



- Length Without Main Blades: 1383mm
- Overall Height: 351mm
- Width: 217mm
- Main Gear: 106T Mod 1
- Pinion Gear: 11T (10-13T Optional)
- Motor Shaft Diameter: 6mm (Length 20-55mm)
- Main Gear Ratio: 9.636 (10.6 - 8.38 Optional)
- Front Tail Pulley: 100T
- Rear Tail Pulley: 21T (20T Optional)

- Tail Ratio: 4.767 (5.0 Optional)
- Frame Weight: 2060g
- Main Shaft Diameter: 15mm
- Feathering Shaft Diameter: 10mm
- Tail Boom Diameter: 32mm
- Tail Belt Width: 8mm
- Main Gear Thickness: 18mm
- Battery Compartment Size: 380mm*68mm*70mm

If you do not observe these instructions, you may be held liable for injury or damage.

Operate the helicopter in open areas with no people nearby. Do NOT operate the helicopter in these situations or areas:

In places where children gather or people pass through

In residential areas and parks

Indoors and in limited space

Extremely windy weather or when there is rain, snow, fog or other precipitation

When operating and tuning/adjusting your model, keep the following in mind:

ALWAYS check radio control system for proper operation before operating the model.

ALWAYS check radio control system power levels before operating the model. Flying with low transmitter or receiver battery may cause loss of control.

ALWAYS pay attention to your surroundings, and look out for others who are also operating a radio control model nearby.

ALWAYS check that all screws are tight and not coming loose before flying the model. A single loose screw on the model may cause a major accident.

ALWAYS perform necessary maintenance and preflight checks to keep the helicopter in a good and safe flying condition.

NEVER use the same control frequency as someone else. Doing so may cause interference or loss of control of the model.

NEVER continue flying if the model is displaying irregular behavior or noises. Bring the model to a halt immediately and disconnect the batteries.

NEVER fly the model with known broken or defective parts. Always replace damaged parts before attempting to fly again.

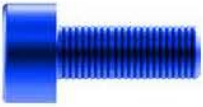
NEVER approach the model while the rotors are still spinning. Doing so can result in serious personal injury.

NEVER touch the motor immediately after flying. It may be hot enough to cause moderate burns.

Operate only outdoors and out of bystanders reach, as the main rotor operates at high rpm and is very dangerous.

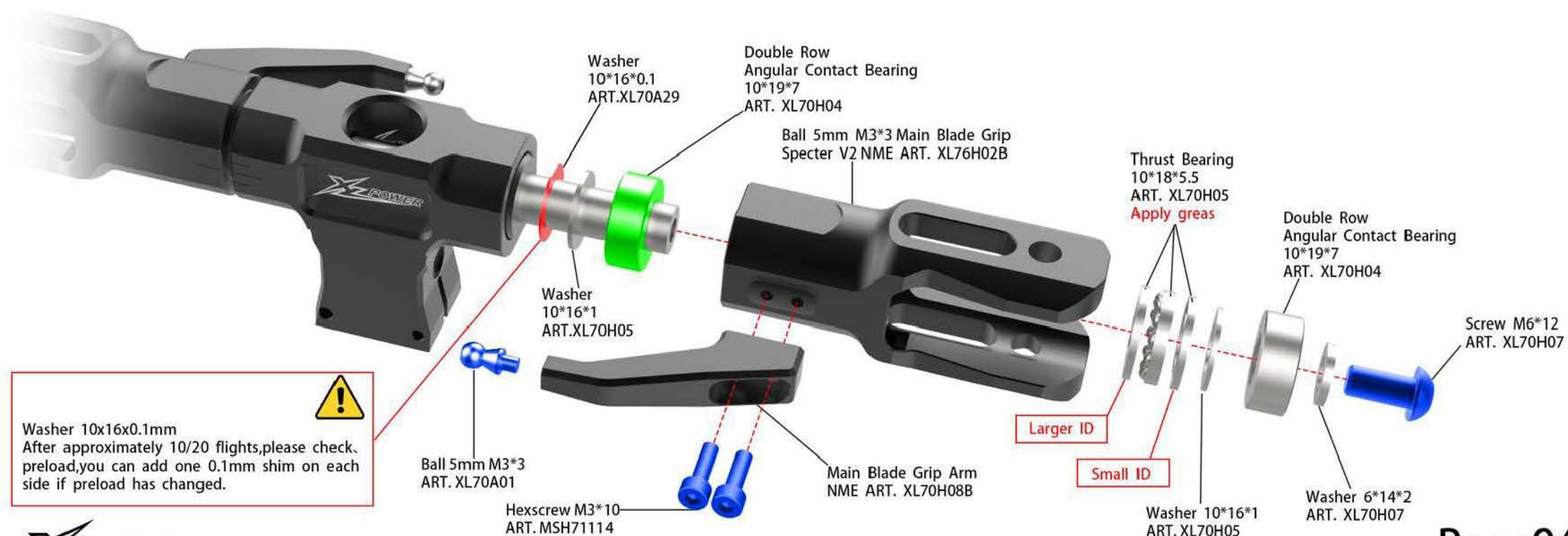
While adjusting and testing, pilots and observers should stand at least 10 meters from the model.

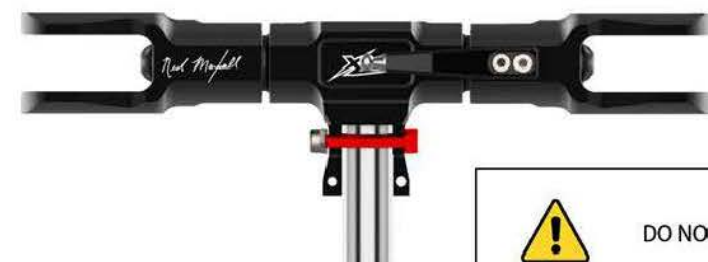
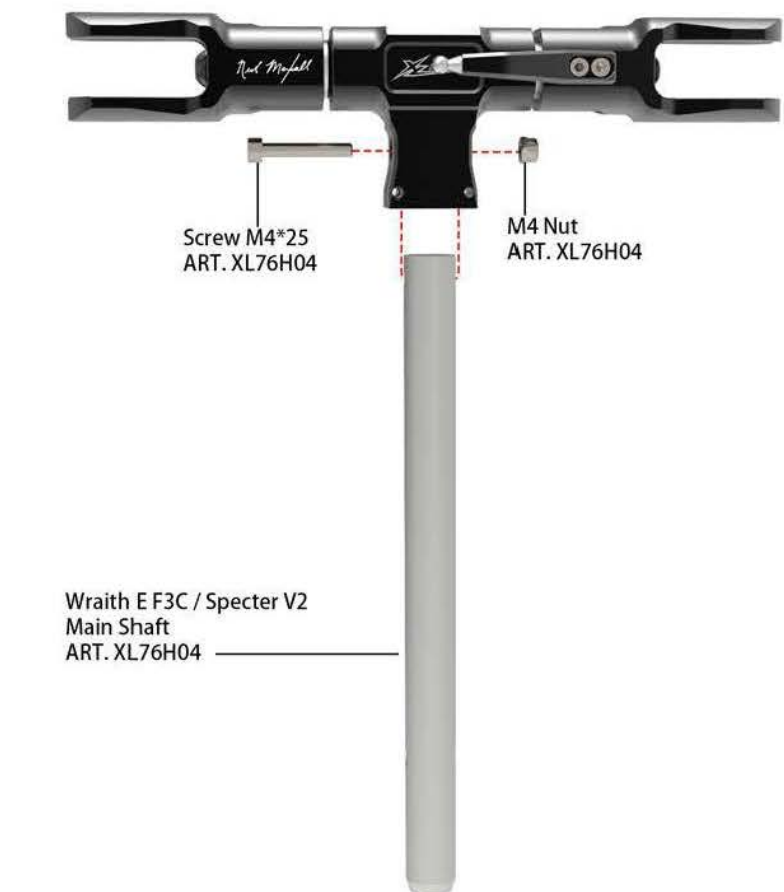
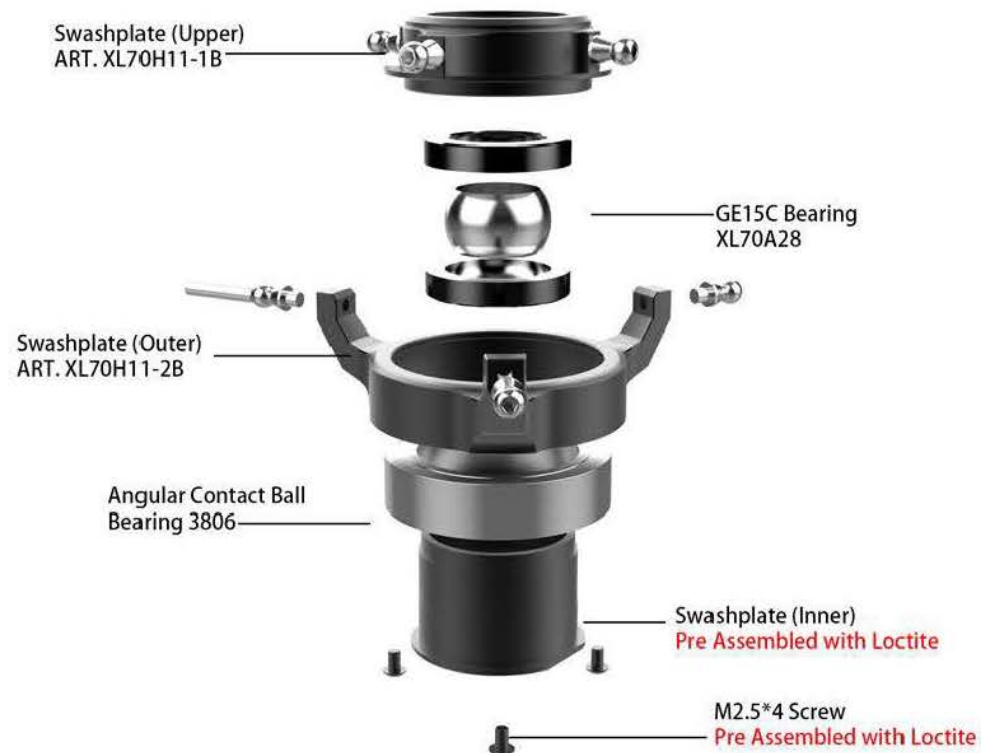
Novice pilots should be assisted by an experienced pilot and never fly alone!

Swashplate Servos: Standard size(Qty.3)	ESC: 130HV-250HV Typical	Hex Screwdriver Sizes: 1.5mm 3mm 2mm 4mm*2 2.5mm*2
Tail Servo\Throttle Servo Standard Size(Qty.1)	Main Blades: Carbon Fiber 690mm - 720mm	  Where indicated, use Thread lock MEDIUM
Trasmitter Receiver/Satellites Flybarless Unit	Tail blades: Carbon Fiber 105mm to 116mm	  Wicking compound bearing retainer
Battery Pack (Typical): LiPo 6s 4000-5500mAh * 2 or LiPo 7s 4000-5500mAh * 2	Motor: 4525-4530 500kv-550kv Typical	Thrust Bearing Grease Pitch Gauge



Head Dampener





DO NOT TIGHTEN YET

Fully tighten M4*25 screw

Spacer 3*5*0.5
ART. XL70H09B

Control arm NME
ART. XL70H09B

Ball Bearing
3*7*3
ART. XL52A12
ART. XL70H09B

Radius Arm
ART. XL70H09
ART. XL70H10

Pin 3*14
ART. XL70H09B



Pinch bolts together

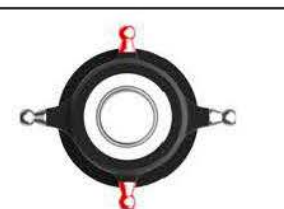
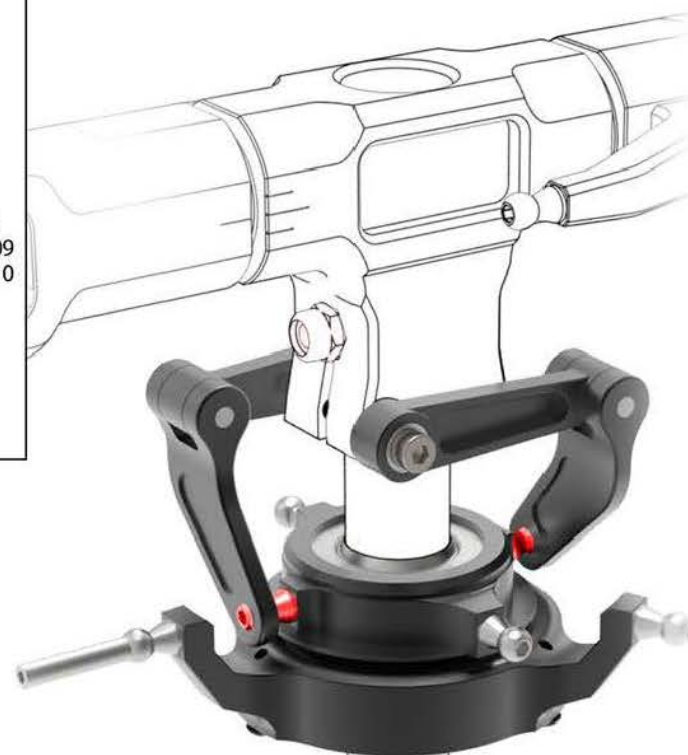
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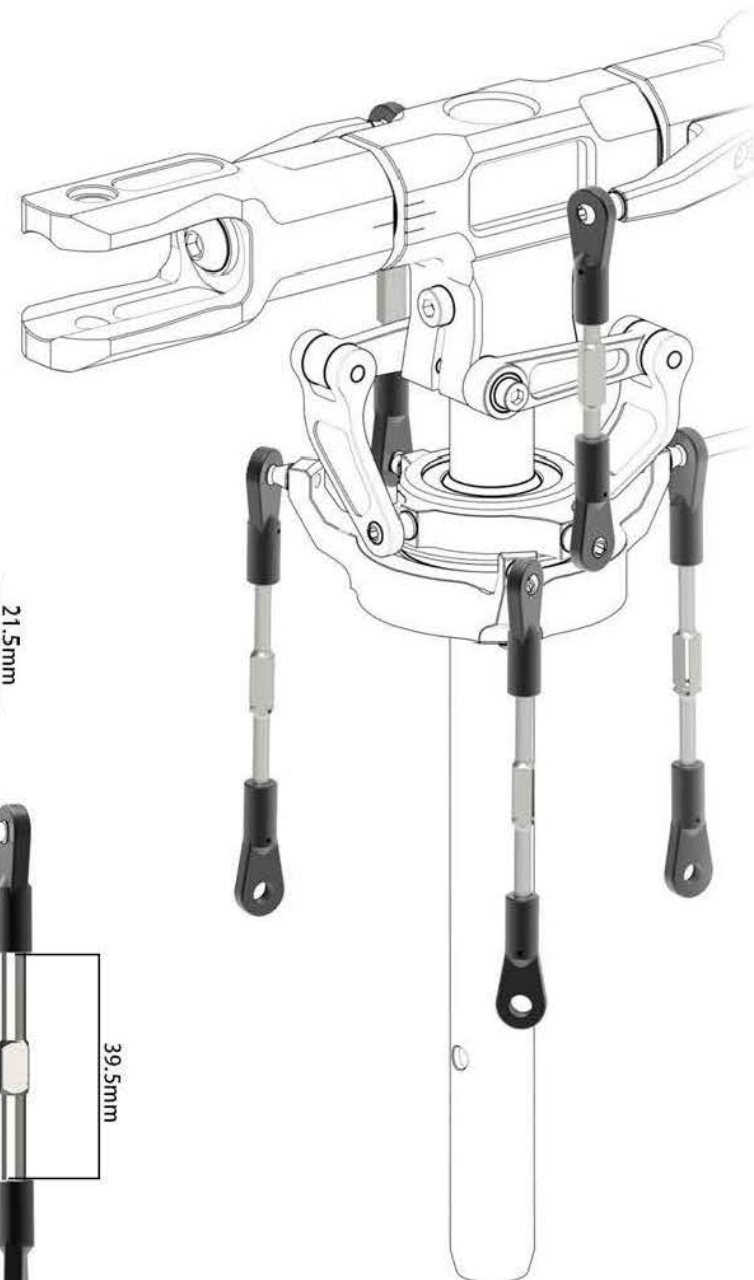
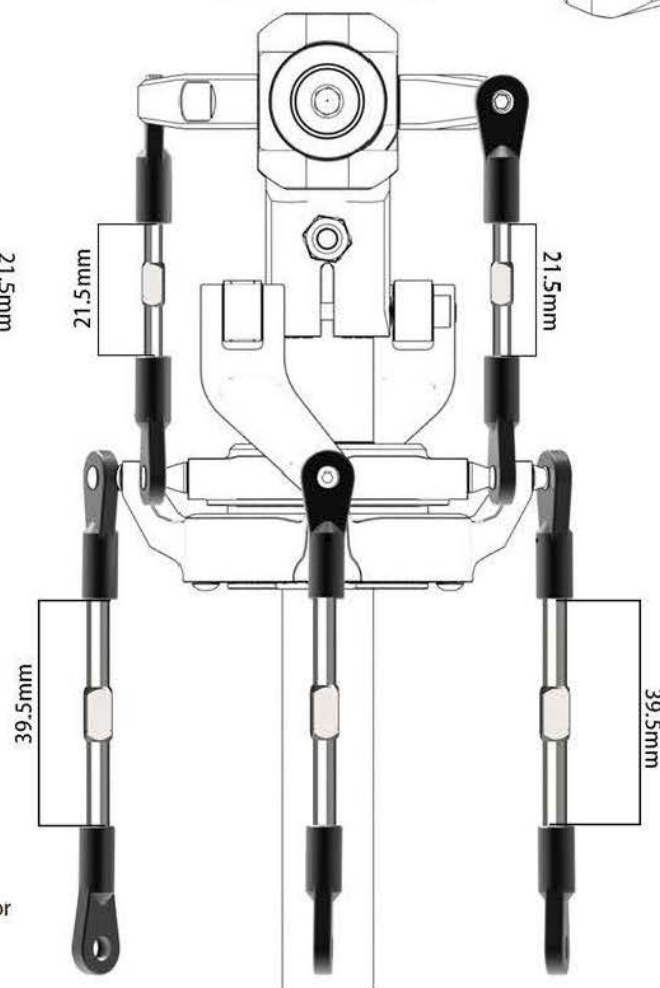
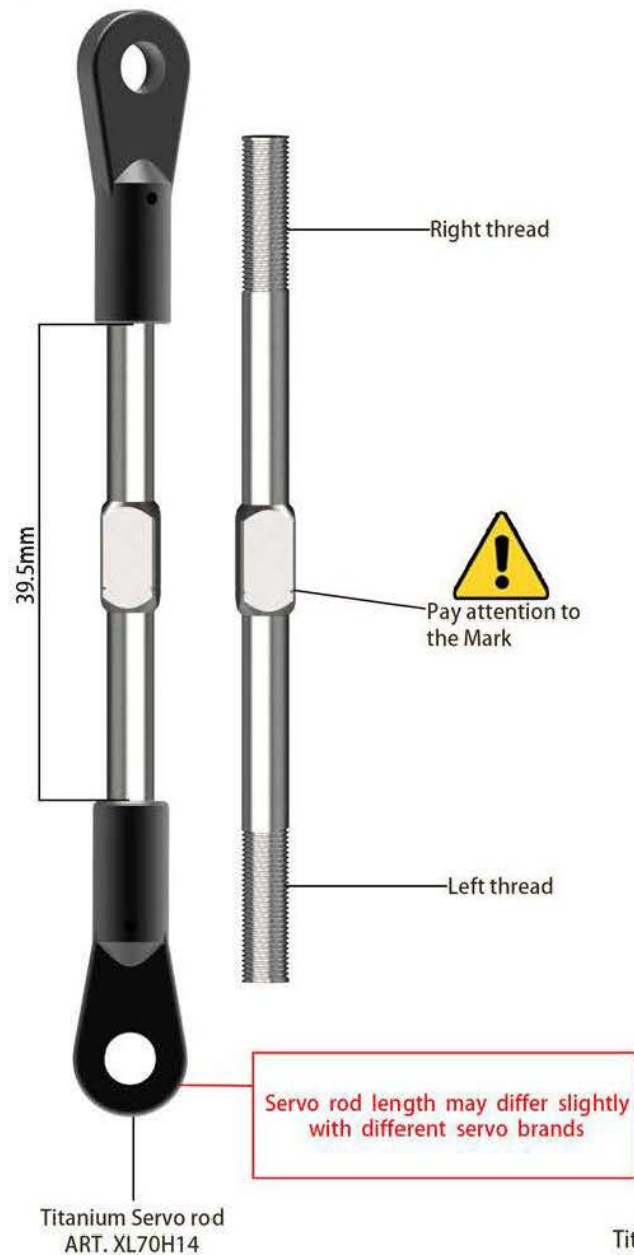
Screw M3*25
ART. XL70H09B

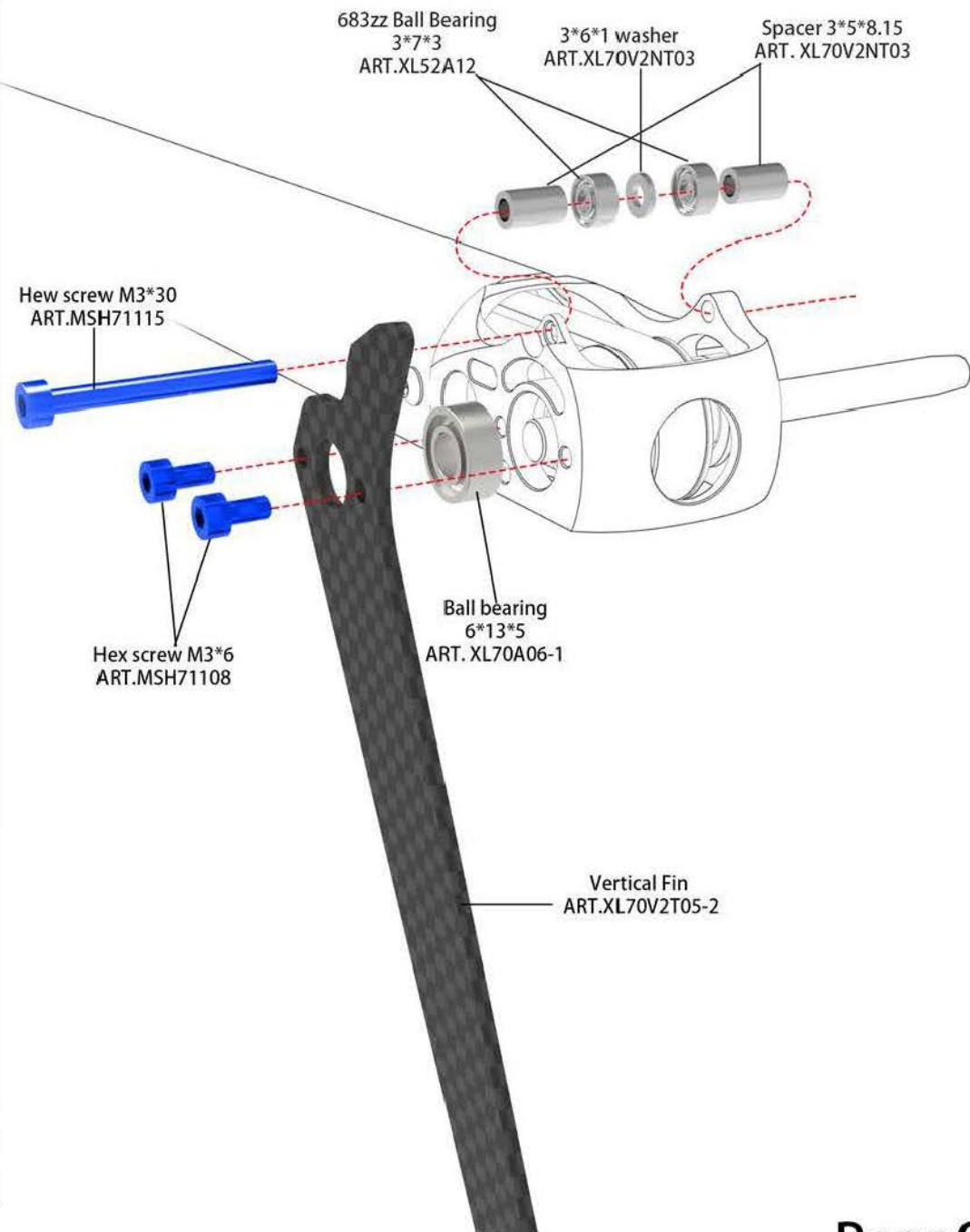
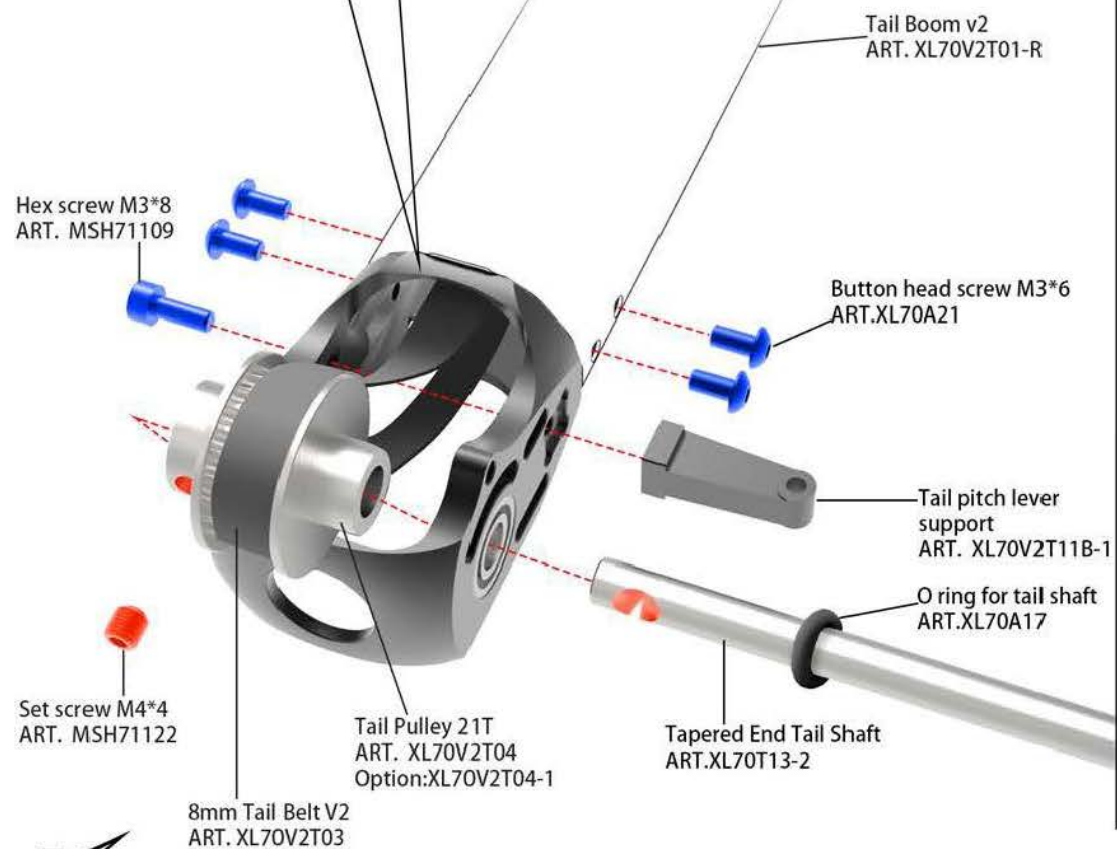
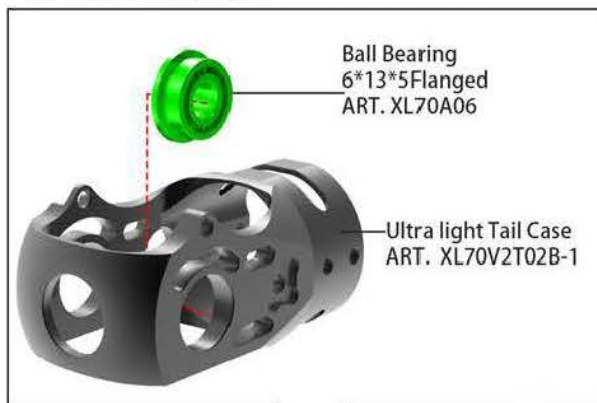
Spacer 3*5*0.5
ART. XL70H09B

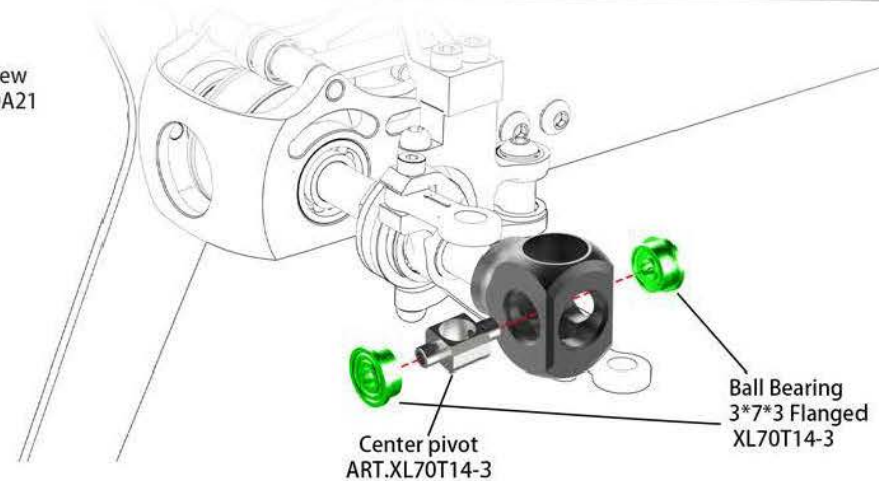
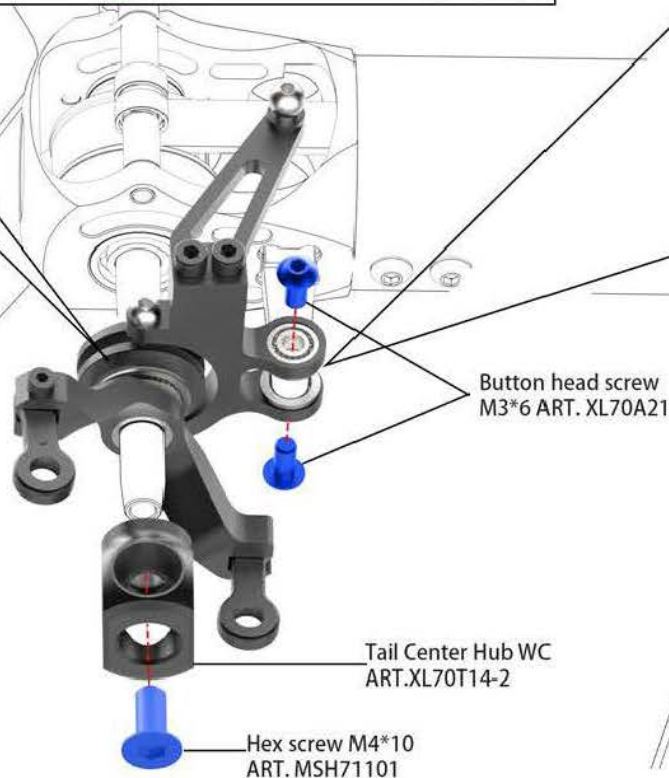
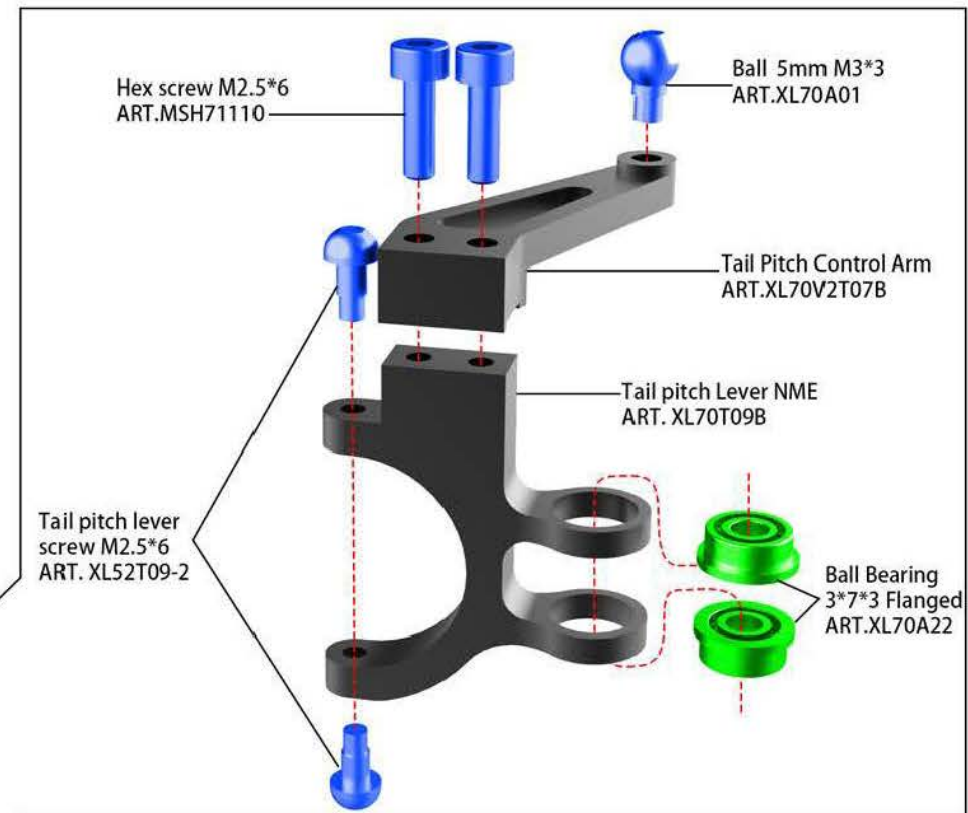
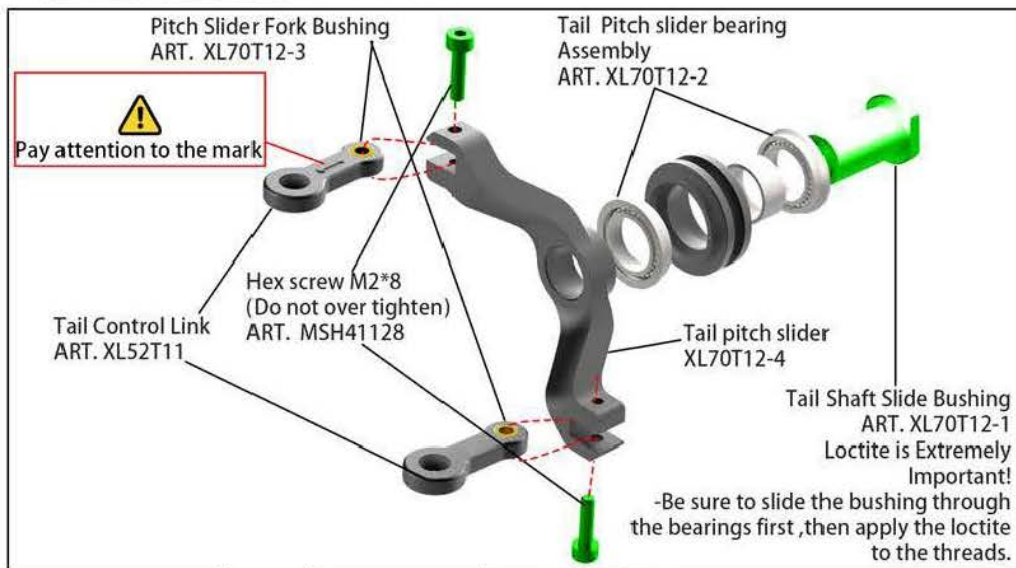


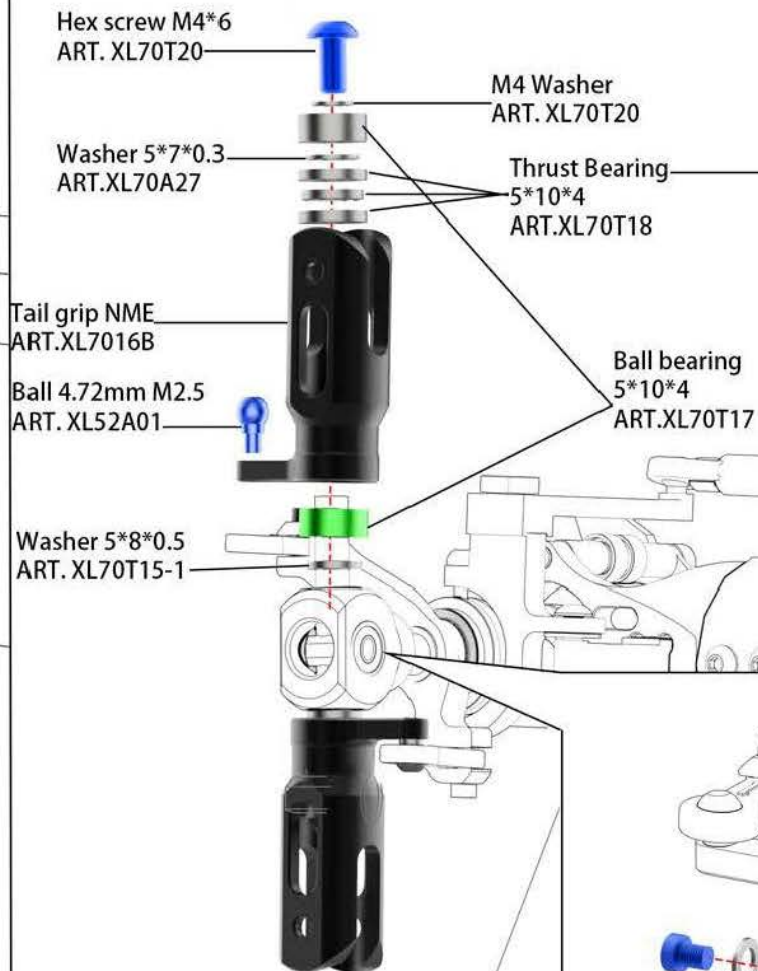
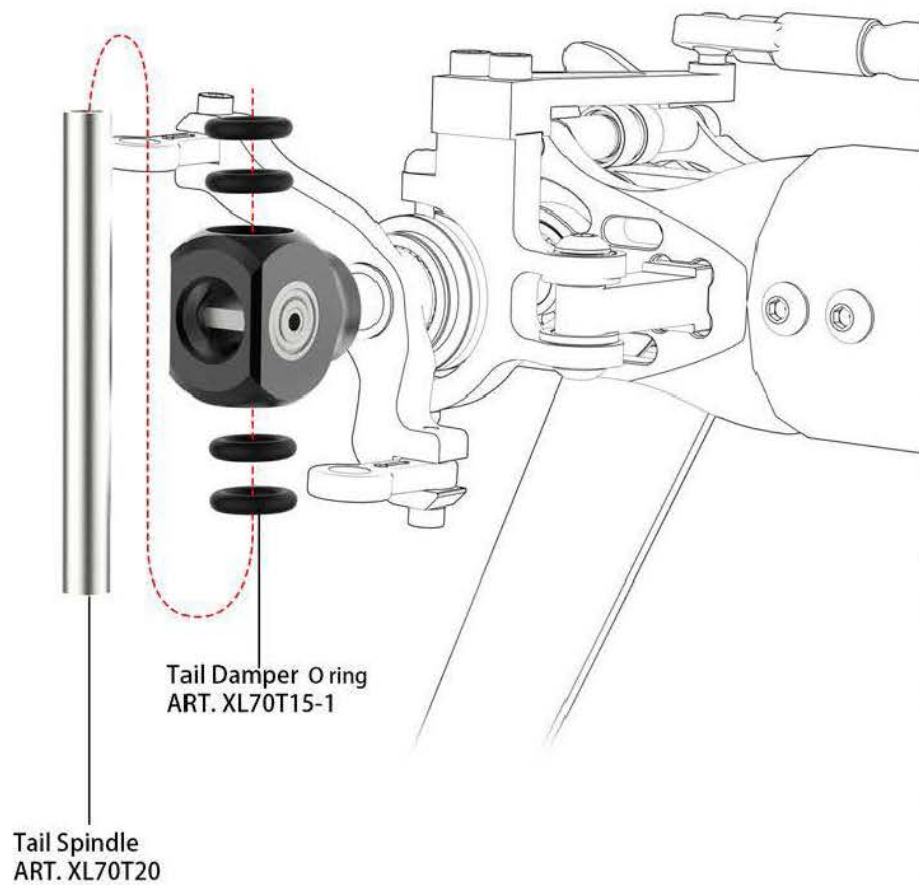
Pre Assembled









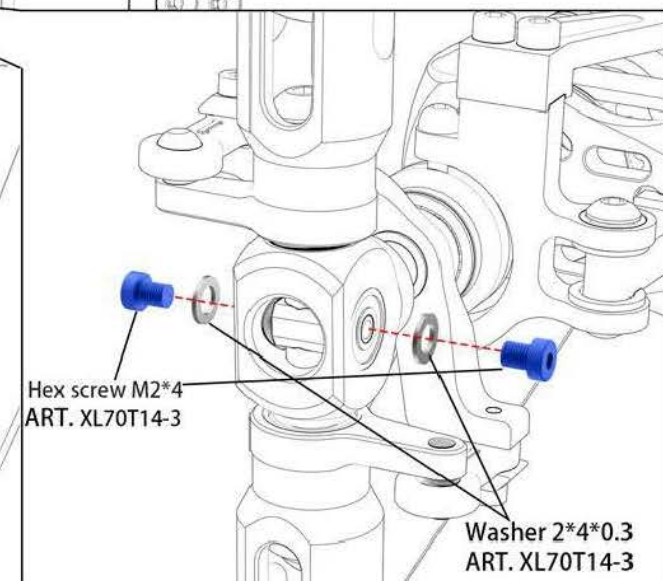


Apply grease on thrust bearing

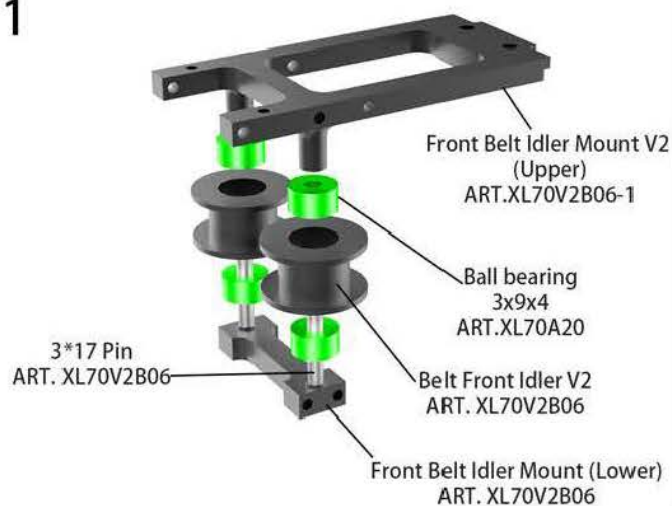
ID SMALLER



ID BIGGER



1



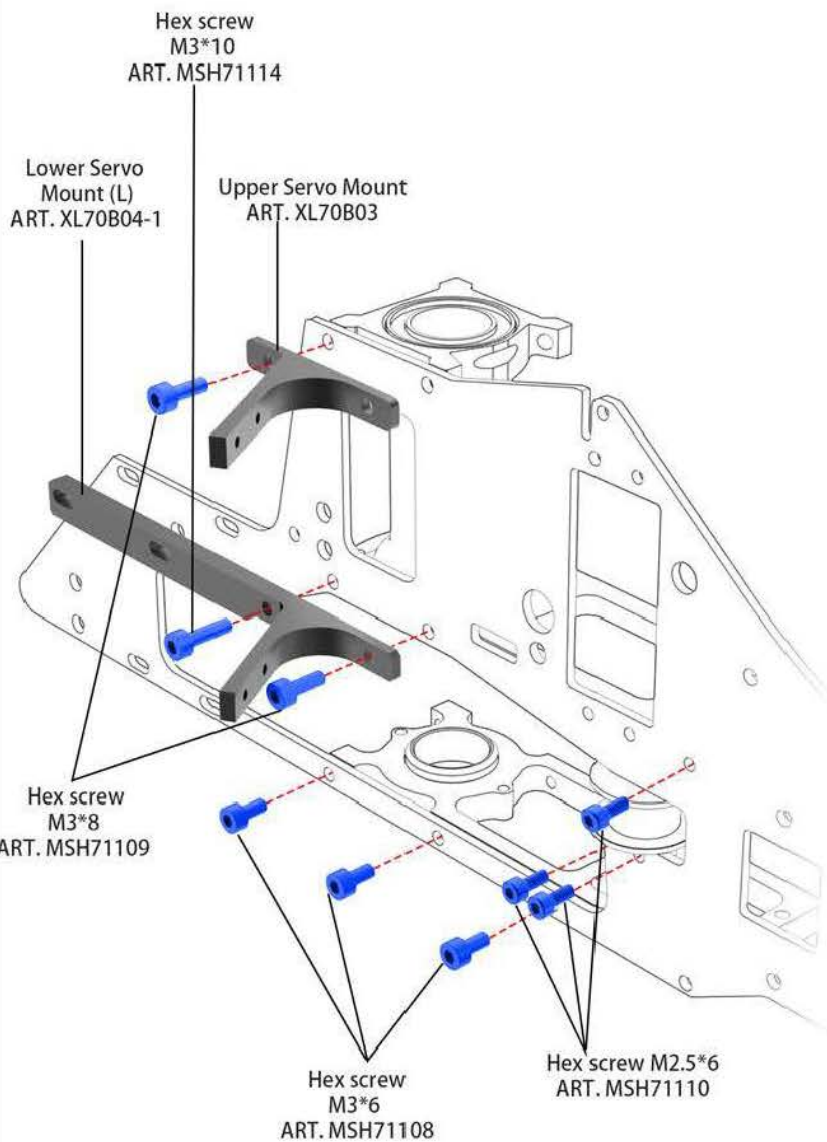
3



Hex screw
M3*6
ART. MSH71108

Carbon Fiber Upper
Frame V2
ART. XL70V2B03

2



Pom Anti-Rotation Bracket
ART. XL70B13-2

Hex screw M3*8
ART. XL70B13-2

Anti-Rotation
Bracket Mount WC
ART. XL70B13-3

Hex screw M2.5*6
ART. MSH71110

! Do Not Install This Silver Screw Yet

Flat screw M3*4
ART. XL70V2B05

Carbon Fiber Plate
ART. XL70V2B07

Threaded

Tail Boom Clamp V2
ART. XL70V2B05

! Unthreaded Hole Faces Right

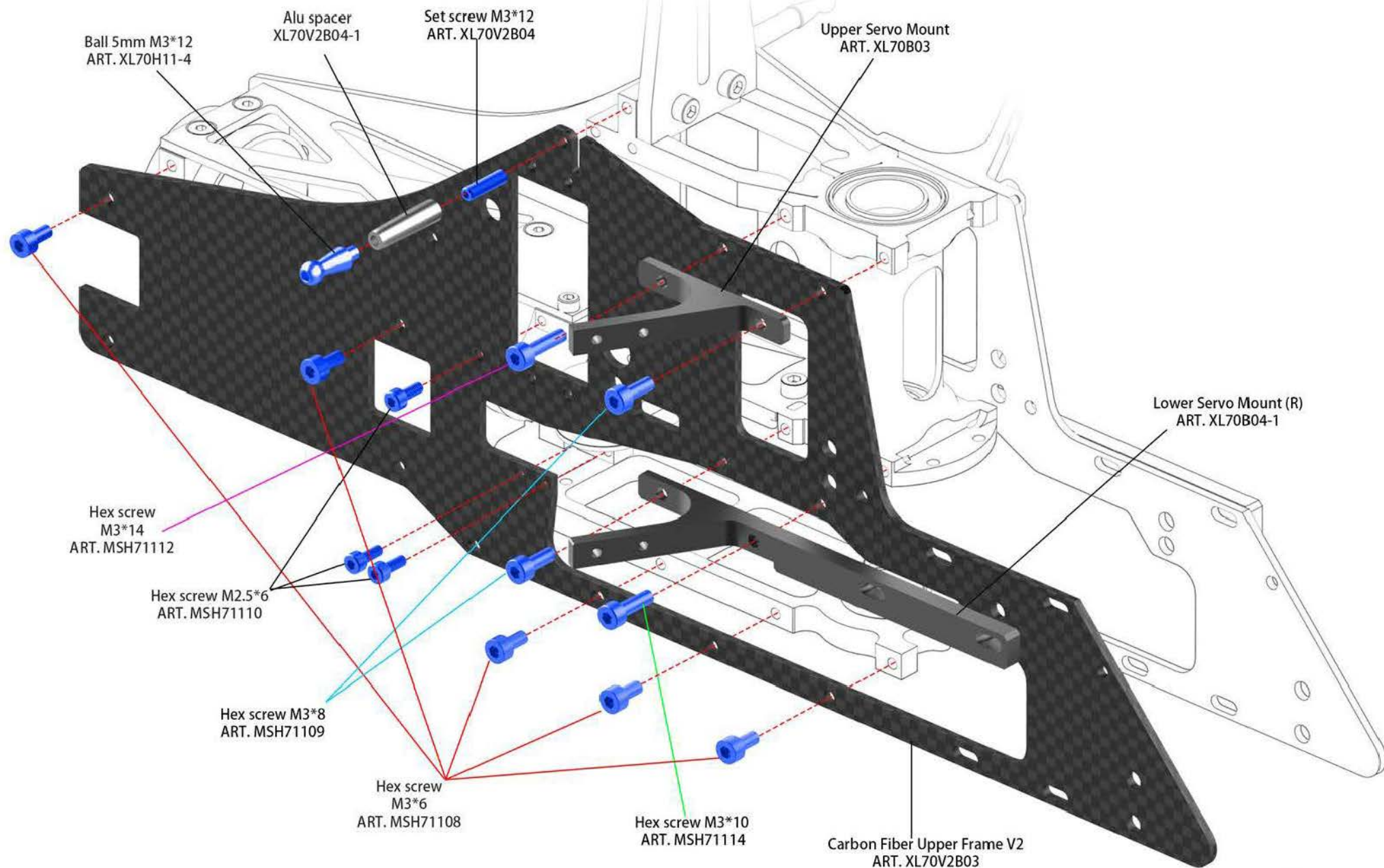
Set screw M3*12
ART. XL70V2B04-1

Alu spacer
ART. XL70V2B04-1

Ball 5mm M3*12
ART. XL70V2B04-1

Hex screw M3*6
ART. MSH71108

Hex screw
M3*14
ART. MSH71112





The exact number of "Carbon Servo Washer 2mm" you use will vary depending on the exact servo and servo horn used. Only add enough spacers to prevent the tail servo from binding on the elevator servo arm/ball throughout it's full range of travel.

Servo Horn For 520/550
XL52A19



Ball 5mm M2*4.8
ART.XL70A26

M2 nut
MSH71095

Hex screw
M3*6
ART. MSH71108

Carbon Servo Washer
ART. MSH71032

Carbon Servo Washer
ART. MSH71032

Carbon Servo Washer
ART.XL70V2A02

Hex Screw M2.5*10
ART. MSH71032

Carbon Servo Washer
ART. MSH71032

×2

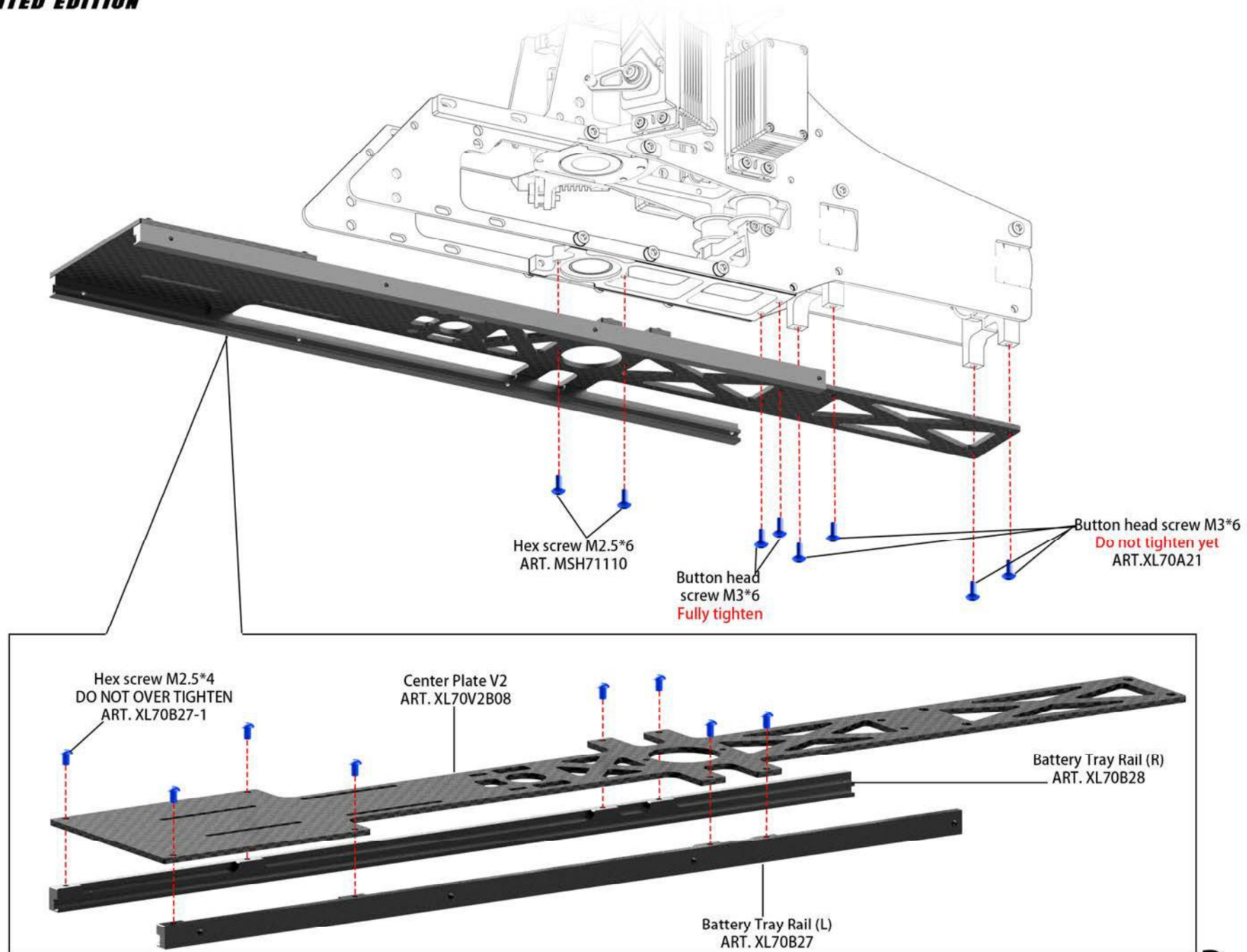
Metal Servo Horn
XL70A04

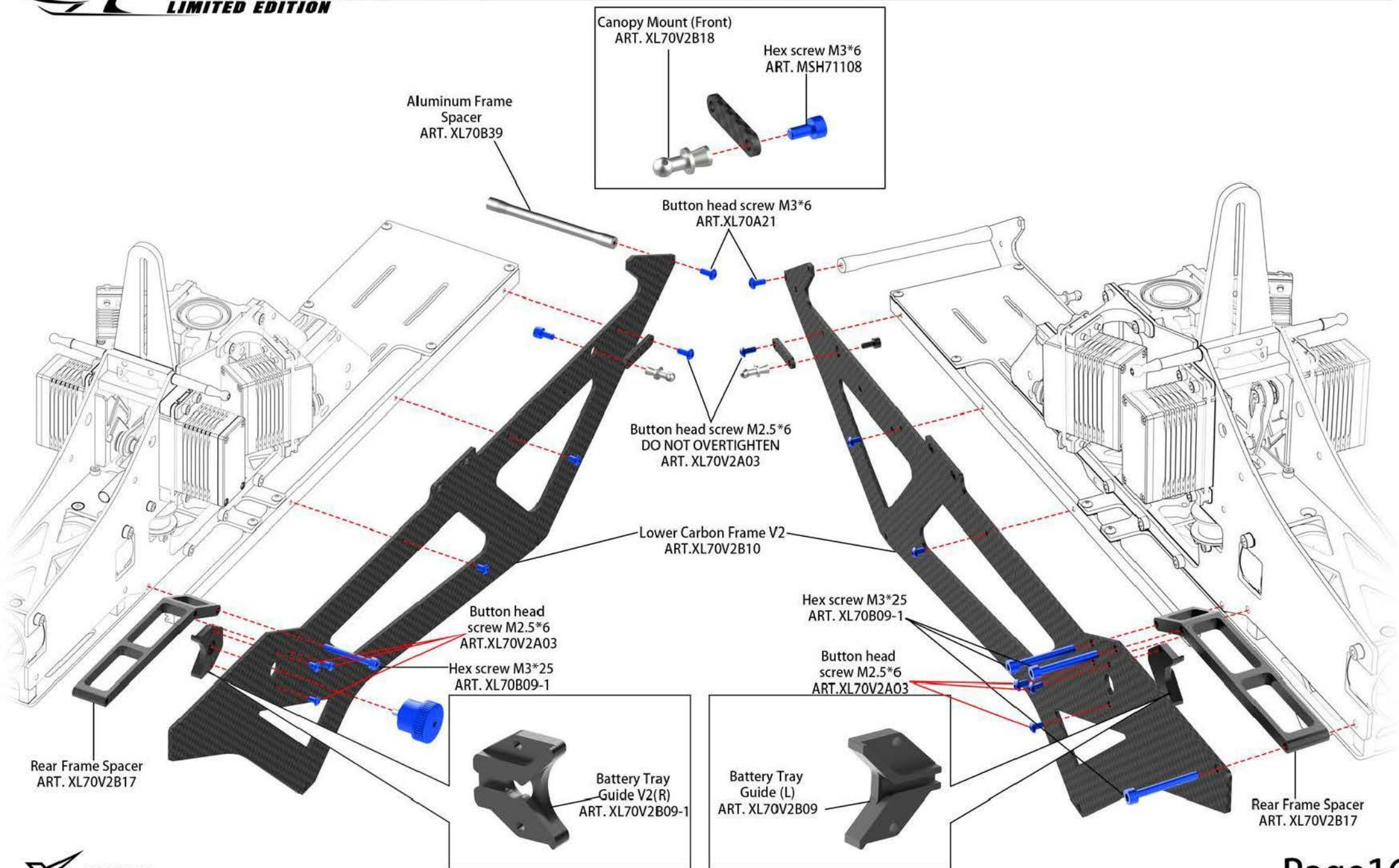
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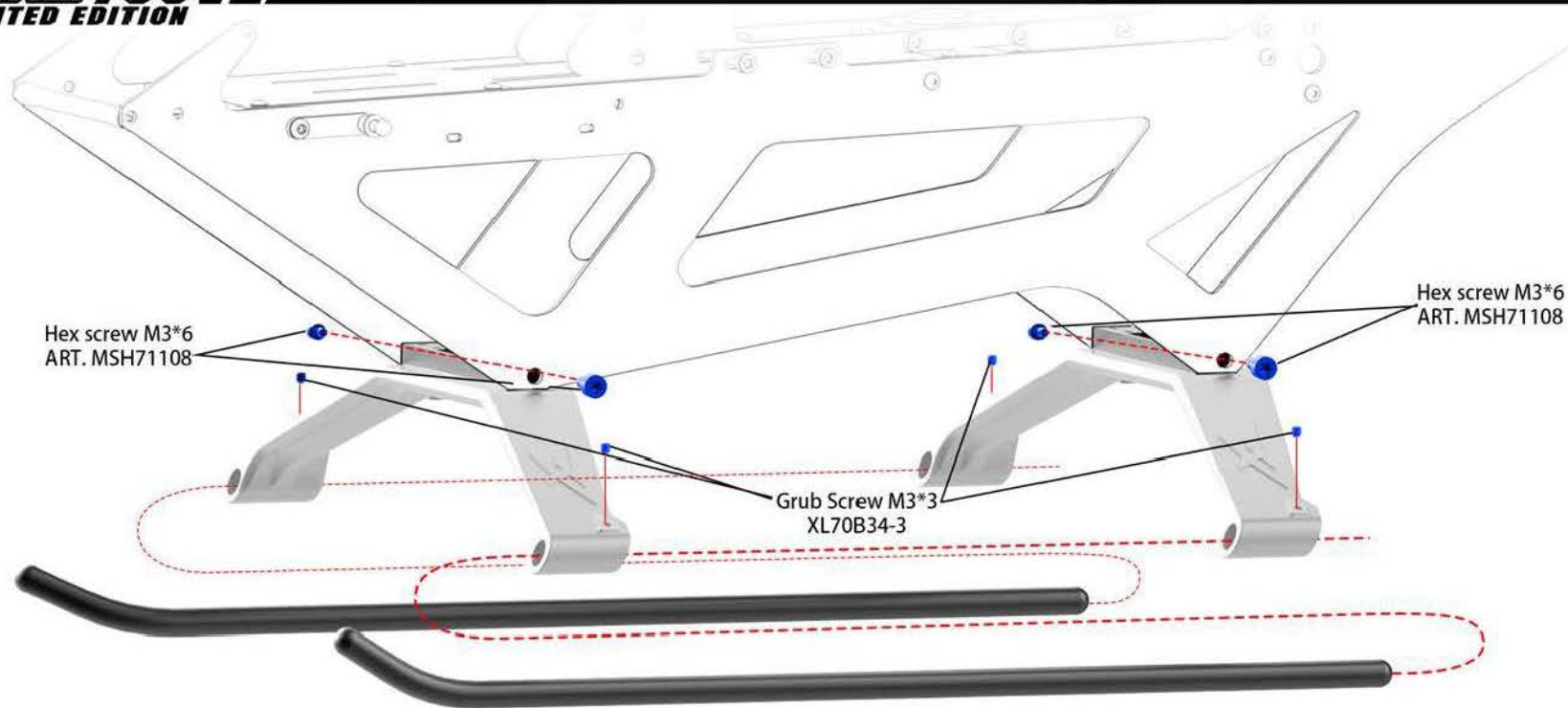
Servo Horn
XL70A04
Optioal: XL70A04-1

Ball 5mm M2.5*3
XL70A04

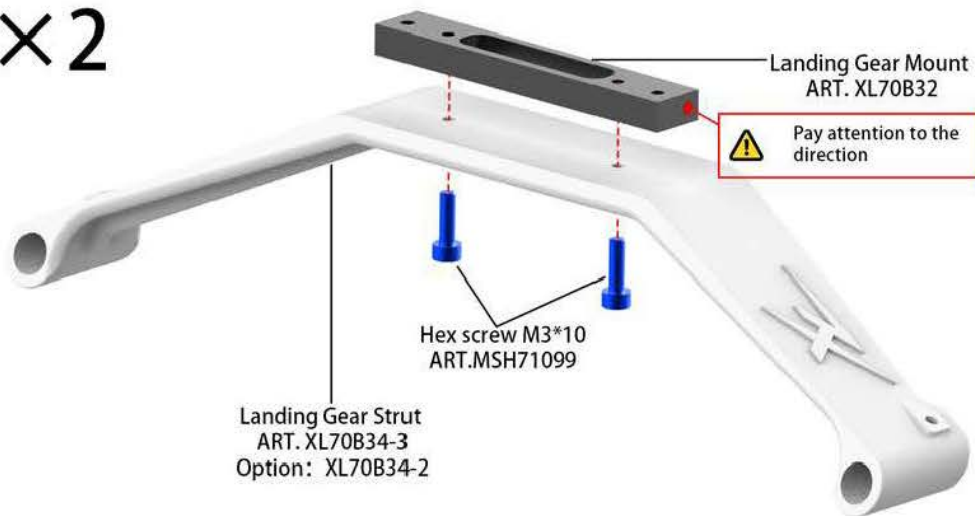
Hex screw
M3*6
ART. MSH71108







×2



×2



Button Head screw M3*14
ART. XL70V2B21

Ball bearing
15*21*4
ART. XL70B21-3

Upper one way hub
ART. XL70V2B21

100T Front Pulley
ART. XL70V2B12

Lower one way hub
ART. XL70V2B21

Ball bearing
15*21*4
ART. XL70B21-3

One way bearing
direction (from upside)



Grub screw M4*4
ART. XL70H13-1
MSH71122

Hex screw M3*12
ART. XL70H13-1
MSH51149

-Pull up main shaft
-Push down shaft collar
-Fully tighten M3*12

Hex screw M4*25
Into Main Shaft
ART. XL70A23

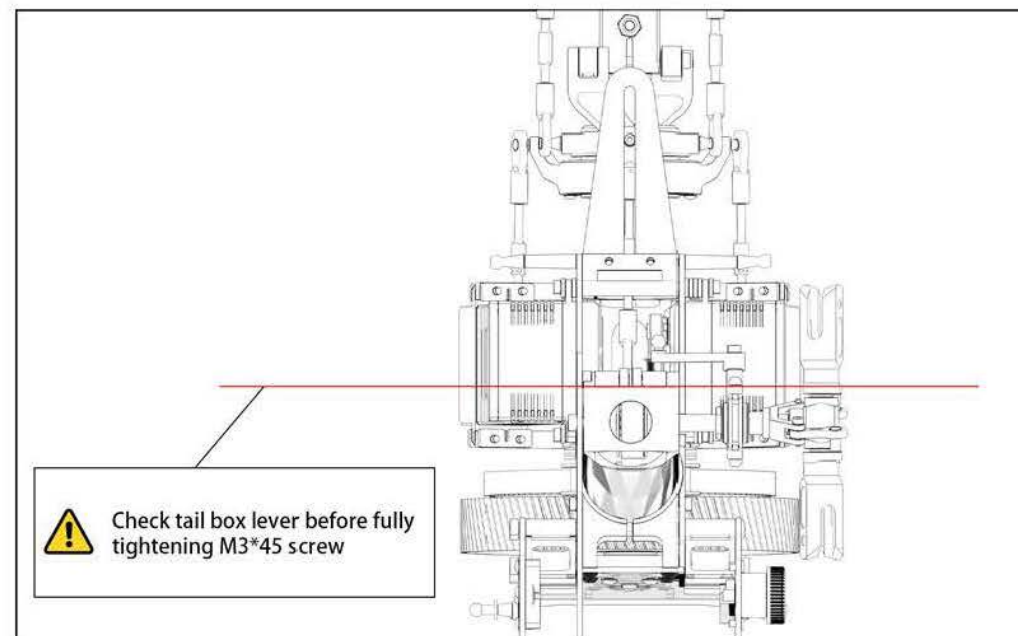
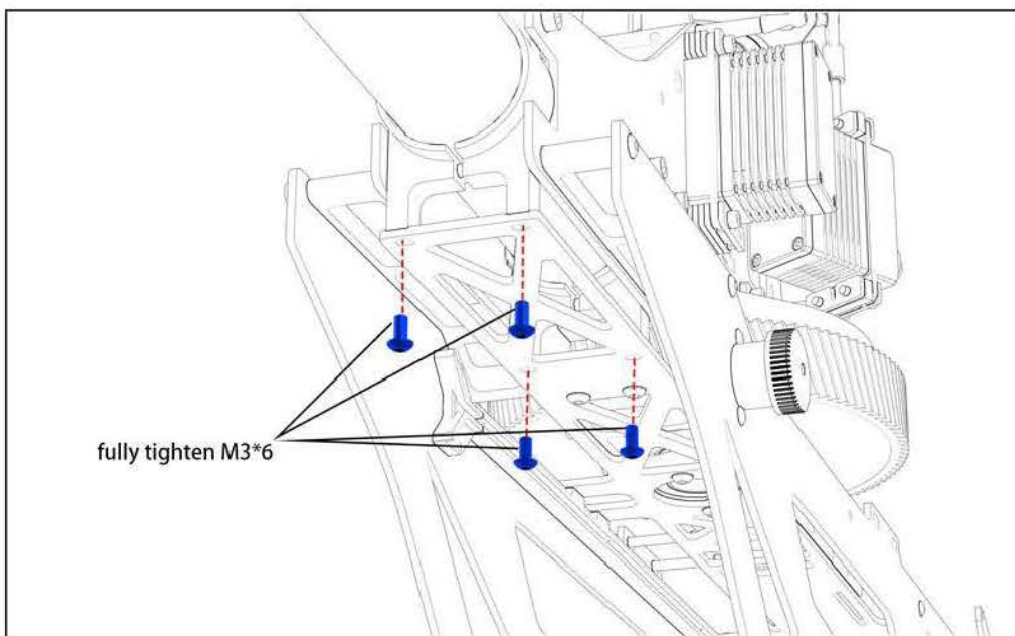
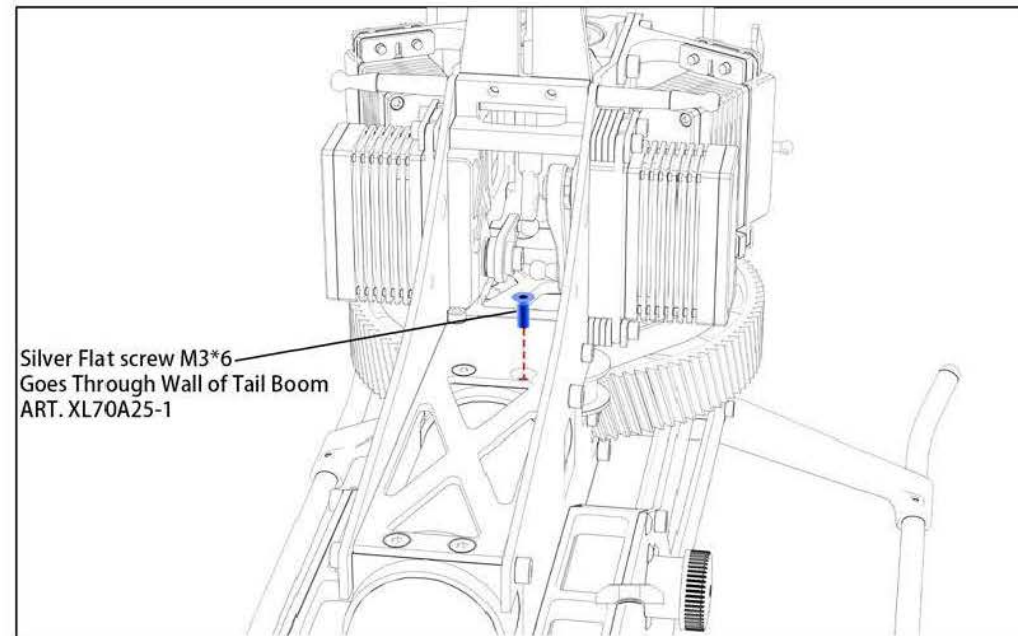
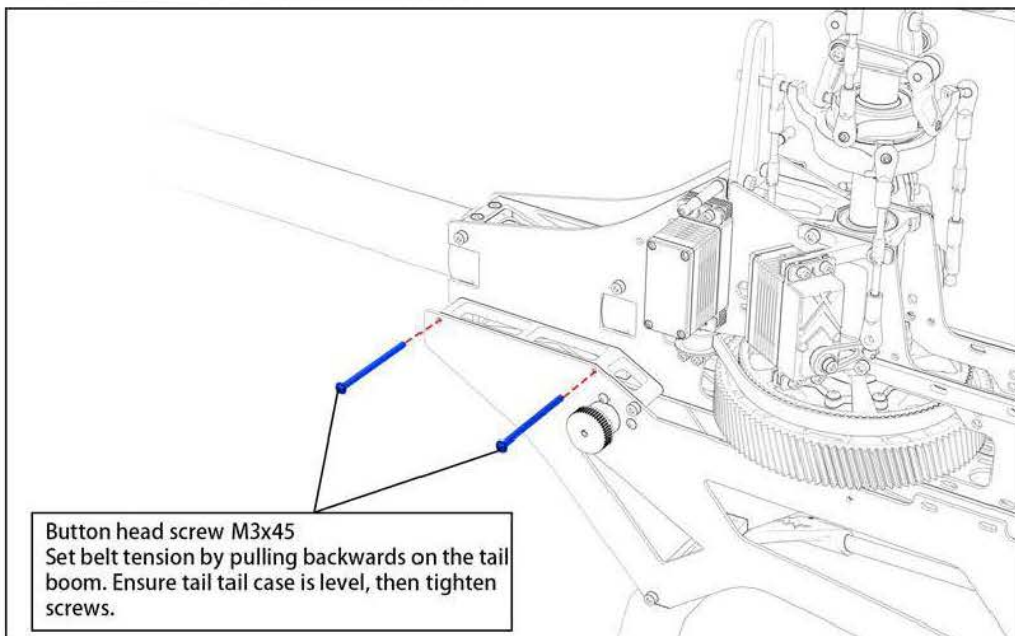
One way bearing
(pay attention to the direction)
You may add grease to
one-way bearing
ART. XL70B21-1

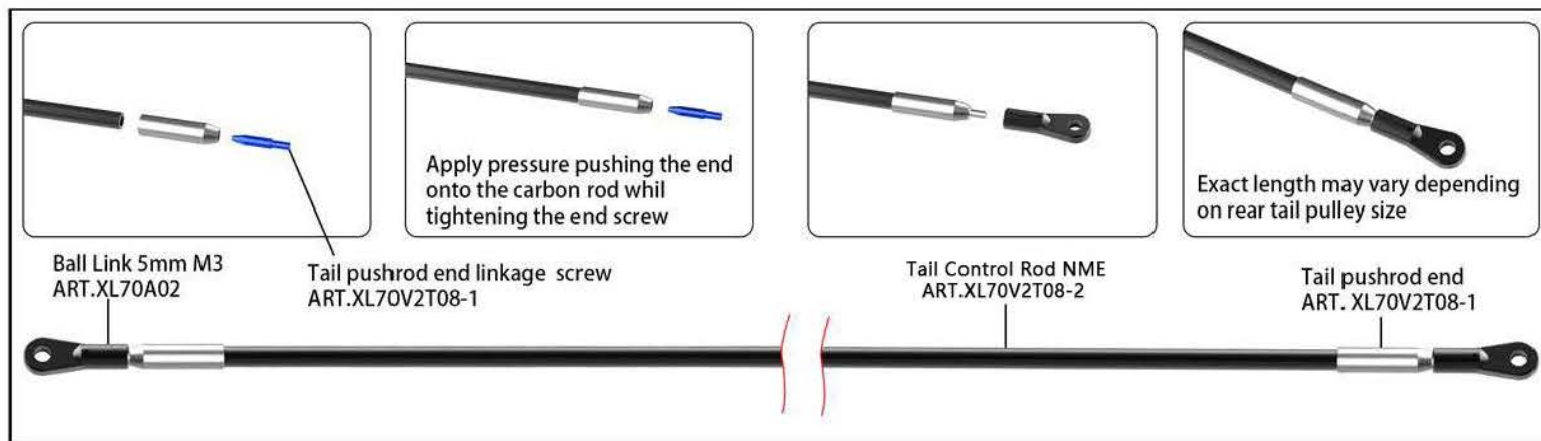
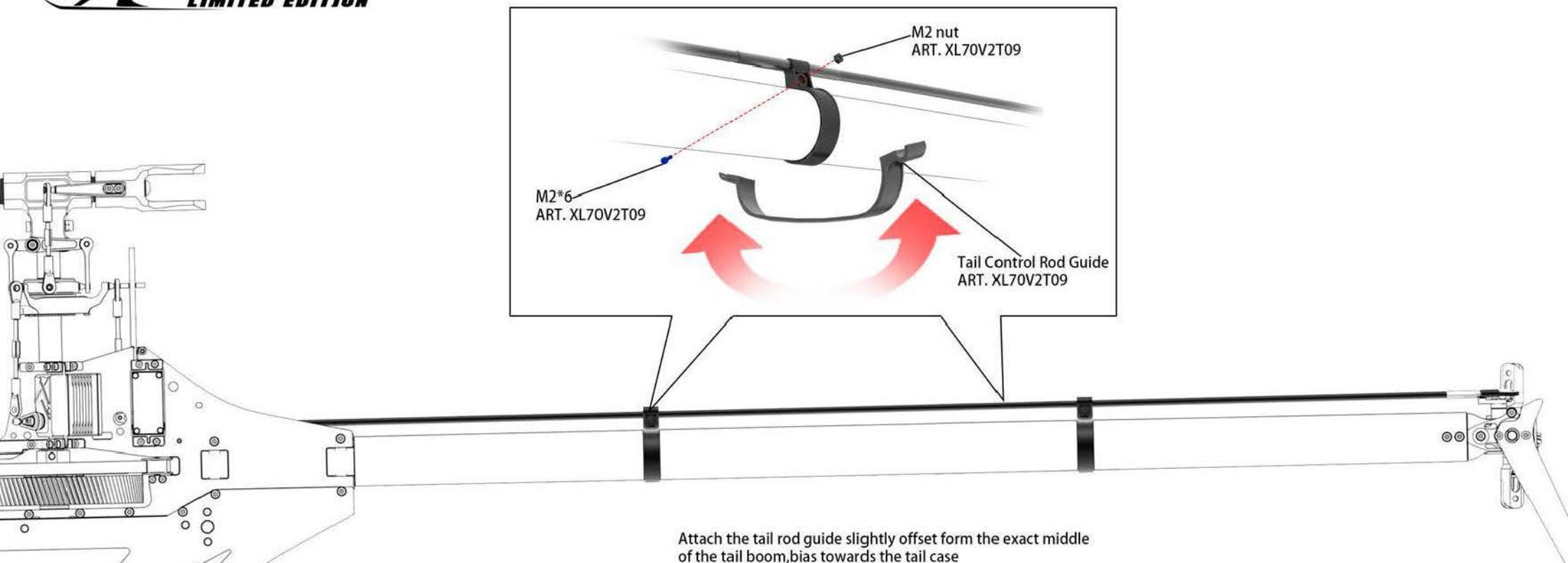
18mm Heavy Duty Main Gear 106T V2
(ART. XL70V2B11-1) Included in Kit
Option:
Main Gear 106T Mod1 (ART. XL70B20)
Must use V1 Pinions (ART. XL70G10, XL70G11, XL70G12)
Main Gear 109T Mod1 (ART. XL70B20-1)
Must use V2 Pinions (ART. XL70G11-1, XL70G12-1, XL70G13)

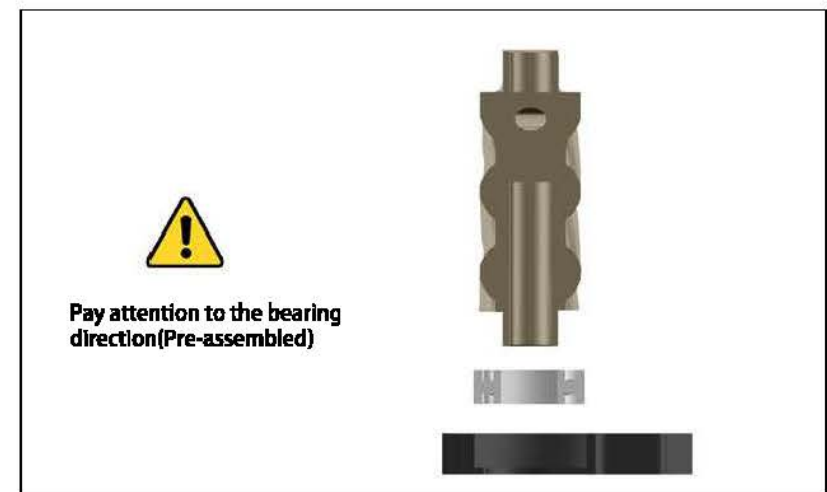
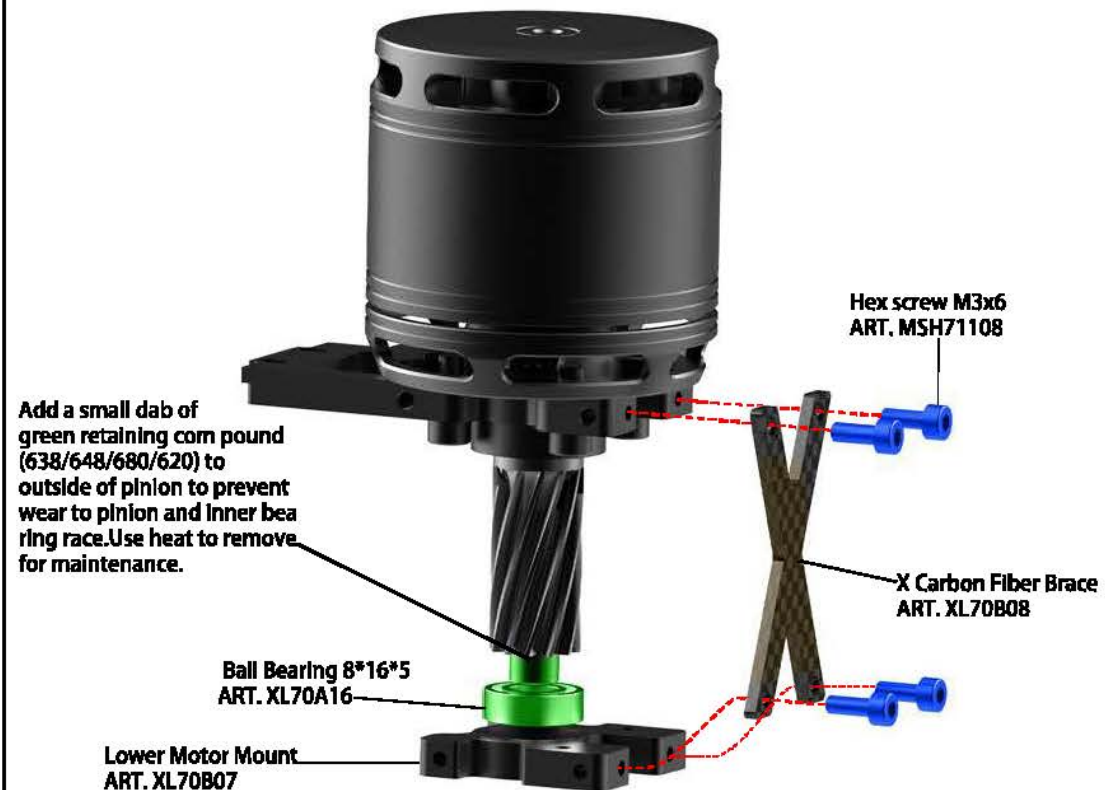
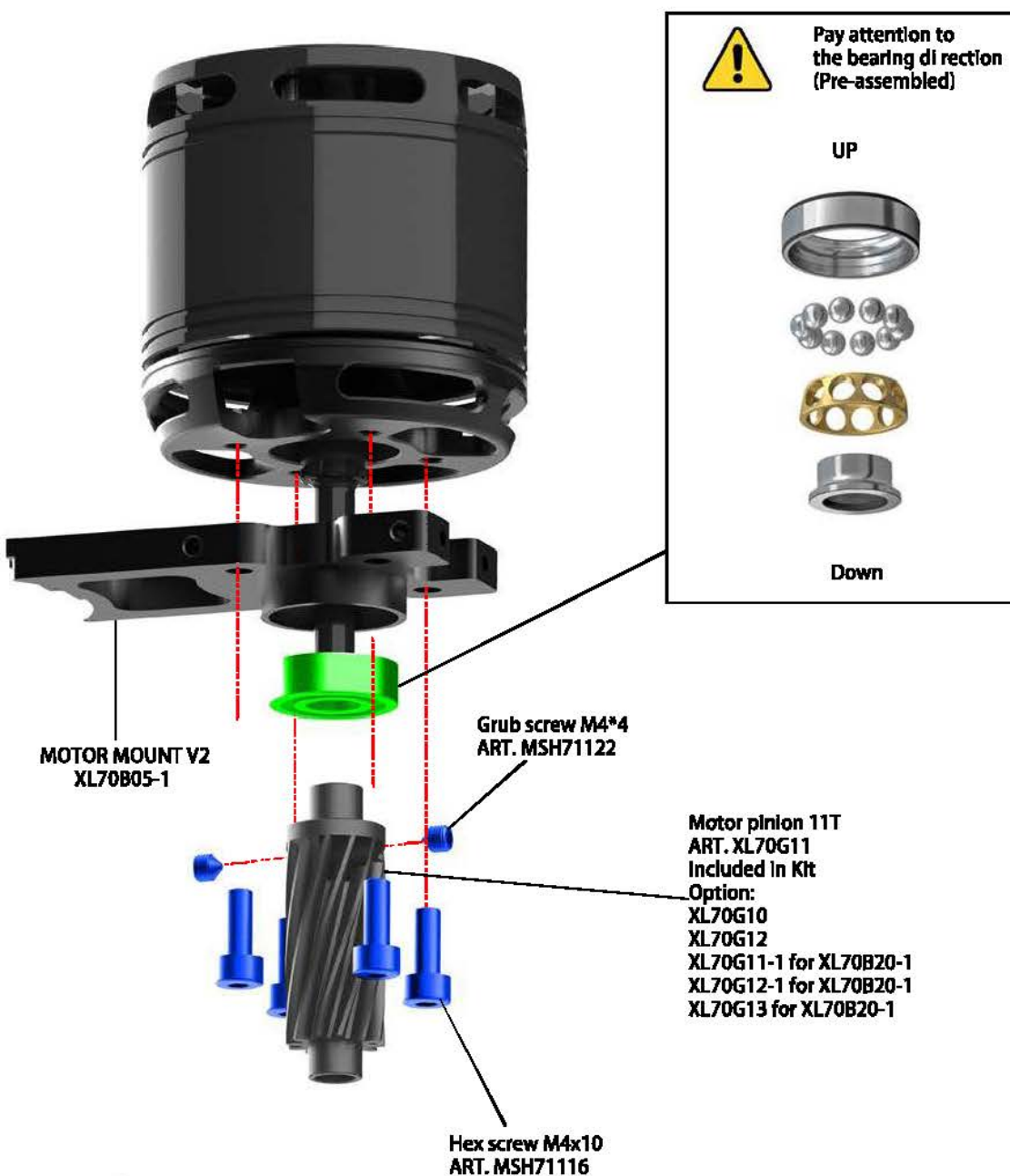


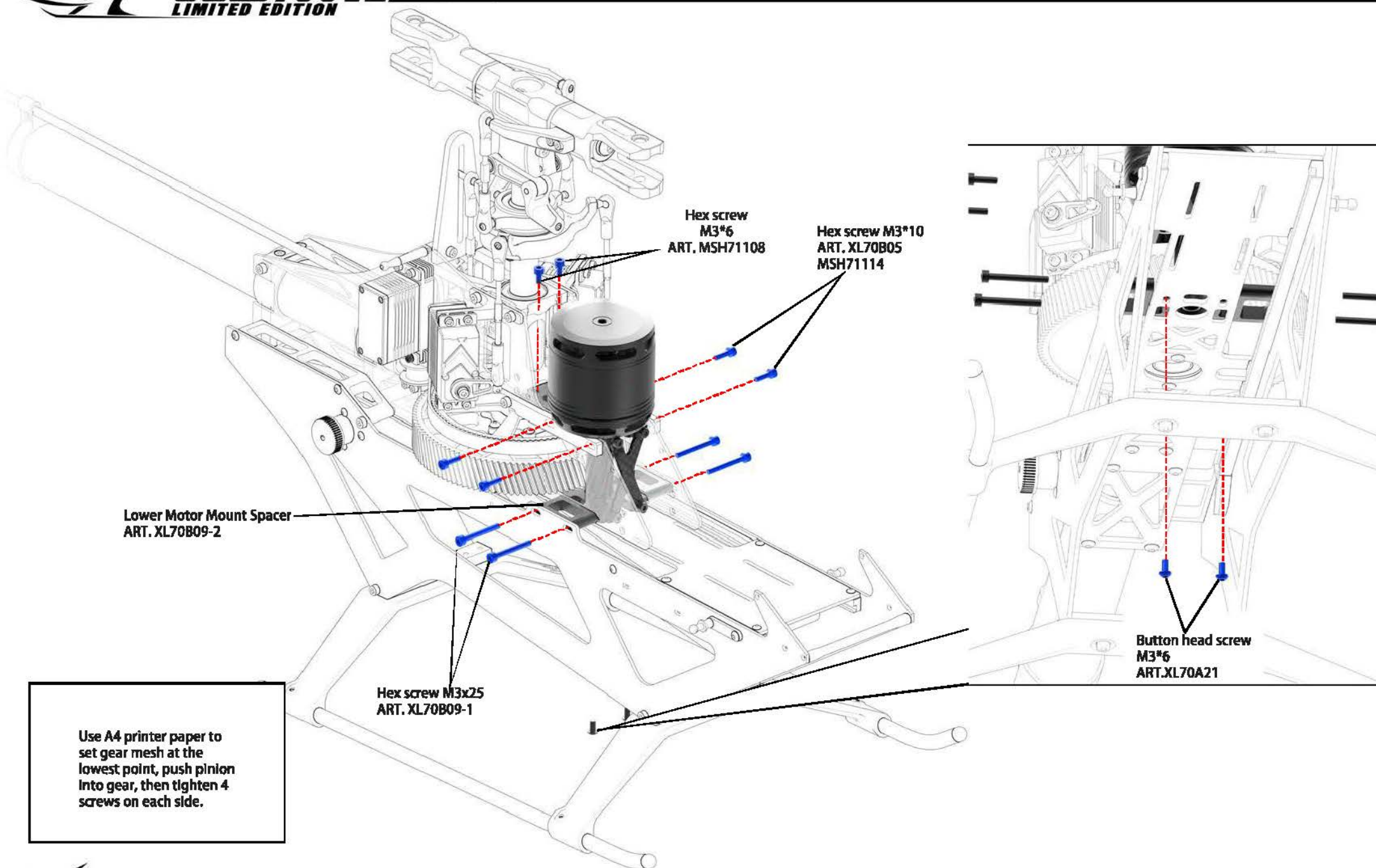
Check the rotation direction during the installation of the belt

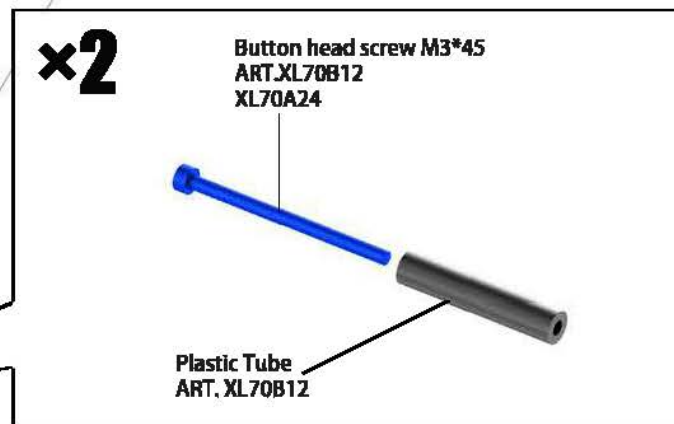
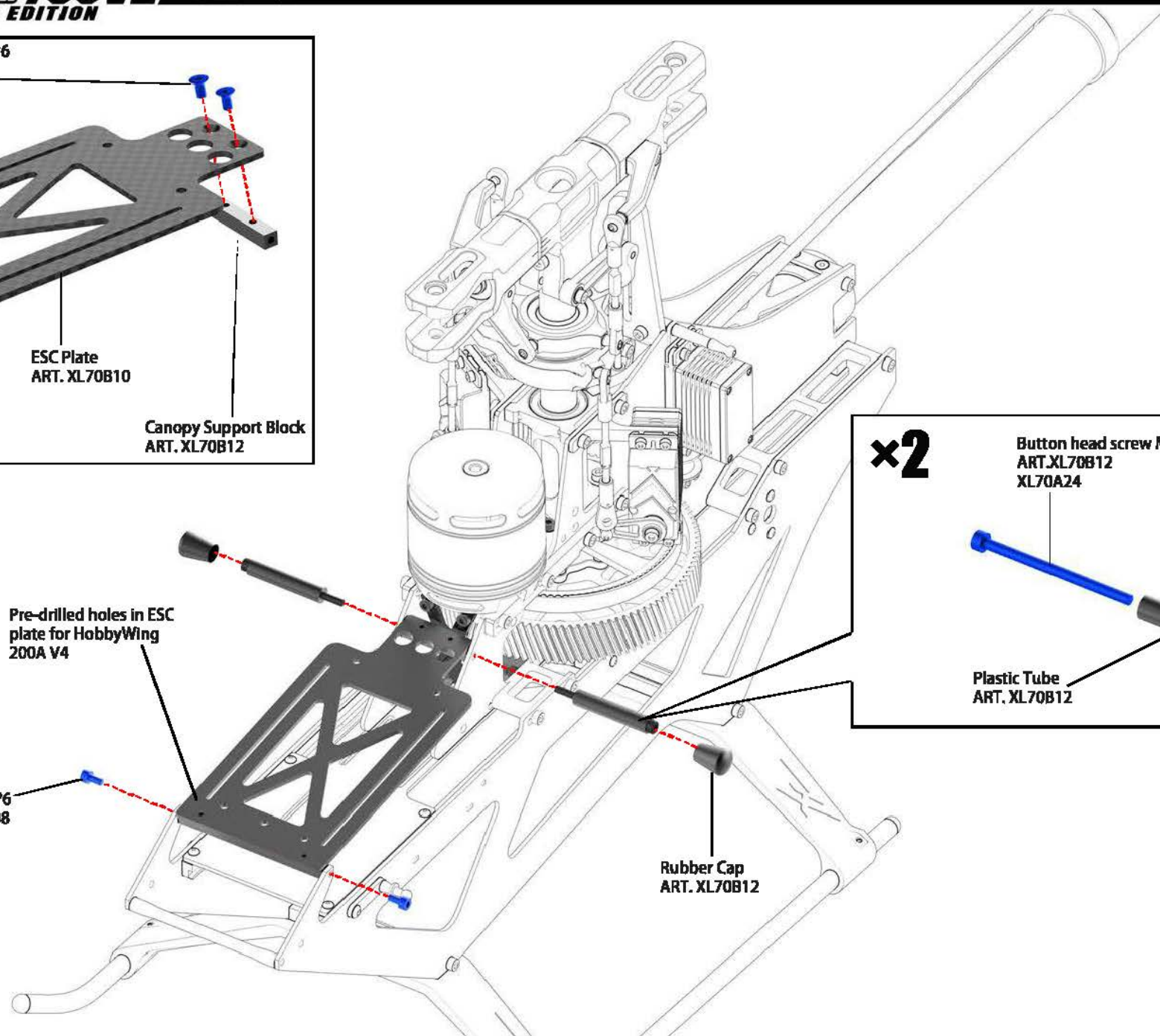
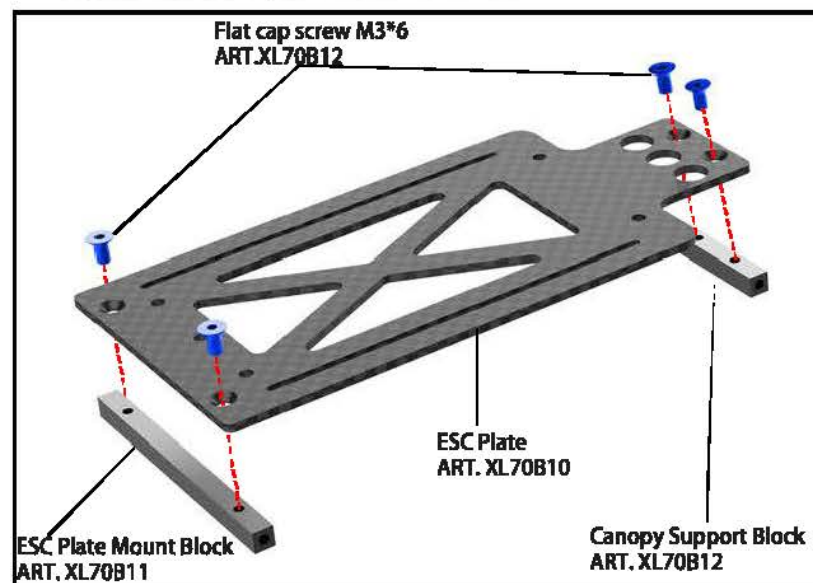
Turn belt 90 degree CCW

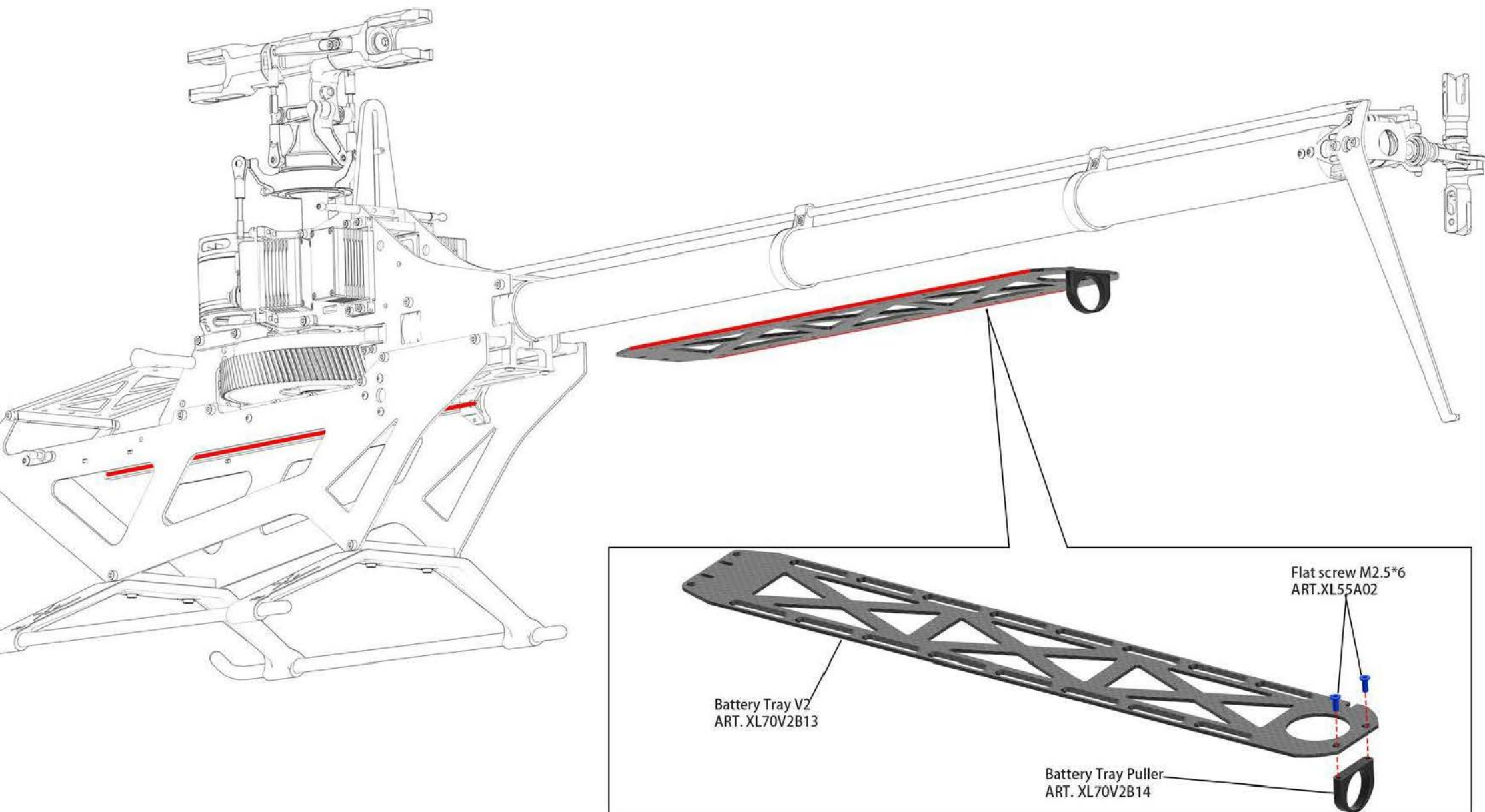


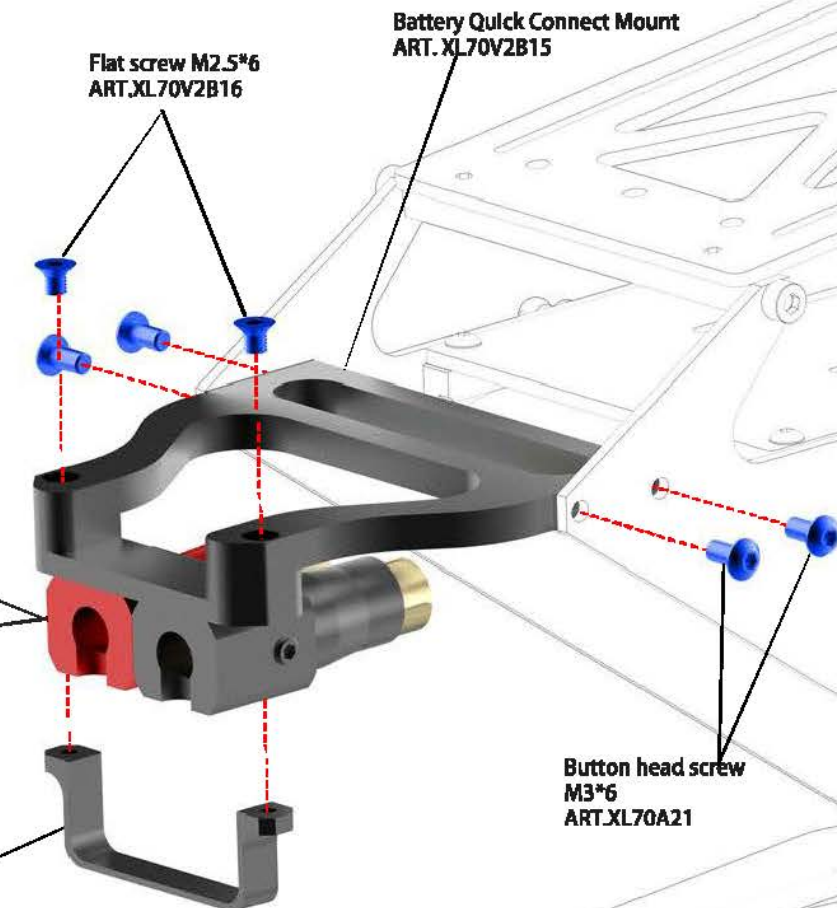
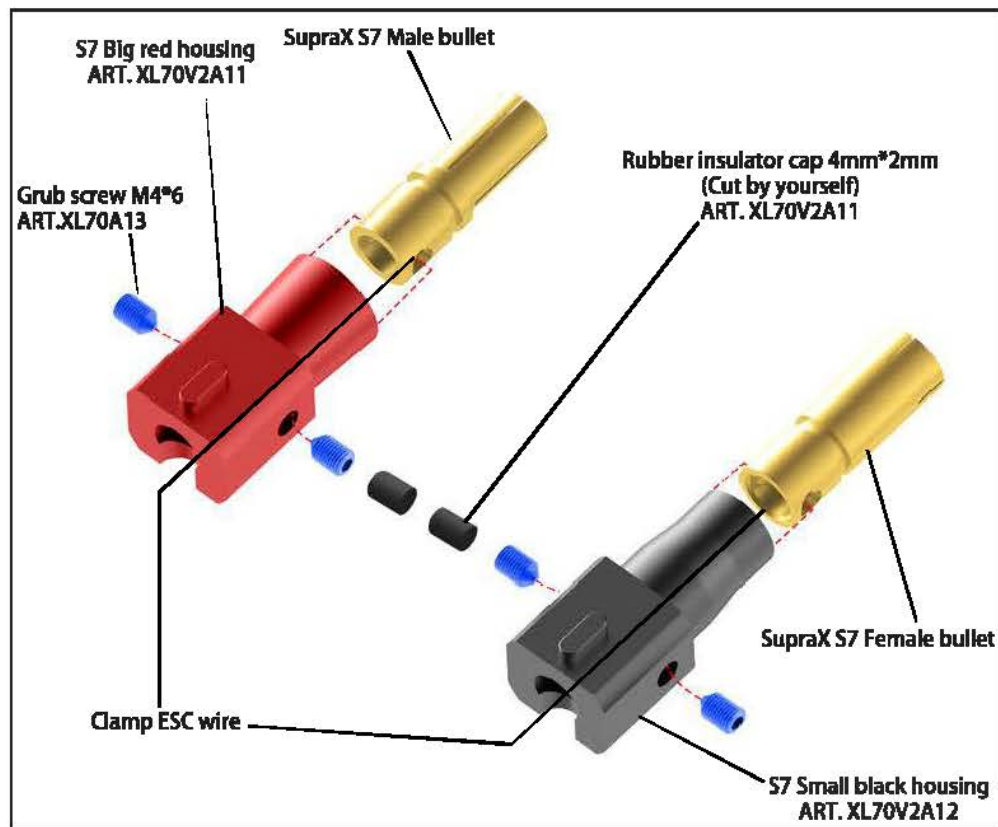


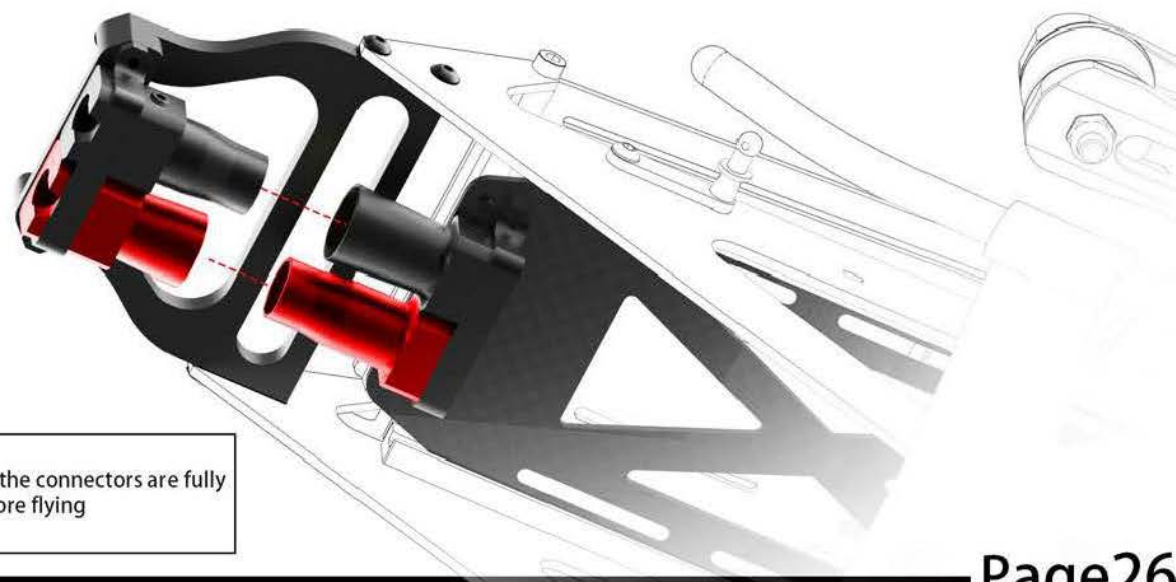
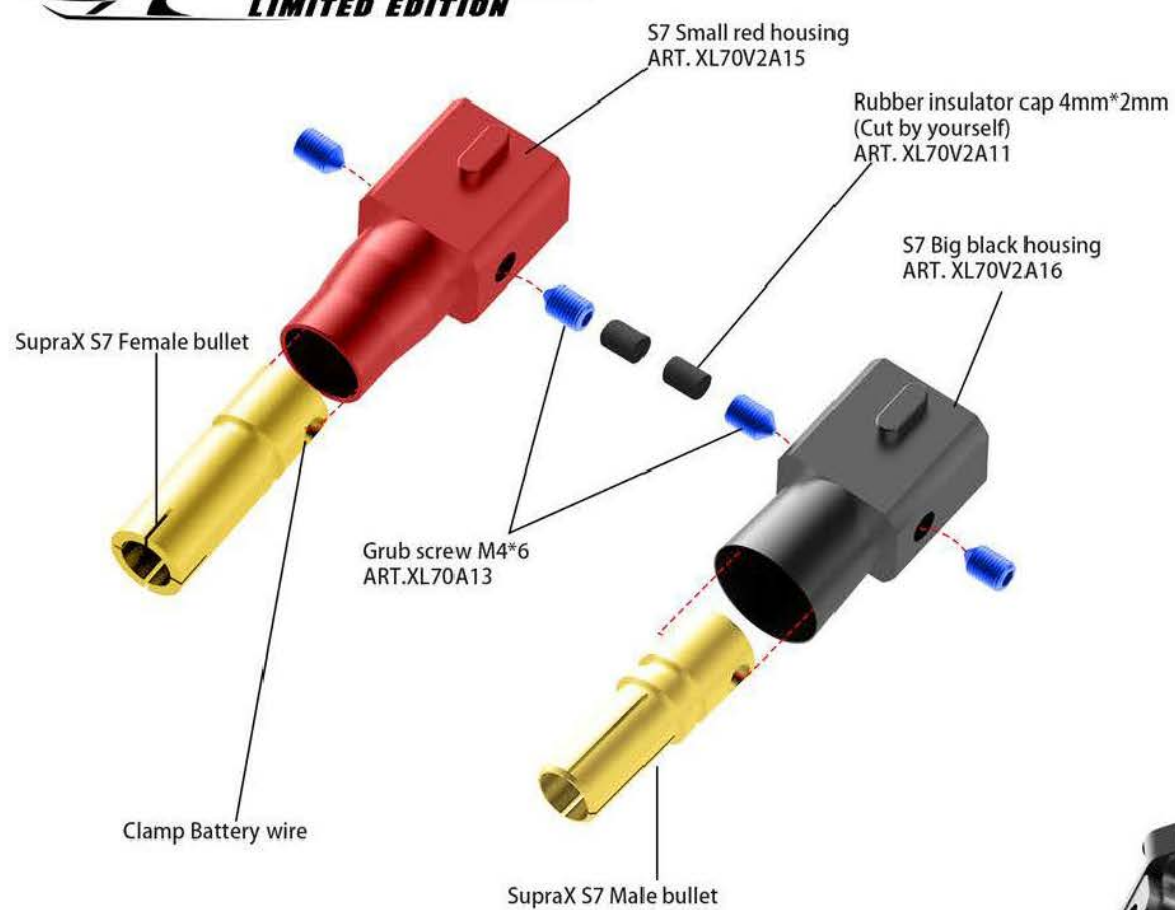




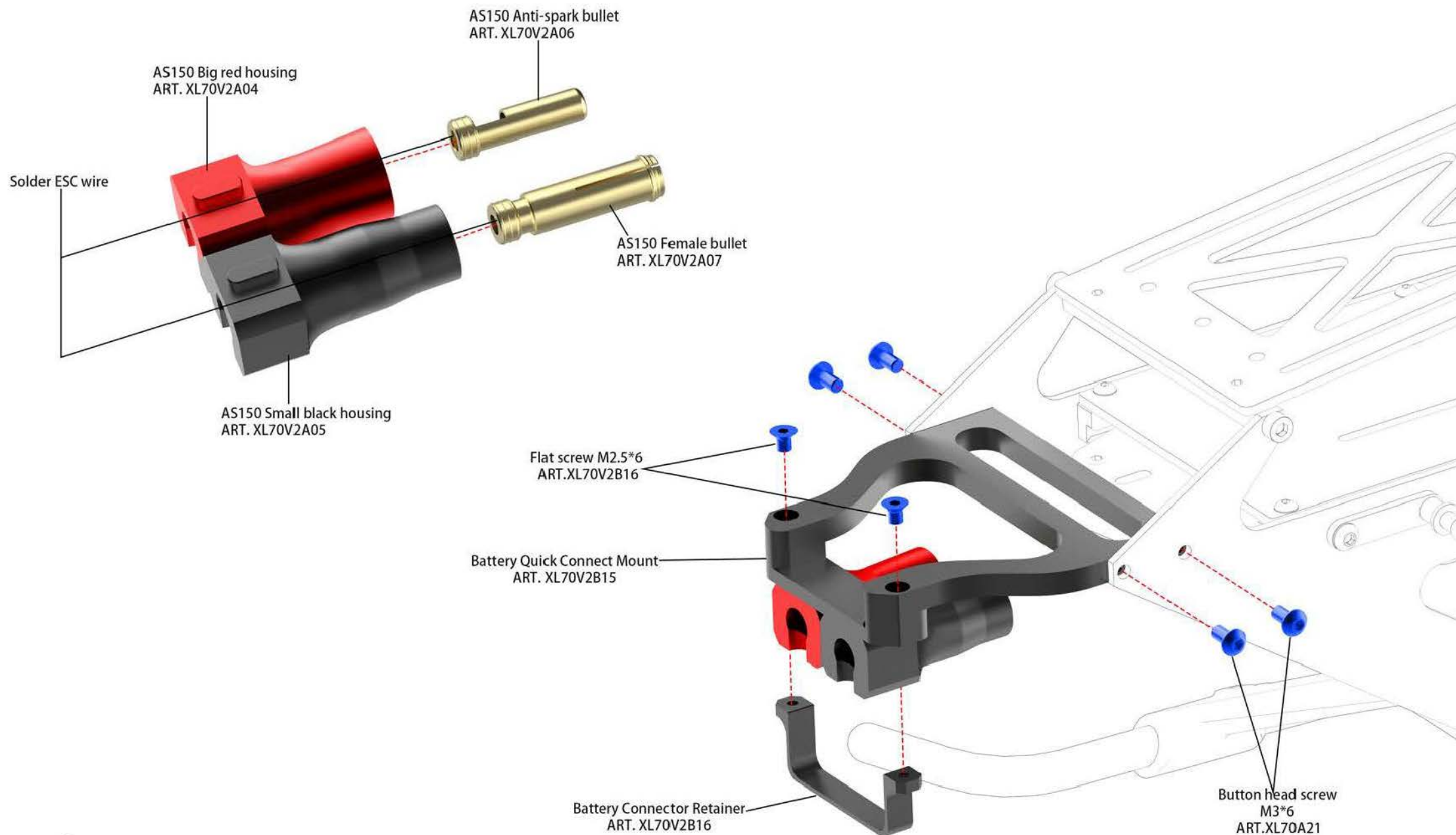


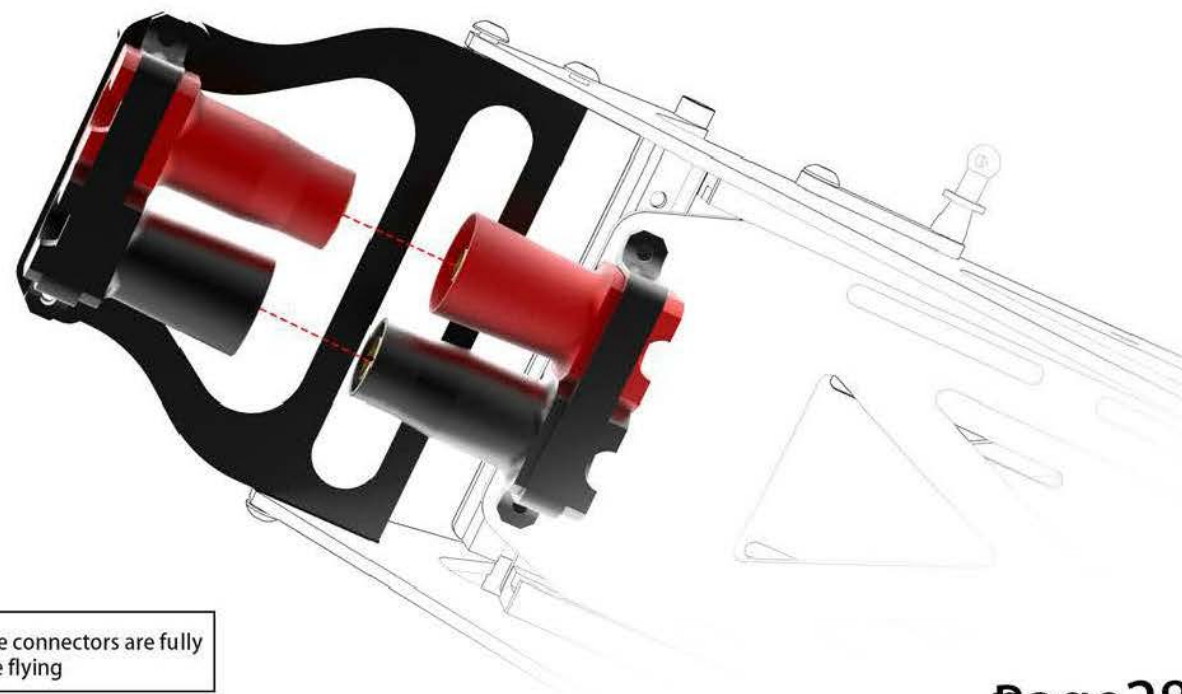
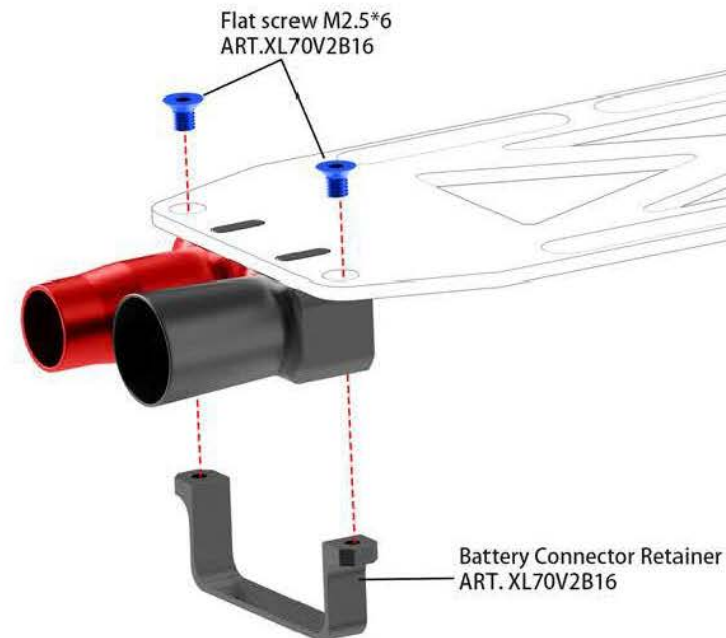
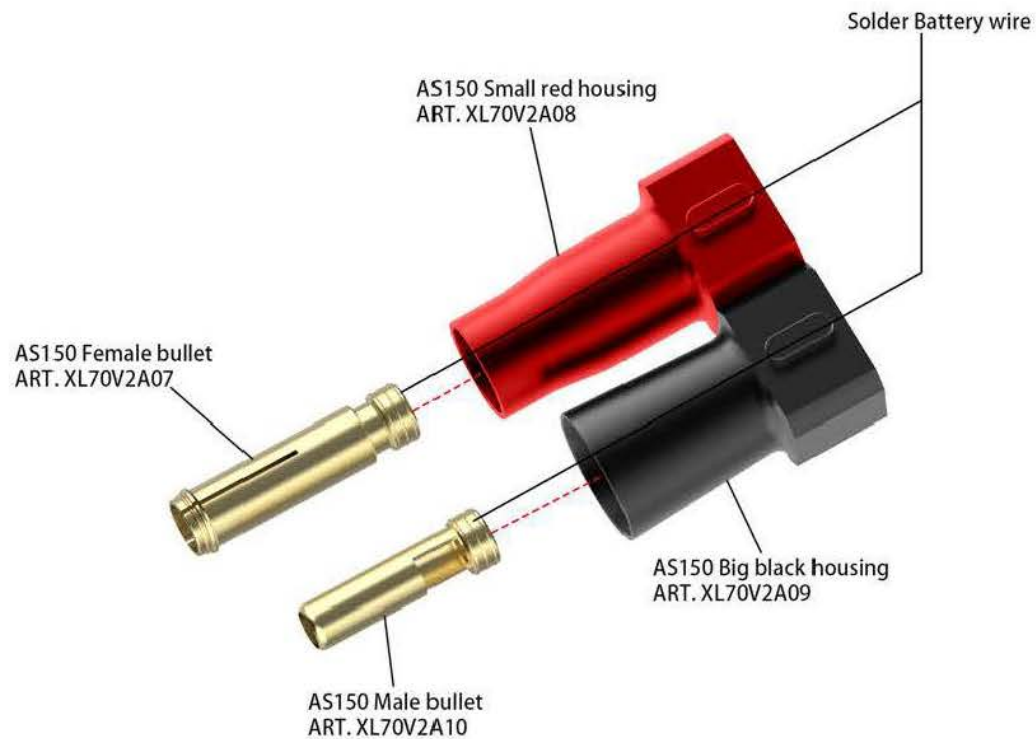






Make sure the connectors are fully mated before flying



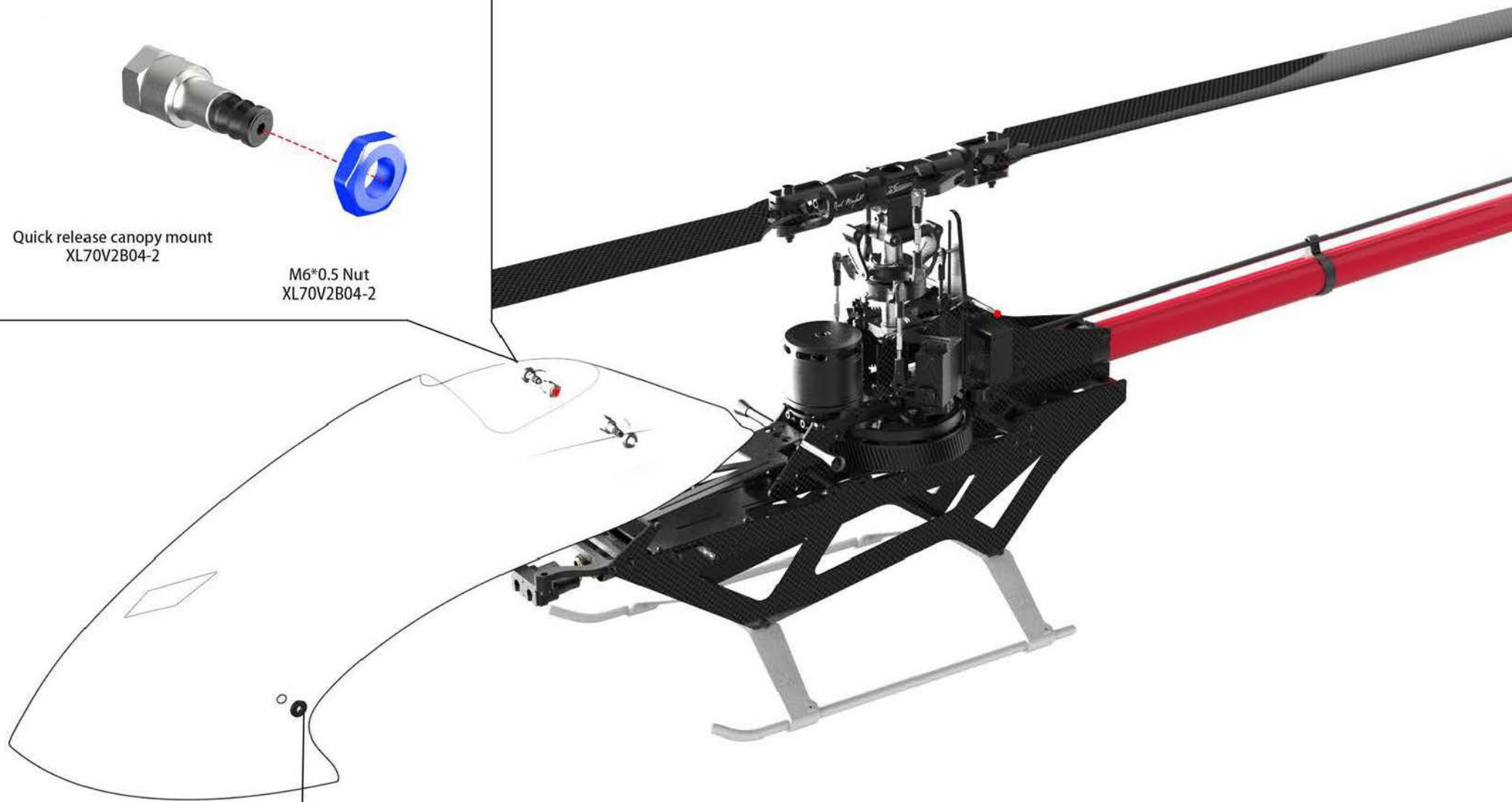


Make sure the connectors are fully mated before flying

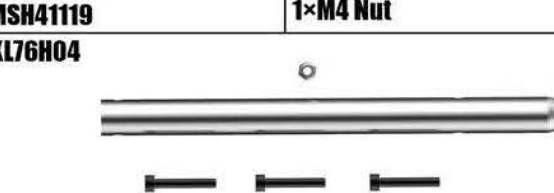
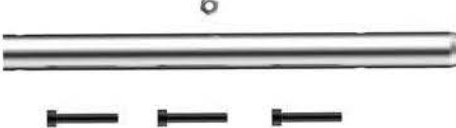


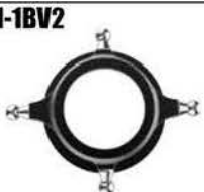
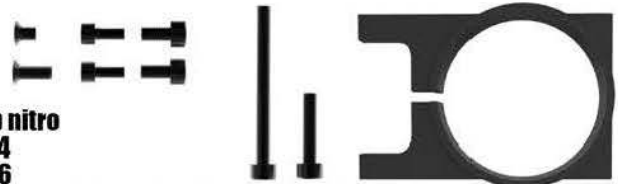
Quick release canopy mount
XL70V2B04-2

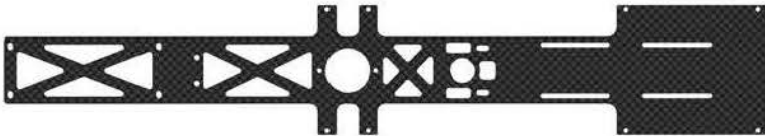
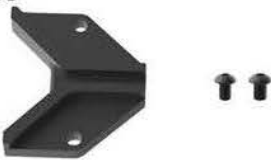
M6*0.5 Nut
XL70V2B04-2

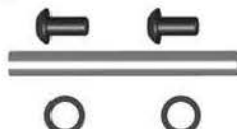
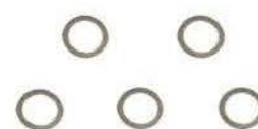


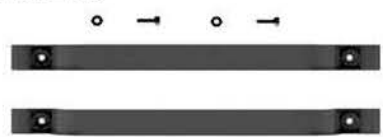
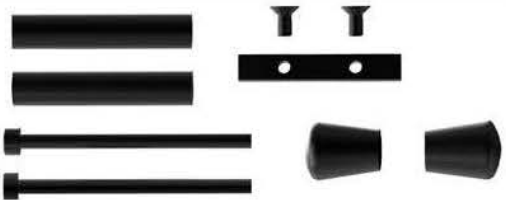
Canopy Grommets
XL52B27

MSH71114  5×Hex screw M3×10	MSH71108  5×Hex screw M3×6	MSH71109  5×Hex screw M3×8	MSH71110  10×Hew screw M2.5×6	XL70A21  5×Button head screw M3×6	XL70V2A03  5×Button head screw M2.5×6	XL70B27-1  10×Hex screw M2.5×4
XL70B09-1  10×Hex screw M3×25	XL70A24  5×Button head screw M3×45	MSH71110  10×Hex screw M2.5×6	MSH71115  5×Socket head cap screw M3×30	MSH41128  5×Hex screw M2×8	MSH71101  5×Flat head screw M4×10	MSH71116  5×Hex screw M4x10
XL70A25-1  5×Silver Flat screw M3×6	MSH71116  5×Hex screw M4×10	MSH71122  5×Grub screw M4×4	XL70H04  Double Row Angular Contact Bearing 10×19×7	XL70H05  2×F10-18M Thrust Bearing 10×18×5.5 2×Washer 10×16×1		XL70H02-3  2×Head Damper 4×80°Oring
XL70H02-4  2×Pom damper 2×70°Oring	XL70H07  2×Washer 6×15×2 1×Feathering Screw 2×Screw M6×12	M2 Nut  MSH41119  3×Screw M4×25 1× M4 Nut 1×Wraith E F3C / Specter V2 Main Shaft	XL70H01-1B  1×Main Rotor Hub NME 1×Screw M4×25 1×M4 Nut		MSH71112  5×Socket head cap screw M3×14	XL70B13-2  1×Pom Anti-Rotation Bracket 2×Hex screw M3×6
XL76H02B  1×Main Blade Grip Specyter V2 NME 2×Hex screw M3×10	XL76H04  3×Screw M4×25 1× M4 Nut 1×Wraith E F3C / Specter V2 Main Shaft	XL70B03  1×Upper Servo Mount	XL70A01  3×5mm Ball 5×7.3 2×Ball 4.72×13.6 mm 3×Ball 5×10.6mm 1×Ball 4.72×8.2mm 1×Ball 5×26.6mm			

XL70H11B-1  1×Swashplate Assembly NME V2	XL70H11-2B  1×Swashplate (Outer) NME 2×5mm Ball M3×3 1×5mm Ball M3×26	XL70H11-1BV2  1×Swashplate (Upper) NME V2 4×5mm Ball M3×3	XL70H09B  1×Radius Arm 1×Control arm NME 4×Ball Bearing 3×7×3 1×Screw M3×25 1×Pin 3×14 3×Spacer 3×5×0.5	
XL70H10  2×Radius Arm	XL52A12  4×MR683ZZ Bearing	XL70H14  2×Titanium Servo linkage 4×Ball link	XL70V2A01  1×6803ZZ Bearing 17×26×5	
XL70H14-1  2×Titanium Main rotor linkage 4×Ball link	XL70V2NB01-1  4×Hex screw M3×8 4×Hex screw M3×6 2×Hex screw M3×10 1×Main Shaft Bearing Block WC	XL70A28  1×GE15C Bearing 4×POM sleeve	XL70V2B02  1×Main Shaft Bearing Spacer	
XL70V2B03  1×Carbon Fiber Upper Frame V2	XL70V2B01  1×Third Bearing Block V2 6×Hex screw M3×6 2×Hex screw M3×25 2×Hex screw M2.5×6 2×Button head screw M3×6	XL70B04  1×Lower Servo Mount (R)	XL70B04-1  1×Lower Servo Mount (L)	
XL70B13-3  2×Hex screw M3×6 2×Hex screw M2.5×16 2×Set screw M3×12 2×Hex Screw M2.5×10 1×Anti-Rotation Bracket Mount WC	XL70V2B04-1  2×Canopy Mount (Rear) 2×Alu spacer	XL52A19  4×Servo Horn For	XL70V2B05-1  1×Tail Boom Clmp nitro 1×Flat screw M3×4 1×Flat screw M3×6 4×Hex screw M3×6 1×Hex screw M3×16 1×Hex screw M3×35	

XL70V2B07  1×Carbon Fiber Plate	XL70A20  2×Ball bearing 3×9×4	XL70V2B06  2×Pulley 2×pin 3×17 4×Bearing 3×9×4 1×Front belt idler mount upper		XL70V2B06-1  4×M2.5×6 Screw 2×M2.5×10 Screw 2×M2.5×16Screw 1×Front Belt Idler Mount V2 (Upper)
XL70A04  3×18mm metal servo horn 3×M2.5 ball 5mm	MSH41119  10×M2 Nut	XL70V2B08  1×Center Plate V2		XL70V2A02  6×Carbon Servo Washer
XL70V2B10  1×Lower Carbon Frame V2	XL70B27  1×Battery Tray Rail (L)	XL70B28  1×Battery Tray Rail (R)	MSH71032  4×Carbon Servo Washer	 8×Hex Screw M2.5×10
XL70B39  2×Aluminum Frame Spacer	XL70V2B09  1×Battery Tray Guide (L) 2×Screw M2.5×6	XL70V2B09-1  1×Battery Tray Guide (R) 2×Screw M2.5×6	XL70V2B17  1×Rear frame Spacer	XL70B32  2×Flat Head Cap Screw 1×Frame Mounting Block 2×Hex screw M3×10 2×Hex screw M3×6

XL70V2T05-2  1×Vertical Fin	XL70T12-2  1×Tail Pitch Slider 2×MF128 Bearing	XL70T12-1  1×Tail Shaft Slide Bushing	XL52T11  2×Tail Control Link	 2×Pitch Slider Fork Bushing 2×3×3
XL70T12-4  1×Tail pitch slider 2×Hex screw M2×8 2×Ball 4.72mm	XL52T09-2  2×screw M2.5×6	XL70A22  2×F683zz Bearing 3×7×3	XL70T09B  1×Tail Pitch Lever NME 2×M2.5×6 screw 2×Bearing3×7×3Flange 2×M2.5×6Pitch lever screw	XL70V2T07B  1×Tail Pitch Control Arm 2×M2.5×6 screw 1×5mm ball
XL70T14-3  2×Center pin 2×Washer M2×4 2×Hex screw M2×3 2×F 683zz Ball Bearing 3×7×3 Flanged	XL70T15-1  4×O ring for tail shaft 2×Washer 5×8×0.5	XL70T20  2×Hex screw M4×6 2×M4 Washer 1×Tail Spindle	XL70A27  5×Washer 5×7×0.3	 1×Thrust Bearing 5×10×4
XL70T17  4×Ball bearing 5×10×4	XL70T14-2  1×Tail Center Hub WC	XL70T16B  1×Tail grip NME 1×M3×17 Screw 1×M3 Nut 1×4.72 mm ball 2×Bearing5×10×4		XL70B21-3  2×6702zz Ball bearing 15×21×4
XL70V2T03  1×8mm Tail Belt V2	XL70V2B21  1×Upper one way hud 1×Lower one way hub 2×Bearing 15×21×4 6×M3×12 Screw	XL70B21-1  1×One way bearing	XL70V2B11  1×118mm Heavy Duty Main Gear 106T Mod1 V2	XL70V2B12  1×100T Front Pulley 1×M4×25 screw

XL70H13-1  1×Main shaft collar 1×M3×12 Screw 1×M4×4 Set screw	XL70A23  5×Hex screw M4×25	XL70V2T08-1  2×Tail pushrod end 2×Tail pushrod end linkage screw 2×Ball Link 5mm M3 1×Ball 5mm M3*3 1×Ball 5mm M2*4.8	XL70A02  8×Ball Link	XL70V2T08-2  1×Tail Control Rod NME
XL70V2T09  2×Tail control rod guide 2×M2×Screw 2×M2×Nut	XL70G11  1×Motor Pinion 2×M4*4mm Set Screw	XL70A16  2×688ZZ Ball Bearing 8×16×5	XL70B12  2×Rubber 2×M3×45mm screw 1×Plastic Tube 2×ESC mount 2×M3×6mm Flat Head Cap Screw	
XL70V2A04  4×AS150 Big red housing	XL70V2A06  2×AS150 Anti-spark bullet	XL70V2A07  4×AS150 Female bullet	XL70V2A05  4×AS150 Small black housing	XL70V2B16  1×Battery Connector Retainer 2×Flat screw M2.5×6
XL70V2B15  1×Battery Quick Connect Mount 4×Button head screw M3×6	XL70V2A08  4×AS150 Small red housing	XL70V2A09  4×AS150 Big black housing	XL70V2A10  4×AS150 Male bullet	XL70V2A11  4×S7 Big red housing 8×Grub screw M4×6
XL70V2A12  4×S7 Small black housing 8×Grub screw M4×6	XL70V2A15  4×S7 Small red housing 8×Grub screw M4×6	XL70V2A16  4×S7 Big black housing 8×Grub screw M4×6	XL70V2B04-2  2×Quick release canopy mount 2×M6×0.5 Nut	XL70A29  6×Washer 10×16×0.1