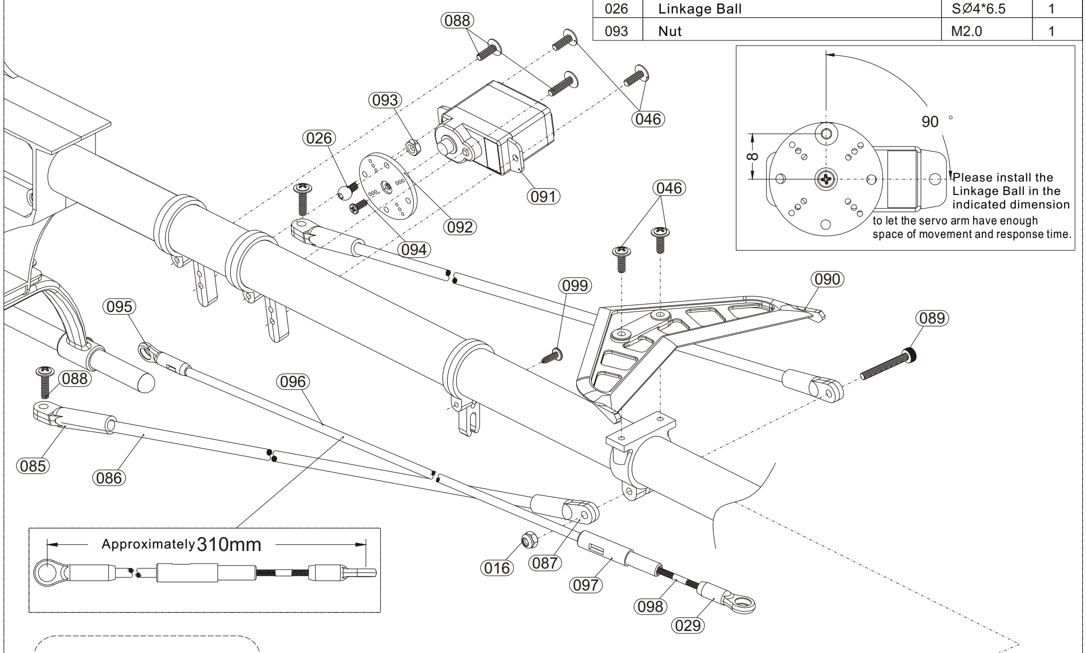
Please confirm that the screw is fastened tightly before use.

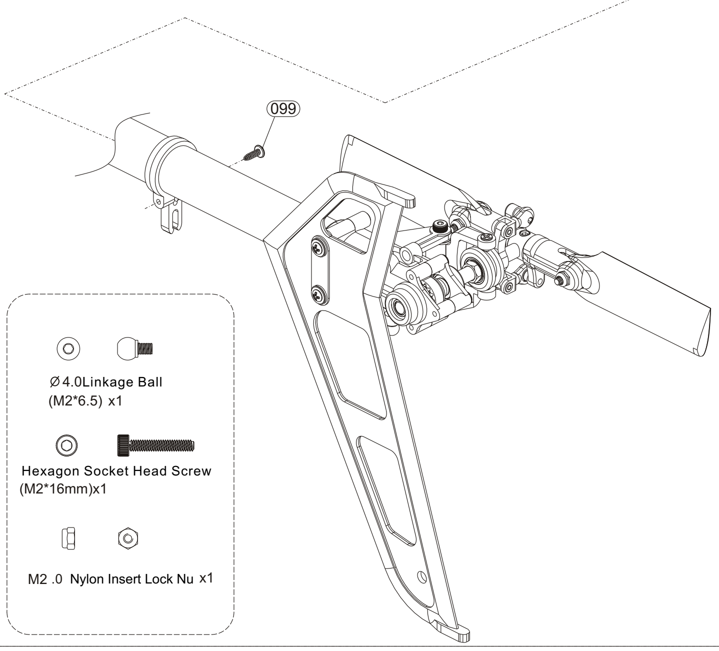
Proper torque is fine when locking a screw into plastic parts,redundant torque may lead to screw strip or fracture.

Push-rod Assemble Procedure

No.	Name	Specification	Quantity
094	Pan Head Phillips Screw	ST1.7*4	1
095	Tail Linkage		1
096	Tail Pushrod	Ø2*270	1
097	Tail PushrodJoiner		1
098	Tail PushrodJoiner Rod	Ø1.4*26	1
029	Tail Linkage		1
099	Pan Head Phillips Screw	ST1.7*6	2

No.	Name	Specification	Quantity
085	Tail BoomSupport End, Angled		2
086	Tail BoomSupport Rod	Ø3*250	2
087	Tail BoomSupport End, Straight		2
088	Flange Head Phillips Screw	ST2*8	4
089	Hexagon Socket Head Screw	M2*16	1
016	Nylon Insert Lock Nu	M2.0	1
090	Horizontal Fin		1
046	Flange Head Phillips Screw	ST2*6	4
091	Servo		1
092	Servo Arm		1
026	Linkage Ball	SØ4*6.5	1
093	Nut	M2.0	1





Pan Head Phillips Screw (ST1.7*6mm)x2

Pan Head Phillips Screw (ST1.7*4mm)x1

Flange Head Phillips Screw (ST2*6mm)x4

Flange Head Phillips Screw (ST2*8mm)x4

Ø4.0Linkage Ball (M2*6.5) x1

Hexagon Socket Head Screw (M2*16mm)x1

M2 .0 Nylon Insert Lock Nu x1

CAUTION

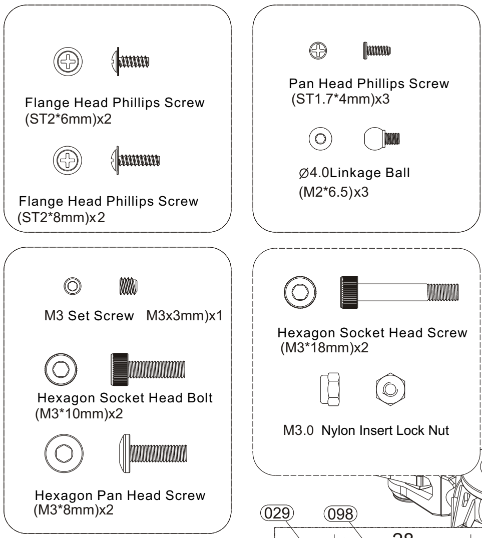
Apply a little amount of T43 thread lock when fixing a metal part.

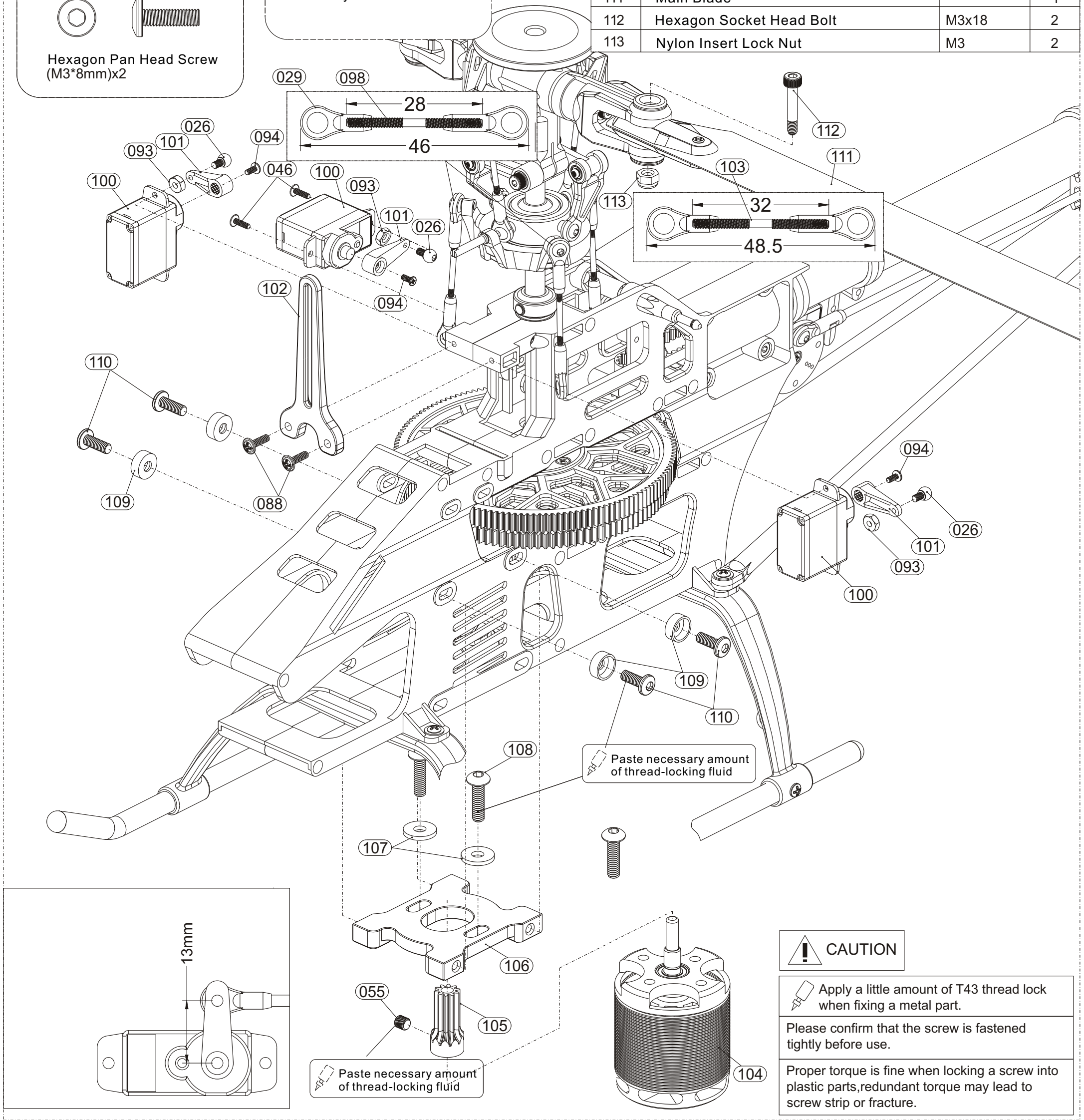
Please confirm that the screw is fastened tightly before use.

Proper torque is fine when locking a screw into plastic parts,redundant torque may lead to screw strip or fracture.

Power System Assemble Procedure

No.	Name	Specification	Quantity
100	Servo		3
101	Servo Arm		3
026	Linkage Ball	SØ4*6.5	3
094	Pan Head Phillips Screw	ST1.7*4	3
046	Flange Head Phillips Screw	ST2*6	2
102	Anti Rotation Bracket		1
088	Flange Head Phillips Screw	ST2*8	2
029	Ball Link		6
030	Pushrod	Ø1.4*28	2
103	Pushrod	Ø1.4*32	1
104	Brushless Motor		1
105	Pinion Gear		1
055	Set Screw	M3x3	1
106	Motor Mount		1
107	Spacer	Ø3.1*Ø8*1	2
108	Hexagon Socket Head Screw	M3x8	2
109	Cap Washer		4
110	Hexagon Pan Head Screw	M2.5x7	4
111	Main Blade		1
112	Hexagon Socket Head Bolt	M3x18	2
113	Nylon Insert Lock Nut	M3	2





CAUTION

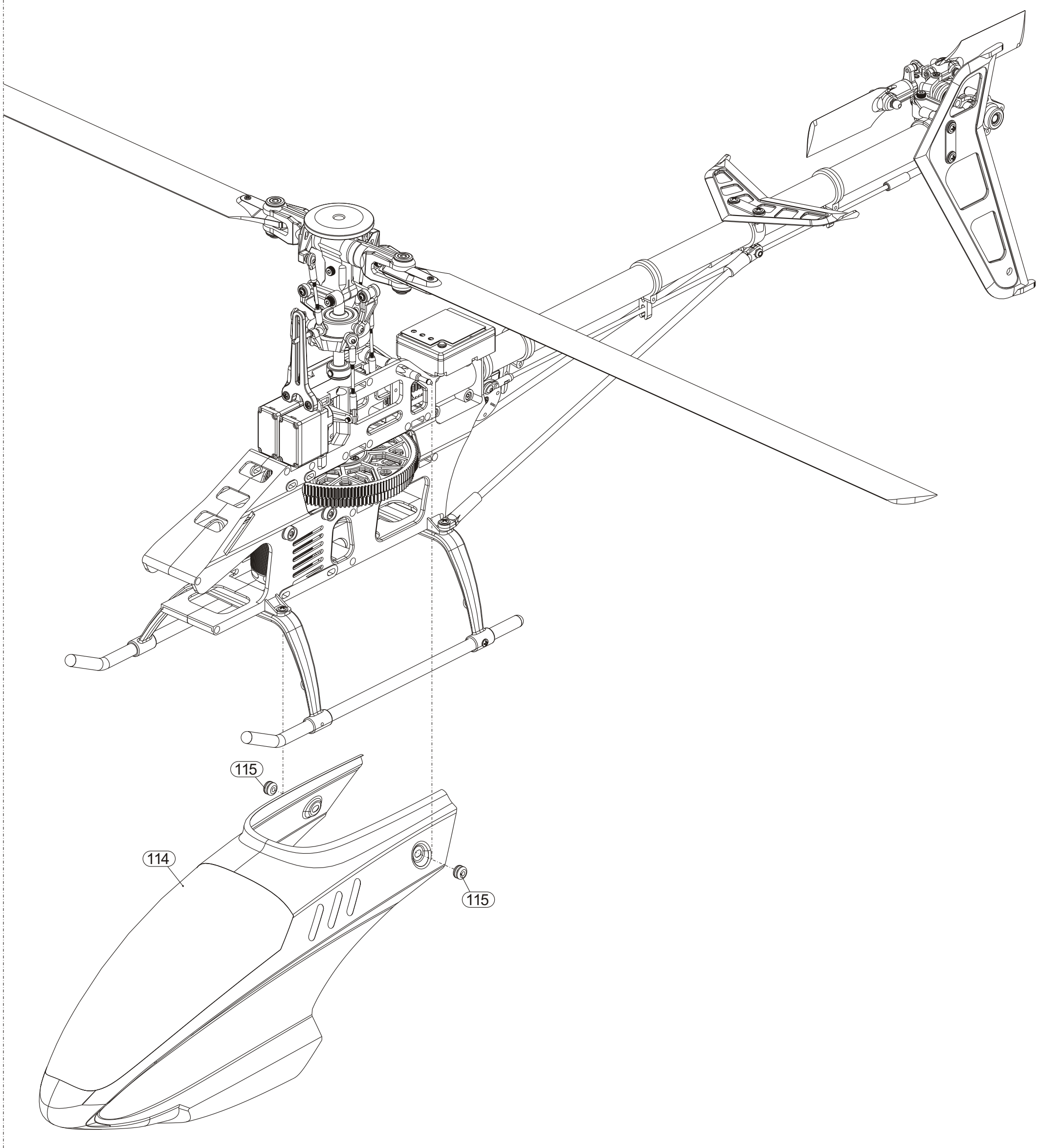
Apply a little amount of T43 thread lock when fixing a metal part.

Please confirm that the screw is fastened tightly before use.

Proper torque is fine when locking a screw into plastic parts,redundant torque may lead to screw strip or fracture.

Canopy Assemble Procedure

No.	Name	Specification	Quantity
114	Canopy		1
115	Canopy Mount Grommet		2



Exploded View

Parts List

No.	Name	Specification	Quantity
001	Main Rotor Head		1
002	O-ring	Ø3.6*Ø7.1*3.6	2
003	Spindle		1
004	Step Washer	Ø4*Ø7.5*0.5	2
005	Blade Grips		2
006	Brass Spacer	Ø4*Ø5.8*2.3	2
007	Bearing	Ø4*Ø8*3	6
008	Washer	Ø6.5*Ø 8*0.3	2
009	Thrust Bearing	Ø3*Ø8*3.5	2
010	Washer	Ø2*Ø5*0.5	3
011	Hexagon Socket Head Bolt	M2*6	6
012	Linkage Ball	SØ4*6.36	2
013	Centre Hub Cap		1
014	Hexagon Socket Head Screw	M2*5	1
015	Hexagon Socket Head Screw	M2*12	6
016	Nylon Insert Lock Nut	M2.0	8
017	Washout Control Arm Link		2
018	Brass Spacer	Ø2*Ø3*1	2
019	Bearing	Ø2*Ø5*2	4
020	Step Washer	Ø2*Ø3.8*0.4	4
021	Hexagon Socket Head Bolt	M2*14	2
022	Washout Control Arm Link		2
023	Bearing	Ø1.5*Ø 4*2	4
024	Phillips Pan Head Bolt	ST1.4*4	4
025	Swashplate		1
026	Linkage Ball	SØ4*6.5	8
027	Linkage Ball	SØ4*7.5	6
028	Anti-Rotation Pin	Ø2.0*14	1
029	Ball Link		11
030	Pushrod	1.4*28	4
031	Canopy Mount Rod		2
032	Main Frame, Right		1
033	Canopy Mount Rod Connector		1
034	Tail Drive Pulley Cap		1
035	Tail Drive Belt		1
036	Tail Drive Pulley		1
037	Bearing	Ø3*Ø7*3	2
038	Secondary Tail Drive Gear		1
039	Bearing	Ø5*Ø10*4	3
040	Main Frame, Left		1
041	Pan Head Phillips Screw	ST1.7*9	21
042	Landing Gear Strut		2
043	Landing Skid End Cap		4
044	Landing Skid		2
045	Pan Head Phillips Screw	ST1.7*4	2
046	Pan Washer Head Phillips Screw	ST2*6	8
047	One way bearing sleeve		1
048	One Way Bearing	Ø6*Ø10*12	1
049	Hexagon Flat Head Screw	ST2*6	4
050	Main Gear	140T	1
051	Spacer	Ø6*Ø10*1	1
052	Main Tail Drive Gear	110T	1
053	One Way Bearing Shaft	Ø5*Ø6*22.2	1
054	Main Shaft Retaining Collar		1
055	Set Screw	M3x3	3
056	Tail Boom		1
057	Tail Servo Boom Mount		2
058	Tail Pushrod Guide		2
059	Horizontal Fin Mount		1
060	Tail Case, Right		1
061	Main Shaft	Ø5*124	1
062	Tail Rotor Shaft Drive Pulley		1
063	Tail Rotor Shaft Drive Pulley Cap		1
064	Tail Case, Left		1
065	Vertical Fin		1
066	Tail Rotor Blade Grip		2
067	Brass Spacer	Ø3*Ø4.5*1.6	2
068	Bearing	Ø3*Ø6*2.5	6
069	Washer	Ø5.1*Ø6*0.1	4
070	Thrust Bearing	Ø2.5*Ø6*3	2
071	Metal Tail Rotor Hub		1

No.	Name	Specification	Quantity
072	Tail Rotor Blade		2
073	Linkage Ball Bolt		2
074	Linkage Ball		2
075	Tail Rotor Pitch Control Slide Bushing		1
076	Bearing	Ø5*Ø8*2.5	2
077	Tail Rotor Pitch Control Slider Ring		1
078	Tail Rotor Pitch Control Fork		1
079	Tail Rotor Pitch Control Ball Link		2
080	Pin	Ø1.5*5	2
081	Tail Rotor Pitch Lever		1
082	Spacer	Ø2.1*Ø3.6*2	1
083	Step Washer		2
084	Pan Head Phillips Bolt	ST2*4	2
085	Tail Boom Support End, Angled		2
086	Tail Boom Support Rod	Ø3*250	2
087	Tail Boom Support End, Straight		2
088	Flange Head Phillips Screw	ST2*8	6
089	Hexagon Socket Head Screw	M2*16	1
090	Horizontal Fin		1
091	Servo		1
092	Servo Arm		1
093	Nut	M2.0	4
094	Pan Head Phillips Screw	ST1.7*4	4
095	Tail Linkage		1
096	Tail Pushrod	Ø 2*270	1
097	Tail Pushrod Joiner		1
098	Tail Pushrod Joiner Rod	Ø 1.4*24	1
099	Pan Head Phillips Screw	ST1.7*6	2
100	Servo		3
101	Servo Arm		3
102	Anti Rotation Bracket		1
103	Pushrod	Ø 1.4*32	1
104	Brushless Motor		1
105	Pinion Gear		1
106	Motor Mount		1
107	Spacer	Ø 3.1*Ø8*1	2
108	Hexagon Socket Head Bolt	M3x8	2
109	Cap Washer		4
110	Hexagon Pan Head Screw	M2.5x7	4
111	Main Blade		1
112	Hexagon Socket Head Bolt	M3x18	2
113	Nylon Insert Lock Nut	M3	2
114	Canopy		1
115	Canopy Mount Grommet		2
116	Cap Washer		2
117	Hexagon Pan Head Screw	M2*10	2

Spare Parts List

DTS004055

Main Blade Set

DTS004057

Main Rotor Head Set

DTS004058

Main Blade Grip Set

DTS004059

Washout Control Arm Set

DTS003960

Spindle

DTS003963

Washout Control Arm Set

DTS003966

Linkage Rod Set

DTS003967

Swashplate Set

DTS003968

O-ring

DTS003969

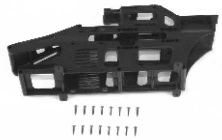
Main Gear

DTS003970

Secondary Gear

DTS003971

Main Shaft Set

DTS003972

Main Frame Set

DTS003973

Tail Driven Gear Set

DTS003974

Motor Mount

DTS003975

Anti-Rotation Bracket

DTS003976

Canopy Mount Rod

DTS003977

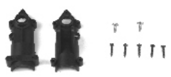
Tail Rotor Hub

DTS003978

Tail Blade Grip

DTS003979

Tail Rotor Pitch Lever Set

DTS003980

Tail Case Set

DTS003981

Tail Boom

DTS003982

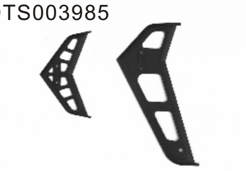
Tail Servo Boom Mount Set

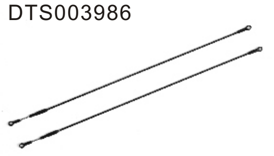
DTS003983

Tail Pushrod Guide

DTS003984

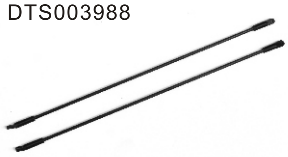
Horizontal Fin Mount Set

DTS003985

Horizontal and Vertical Fin

DTS003986

Tail Pushrod Set

DTS003987

Landing Skid Set

DTS003988

Tail Boom Support Set

DTS003989

Tail Control Arm Set

DTS003990

Tail Shaft Set

DTS003991

Brushless Motor

DTS003992

11T
Gear

DTS003993

10T
Gear

DTS003941

3*6*2.5
Thrust Bearing

DTS003995

5*10*4
Bearing

DTS004127

4*8*3
Bearing

DTS004122

3*7*3
Bearing

DTS003998

One way bearing sleeve Set

DTS003999

Main gear parts

DTS004000

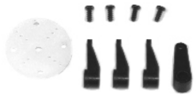
3*8*3.5
Thrust Bearing

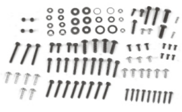
DTS004002

Landing Gear Strut Set

DTS004003

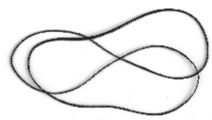
Tail Rotor Blade

DTS004006

Control Arm Set

DTS004061

Screw

DTS004126

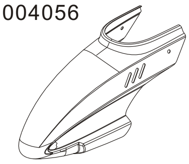
3*6*2.5
Ball Bearing

DTS004186

3*810
Belt

DTS004060

Servo Pushrod

DTS004056



Canopy

DTS004065

Spare part pack

GWY003914

Swash Servo

GWY003721

Tail Servo

GWY003752

2&3cell

5A Li-Polymer Battery Charger

GWY003747

35A Brushless Motor ESC

DTS003949

11.1V 2200mAh

Li-Polymer Battery

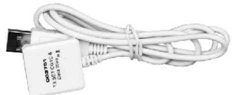
GWY004718

Remote Receiver

GWY003770

Connection Wire

GWY003751



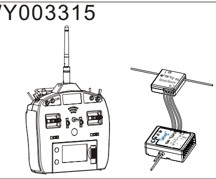
Charger Wire

GWY004011

3.7V 1100mAh

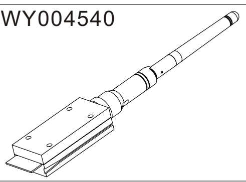
Li-Po Battery of Transmitter

GWY003315



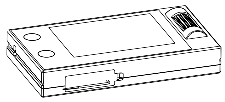
GWY 6TL\V2 2.4G Transmitter,
6CH, AHSS, &Receiver 3-axis Gyro

GWY004540



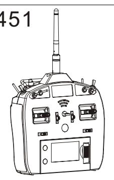
High Frequency Transmission
Module, AHSS

GWY003768



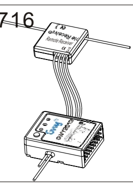
LCD Setting Module

GWY005451



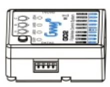
GWY 6TL\V2 2.4G
Transmitter, 6CH, AHSS, Silver

GWY004716



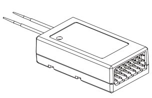
GWY2013 Receiver 3-axis Gyro

GWY006195



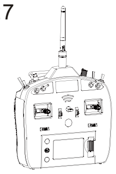
G02 Flybarless Control System

GWY006228



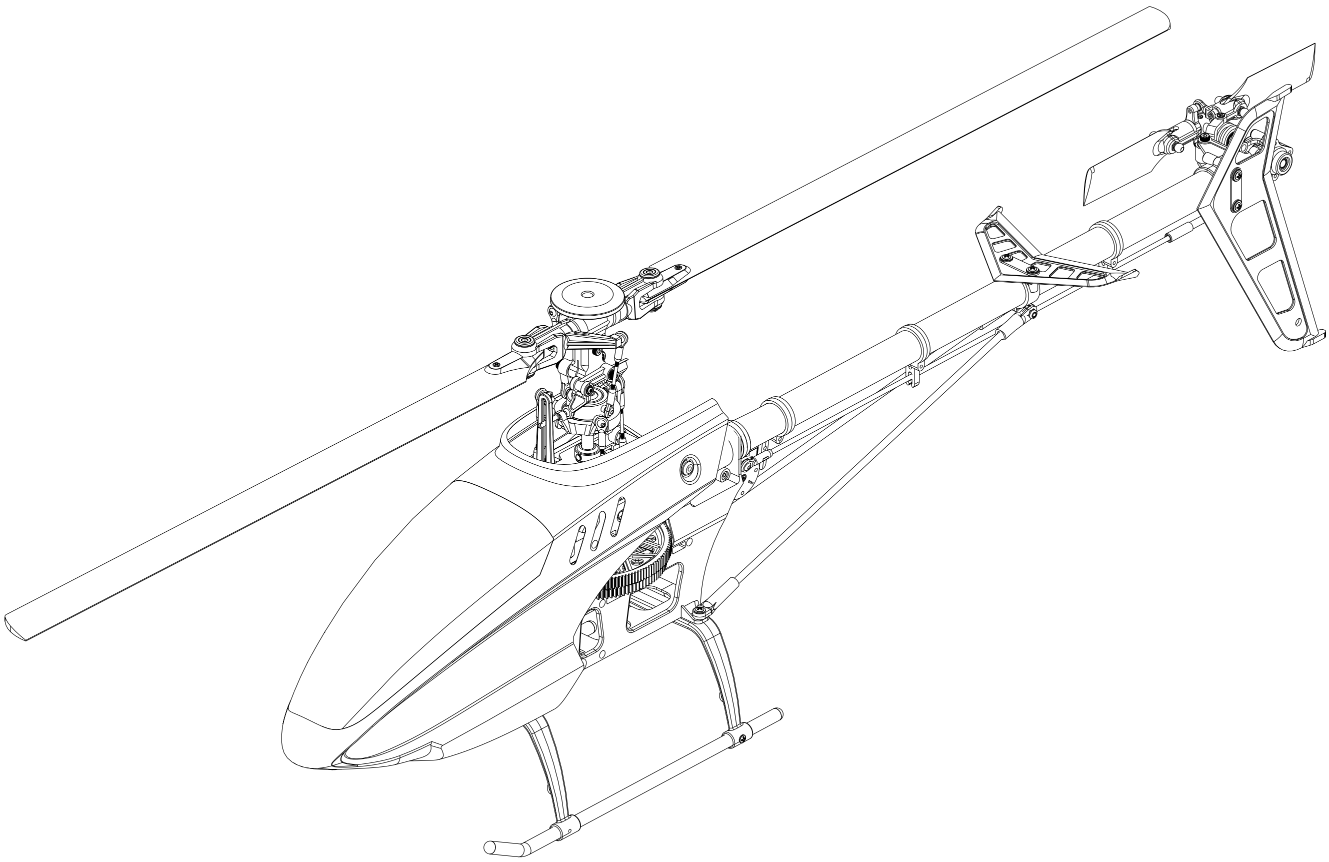
AH6R - Receiver

GWY006227



AH6T - 2.4GHz
6-Channel Transmitter

DTS450



规格参数

全长：645mm
全高：215mm
主旋翼直径：Φ 725mm
尾 旋翼直径：Φ145mm
总重量：约675g(含电池)
2216无刷马达

35A无刷马达电子调速器
GWY2013 三轴陀螺仪
倾斜盘伺服器*3pcs（1.2kg.cm 0.08s/60°）
尾伺服器*1pcs（0.6kg.cm 0.04s/60°）
GWY 6TL 2.4GHz六通道发射机
11.1V 2200mAh 30C 锂电池

※本型号机型在尚未进行重大改版之前，配件可能进行调整，外观、型号可能稍有不同。DTS保留配件内容更改权，并不另行通知。

前　言

感谢您选择DTS的产品。为了让您能够更好的了解和使用这台DTS450 直升机，我们衷心的希望你认真地阅读完这本说明书之后再进行相关操作，并请妥善保管以备后用。如需了解更多资讯，请访问官方网址：www.zondahobby.com。

目　录

重要声明

遥控模型不是玩具！为避免危险事故的发生，请勿随意操作遥控模型，模型商品必须在当地政府允许和规定的情况或条件下使用。消费者自购买当日起即承担该模型使用的一切风险，产品售出后DTS将不负任何操作和使用控制上的任何性能与安全责任。也无法对消费者零件使用的损耗异常或组装不当所发生的意外负任何责任。为了您的切身安全，DTS建议模型新手在操作之前，请咨询或求助于专业的模型玩家或当地的模型店。

模型产品包含部分消耗零件，反复拆装、长期使用会造成零部件损耗，属于正常范围。请定期检测并更换损耗配件，以确保安全飞行。在购买配件时，如果您所购买的不是DTS原装产品，可能会导致遥控模型性能不匹配、甚至不能正常运行等问题，本公司对此概不负责。

请妥善保存该产品的说明书，以协助您顺利的进行直升机的调整、维修等作业。

标志说明

⦸ 禁 止　在任何禁止的环境下，请勿尝试操作。

⚠ 警 告　因为疏忽这些操作说明，而使用错误可能造成财产损失或严重伤害。

⚠ 注 意　因为疏忽这些操作说明，而使用错误可能造成危险。

安全注意事项与警告

直升机模型是通过无线电信号控制的，在操作时，可能会受到其它无线电信号的干扰，此干扰可能会导致直升机失控。

⚠ 警 告

1.遥控模型不是玩具！具有一定的危险性，禁止14岁以下人士进行操作！
2.直升机在存放与飞行时,需要远离高温环境或其他具有腐蚀性的化学物品!(使用温度范围:-10℃到50℃)
3.初学者请勿独自操控！初次飞行时最好请有经验的飞行员进行指导之后再进行飞行,请避免相同频率的模型直升机同时飞行。
4.初次飞行时，务必选择空旷合法的专属飞行场地并搭配训练架进行练习飞行,以减少操作失误带来的财 产损失！

⦸ 禁 止

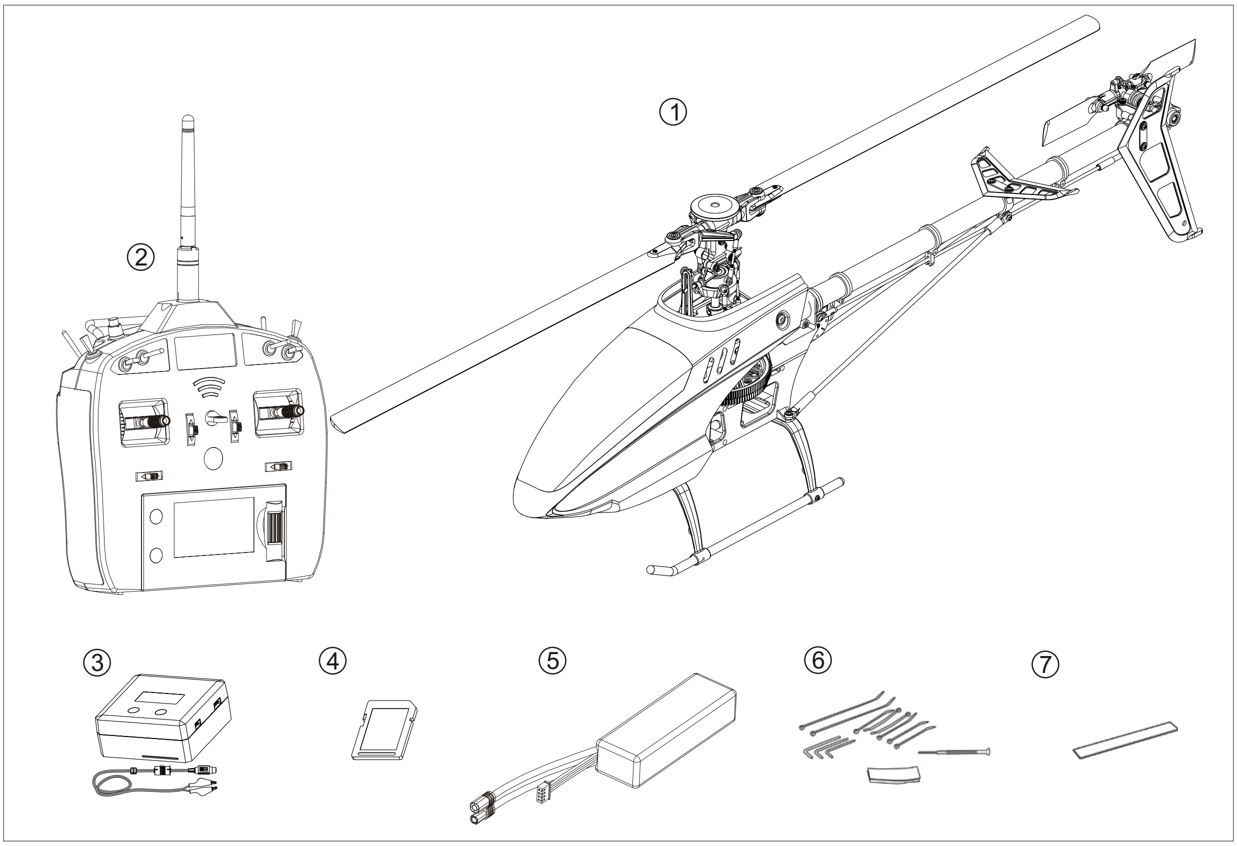
1.飞行时应该远离高压线或其他影响飞行的建筑物，避免操控不当造成自己与他人财产的损失！
2.飞行时要远离人群，避免旁人围观！以免误伤他人！
3.请勿在下雨、打雷、阴天或是视线不清楚的天气进行飞行，以确保本身及直升机的安全！
4.直升机内部是由许多精密的电子零件组成，所以必须绝对的防止潮气或水气，避免在浴室或雨天时使用，防止不气进入机身内部导致机件及电子零件故障而引发不可预期的意外！
5.请勿自行改造加工，任何的升级改装或维修,请使用DTS产品目录中的零件,以确保结构的安全。
6.直升机在飞行运转时禁止用手或其他物品触及直升机的任何部位!以避免不必要的损失和危险状况发生！

飞行前的检查

1.每次飞行前应该先确认所使用的频率是否会干扰他人，以确保自身与他人的安全。
2.每次飞行前请确定您的发射机与直升机电池的电量是否饱和，如果是第一次飞行，请将其锂电池充电至饱和状态后再飞行。
3.开机前请将油门摇杆及油门微调打到最低点。开关机时请务必遵守开关机的顺序，开机时请先开发射机电源，再接通直升机电源；关机时请先断开直升机电源，然后再关闭发射机电源。
4.开机后请先确定直升机的各个伺服器动作是否顺畅，方向是否正确。
5.检查各连杆的连接是否完好，直升机电池固定是否牢固。

检查包装物及配件

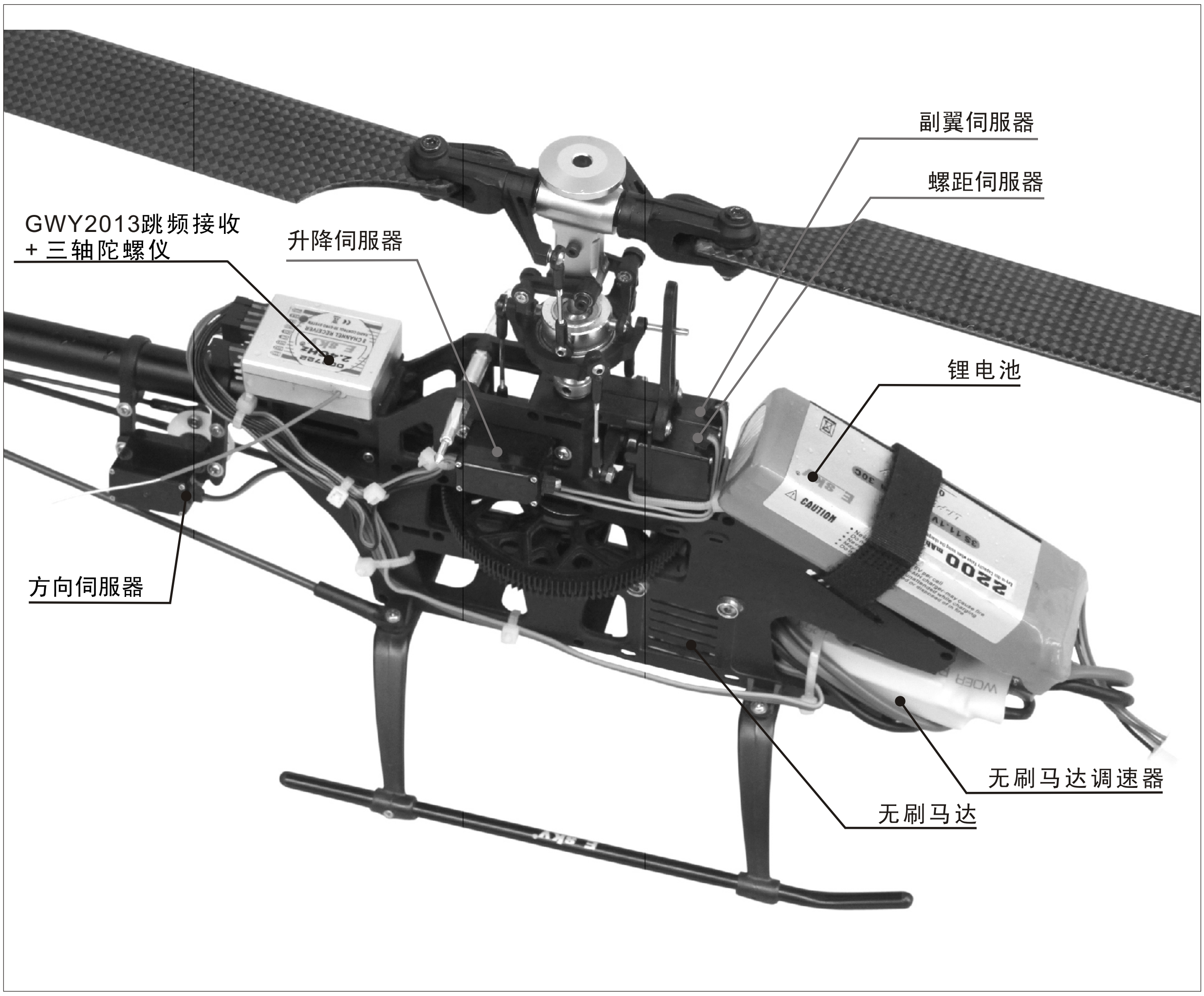
打开包装盒后，请先检查附送配件是否齐全完整。若有遗漏，请向所销售单位反映、索取。



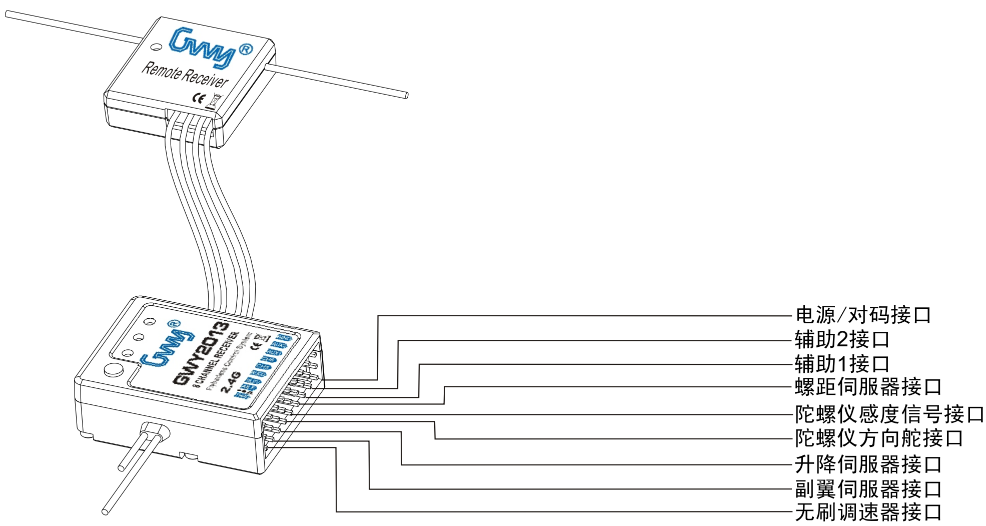
1.直升机	1
2.6TL 2.4G六通道发射机	1
3.2-3节充电器	1
4.SD卡	1
5.11.1V 2200mAh锂电池	1
6.简易工具包	1
7.电池绑带	1

包装内容	RTF	WOB	RFR	RFR 配备AH6遥控系统
DTS 450	√	√	√	√
6TL - 2.4GHz 6通道发射机	√	√		
AH6T - 2.4GHz 6通道发射机				√
GWY2013 - 接收机和陀螺仪	√	√		
G02 - 陀螺仪			√	√
AH6R - 接收机				√
2S & 3S 锂聚合物电池充电器	√	√	√	√
锂聚合物电池 : 2200mAh 3S1P 11.1V	√			
电池绑带	√	√	√	√
SD 卡 - 说明书	√	√	√	√
简易工具包	√	√	√	√

直升机部件介绍



接收机的连接

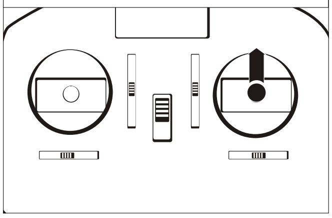


飞行前舵面的检查(出厂设置)

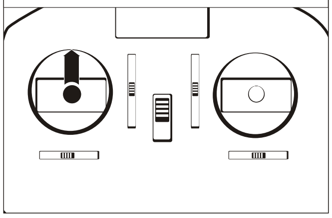
1.舵面检查：油门

将油门摇杆慢慢的往上推，直到马达转动即可。此时请确认马达为逆时针方向旋转，而主旋翼则为顺时针方向旋转。

右手油门



左手油门

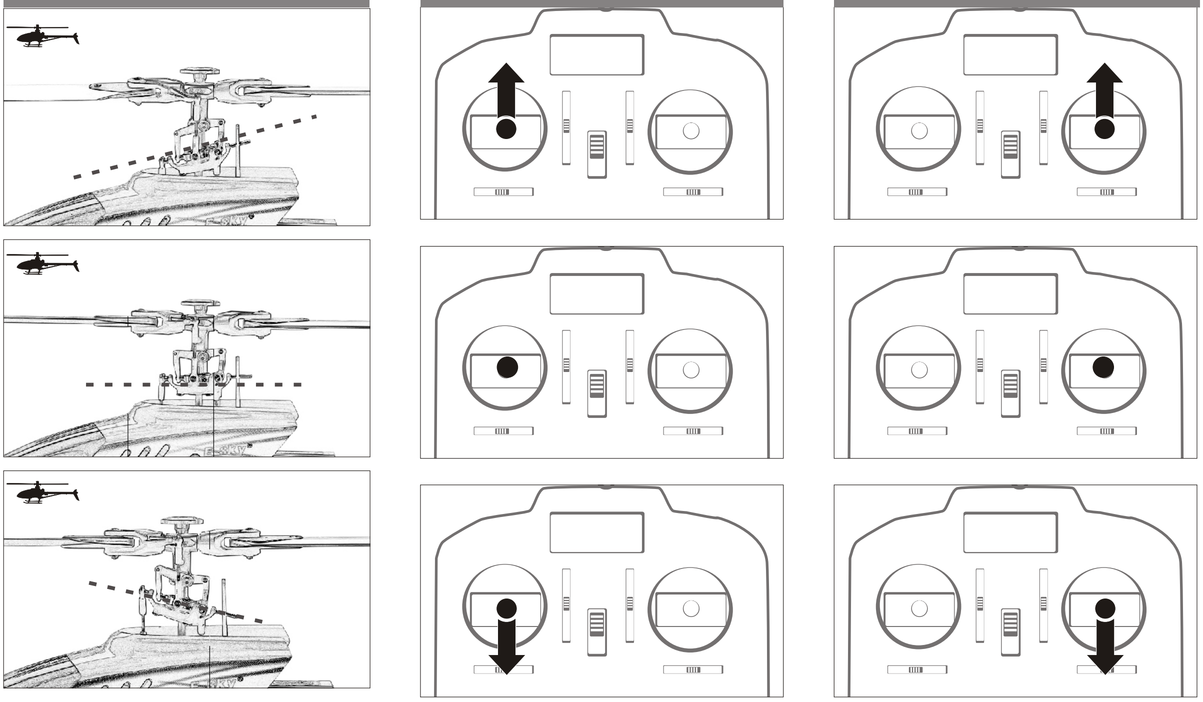


测试时，请勿将油门摇杆向上推动到超过1/5，否则油门摇杆推得过多，马达会急速旋转，可能会造成机体或自身的伤害！

除非是正式飞行，否则在室内进行维修保养或调整工作时，我们十分强烈的建议玩家将无刷马达与电调的连接线断开,以防止马达意外的旋转造成危险！

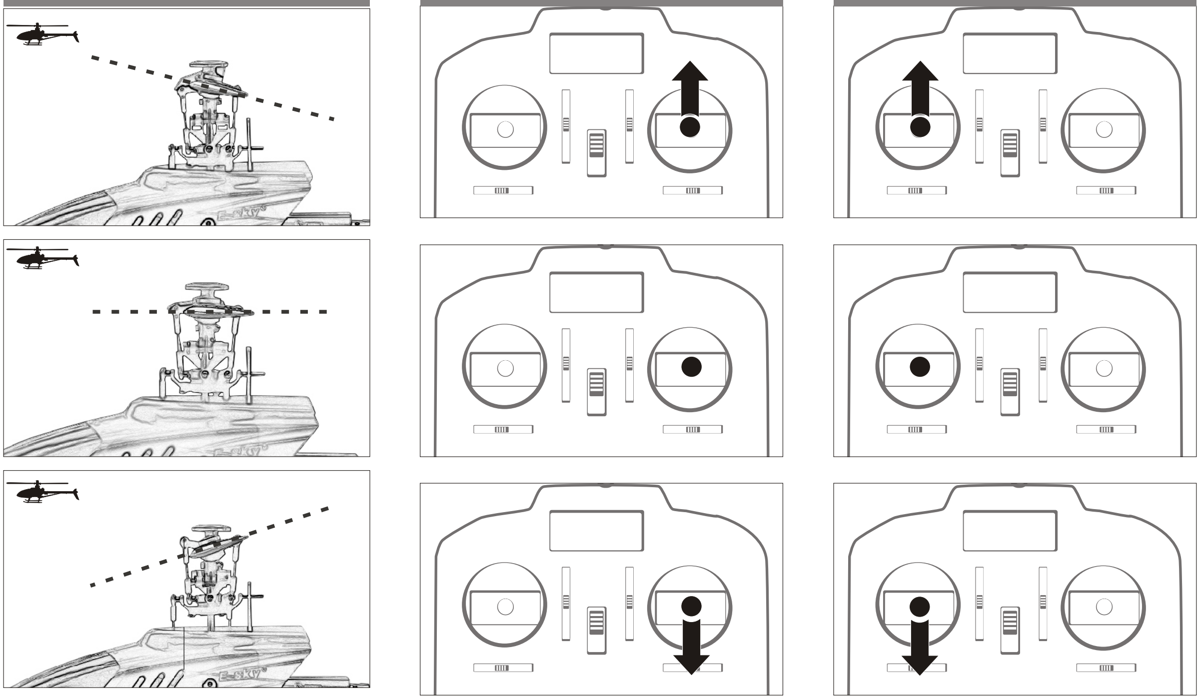
2.舵面检查：升降舵

倾斜盘前后倾斜 | 右手油门 | 左手油门



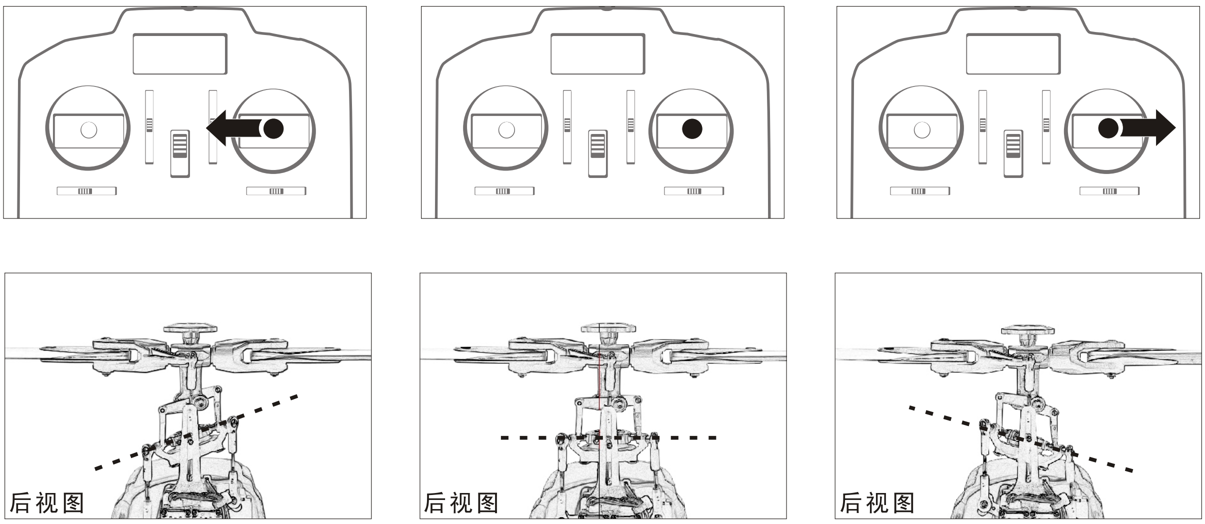
3.舵面检查：螺距(在特技模式下)

倾斜盘上下移动	右手油门	左手油门



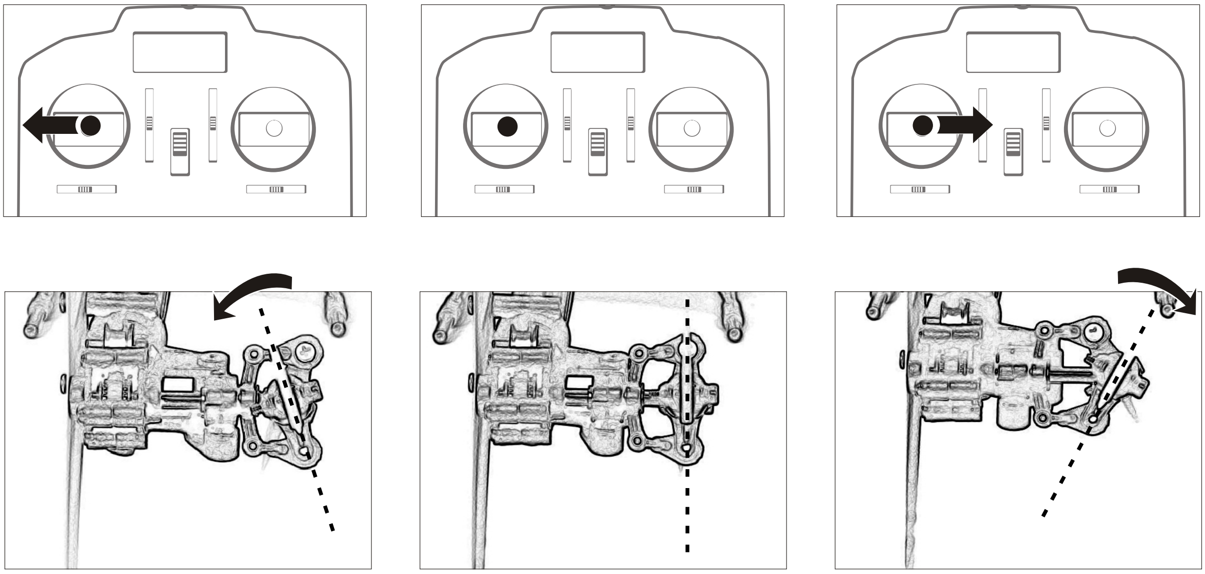
4.舵面检查：副翼

倾斜盘左右倾斜　　（右手油门和左手油门发射机的副翼摇杆操作相同）



5.舵面检查：方向舵

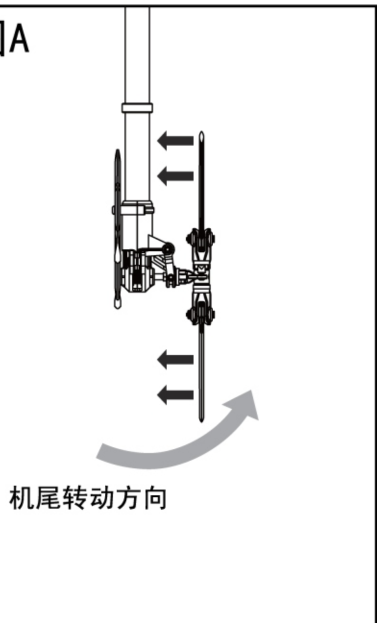
尾旋翼角度左右变化 （右手油门和左手油门发射机的方向舵摇杆操作相同）



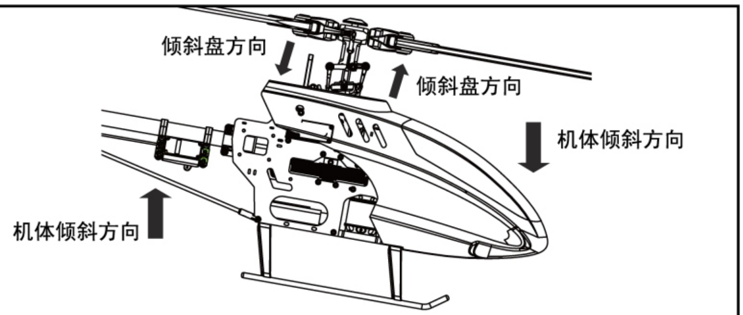
6.陀螺方向修正

断开调速器与马达的连接，开启发射器和直升机的电源，移动所有摇杆检查伺服方向。
1.如果手动使直升机围绕主轴转动，陀螺仪则会操控尾舵机抵消转动的方向动作。
例：机尾向右转，那么陀螺会操控尾舵进行左舵修正。图A
2.手持直升机，并向某方向倾斜直升机机体，此时倾斜盘应该朝机体的相反方向倾斜。
例：当直升机向前方倾斜时，倾斜盘应该向后倾斜，当直升机向后方倾斜时，倾斜盘应该向前倾斜,图B。
如果将直升机横向倾斜，倾斜盘应该向相反的方向修正，图C。
当机体恢复初始水平位置，倾斜盘也应该同样回到初始位置。

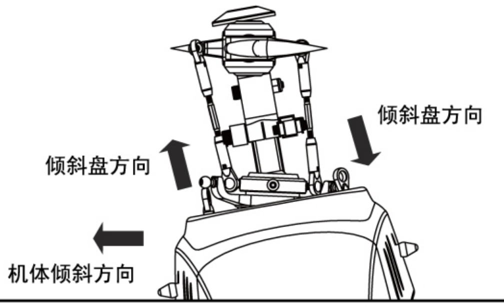
图A



图B

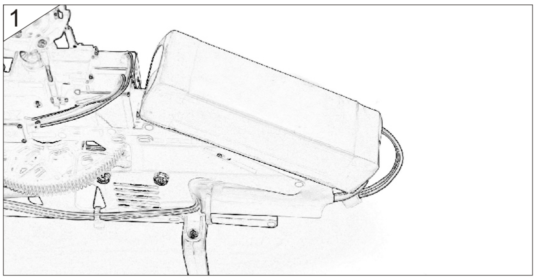


图C

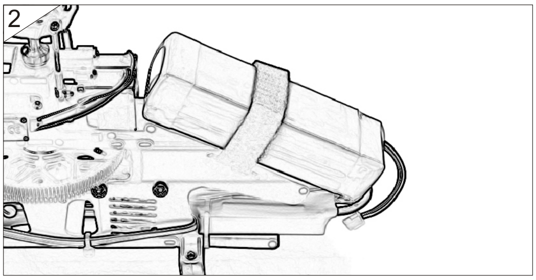


飞行操作步骤

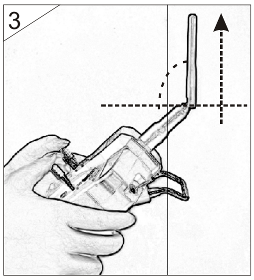
1.起飞步骤

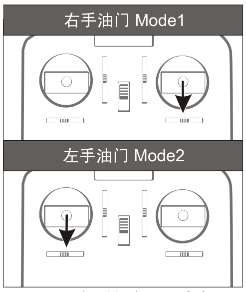


将电池放入电池槽

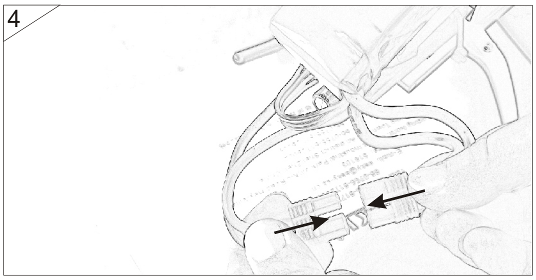


用绑带绑好电池



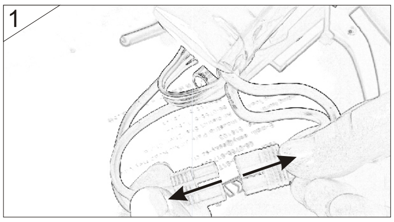


在飞行时要将天线调成如上图所示的状态，油门摇杆移至最下方，开启发射机电源。

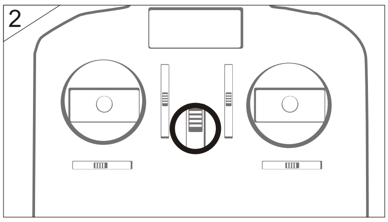


连结直升机电源

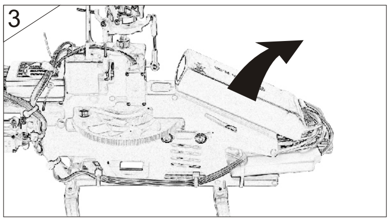
2.结束飞行注意事项



断开直升机电源



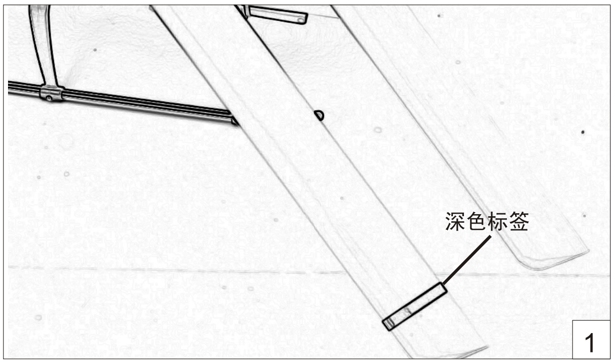
关闭发射机电源

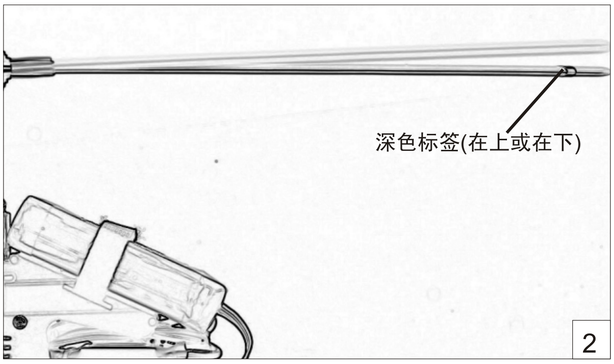


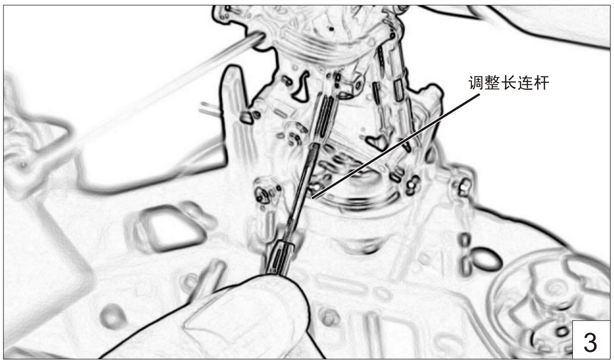
取下电池

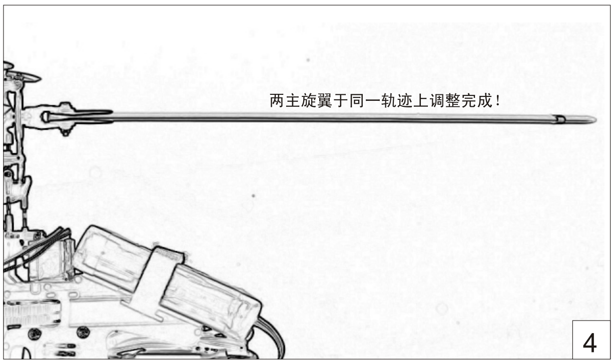
主旋翼双桨的调整

警告:在观察直升机主旋翼是否有双桨现象时，必须远离直升机3-5米之间,以确保安全.









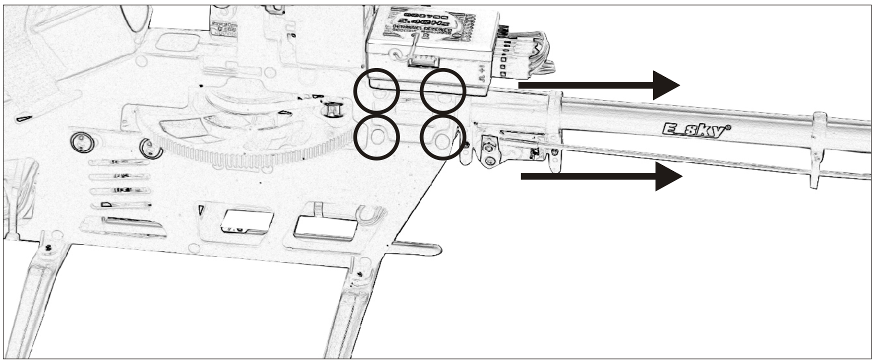
1 主旋翼旋转状态决定了直升机的飞行性能，主旋翼不在同一轨迹上旋转，会使直升机产生抖动且难于控制。尽管每台直升机已经在工厂调试完成，如果主旋翼发生了变动，还需要进行微小的调试。在其中的一个主旋翼上贴上深色颜色标签，用来区别主旋翼在旋转中的上下位置。

2 确认好主旋翼的旋转轨迹上下位置后，关闭直升机的电源，对主旋翼的连杆进行调整。将主旋翼旋转轨迹在上面的调低，调短主旋翼与倾斜盘的连杆，每次将连杆两端的拉杆头旋转一周即可。或者将旋转轨迹在下面的主旋翼调高，将其与倾斜盘的连杆调长。

3 提示：在调整直升机主旋翼不在同一轨迹旋转时，需要将其中的一个主旋翼调大距螺或者调小螺距。打开3Ｄ特技开关（需要将主尾马达电源线拔掉），油门摇杆在中间位置时，两只主旋翼应该处于0度螺距 的位置。可以很容易地分辩哪只主旋翼需要调整。如果一只主旋翼螺距低于0度时，需要调整它与另一只水平。如果一只主旋翼螺距高于0度时，需要调低它与另一只水平。

4 不需要太多的调整两只主旋翼就会在同一轨迹上。如果经过了必要的调整，并且主旋翼与倾斜盘上的两支连杆一样长，还是有双桨现象，那么需要检测主旋翼有没有变形或破损。严格的说同一台直升机上两只主旋翼必须是完全一样的。如果经过调整连杆长短后，两只主旋翼还是不能达到重合状态，不要担心，只要两只主旋翼接近于同一轨迹也会飞行的很好。

皮带松紧的调整



在起飞时飞机锁不住尾部，除了陀螺仪没有调节好外，还有可能是皮带松动造成。调整方法如上图所示：将主机架锁住尾管的螺丝松开，然后将尾部往后拉，此时要注意皮带的松紧度，不能过松或者过紧，适当即可，调整好后锁紧主机架上的四个螺丝。

尾伺服器的调整

由于直升机属于高精密度模型。在直升机运转时，有多种情况可能引起直升机向一边旋转，可以参考以下方法调试，调校过程中为避免意外发生，建议把马达和调速器的接线断开。先打开发射机，再将直升机电源接通，然后将发射机的方向摇杆和微调居中(图1)；保持尾伺服器固定架与尾管尽量垂直(图2)，再左右移动尾伺服器固定座的同时,确保尾旋翼横轴的距离(大约在横轴的1/3处)(图3),使尾伺服器和摆臂保持垂直(图4)

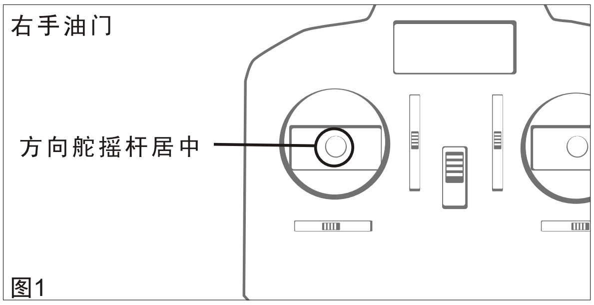


图1

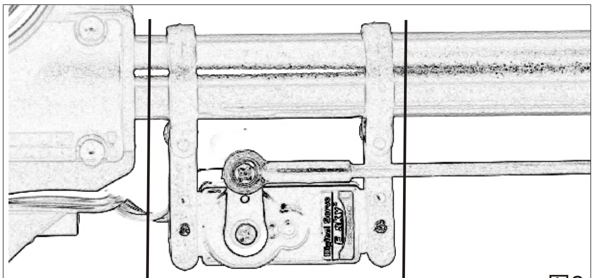


图2

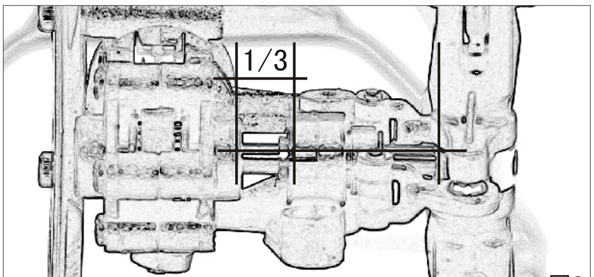


图3

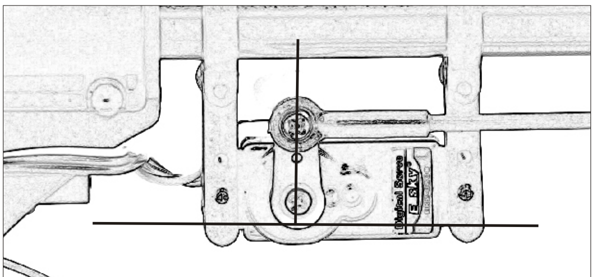


图4

主翼夹头组装步骤

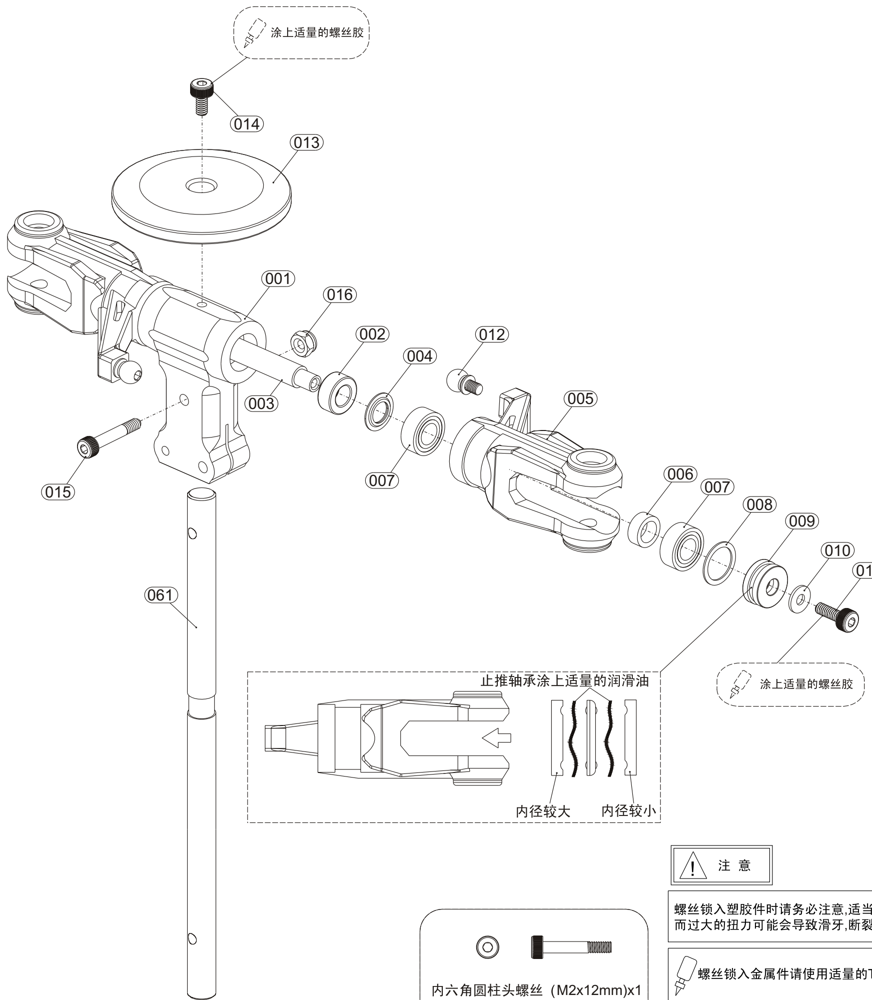
内六角圆柱头螺丝 (M2*6)x2

内六角圆柱头螺丝 (M2*5)x1

Ø4.0球头螺丝 (M2*6.36)

M2.0 防松螺母x1

No.	Name	Specification	Quantity
001	主旋转头		1
002	O 形圈	Ø3.6*Ø7.1*3.6	2
003	横轴		1
004	台阶垫片	Ø4*Ø7.5*0.5	2
005	主翼夹头		2
006	铜套	Ø4*Ø5.8*2.3	2
007	轴承	Ø4*Ø8*3	4
008	垫片	Ø6.5*Ø8*0.3	2
009	止推轴承	Ø3*Ø8*3.5	2
010	垫片	Ø2*Ø5*0.5	2
011	内六角圆柱头螺丝	M2*6	2
012	球头螺丝	SØ4*6.36	2
013	刹车碟		1
014	内六角圆柱头螺丝	M2*5	1
015	内六角圆柱头螺丝	M2*12	1
016	防松螺母	M2.0	1
061	主轴	Ø5*124	1



内六角圆柱头螺丝（M2x12mm)x1

注 意

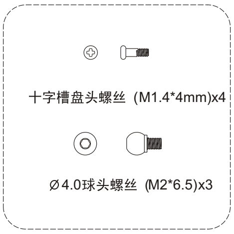
螺丝锁入塑胶件时请务必注意,适当扭力即可.
而过大的扭力可能会导致滑牙,断裂.

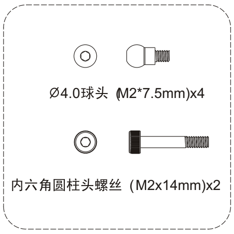
螺丝锁入金属件请使用适量的T43（螺丝胶)

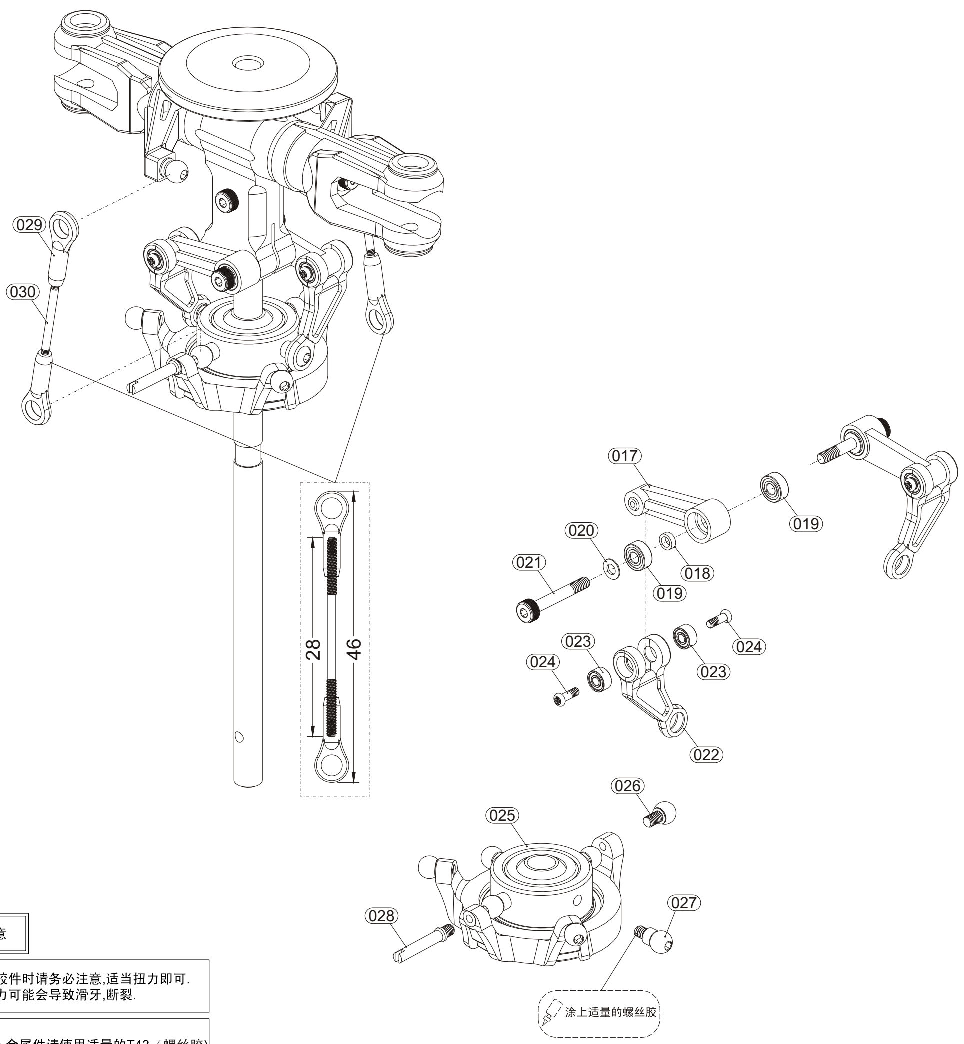
使用前，请确认螺丝处于锁紧状态.

希拉臂组装步骤

No.	Name	Specification	Quantity
017	希拉控制臂		2
018	铜套	Ø2*Ø3*1	2
019	轴承	Ø2*Ø5*2	4
020	台阶垫片	Ø2*Ø3.8*0.4	4
021	内六角圆柱头螺丝	M2*14	2
022	剪型臂		2
023	轴承	Ø1.5*Ø4*2	4
024	十字槽平圆头螺丝	ST1.4*4	4
025	倾斜盘		1
026	球头螺丝	SØ4*6.5	4
027	球头螺丝	SØ4*7.5	3
028	倾斜盘固定销	Ø2.0*14	1
029	塑胶连杆头		4
030	拉杆	1.4*28	2







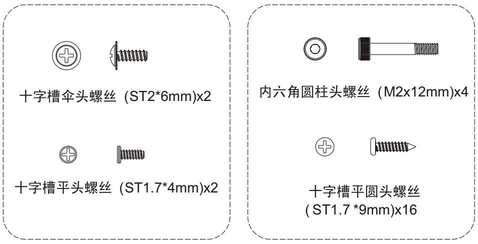
注 意

螺丝锁入塑胶件时请务必注意,适当扭力即可.
而过大的扭力可能会导致滑牙,断裂.

螺丝锁入金属件请使用适量的T43（螺丝胶)

使用前，请确认螺丝处于锁紧状态.

机架组装步骤



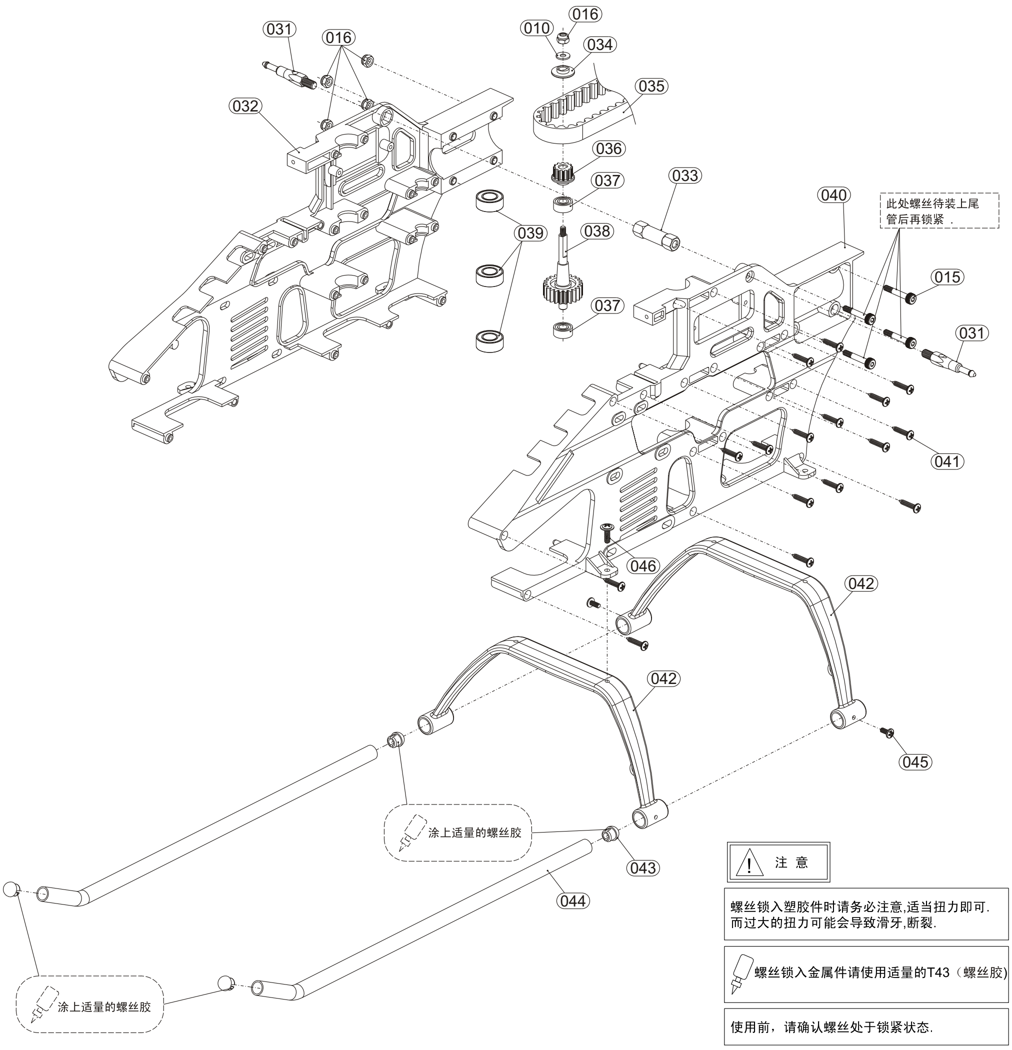
十字槽伞头螺丝（ST2*6mm)x2

十字槽平头螺丝（ST1.7*4mm)x2

内六角圆柱头螺丝（M2x12mm)x4

十字槽平圆头螺丝
(ST1.7 *9mm)x16

No.	Name	Specification	Quantity
031	机头罩固定柱		2
032	右侧板		1
033	连接杆		1
016	防松螺母	M2.0	5
010	垫片	Ø2*Ø5*0.5	1
034	前皮带轮盖		1
035	尾传动皮带		1
036	前同步皮带轮		1
037	轴承	Ø3*Ø7*3	2
038	尾从动齿轮		1
039	轴承	Ø5*Ø10*4	3
040	左侧板		1
015	内六角圆柱头螺丝	M2*12	4
041	十字槽平圆头螺丝	ST1.7*9	16
042	滑撬支架		2
043	滑撬管塞		4
044	滑撬		2
045	十字槽平圆头螺丝	ST1.7*4	2
046	十字槽伞头自攻牙螺丝	ST2*6	2



注 意

螺丝锁入塑胶件时请务必注意,适当扭力即可.
而过大的扭力可能会导致滑牙,断裂.

螺丝锁入金属件请使用适量的T43（螺丝胶)

使用前，请确认螺丝处于锁紧状态.

主齿轮组装步骤

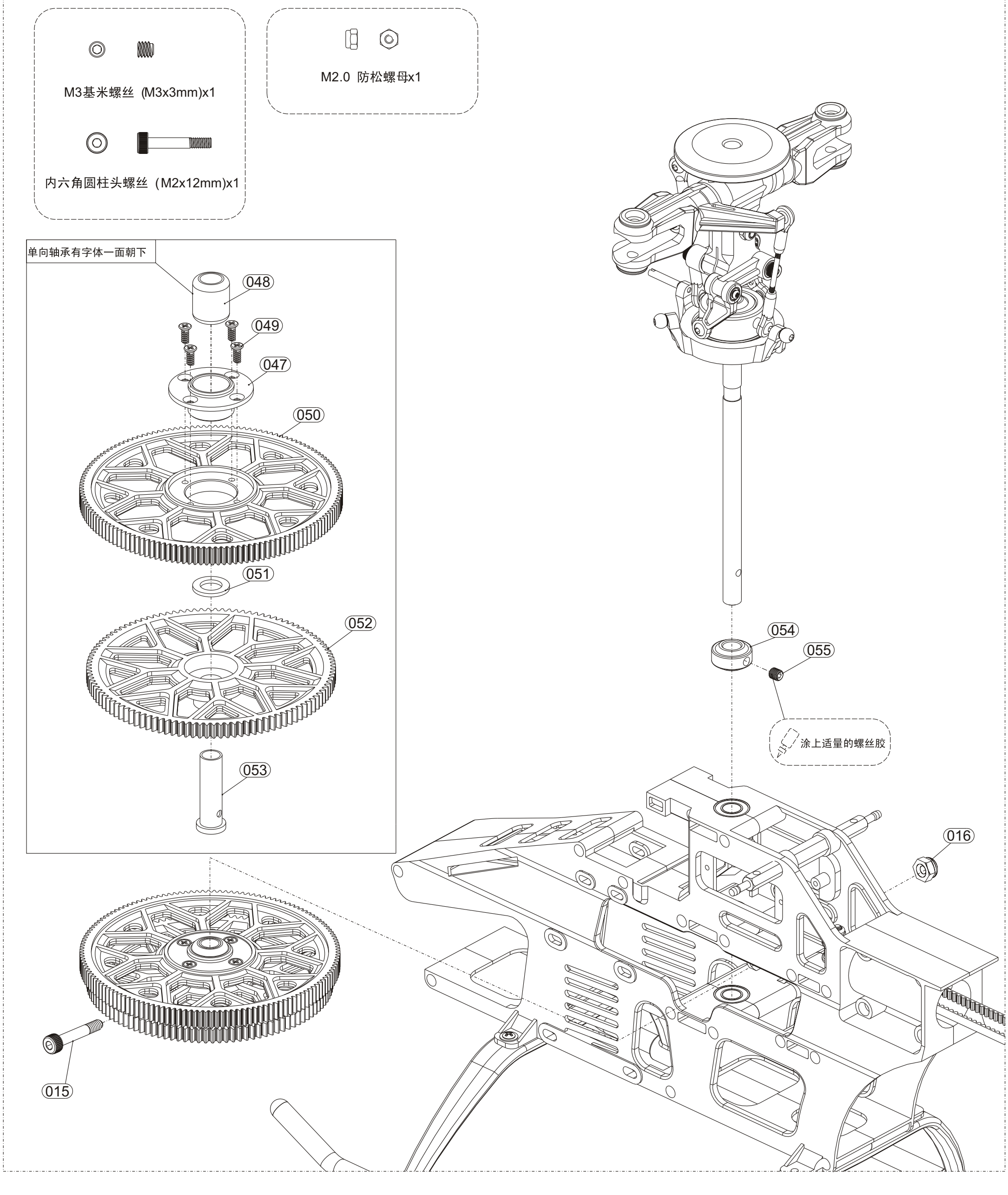
No.	Name	Specification	Quantity
047	金属固定座		1
048	单向轴承	Ø6*Ø10*12	1
049	内六角沉头螺丝	ST2*6	4
050	主齿轮	140T	1
051	平面垫片	Ø6*Ø10*1	1
052	副齿轮	110T	1
053	齿轮连轴器	Ø5*Ø6*22.2	1
054	定位环		1
055	基米螺丝	M3x3	1
015	内六角圆柱头螺丝	M2*12	1
016	防松螺母	M2.0	1

注 意

螺丝锁入塑胶件时请务必注意,适当扭力即可.
而过大的扭力可能会导致滑牙,断裂.

螺丝锁入金属件请使用适量的T43（螺丝胶)

使用前，请确认螺丝处于锁紧状态.



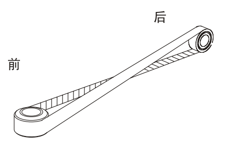
尾管组装步骤

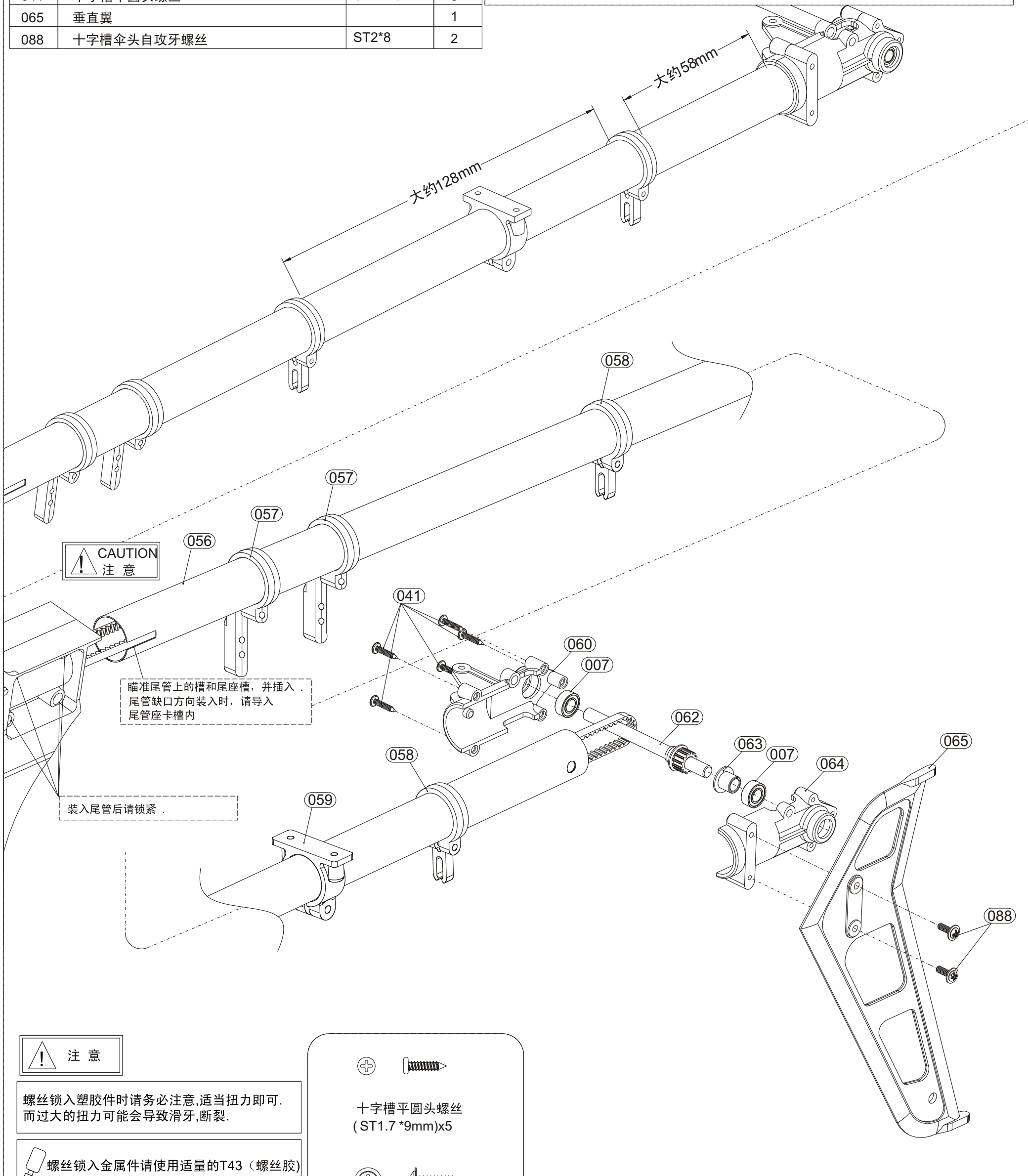
No.	Name	Specification	Quantity
056	尾管		1
057	尾舵机固定座		2
058	尾拉杆固定座		2
059	水平翼固定座		1
060	尾牙箱右		1
007	轴承	Ø4*Ø8*3	2
062	尾齿轮		1
063	尾齿轮盖		1
064	尾牙箱左		1
041	十字槽平圆头螺丝	ST1.7*9	5
065	垂直翼		1
088	十字槽伞头自攻牙螺丝	ST2*8	2

注 意

尾传动皮带装配示图

1. 组装时确认皮带顺转 90 度。
2. 皮带紧度：建议尾管组装后皮带请销微拉紧，避免震动皮带磨擦或转动打滑





注 意

螺丝锁入塑胶件时请务必注意,适当扭力即可.而过大的扭力可能会导致滑牙,断裂.

螺丝锁入金属件请使用适量的T43（螺丝胶)

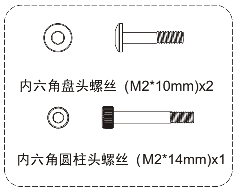
使用前，请确认螺丝处于锁紧状态.

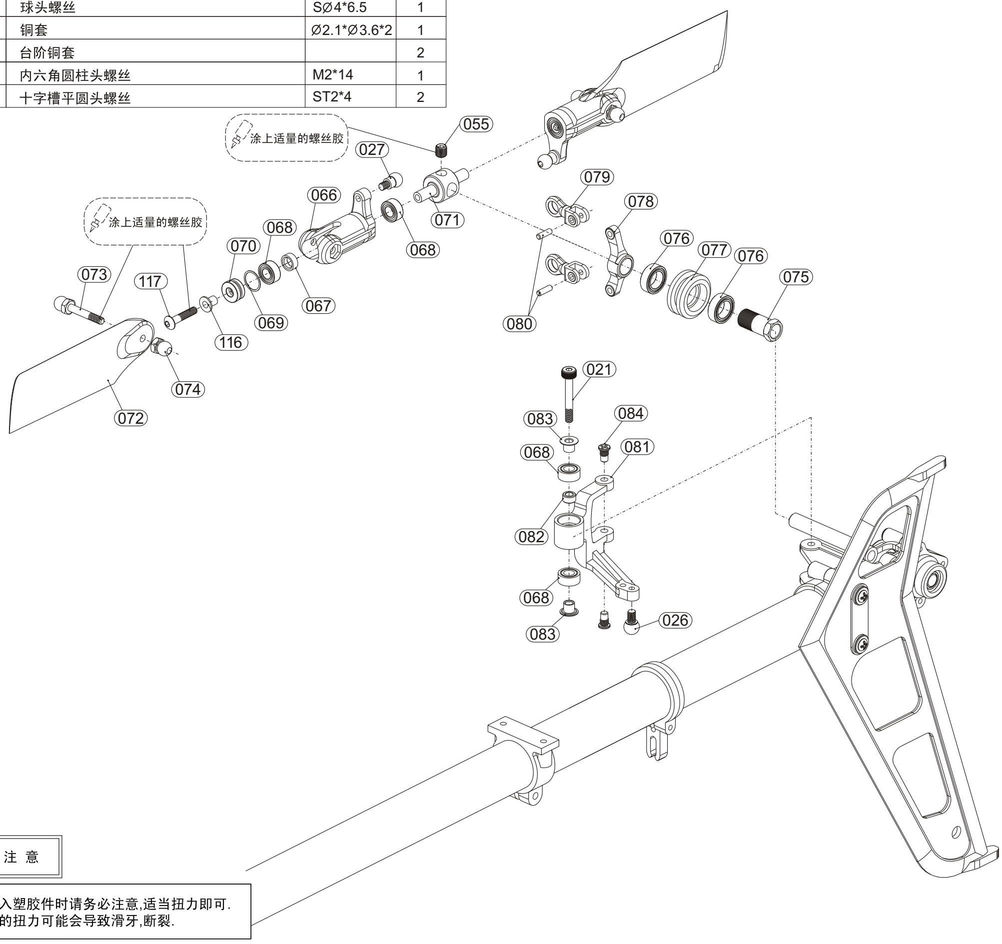
十字槽平圆头螺丝
(ST1.7 *9mm)x5

十字槽伞头螺丝 (ST2*8mm)x2

尾旋翼组装步骤

No.	Name	Specification	Quantity
066	尾翼夹头		2
027	球头螺丝	SØ4*7.5	2
067	铜套	Ø3*Ø4.5*1.6	2
068	轴承	Ø3*Ø6*2.5	4
069	垫片	Ø5.1*Ø6*0.1	4
070	止推轴承	Ø2.5*Ø6*3	2
116	金属衬套		2
071	金属旋转头		1
117	内六角盘头螺丝	M2*10	2
072	尾旋翼		2
073	金属球头		2
074	金属球头		2
075	尾滑铜套		1
076	轴承	Ø5*Ø8*2.5	2
077	尾滑座		1
078	尾中心座滑套		1
079	单孔拉杆		2
080	圆柱销	Ø1.5*5	2
055	基米螺丝	M3x3	1
081	尾摇臂		1
026	球头螺丝	SØ4*6.5	1
082	铜套	Ø2.1*Ø3.6*2	1
083	台阶铜套		2
021	内六角圆柱头螺丝	M2*14	1
084	十字槽平圆头螺丝	ST2*4	2





注 意

螺丝锁入塑胶件时请务必注意,适当扭力即可.
而过大的扭力可能会导致滑牙,断裂.

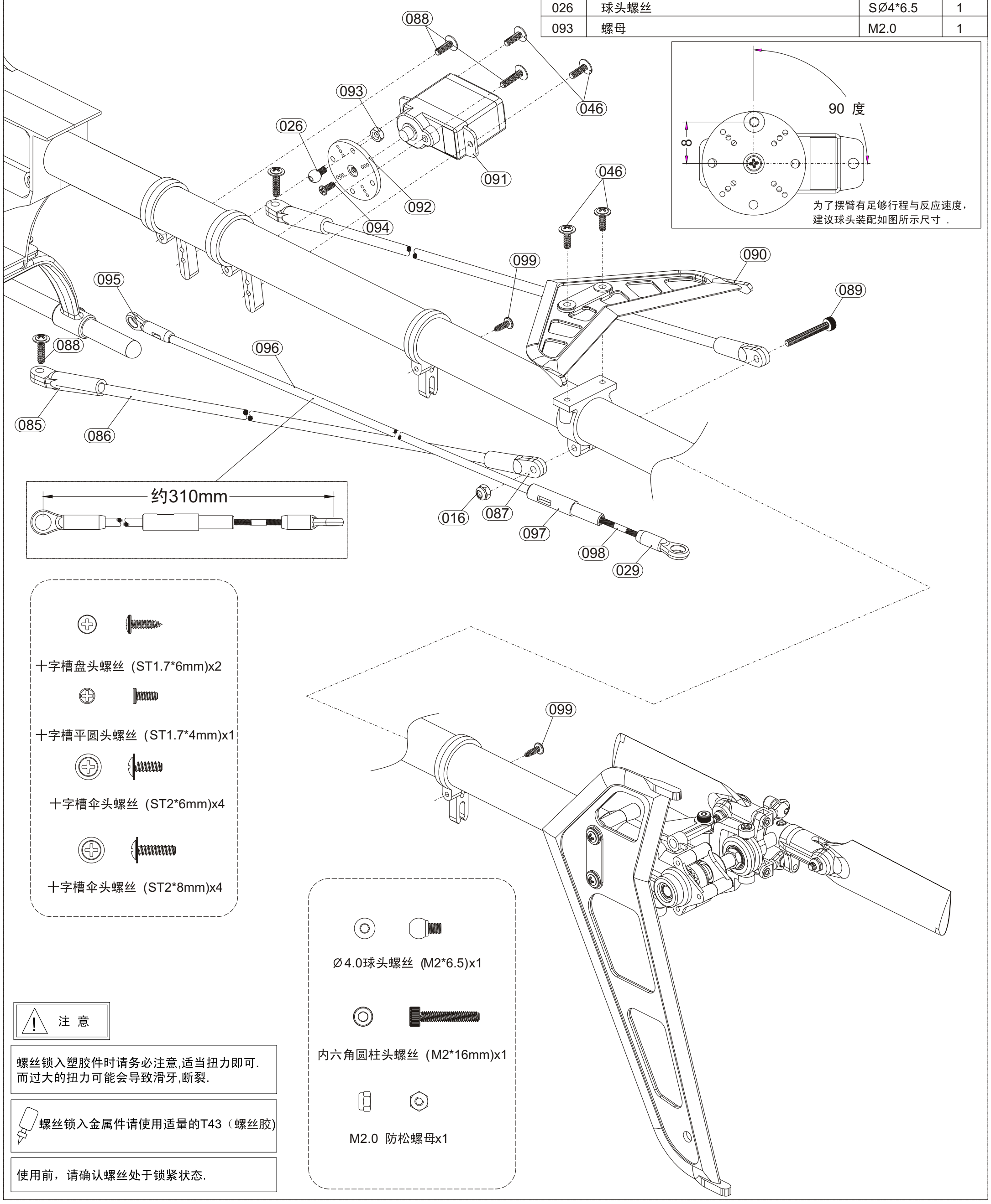
螺丝锁入金属件请使用适量的T43（螺丝胶)

使用前，请确认螺丝处于锁紧状态.

拉杆支架组装步骤

No.	Name	Specification	Quantity
094	十字槽平圆头螺丝	ST1.7*4	1
095	尾拉杆头		1
096	尾拉杆	Ø2*270	1
097	尾拉杆连接件		1
098	无头螺纹拉杆	Ø1.4*26	1
029	塑胶连杆头		1
099	十字槽盘头螺丝	ST1.7*6	2

No.	Name	Specification	Quantity
085	尾支撑杆头 A		2
086	尾支撑杆	Ø3*250	2
087	尾支撑接头 B		2
088	十字槽伞头自攻牙螺丝	ST2*8	4
089	内六角圆柱头螺丝	M2*16	1
016	防松螺母	M2.0	1
090	水平翼		1
046	十字槽伞头自攻牙螺丝	ST2*6	4
091	舵机		1
092	舵机摆臂		1
026	球头螺丝	SØ4*6.5	1
093	螺母	M2.0	1



注 意

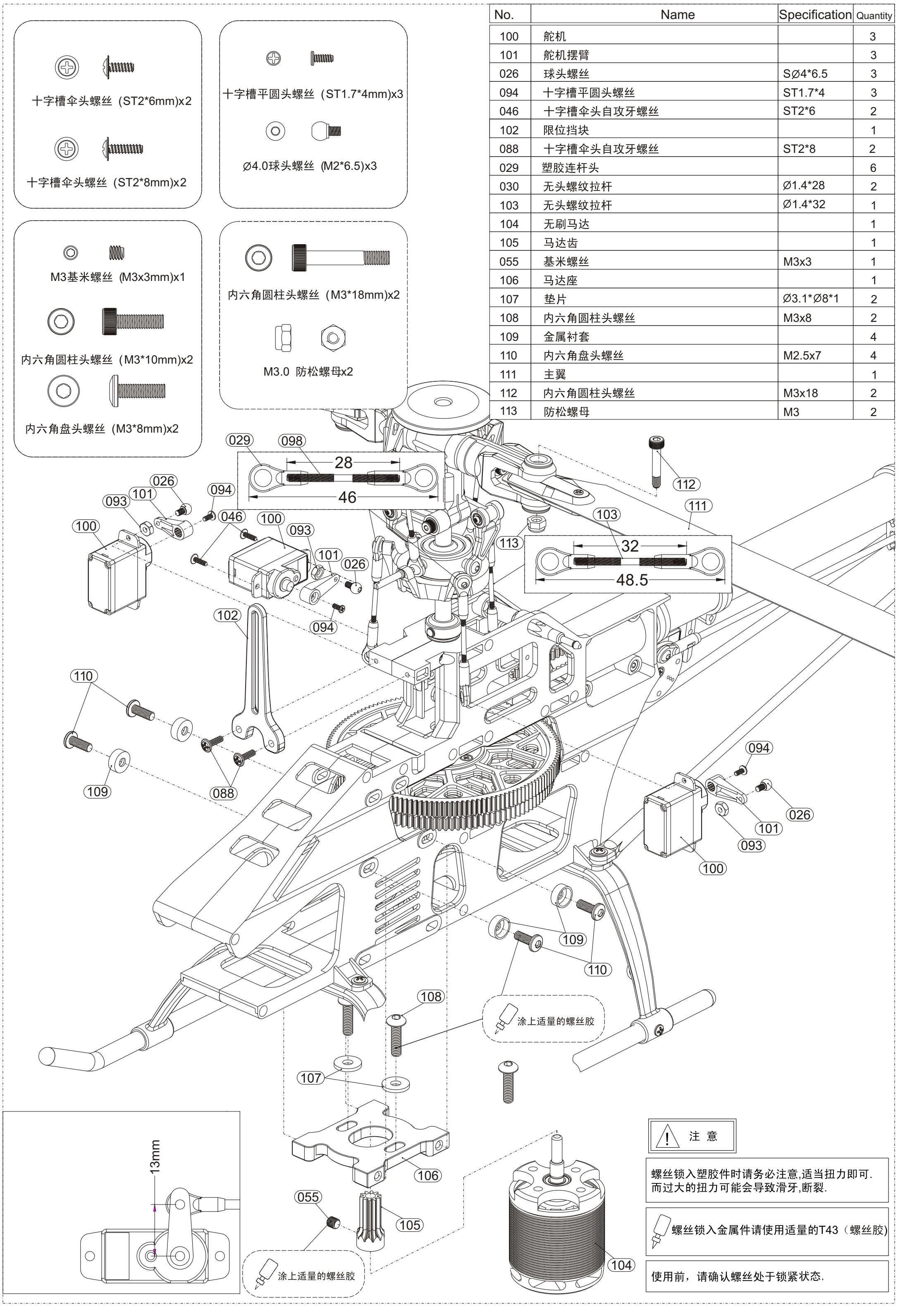
螺丝锁入塑胶件时请务必注意,适当扭力即可.
而过大的扭力可能会导致滑牙,断裂.

螺丝锁入金属件请使用适量的T43（螺丝胶)

使用前，请确认螺丝处于锁紧状态.

动力系统组装步骤

No.	Name	Specification	Quantity
100	舵机		3
101	舵机摆臂		3
026	球头螺丝	SØ4*6.5	3
094	十字槽平圆头螺丝	ST1.7*4	3
046	十字槽伞头自攻牙螺丝	ST2*6	2
102	限位挡块		1
088	十字槽伞头自攻牙螺丝	ST2*8	2
029	塑胶连杆头		6
030	无头螺纹拉杆	Ø1.4*28	2
103	无头螺纹拉杆	Ø1.4*32	1
104	无刷马达		1
105	马达齿		1
055	基米螺丝	M3x3	1
106	马达座		1
107	垫片	Ø3.1*Ø8*1	2
108	内六角圆柱头螺丝	M3x8	2
109	金属衬套		4
110	内六角盘头螺丝	M2.5x7	4
111	主翼		1
112	内六角圆柱头螺丝	M3x18	2
113	防松螺母	M3	2



! 注 意

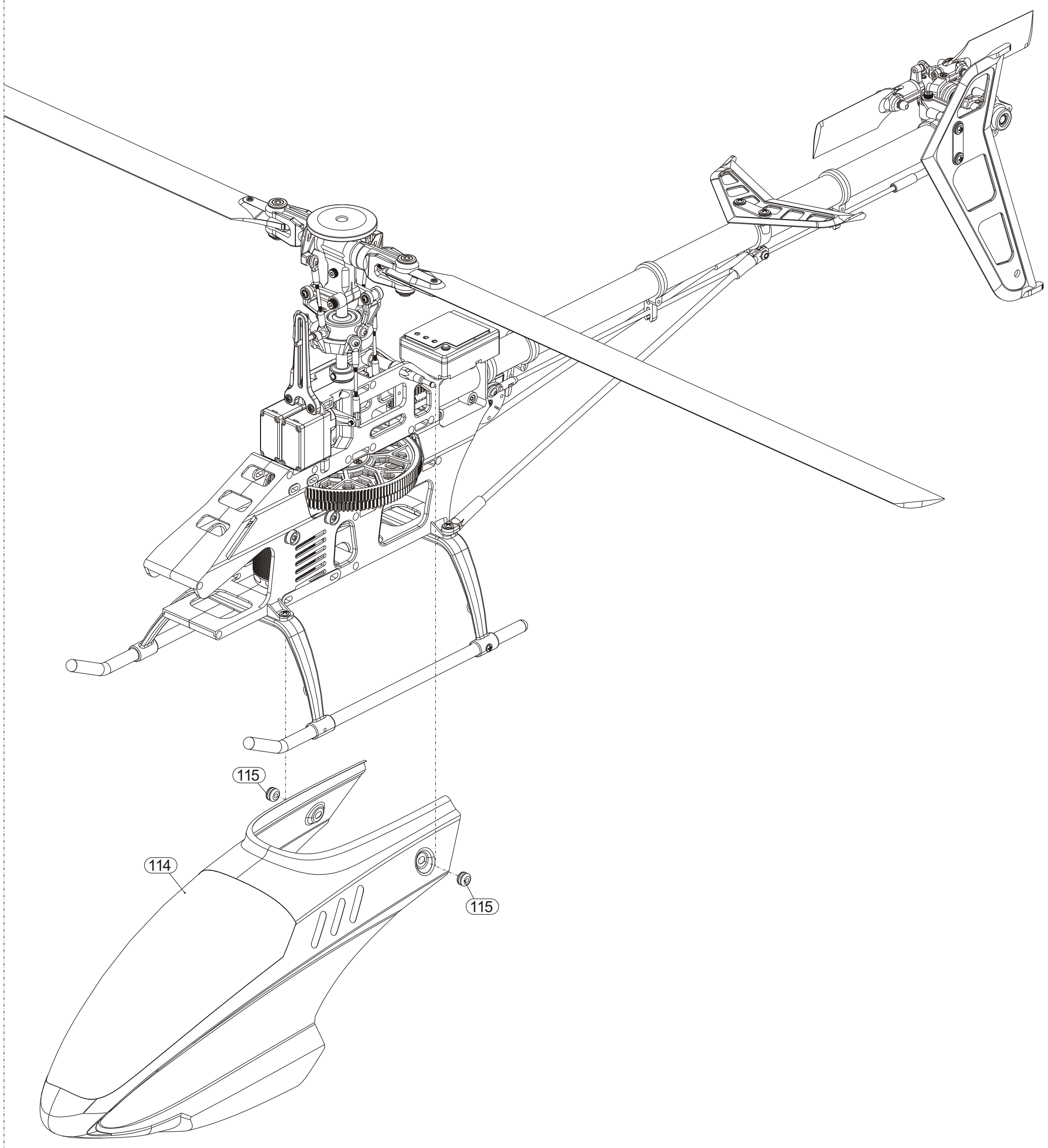
螺丝锁入塑胶件时请务必注意,适当扭力即可.
而过大的扭力可能会导致滑牙,断裂.

螺丝锁入金属件请使用适量的T43（螺丝胶)

使用前，请确认螺丝处于锁紧状态.

机壳组装步骤

No.	Name	Specification	Quantity
114	机壳		1
115	护垫		2



分解图

零件清单

No.	Name	Specification	Quantity
001	主旋转头		1
002	O 形圈	Ø3.6*Ø7.1*3.6	2
003	横轴		1
004	台阶垫片	Ø4*Ø7.5*0.5	2
005	主翼夹头		2
006	铜套	Ø4*Ø5.8*2.3	2
007	轴承	Ø4*Ø8*3	6
008	垫片	Ø6.5*Ø8*0.3	2
009	止推轴承	Ø3*Ø8*3.5	2
010	垫片	Ø2*Ø5*0.5	3
011	内六角圆柱头螺丝	M2*6	6
012	球头螺丝	SØ4*6.36	2
013	刹车碟		1
014	内六角圆柱头螺丝	M2*5	1
015	内六角圆柱头螺丝	M2*12	6
016	防松螺母	M2.0	8
017	希拉控制臂		2
018	铜套	Ø2*Ø3*1	2
019	轴承	Ø2*Ø5*2	4
020	台阶垫片	Ø2*Ø3.8*0.4	4
021	内六角圆柱头螺丝	M2*14	2
022	剪型臂		2
023	轴承	Ø1.5*Ø4*2	4
024	十字槽平圆头螺丝	ST1.4*4	4
025	倾斜盘		1
026	球头螺丝	SØ4*6.5	8
027	球头螺丝	SØ4*7.5	6
028	倾斜盘固定销	Ø2.0*14	1
029	塑胶连杆头		11
030	拉杆	1.4*28	4
031	机头罩固定柱		2
032	右侧板		1
033	连接杆		1
034	前皮带轮盖		1
035	尾传动皮带		1
036	前同步皮带轮		1
037	轴承	Ø3*Ø7*3	2
038	尾从动齿轮		1
039	轴承	Ø5*Ø10*4	3
040	左侧板		1
041	十字槽平圆头螺丝	ST1.7*9	21
042	滑撬支架		2
043	滑撬管塞		4
044	滑撬		2
045	十字槽平圆头螺丝	ST1.7*4	2
046	十字槽伞头自攻牙螺丝	ST2*6	8
047	金属固定座		1
048	单向轴承	Ø6*Ø10*12	1
049	内六角沉头螺丝	ST2*6	4
050	主齿轮	140T	1
051	平面垫片	Ø6*Ø10*1	1
052	副齿轮	110T	1
053	齿轮连轴器	Ø5*Ø6*22.2	1
054	定位环		1
055	基米螺丝	M3x3	3
056	尾管		1
057	尾舵机固定座		2
058	尾拉杆固定座		2
059	水平翼固定座		1
060	尾牙箱右		1
061	主轴	Ø5*124	1
062	尾齿轮		1
063	尾齿轮盖		1
064	尾牙箱左		1
065	垂直翼		1
066	尾翼夹头		2
067	铜套	Ø3*Ø4.5*1.6	2
068	轴承	Ø3*Ø6*2.5	6
069	垫片	Ø5.1*Ø6*0.1	4
070	止推轴承	Ø2.5*Ø6*3	2
071	金属旋转头		1

No.	Name	Specification	Quantity
072	尾旋翼		2
073	金属球头		2
074	金属球头		2
075	尾滑铜套		1
076	轴承	Ø5*Ø8*2.5	2
077	尾滑座		1
078	尾中心座滑套		1
079	单孔拉杆		2
080	圆柱销	Ø1.5*5	2
081	尾摇臂		1
082	铜套	Ø2.1*Ø3.6*2	1
083	台阶铜套		2
084	十字槽平圆头螺丝	ST2*4	2
085	尾支撑杆头 A		2
086	尾支撑杆	Ø3*250	2
087	尾支撑接头 B		2
088	十字槽伞头自攻牙螺丝	ST2*8	6
089	内六角圆柱头螺丝	M2*16	1
090	水平翼		1
091	舵机		1
092	舵机摆臂		1
093	螺母	M2.0	4
094	十字槽平圆头螺丝	ST1.7*4	4
095	尾拉杆头		1
096	尾拉杆	Ø2*270	1
097	尾拉杆连接件		1
098	无头螺纹拉杆	Ø1.4*24	1
099	十字槽盘头螺丝	ST1.7*6	2
100	舵机		3
101	舵机摆臂		3
102	限位挡块		1
103	无头螺纹拉杆	Ø1.4*32	1
104	无刷马达		1
105	马达齿		1
106	马达座		1
107	垫片	Ø3.1*Ø8*1	2
108	内六角圆柱头螺丝	M3x8	2
109	金属衬套		4
110	内六角盘头螺丝	M2.5x7	4
111	主翼		1
112	内六角圆柱头螺丝	M3x18	2
113	防松螺母	M3	2
114	机壳		1
115	护垫		2
116	金属衬套		2
117	内六角盘头螺丝	M2*10	2

配件图

DTS004055

主翼

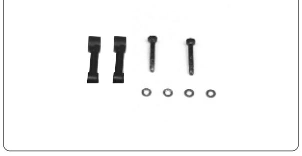
DTS004057

主旋转头组

DTS004058

主翼夹头组

DTS004059

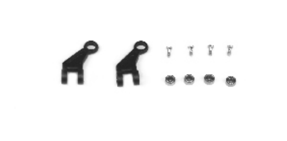


希拉控制臂组

DTS003960

横轴组

DTS003963



希拉控制臂组

DTS003966

伺服器连杆头

DTS003967

倾斜盘组

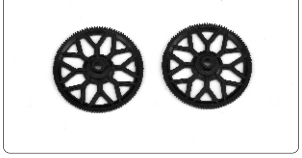
DTS003968

橡胶垫

DTS003969

主齿轮

DTS003970



副齿轮

DTS003971

主轴组

DTS003972

机架组

DTS003973

尾传动齿轮组

DTS003974

马达固定座组

DTS003975

十字盘导板

DTS003976

机壳支架

DTS003977

尾旋转头

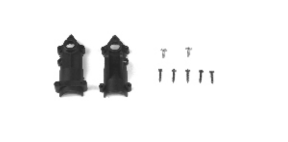
DTS003978

尾翼夹头组

DTS003979

尾控制L臂组

DTS003980

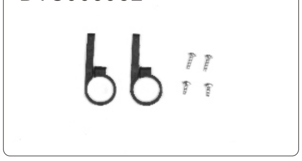


尾齿轮箱组

DTS003981

尾管

DTS003982



尾舵固定座组

DTS003983

尾拉杆固定座组

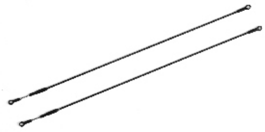
DTS003984

水平翼固定座组

DTS003985

水平翼垂直翼

DTS003986

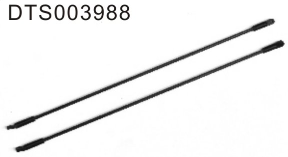


尾拉杆组

DTS003987

滑撬组

DTS003988



尾管支架组

DTS003989

尾控制臂组

DTS003990

尾轴组

DTS003991

无刷电机

DTS003992

11T

齿轮

DTS003993

10T

齿轮

DTS003941

3*6*2.5

止推轴承

DTS003995

5*10*4

轴承

DTS004127

4*8*3

轴承

DTS004122

3*7*3

轴承

DTS003998

金属固定座组

DTS003999

主齿轮组配件

DTS004000

3*8*3.5

止推轴承

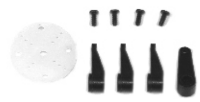
DTS004002

滑撬支架组

DTS004003

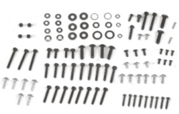
尾旋翼

DTS004006



摆臂组

DTS004061



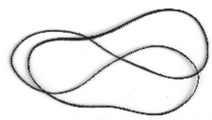
螺丝包

DTS004126

3*6*2.5

滚动轴承

DTS004186



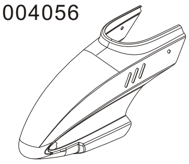
3*810

皮带

DTS004060

伺服器连杆

DTS004056



机头罩

DTS004065

工具包

GWY003914

倾斜盘伺服器

GWY003721

尾伺服器

GWY003752

2&3节

5A充电器

GWY003747

35A无刷马达调速器

DTS003949

11.1V 2200mAh

锂电池

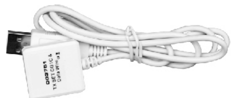
GWY004718

卫星接收机

GWY003770

数据线

GWY003751



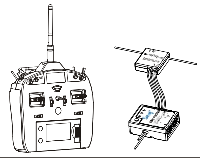
充电线

GWY004011

3.7V 1100mAh

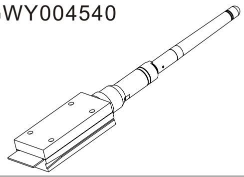
发射机锂电池

GWY003315



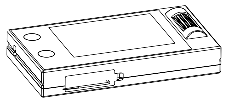
GWY6TL 2.4GHz
6通道发射机遥控系统

GWY004540



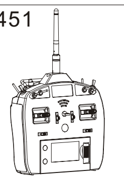
发射机高频模块

GWY003768



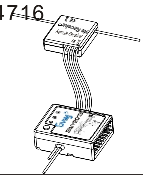
LCD设置模块

GWY005451



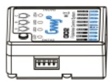
2.4GHz 6通道发射机

GWY004716



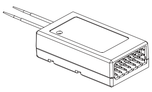
GWY 2013三轴接收机

GWY006195



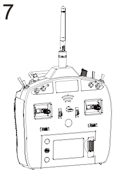
G02陀螺仪

GWY006228



AH6R接收机

GWY006227



AH6T 2.4GHz 6通道发射机

Global Distribution Office
Zonda Hobby Technologies Electronic Ltd Workshop No.1, 1st Floor, Kam Hon Industrial Building,
No.8 Wang Kwun Road, Kowloon Bay, Kowloon, Hong Kong
Tel : 852-3160 8886 Fax : 852-3160 8884
Email: Michael@zondahobby.com, Jason@zondahobby.com
Official Website: www.zondahobby.com