

XZ POWER



SPECTER

NITRO

U L T I M A T E



- Length Without Main Blades: 1381mm
- Overall Height: 363mm
- Width: 217mm
- Main Gear: 136T
- Pinion Gear: 17T
- Main Gear Ratio: 8
- Front Tail Pulley: 100T
- Rear Tail Pulley: 21T

- Tail Ratio: 4.76 (5.0 Optional)
- Frame Weight: 4.2kg (without fuel)
- Main Shaft Diameter: 15mm
- Feathering Shaft Diameter: 10mm
- Tail Boom Diameter: 32mm
- Tail Belt Width: 8mm
- Main Gear Thickness: 10mm
- Battery Compartment Size: 125mm×45mm×20mm

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.*

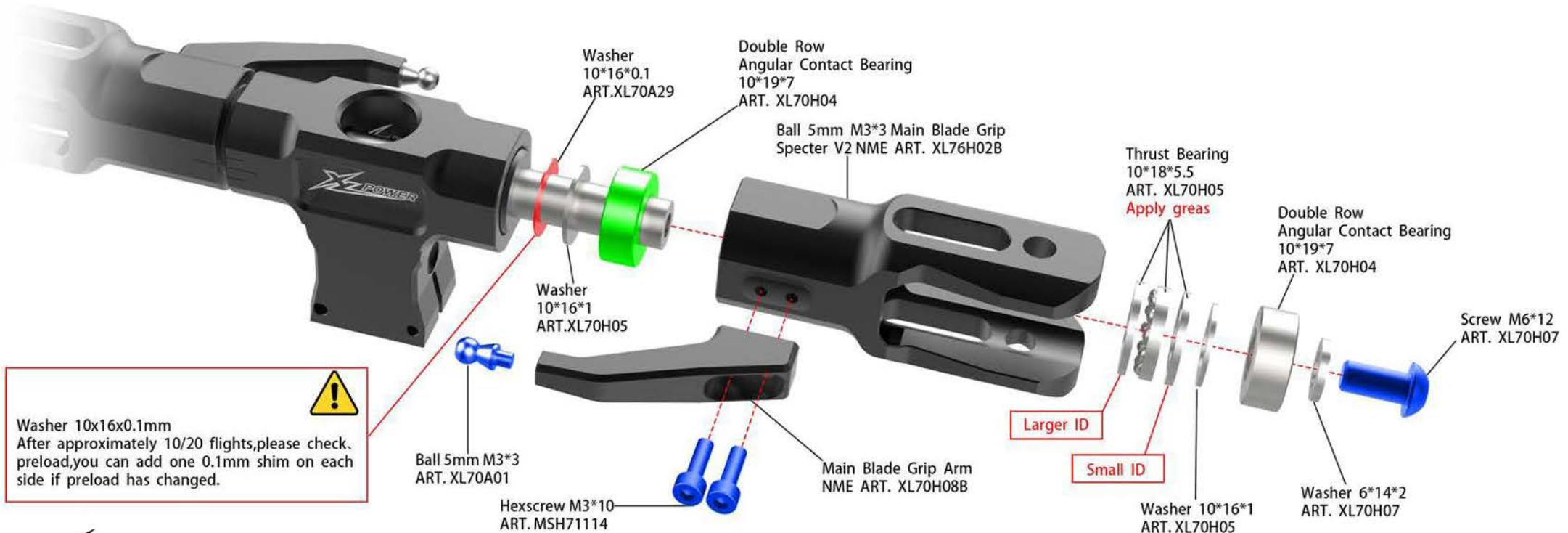
*NEVER use the same control frequency as someone else. Doing so may cause interference or loss of control of the model.
NEVER continue flying if the model is displaying irregular behavior or noises. Bring the model to a halt immediately and disconnect the batteries.
NEVER fly the model with known broken 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.*

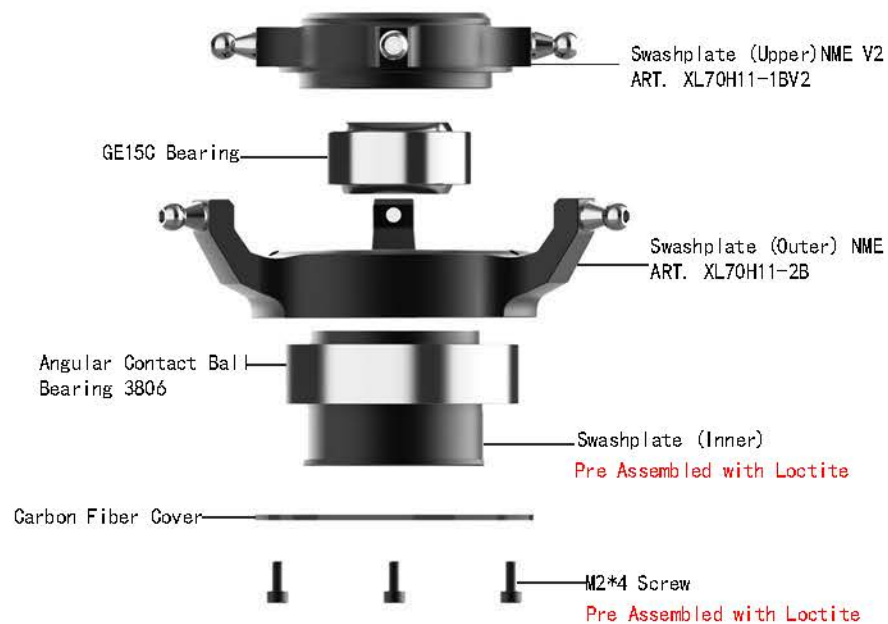
*Operate only outdoors and out of bystanders reach, as the main rotor operates at high rpm and is very dangerous.
While adjusting and testing, pilots and observers should stand at least 10 meters from the model.
Novice pilots should be assisted by an experienced pilot and never fly alone!*

Swashplate Servos: Standard Size (Qty. 3)	Engine: .91-1.20Glow\Nitro Fuel Engine	Hex Screwdriver Sizes: 1.5mm 2mm 2.5mm * 2 3mm 4mm * 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): LiFe\LiPo 2s 2500-5000mAh	Exhaust: Appropriate muffler for engine brand\type	Thrust Bearing Grease Pitch Gauge up to 17mm crescent wrench



Head Dampener



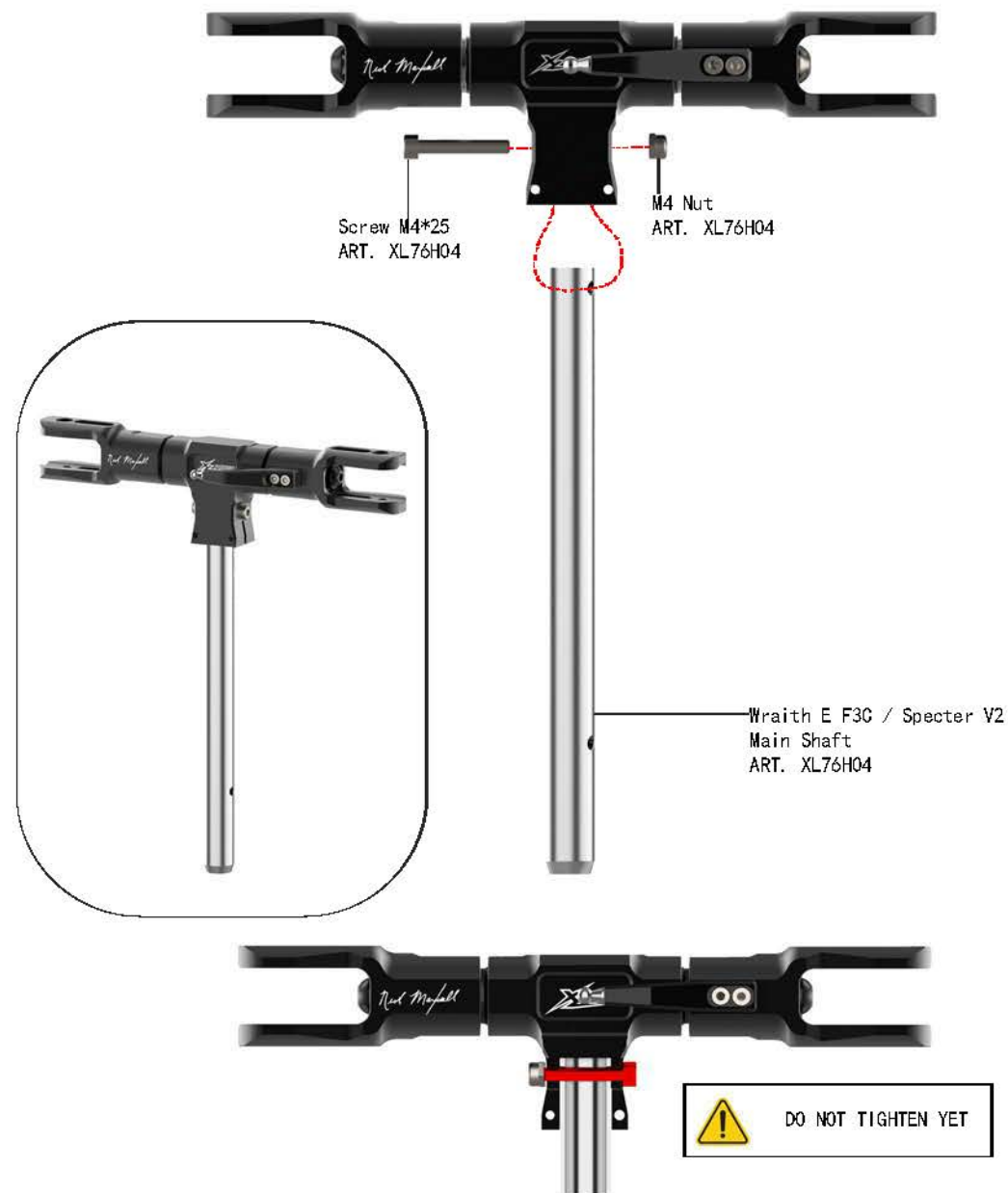


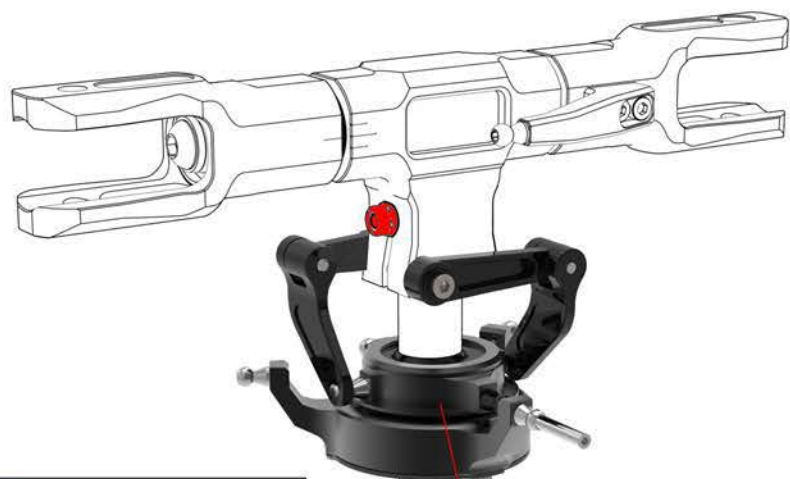
Ball 5mm M3*24
ART. XL70A01



Swashplate Assembly NME V2
ART. XL70H11B-1

Ball 5mm M3*3
ART. XL70A01





⚠ Fully tighten m4*25 screw



⚠ The radius arm connect to the narrower swashplate position red ball

Control arm NME
ART. XL70H09B

Spacer 3*5*0.5
ART. XL70H09B

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

Pin 3*14
ART. XL70H09B

Radius Arm
ART. XL70H09
ART. XL70H10

Spacer 3*5*0.5
ART. XL70H09B

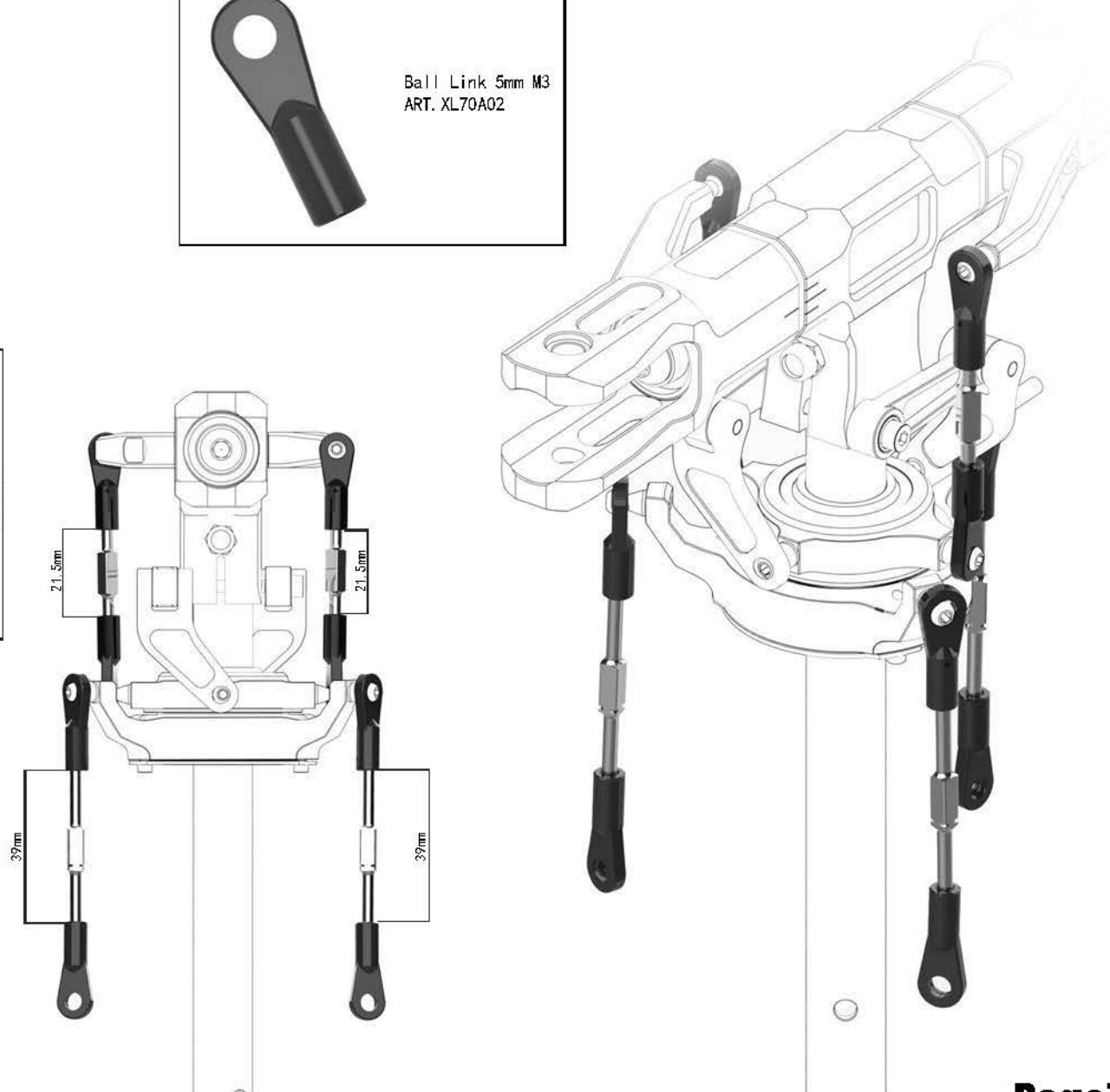
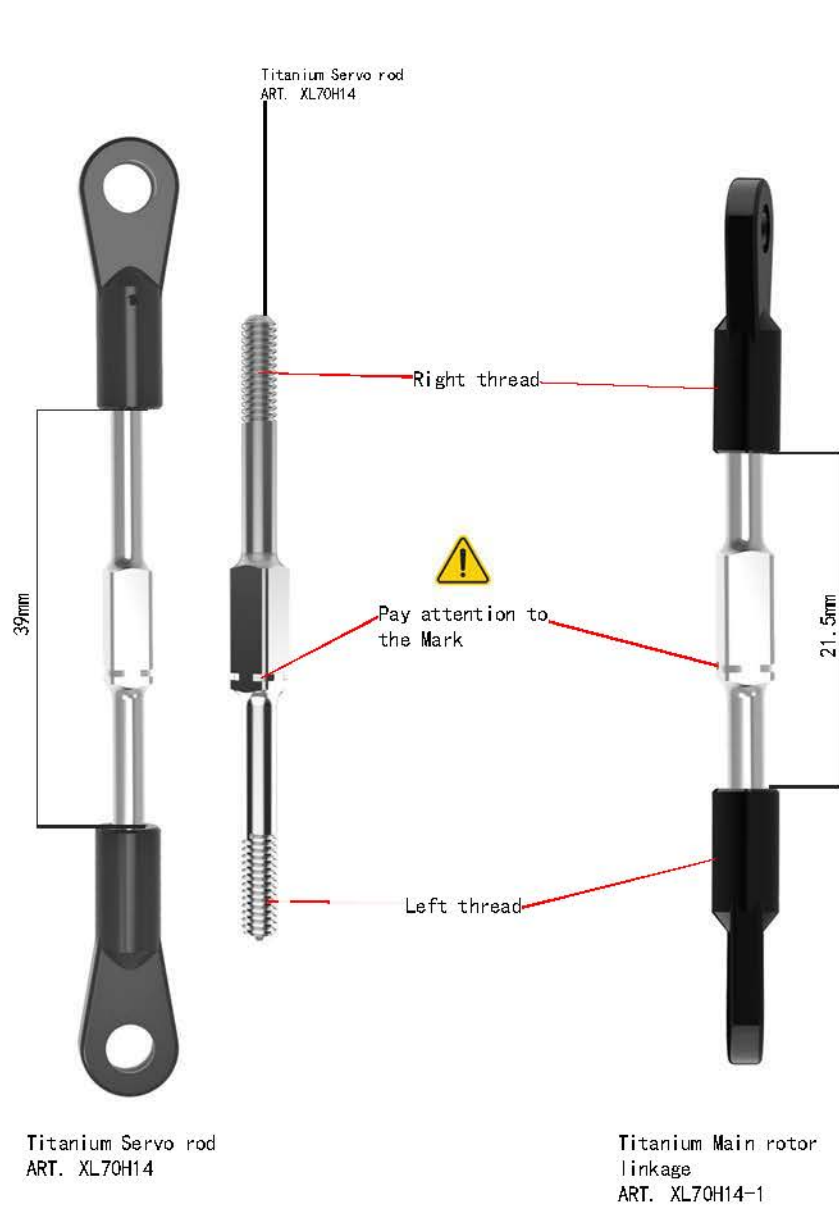
Screw M3*25
ART. XL70H09B

⚠ Pinch bolts together

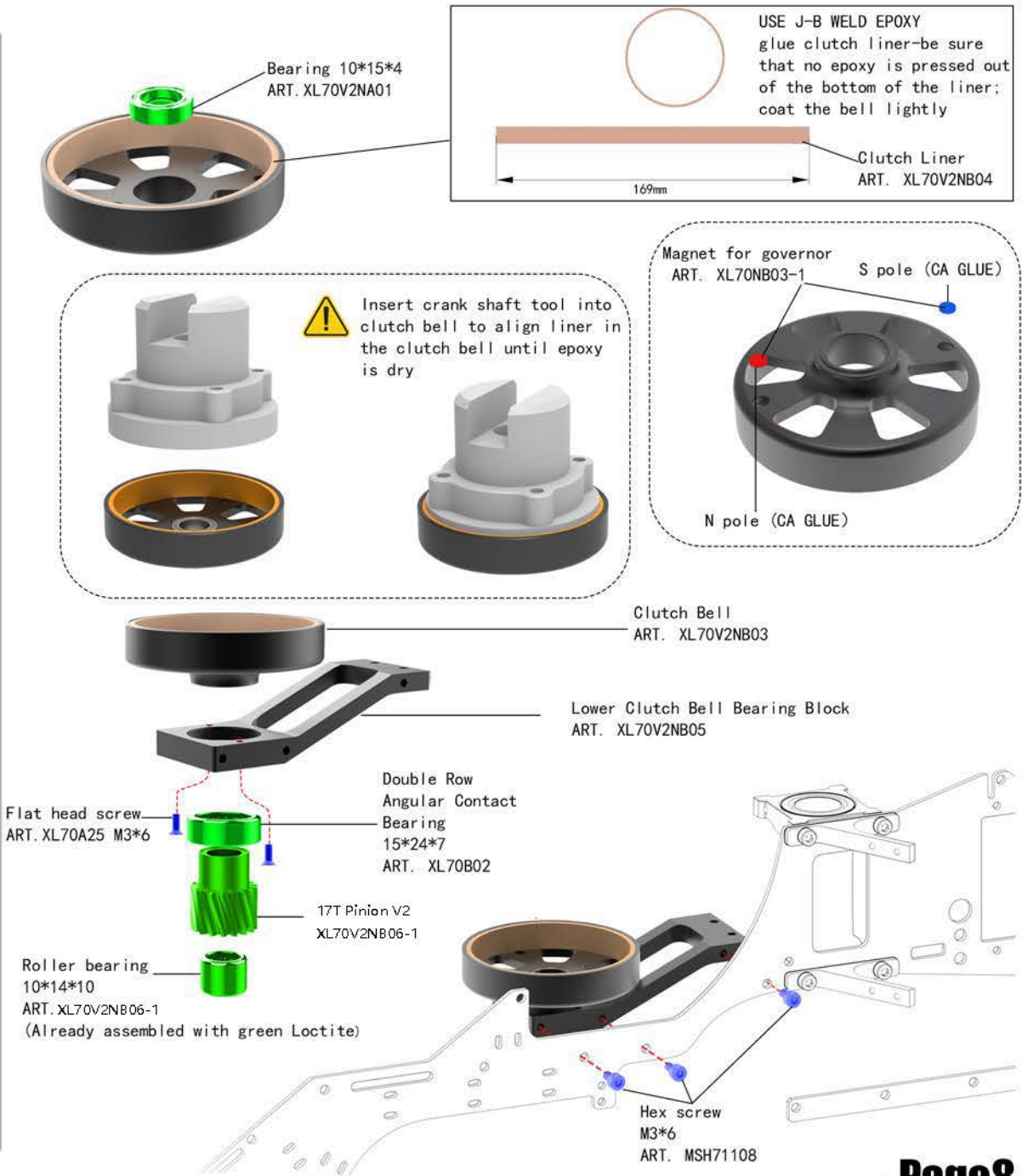
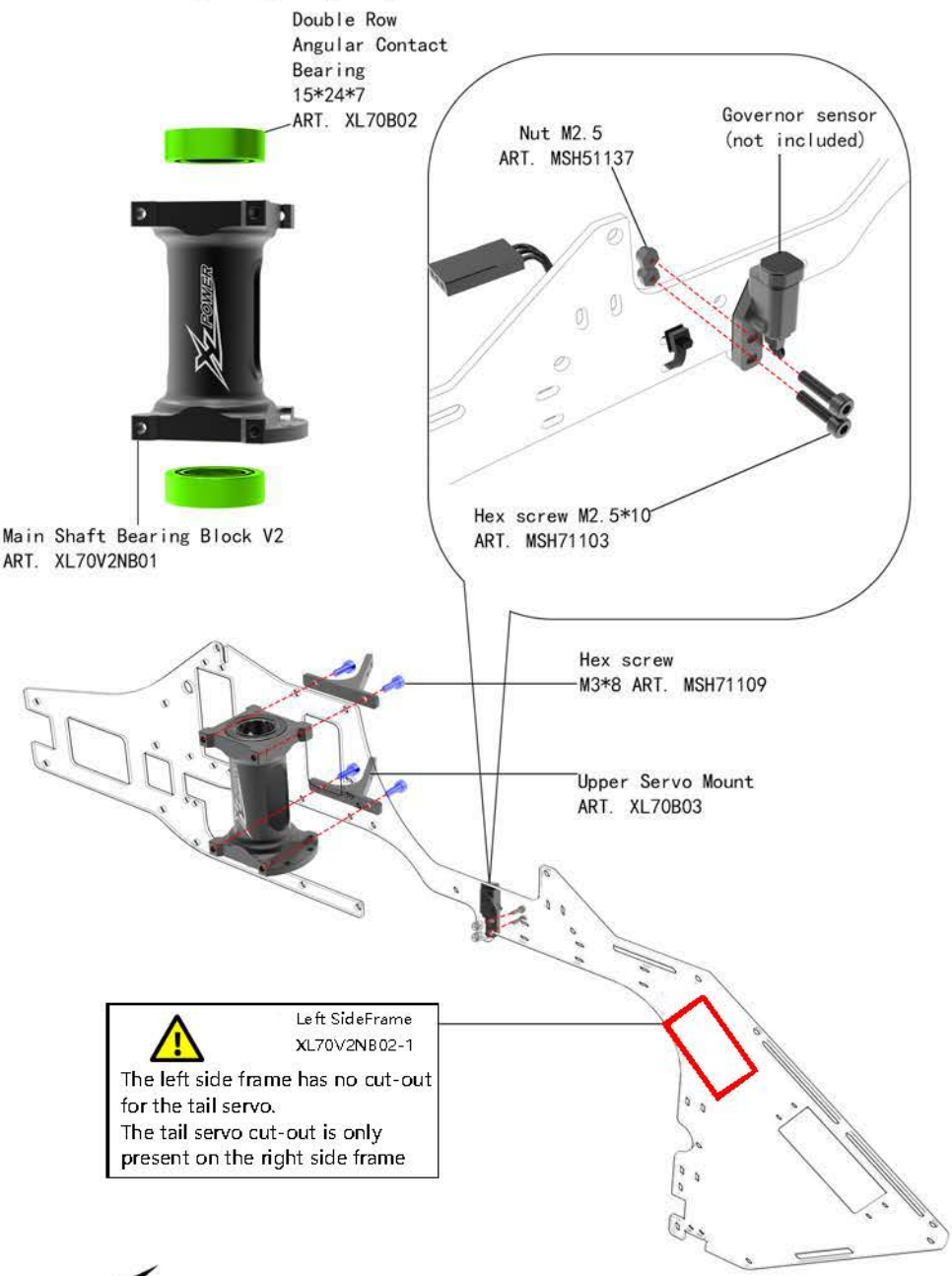
×2

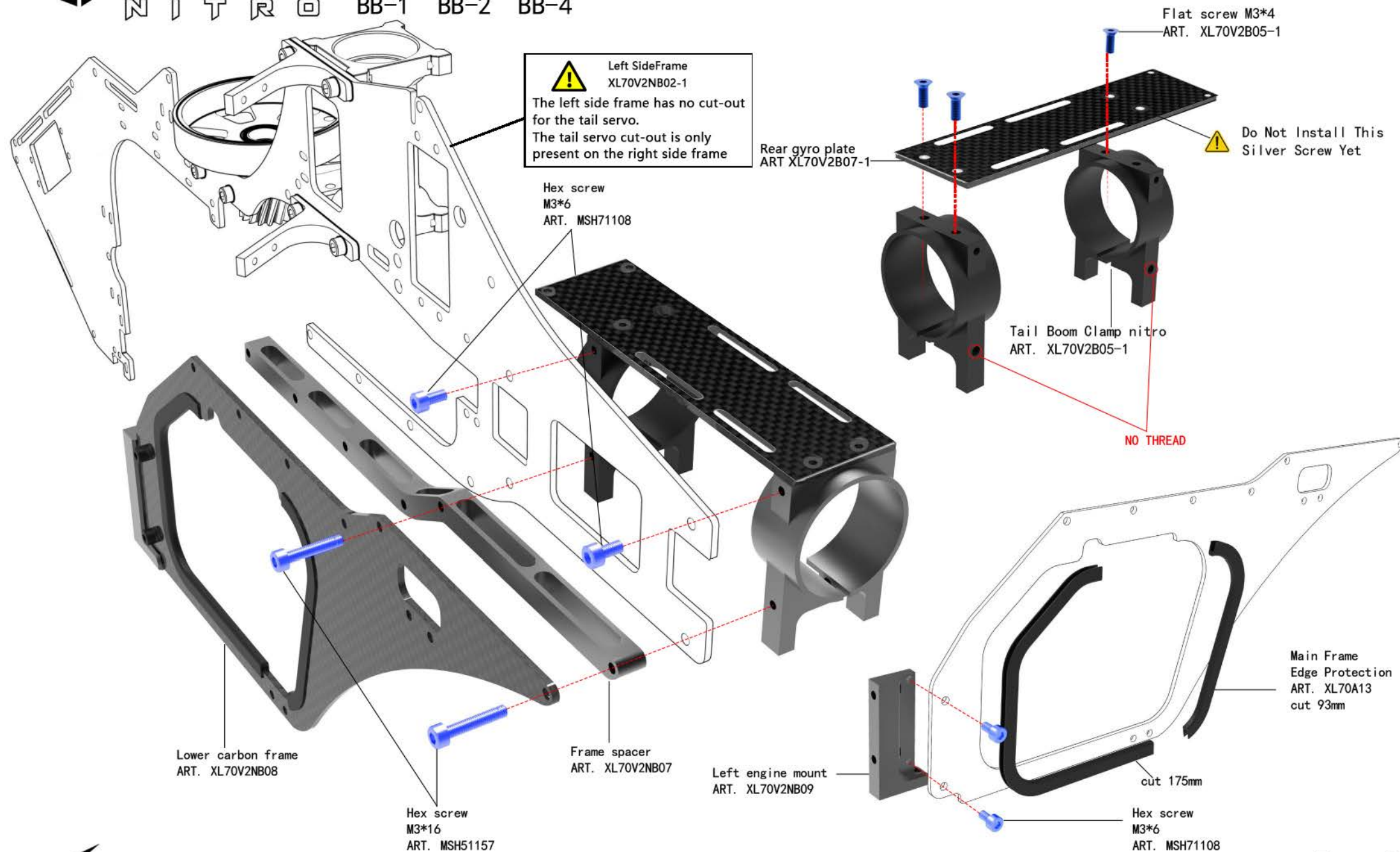


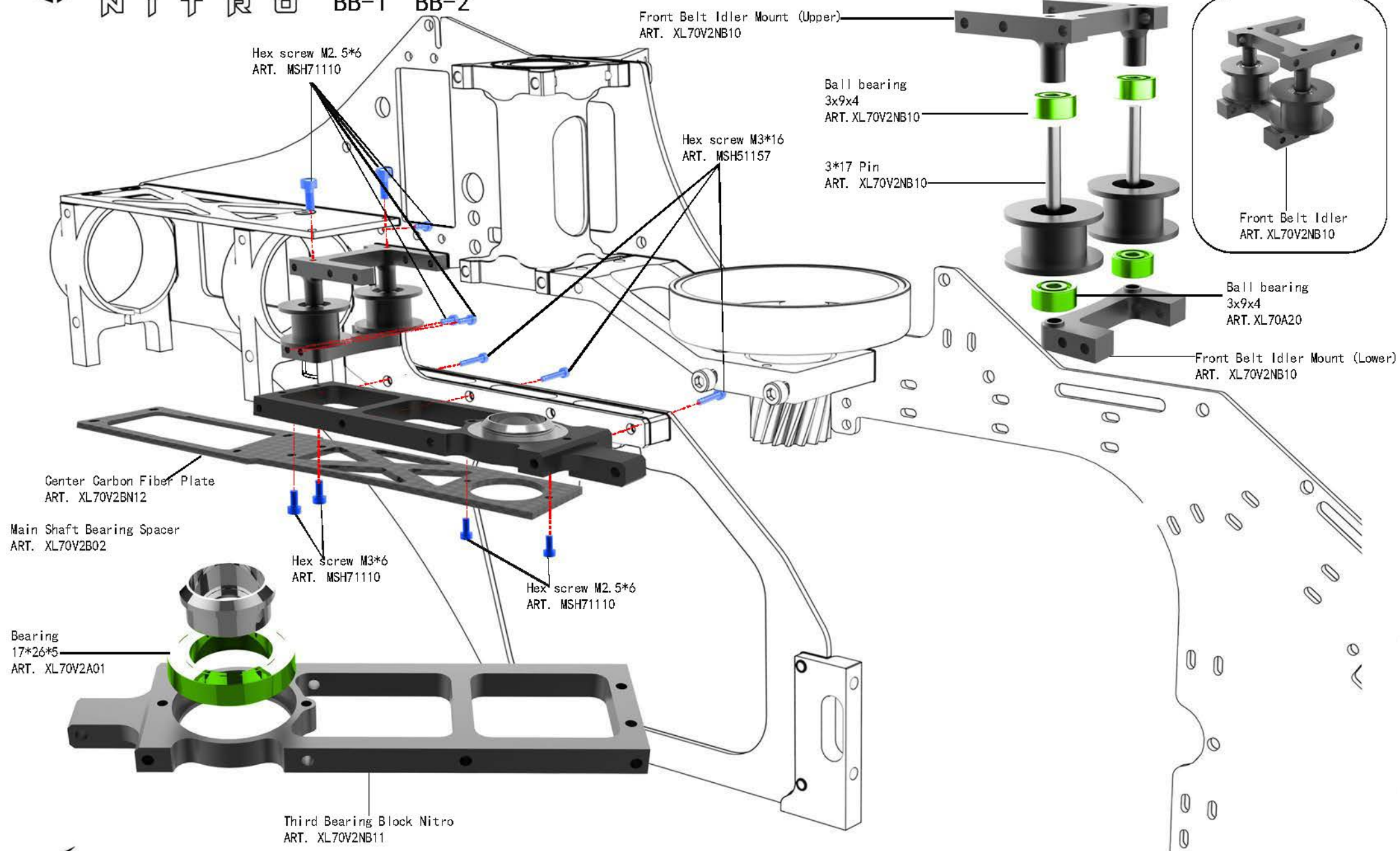
Already assembled with green Loctite

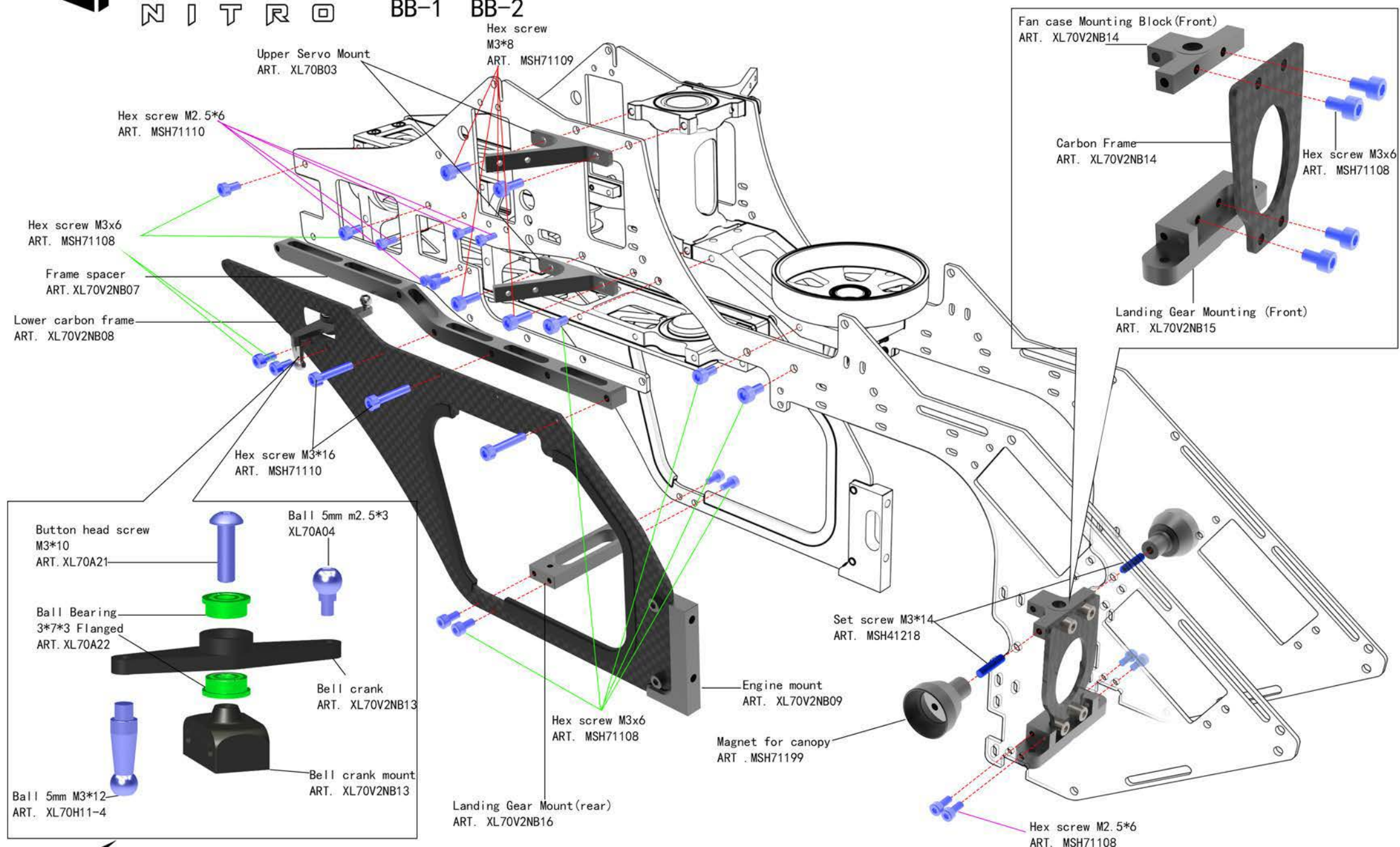


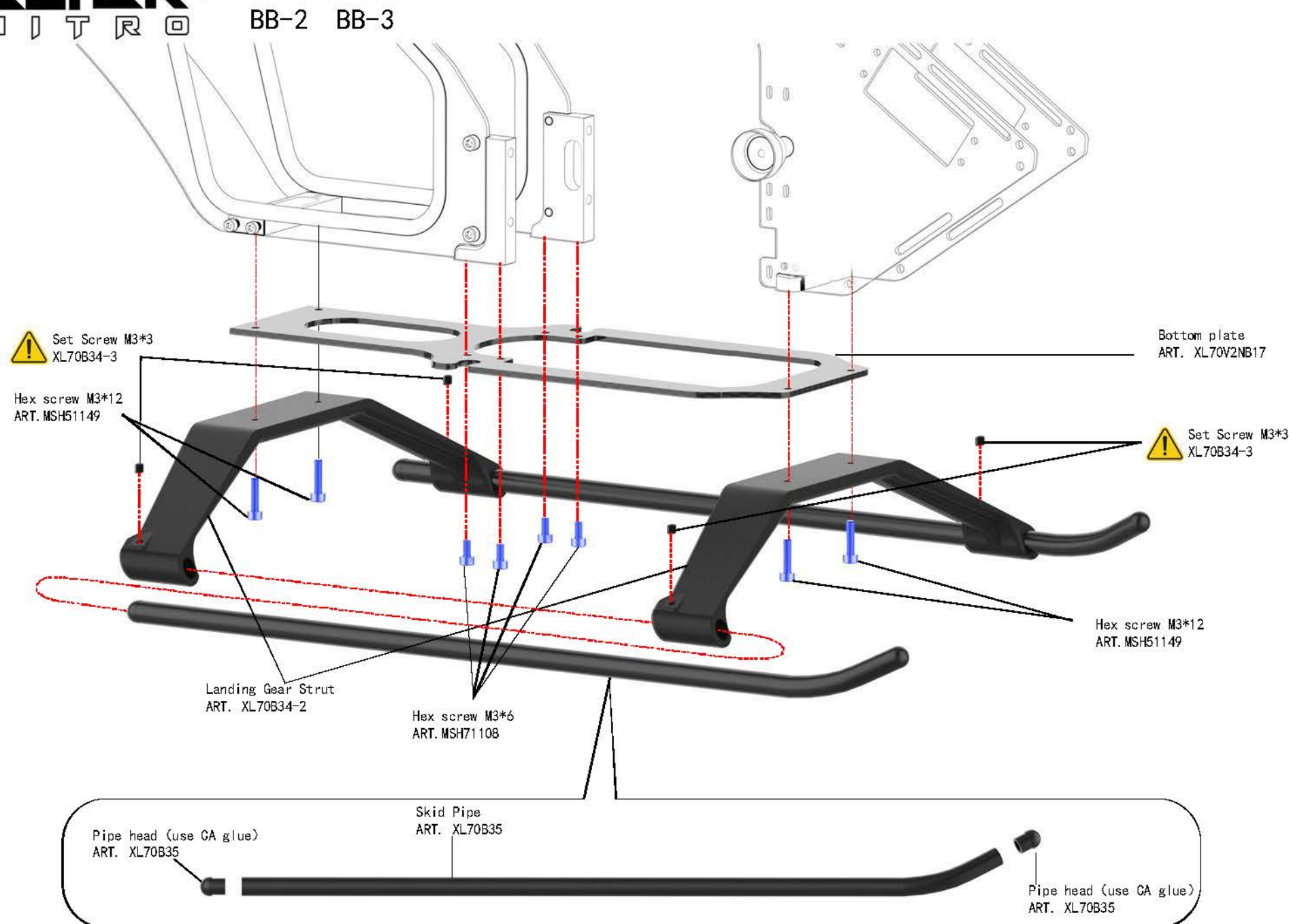
Servo rod length may differ slightly
with different servo brands











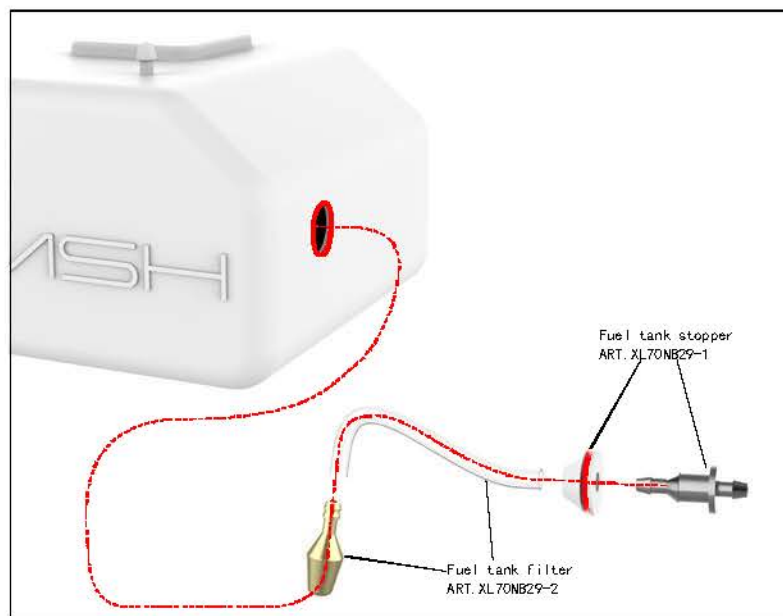
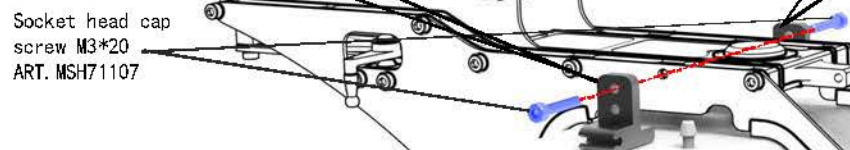
Fuel tank holder
ART. XL70V2NB18



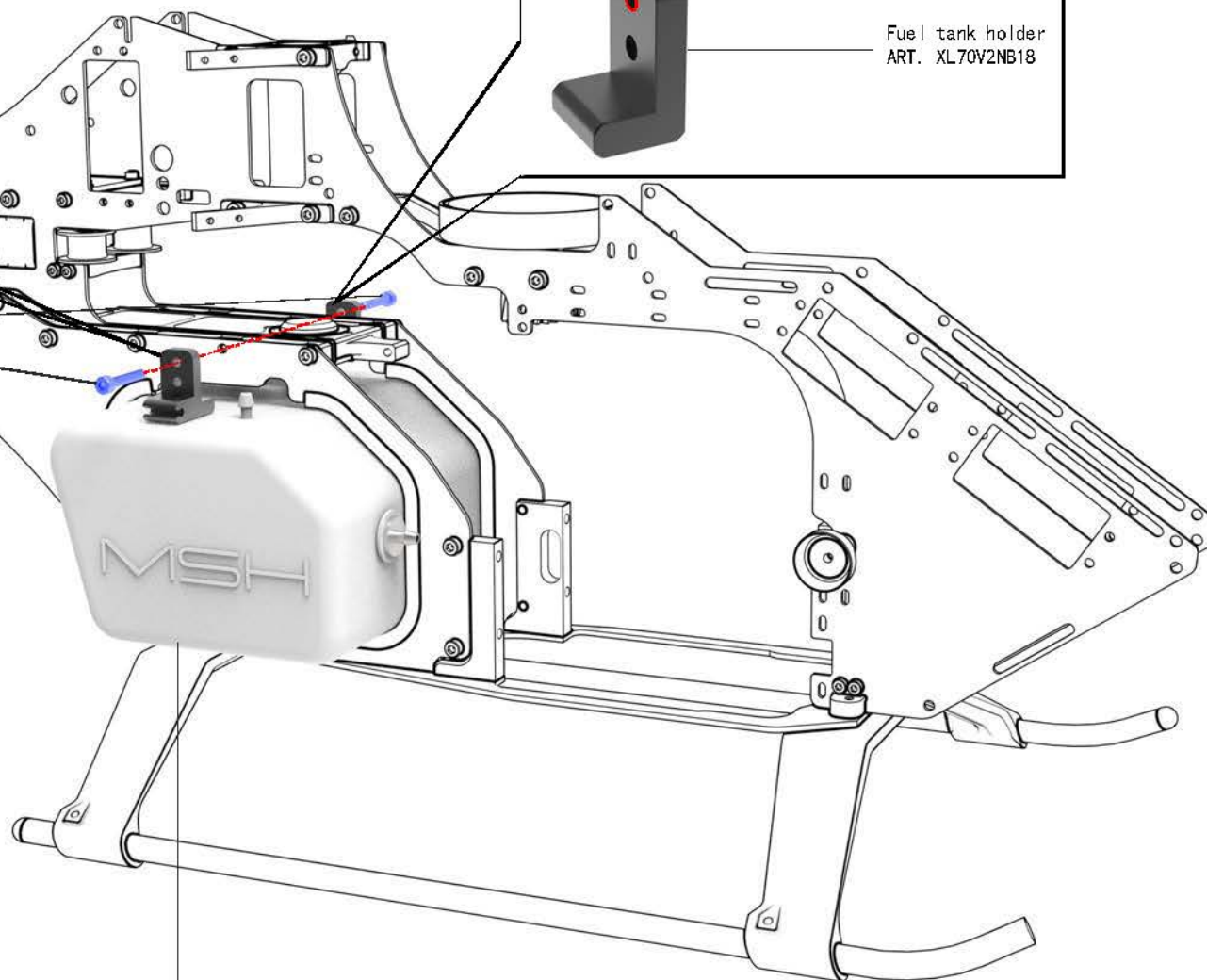
Fuel tank holder
ART. XL70V2NB18

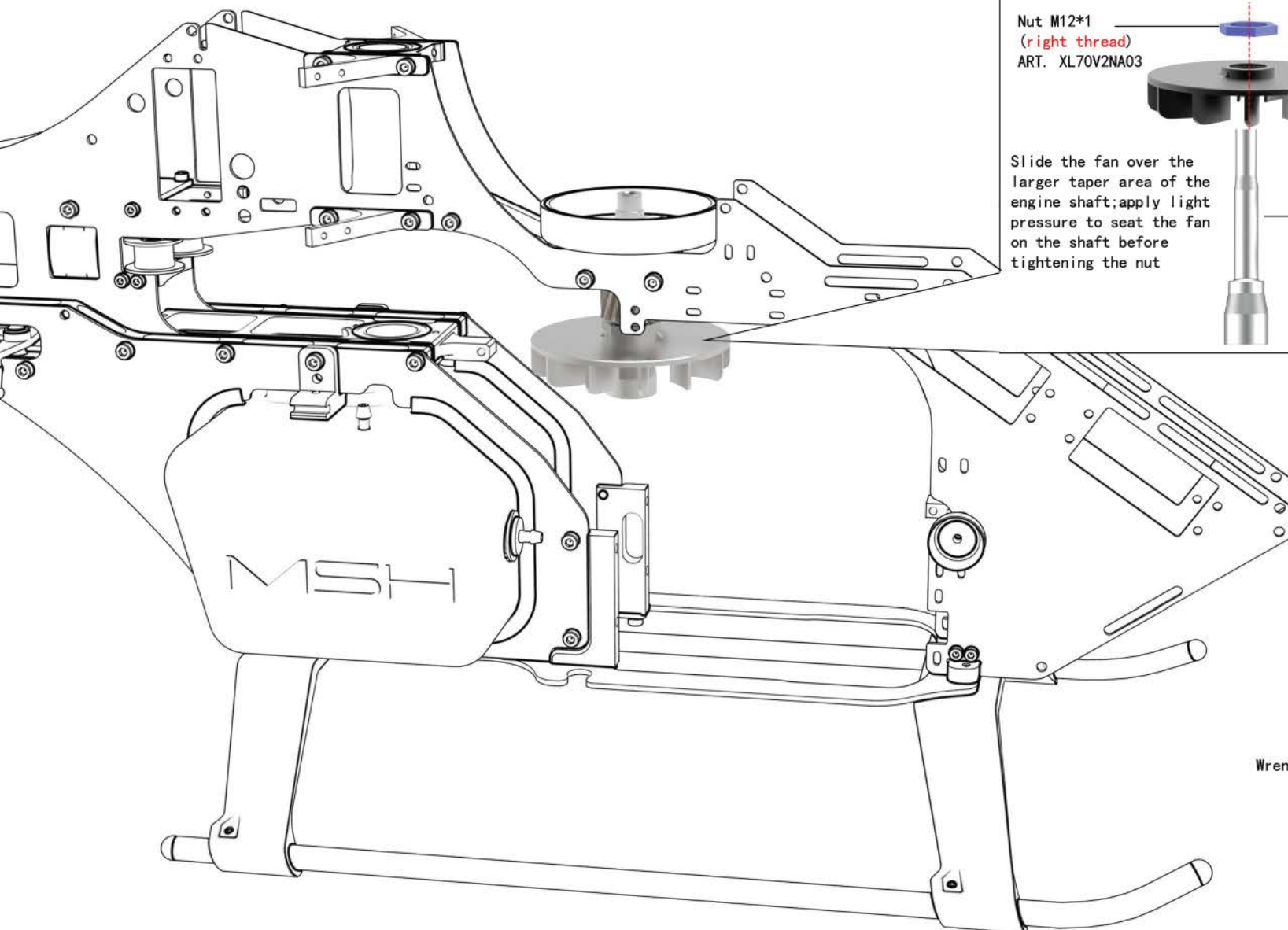


Socket head cap
screw M3*20
ART. MSH71107



Fuel tank
ART. XL70NB29





Nut M12*1
(right thread)
ART. XL70V2NA03

Slide the fan over the
larger taper area of the
engine shaft; apply light
pressure to seat the fan
on the shaft before
tightening the nut



Fan
ART. XL70V2NB19

Engine ShaftSet V2
ART. XL70V2NB20-2



5mm Hex driver

Wrench (not included)



Pay attention to the direction

Slide the clutch onto taper under the threads on the engine shaft .Squeeze together before threading the starter head\clutch nut so that the clutch is pressed onto the shaft .



Install the washer with the tapered (conical) side facing down

Wrench (not included)

5mm Hex driver

Starter head (left thread)
ART. XL70V2NB21

8*19*6 bearing
ART. MSH71164

Tapered washer
ART.XL70V2NB20-2

Clutch
ART. XL70NB22

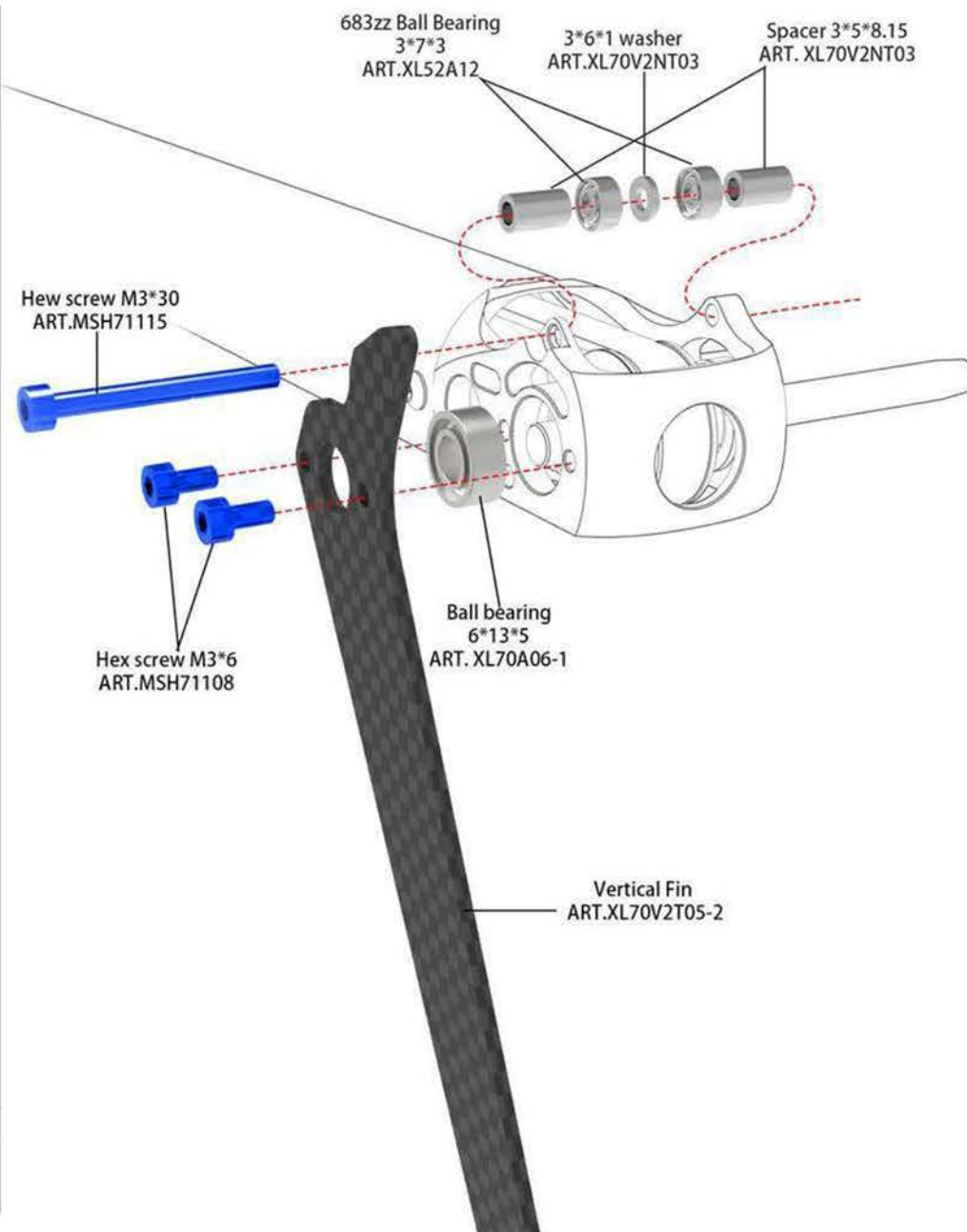
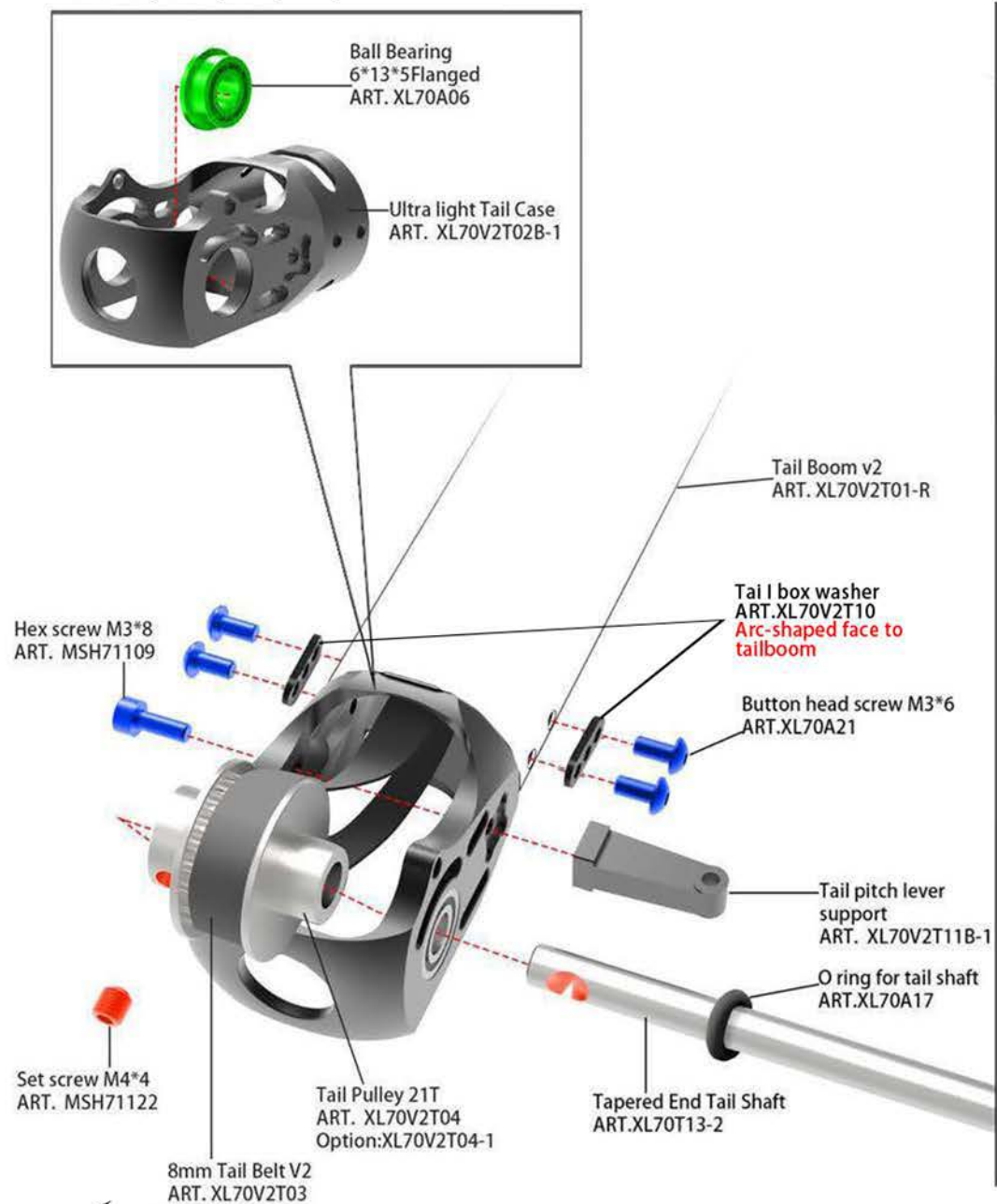
Hex screw M3*16
ART. MSH51157

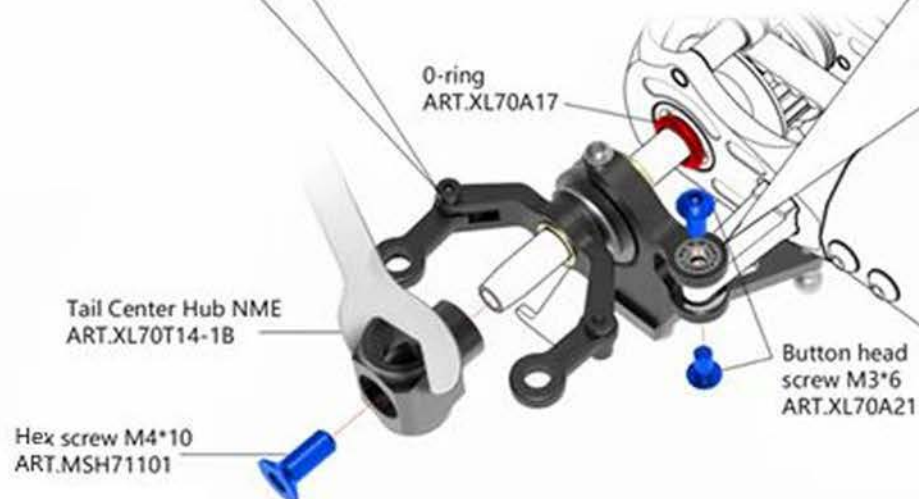
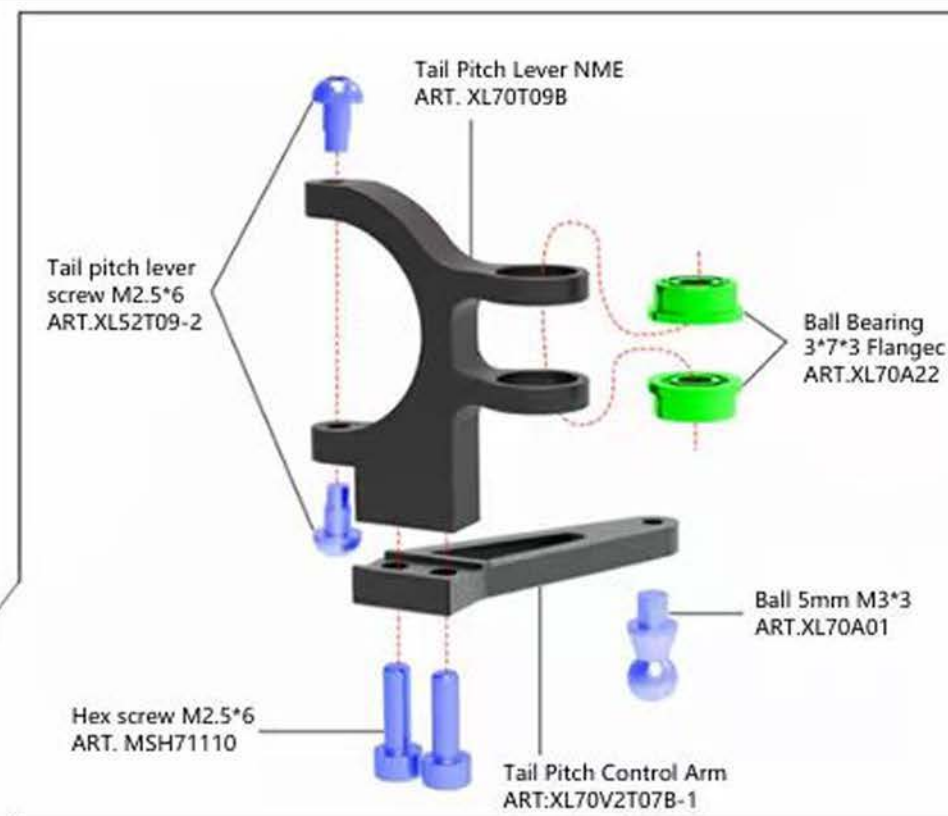
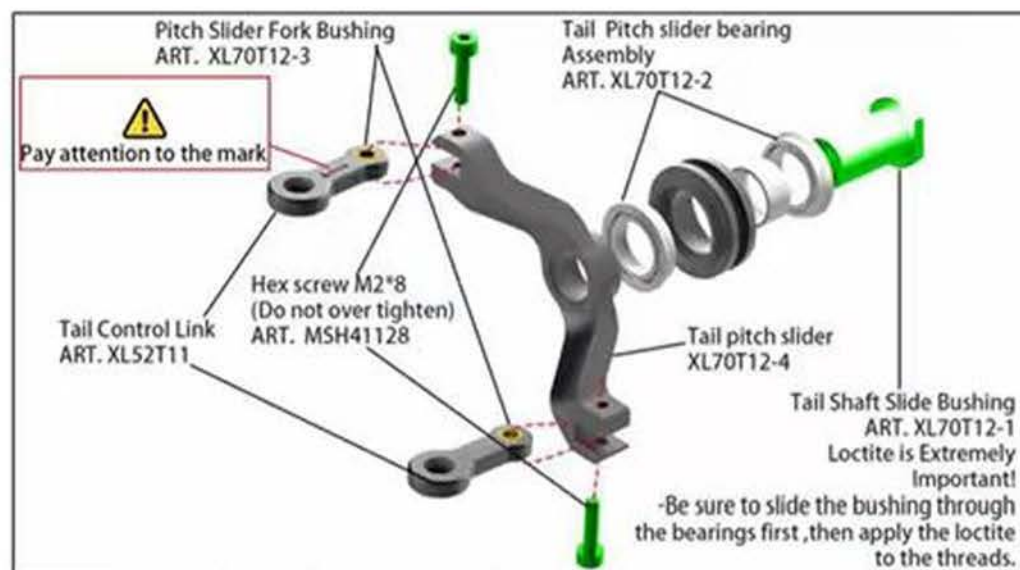
Hex screw M3*6
ART. MSH71108

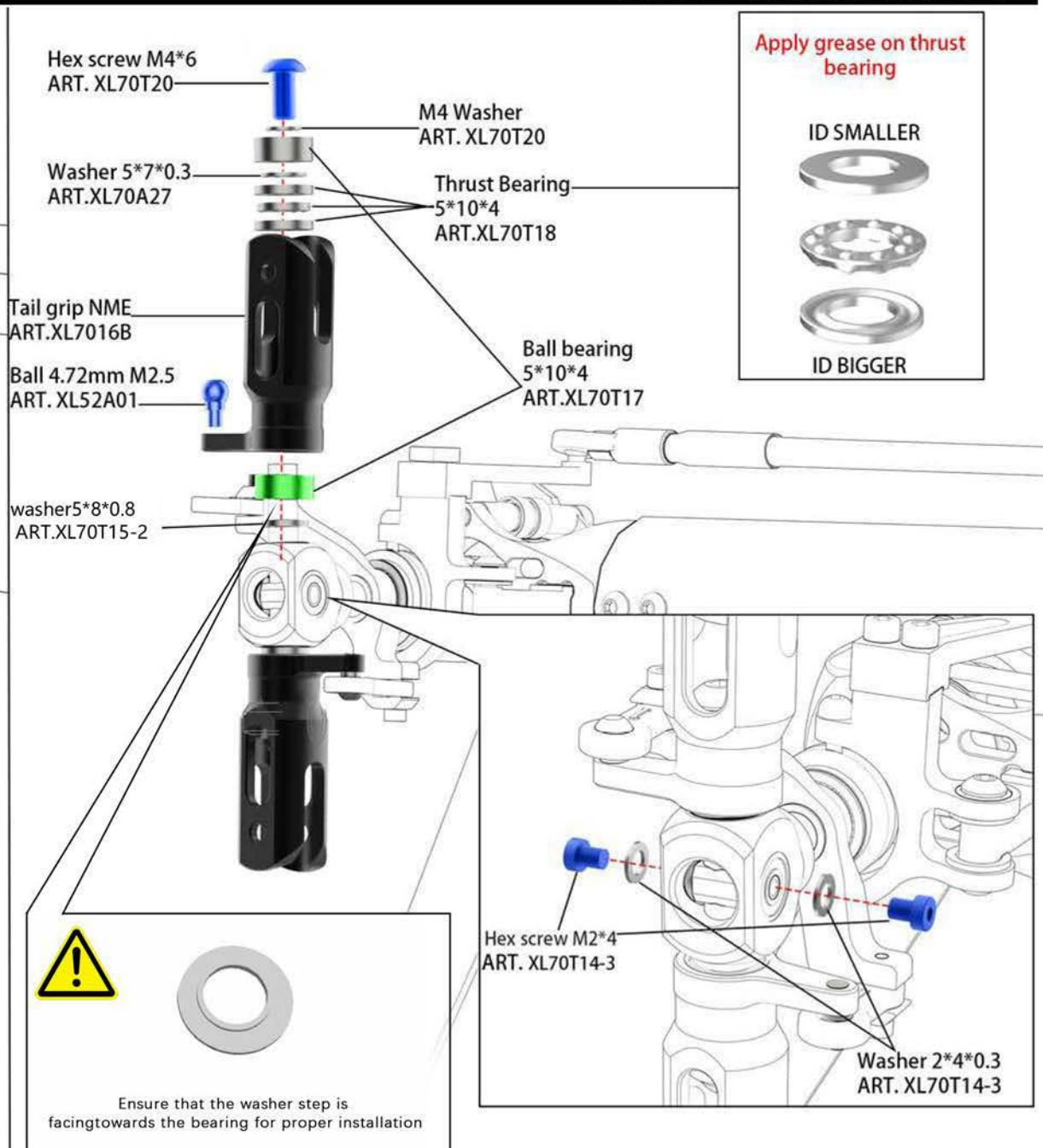
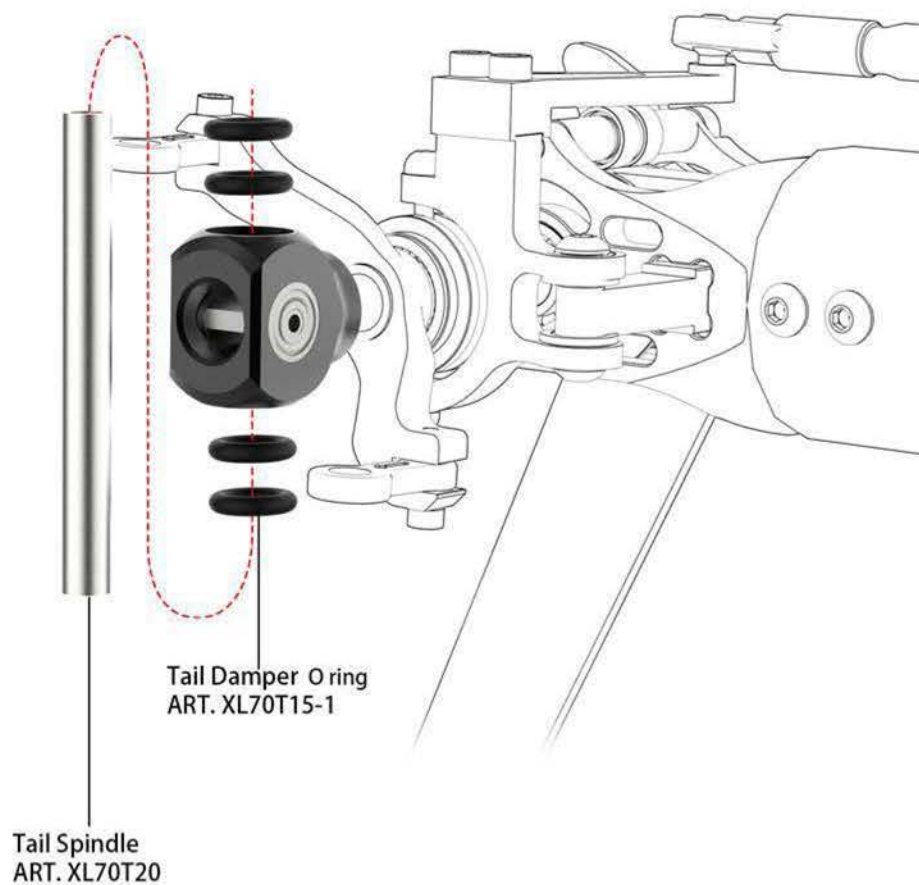
Plastic Tube
ART. XL70v2NA04

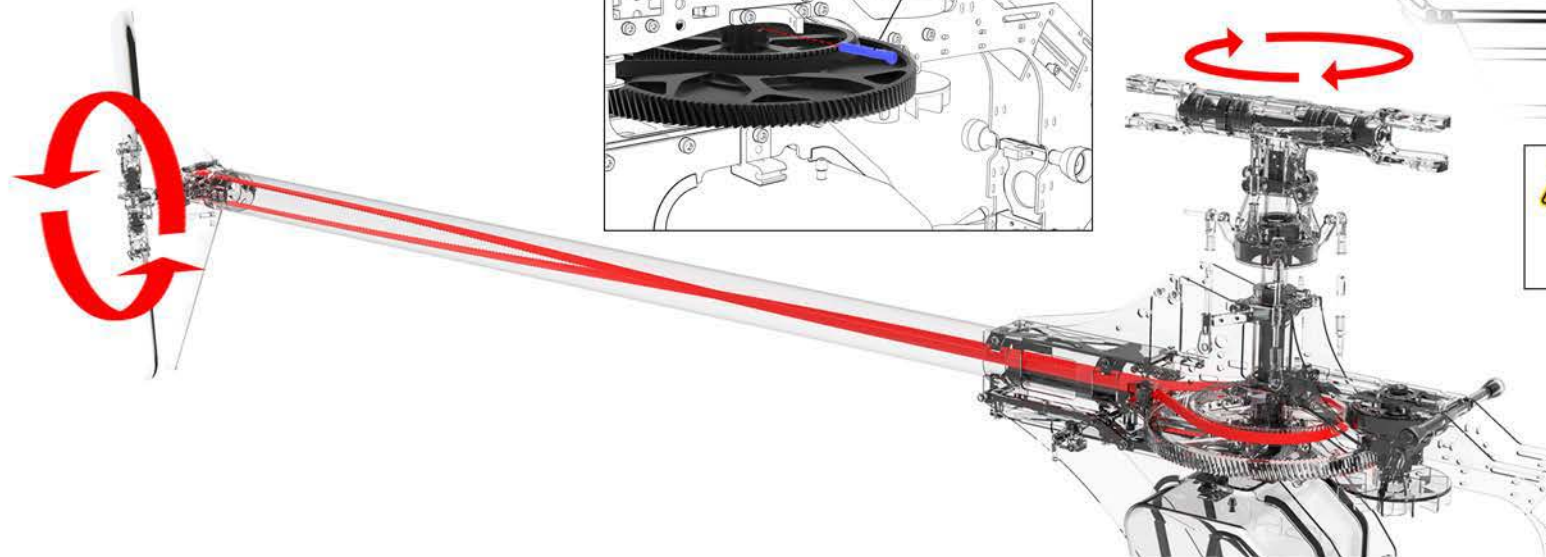
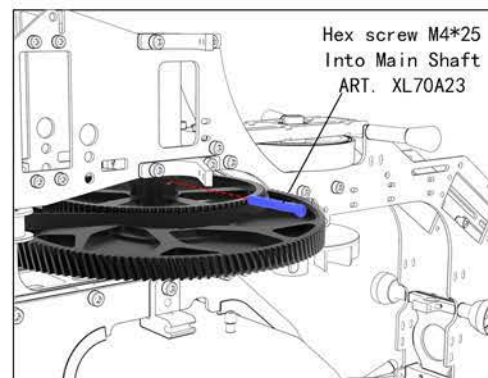
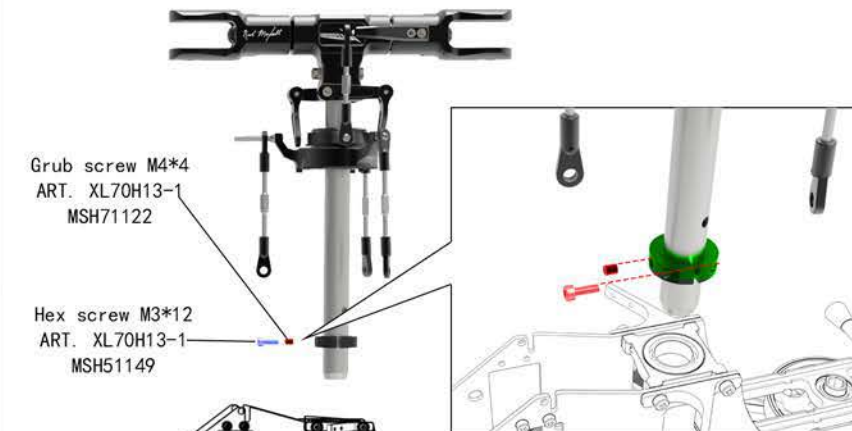
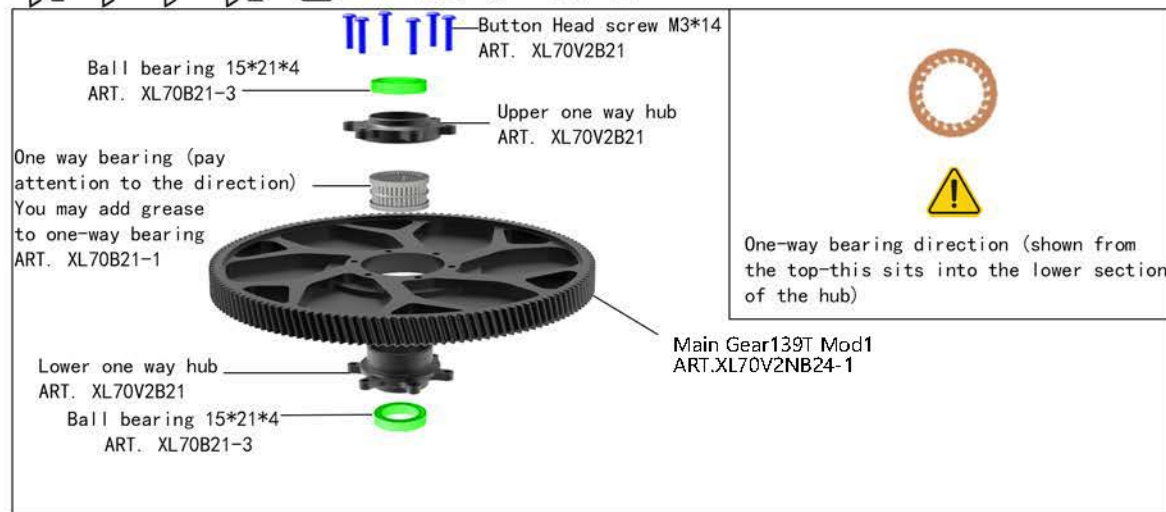
Button head screw M3*40
ART. XL70v2NA04

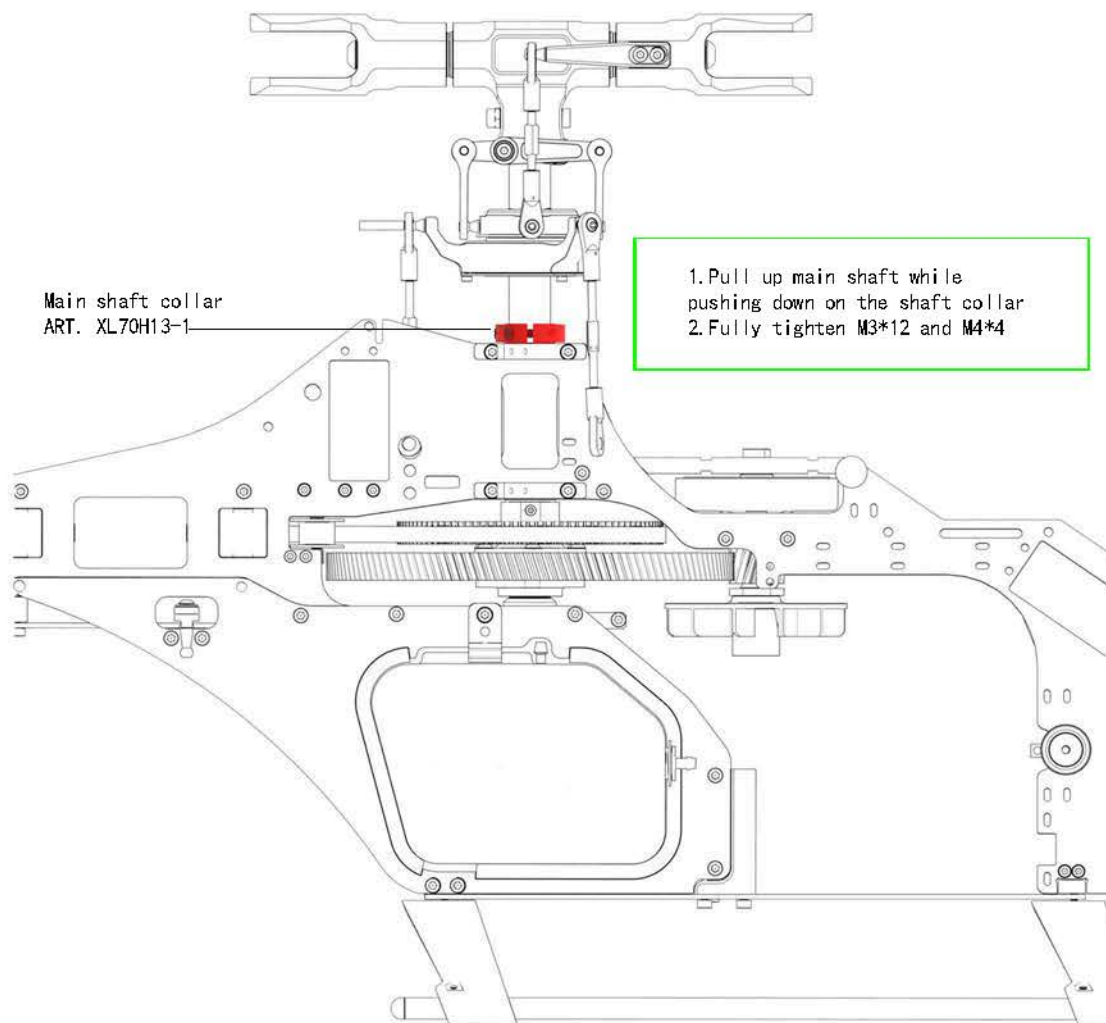
Rubber Cap
ART. XL70v2NA04



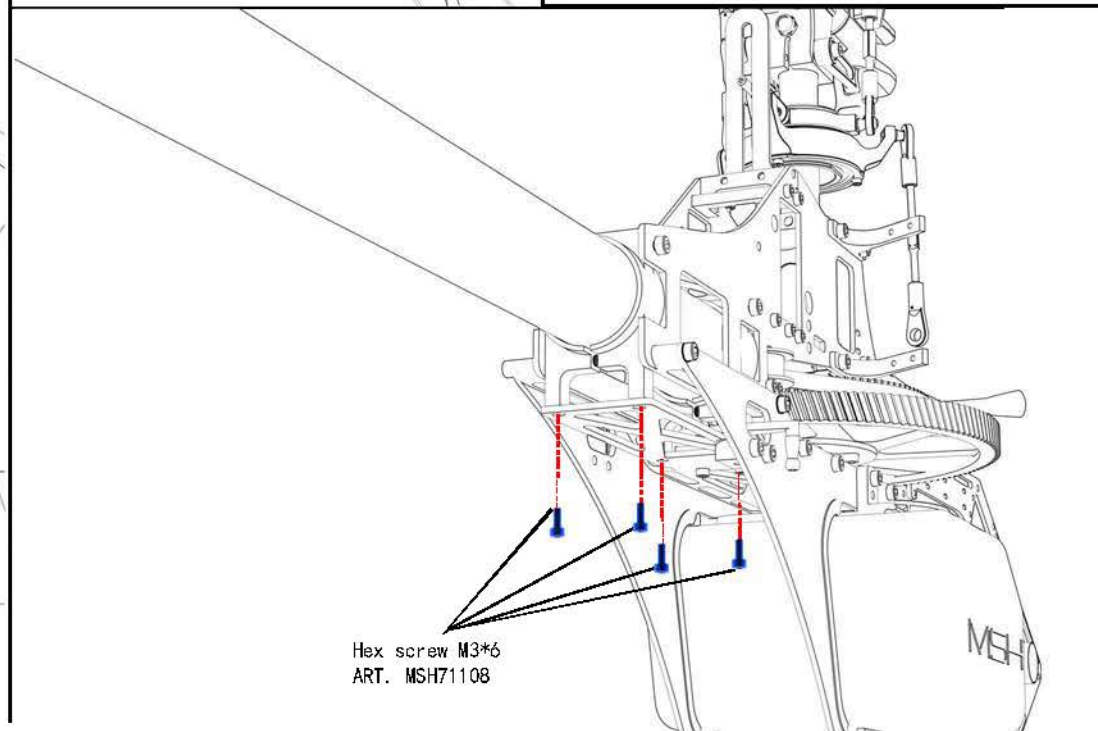
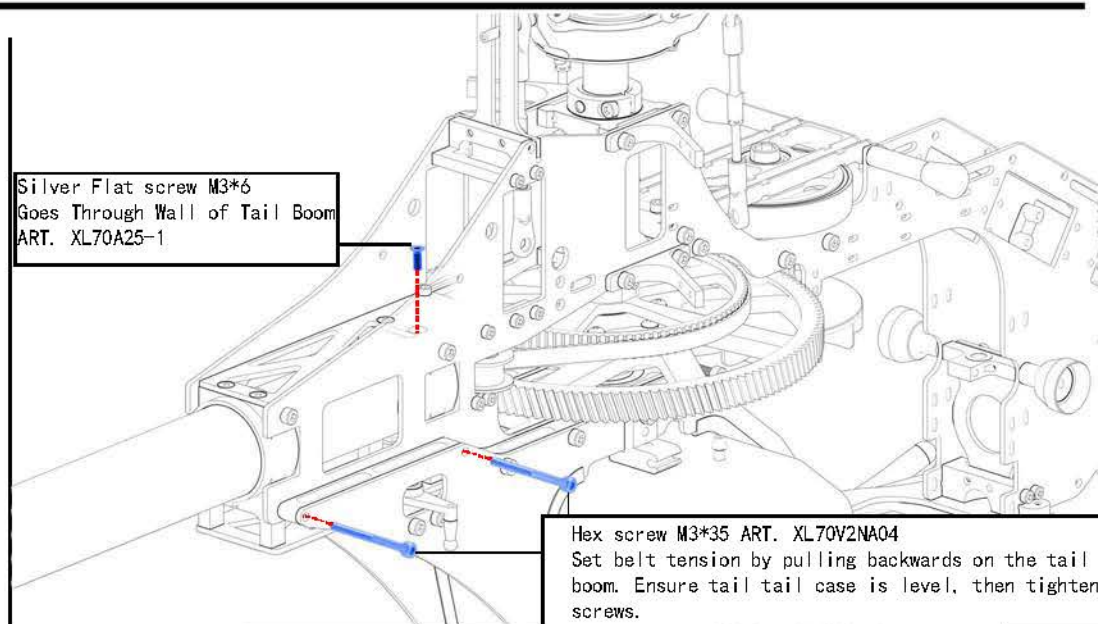


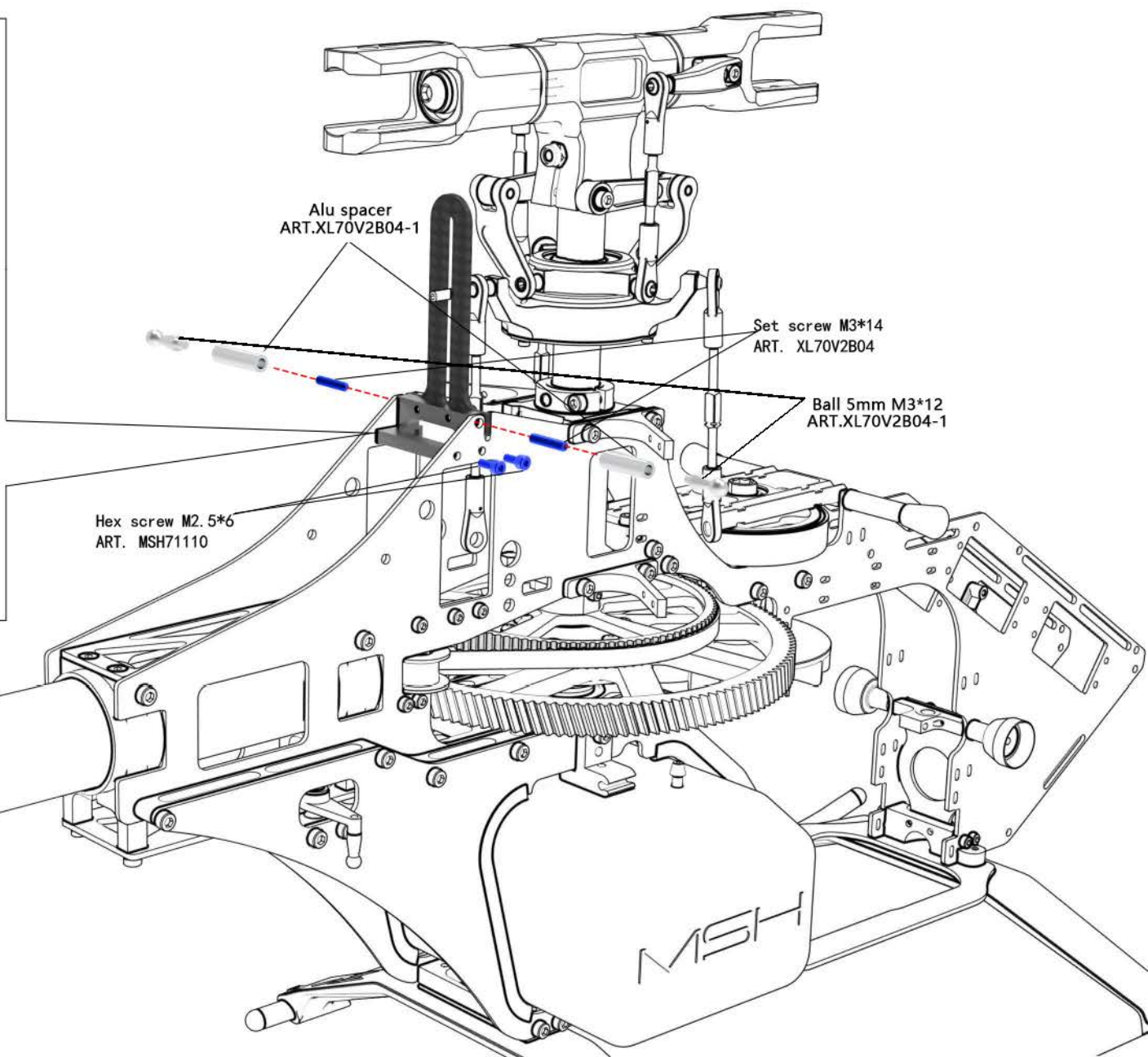
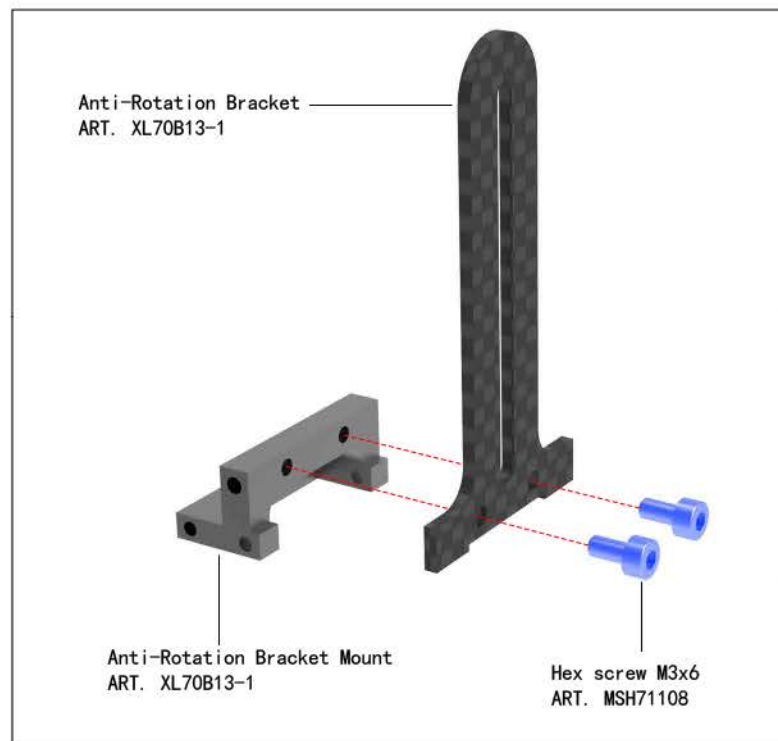




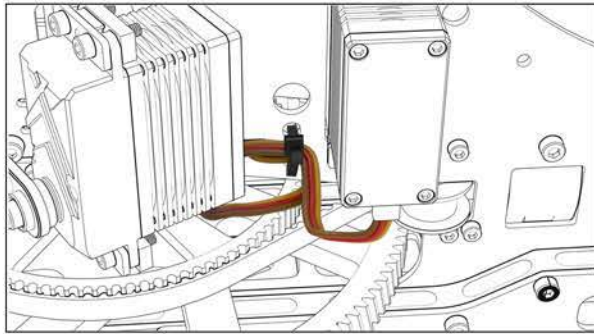


Silver Flat screw M3*6
Goes Through Wall of Tail Boom
ART. XL70A25-1

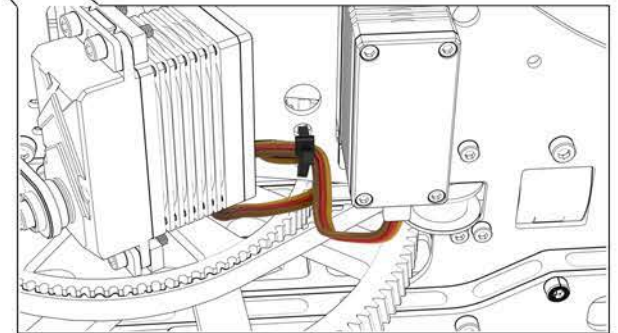
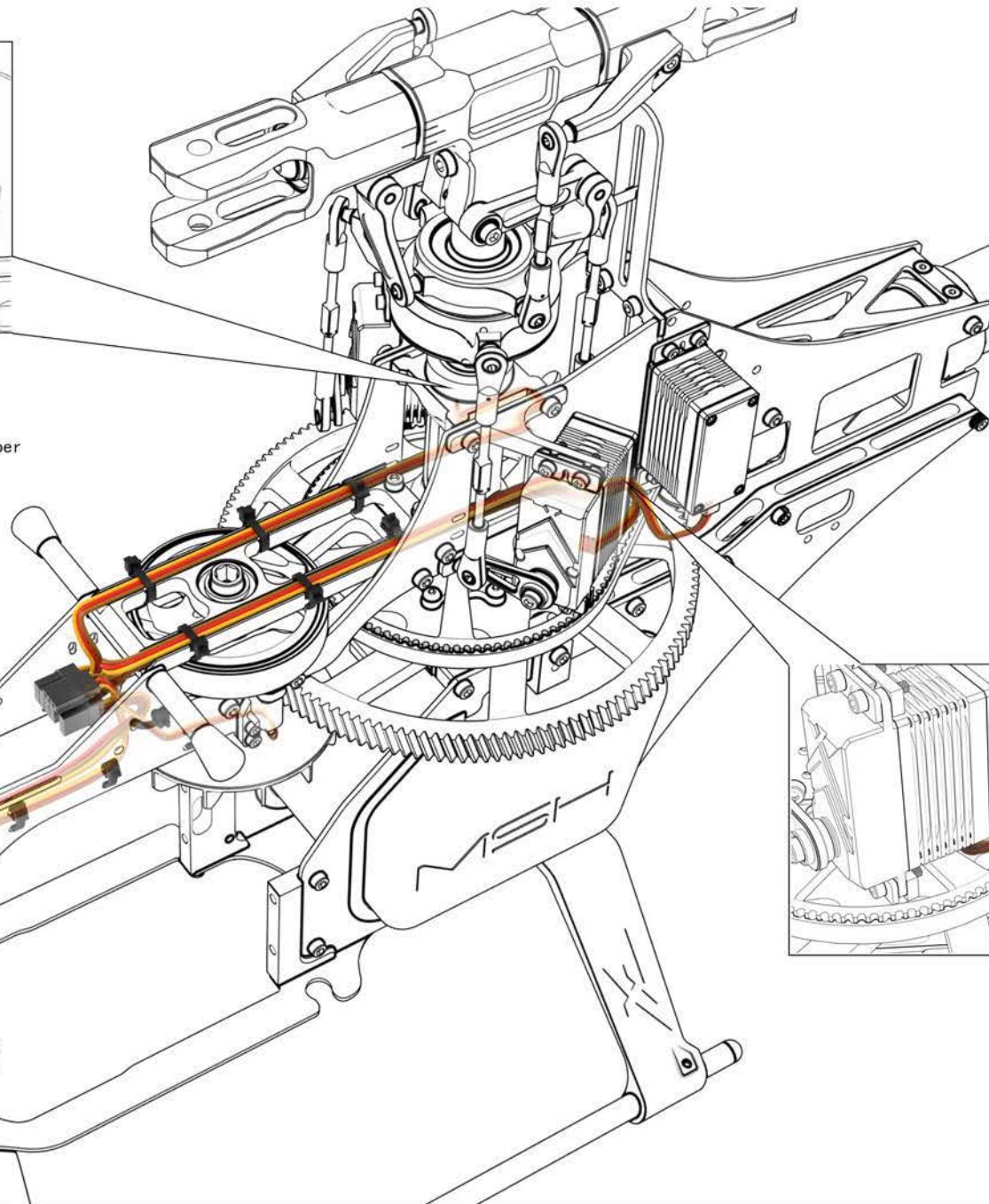


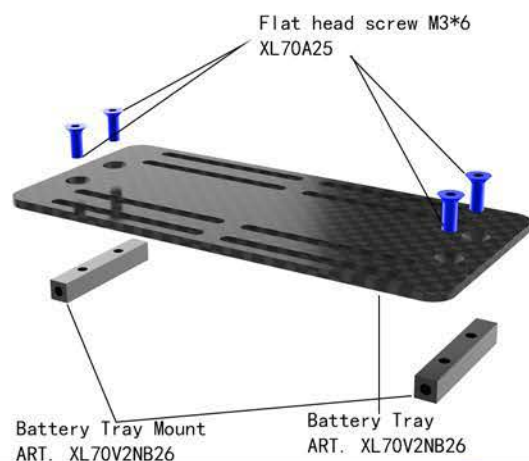
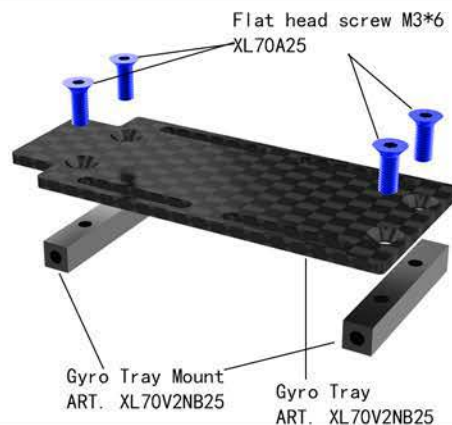






Use Zipties to hold the servo cables on the slots in the upper clutch bearing block, as well as the holes in the carbon side frames.



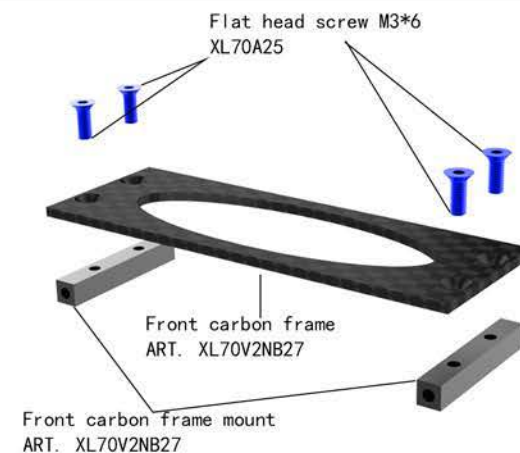


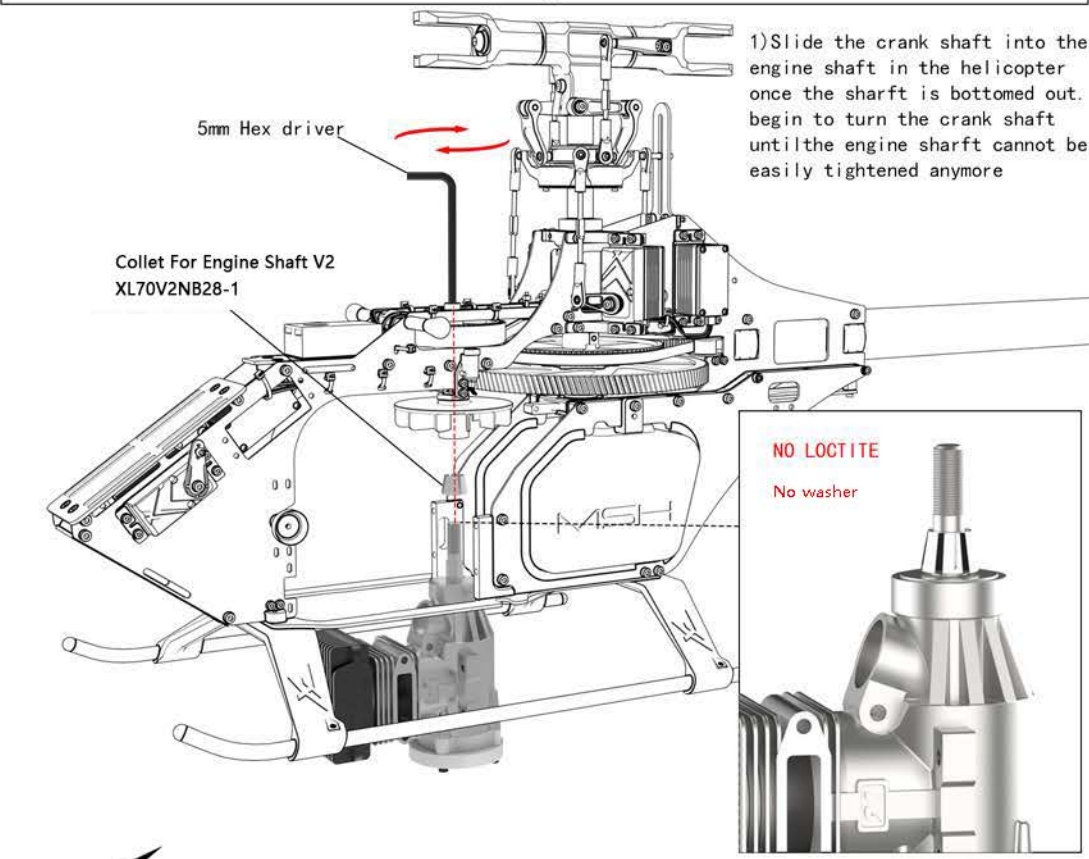
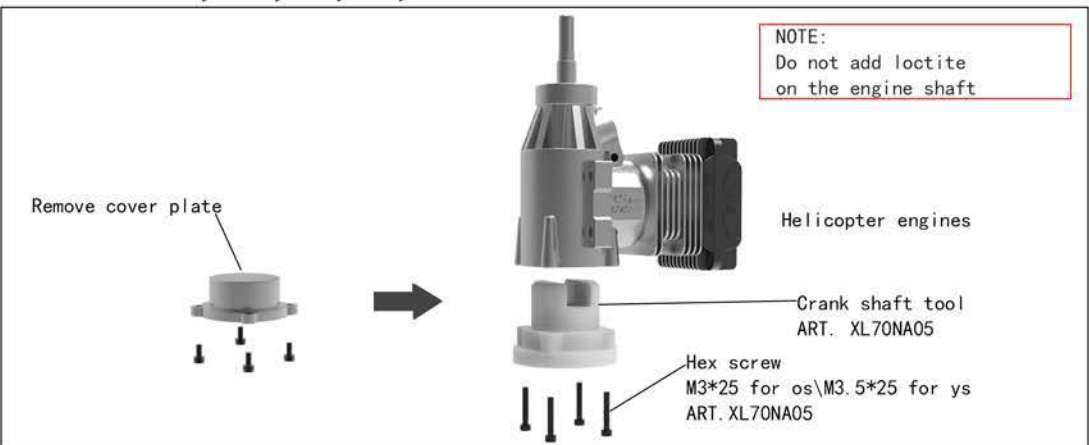
Hex screw M3*6
ART. MSH71108

Hex screw M3*6
ART. MSH71108

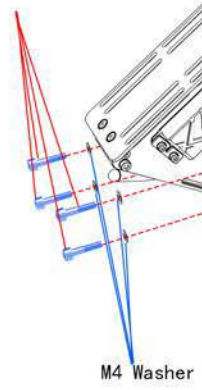
Hex screw M3*6
ART. MSH71108

Hex screw M3*6
ART. MSH71108

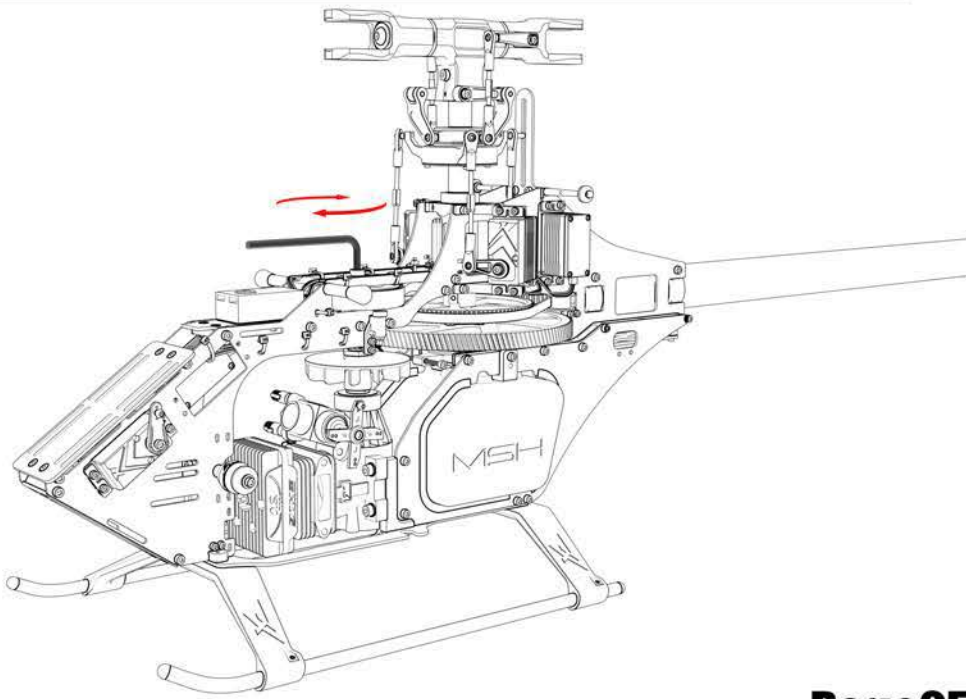




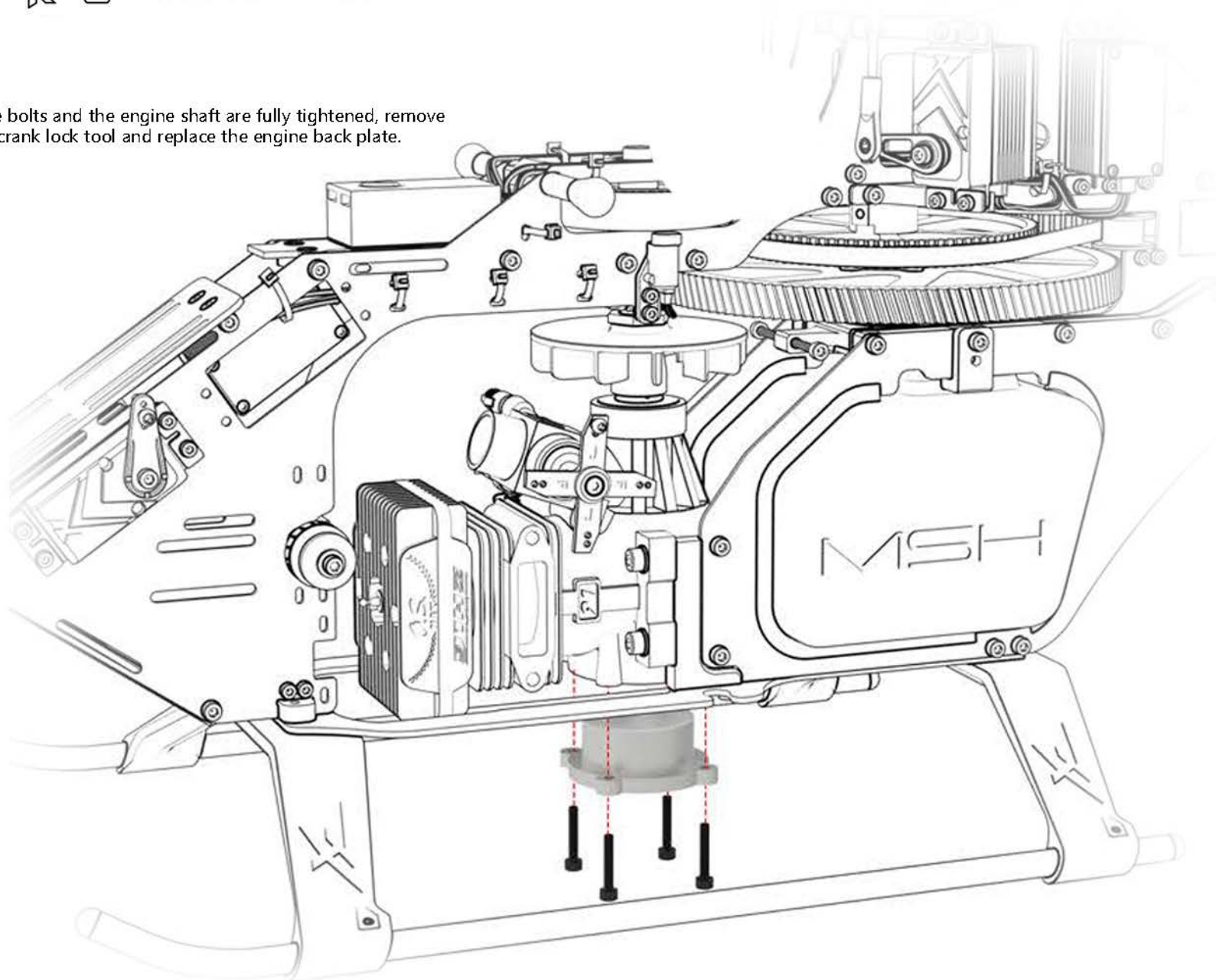
Hex screw M4x16
ART. MSH71131



- 2) Tighten the four engine mount screws.
- 3) Tighten the engine shaft screw to a torque of 18-20 Nm, ensuring the shaft is fully secured and will not loosen during starting.



Once all the bolts and the engine shaft are fully tightened, remove the engine crank lock tool and replace the engine back plate.



BB-1

Fan shroud R
ART. XL70BN27

Fan shroud L
ART. XL70BN27

Hex screw
M3x20
ART. MSH71107

Hex screw
M3x20
ART. MSH71107

Tail rod
ART. XL70V2NT01

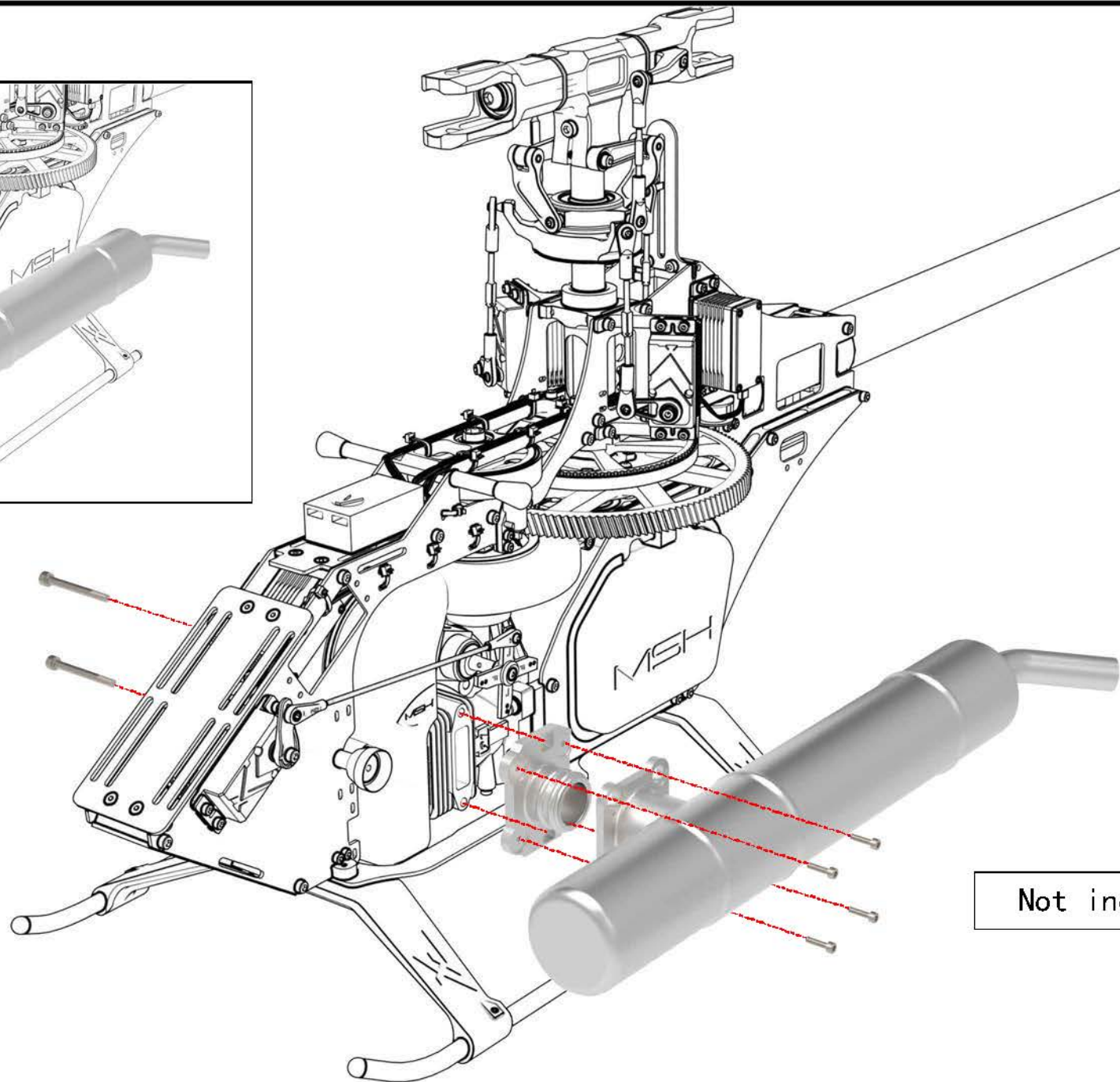
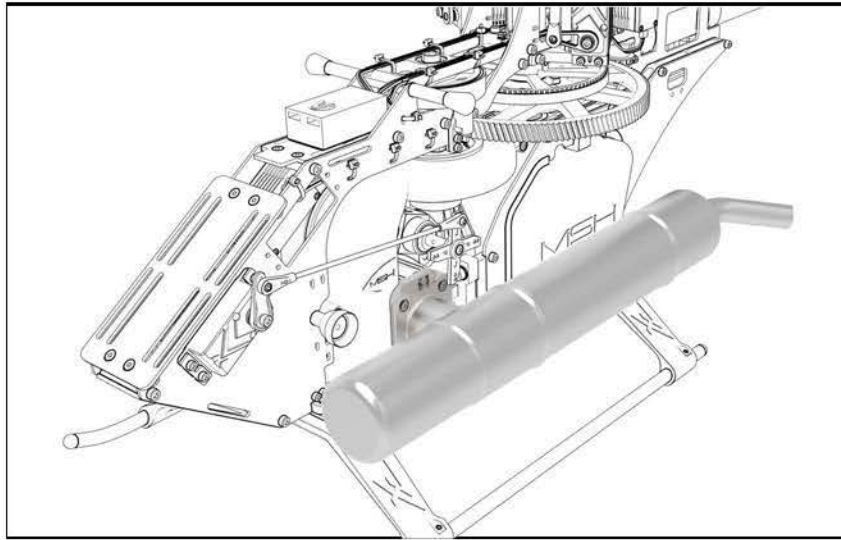
Set the servo arm so that neutral is 90 deg to the rod; set the rear tail rod bell crank so that neutral is 90 degree to the rod

282mm

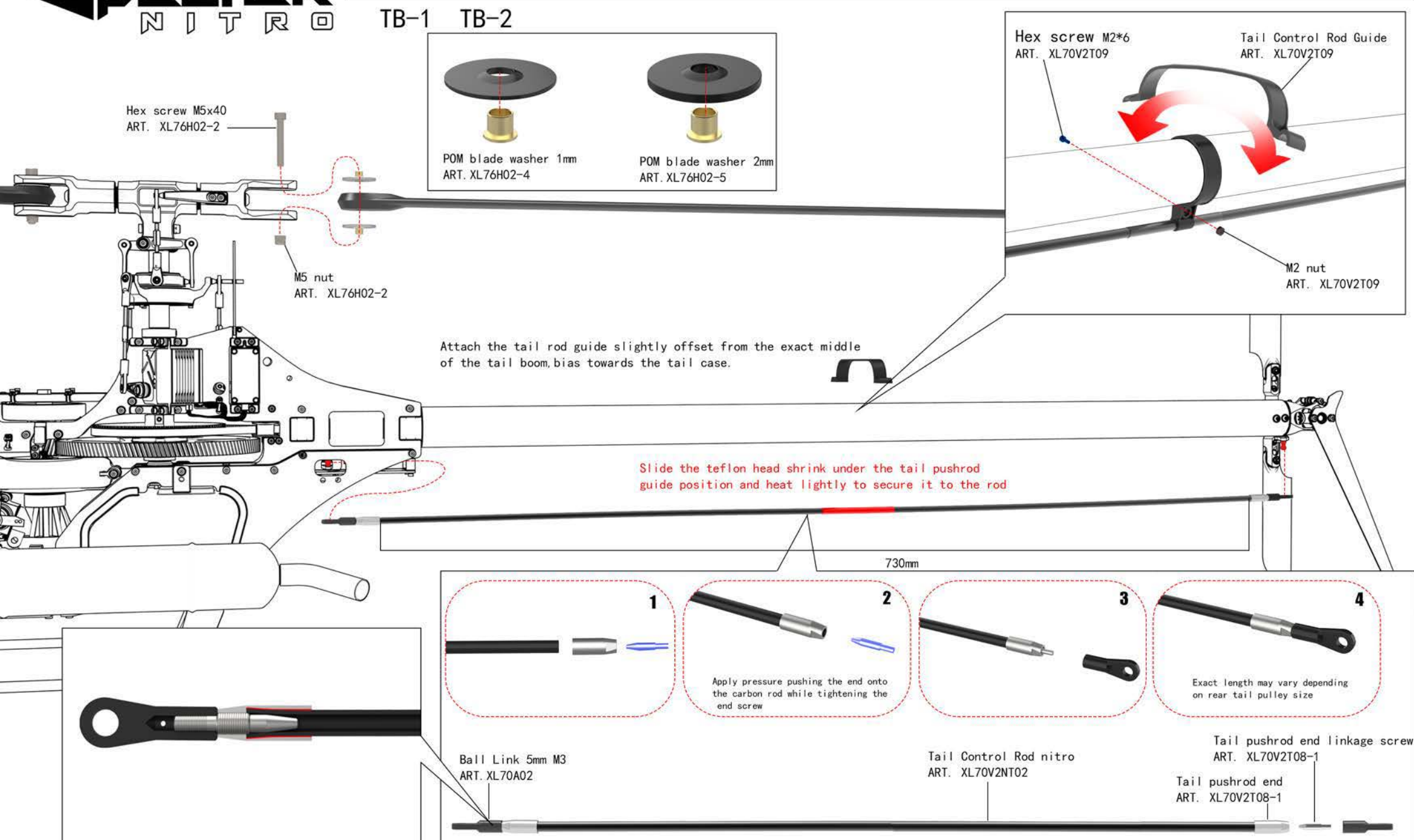
The servo arm and throttle barrel arm should be parallel to each other; Mid throttle should be where the arms are 90 degrees to the rod.

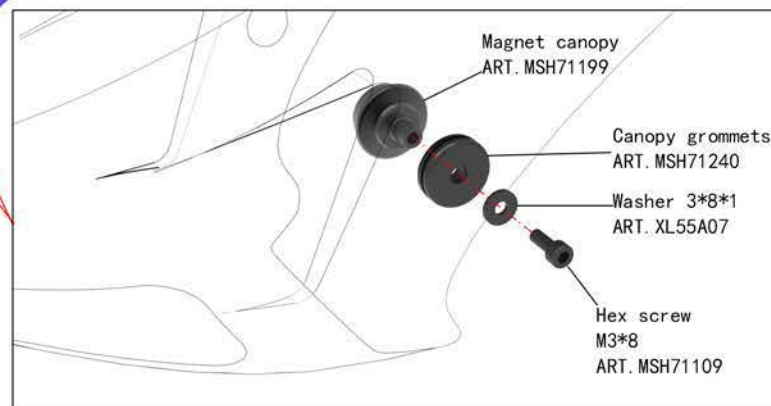
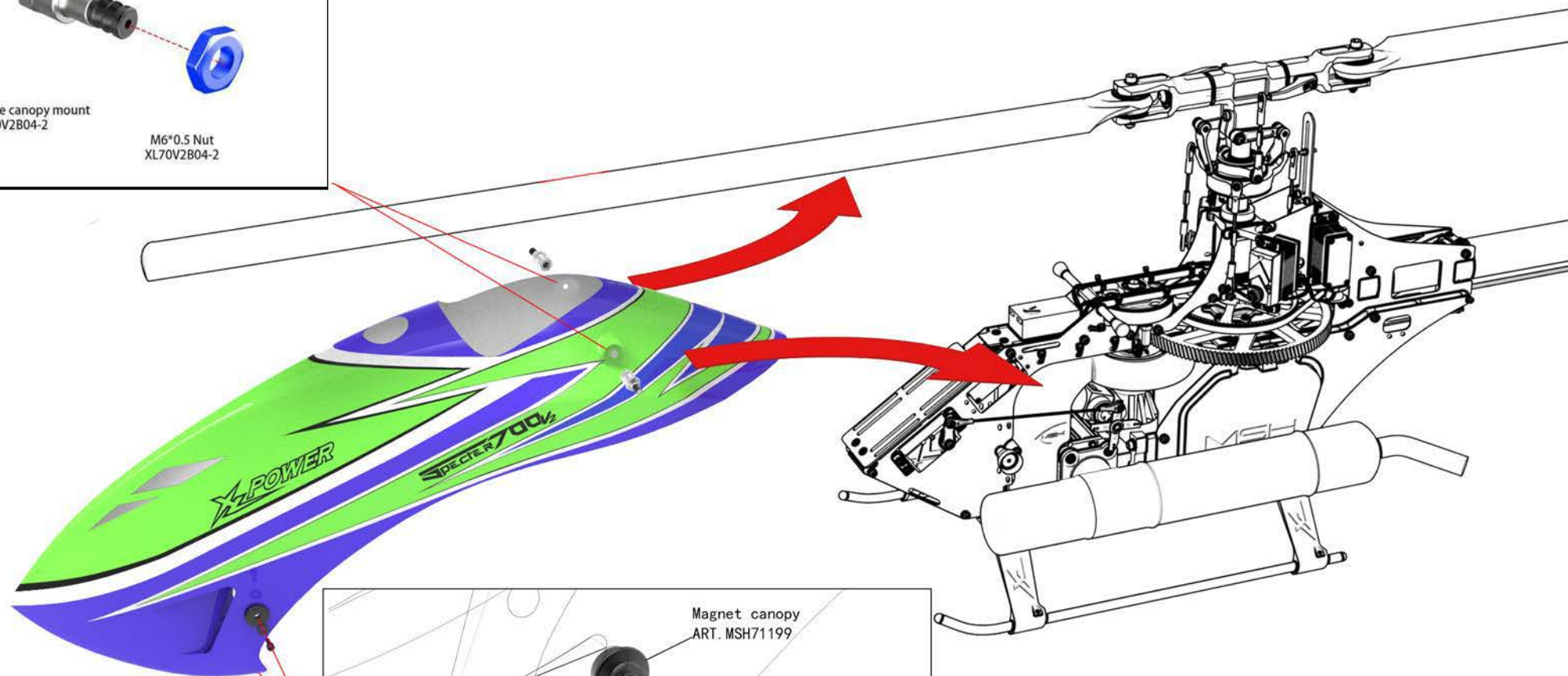
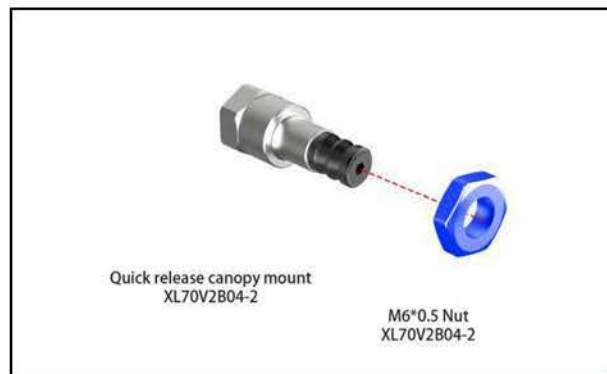
Throttle servo rod
ART. XL70NB33

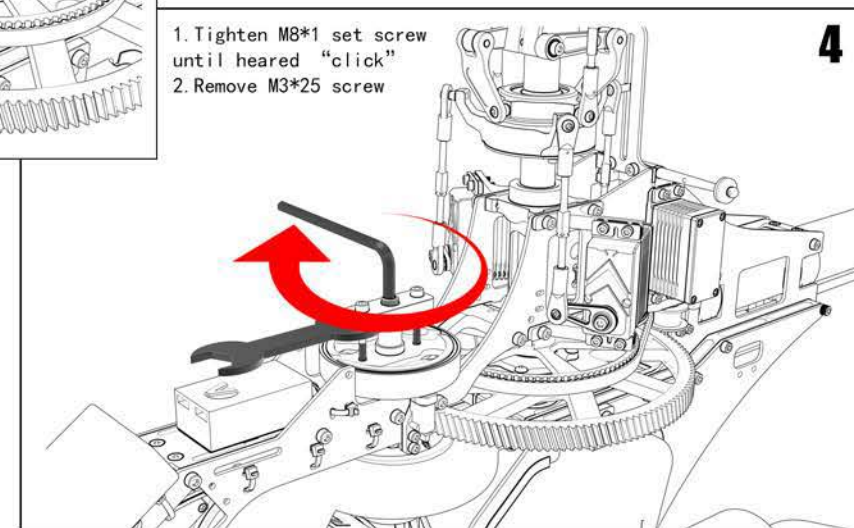
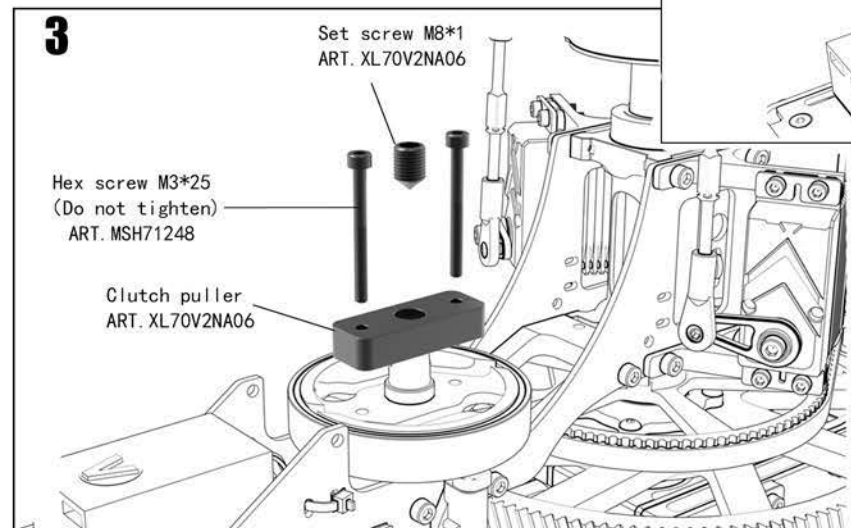
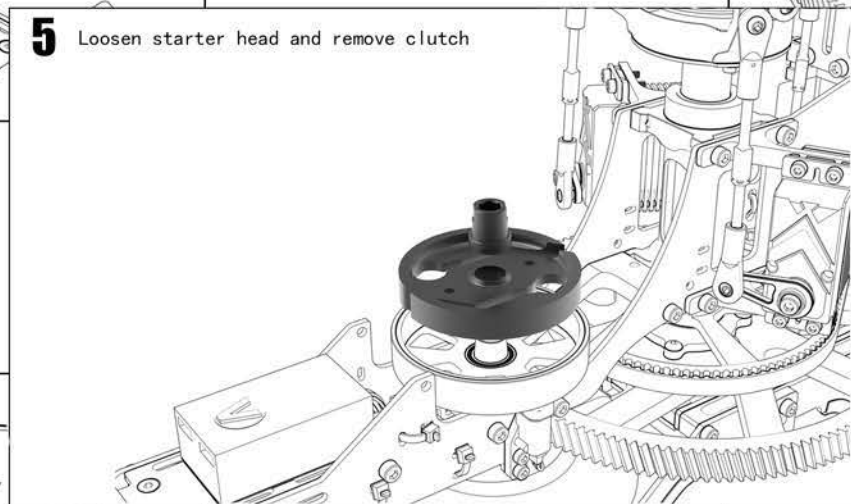
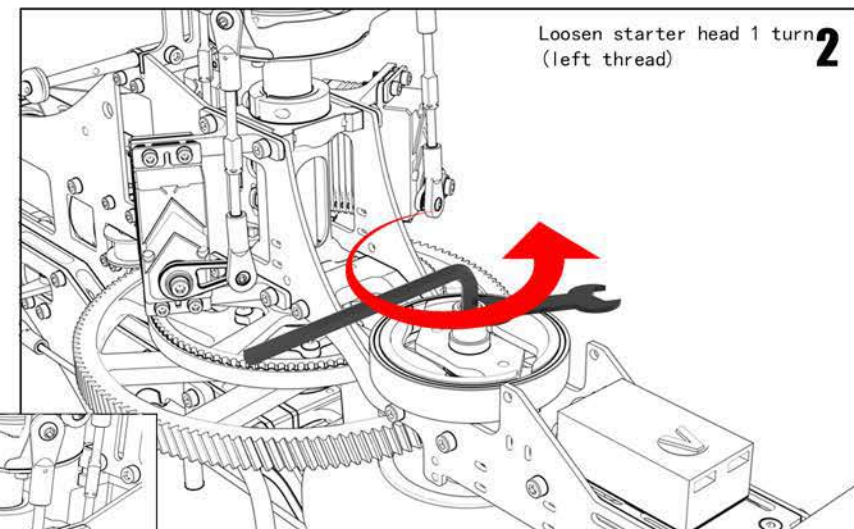
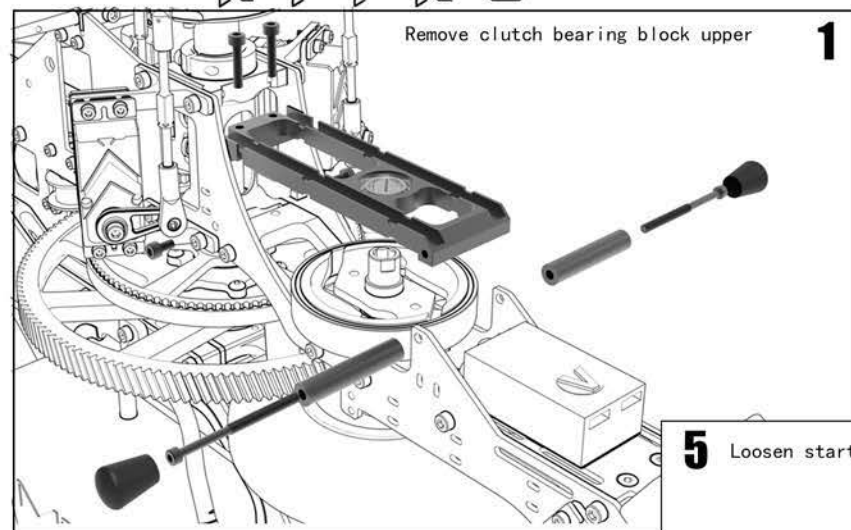
95mm



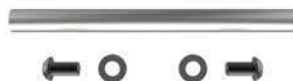
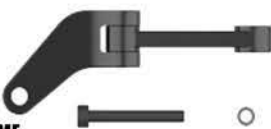
Not included



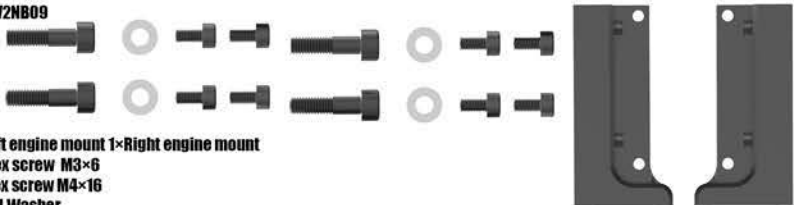
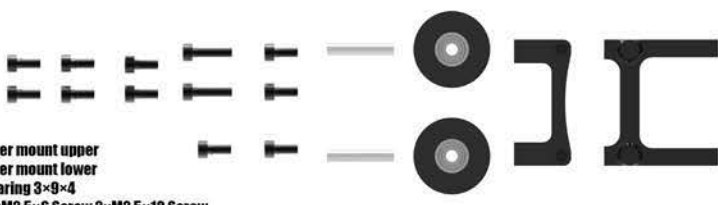
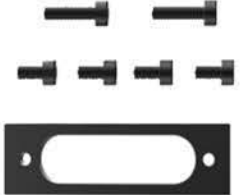
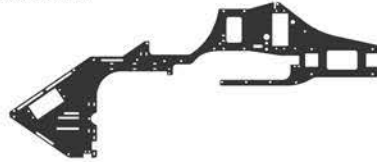
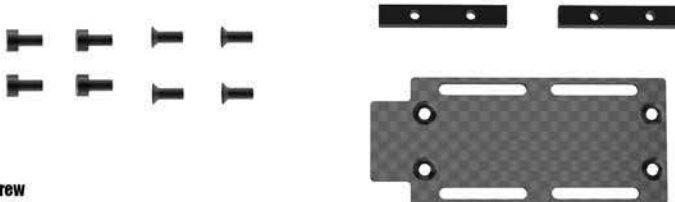


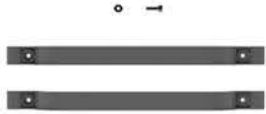


MSH41218  5×Set screw M3×14	MSH51149  5×Hex screw M3×12	MSH51157  5×Hex screw M3×16	MSH71101  5×Flat head screw M4×10	MSH71103  10×Hex screw M2.5×10	MSH71107  5×Hex screw M3×20	MSH71108  5×Hex screw M3×6	MSH71109  5×Hex screw M3×8	MSH71110  10×Hex screw M2.5×6
MSH71114  5×Hex screw M3×10	MSH71122  5×Set screw M4×4	MSH71131  4×Hex screw M4×16	XL70A21  5×Button head screw M3×6	XL70A23  5×Hex screw M4×25	XL70A25  5×Flat head screw M3×6	XL70A25-1  5×Silver flat head screw M3×6	MSH71115  5×Hex screw M3×30	MSH71240  4×Canopy grommets
XL52A03  4×Standard servo mount 4×mid-size servo mount	XL52A09  2×Ball Bearing 10×19×5	XL52A19  4×Servo Horn For 520/550	XL52B27  4×Canopy Grommets	XL52T09-2  2×Tail pitch lever screw M2.5×6	XL52T11  2×Tail Control Link	XL55A07  5×Washer 3×8×1	XL70A01  3×5×7.3mm Ball 2×4.72×13.6mm Ball 3×5×10.6mm Ball 1×4.72×8.2mm Ball 1×5×26.6mm Ball	
XL70A02  8×Ball Link 5mm M3	XL70A04  3×18mm metal servo horn 3×M2.5 ball 5mm	XL70A06  2×Ball Bearing 6×13×5 Flanged	XL70A06-1  2×Ball bearing 6×13×5	XL70A13  1×Main Frame Edge Protection	XL70A17  5×O ring for tail shaft	XL70A20  2×Ball bearing 3×9×4	XL70A22  2×Ball Bearing 3×7×3 Flanged	XL70A26  5×Ball 5mm M2×4.8
XL70A27  5×Washer 5×7×0.3	XL70B02  1×Double Row Angular Contact Bearing 15×24×7	XL70B03  1×Upper Servo Mount	XL70B21-1  1×One way bearing	XL70B21-3  2×Ball bearing 15×21×4	XL70B34-2  2×Landing gear strut 4×M3×3 Set screw	XL70B35  2×Landing gear pipe	XL70NB27  1×Left fan shroud 1×Right fan shroud	

XL70H01-1B  1×Main Rotor Hub NME 1×Screw M4×25 1×M4 Nut	XL70H02-3  2×Head Damper 4×80°Oring	XL70H02-4  2×Pom damper 2×70°Oring	XL70H05  2×Thrust Bearing 10*18*5.5 2×Washer 10×16×1	XL70H07  2×M6 Washer 1'Spindle 2×Screw M6×12
XL70H08B  2×Main Blade Grip Arm NME 2×Ball 5mm M3×3	XL70H09B  1×Control arm NME 1×Screw M3×25 2×Spacer 3×5×0.5 1×Radius Arm 4×Bearing 3*7*3 1×Pin3×13	XL70H11B  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
XL70H13-1  1×Main shaft collar 1×M3×12 Screw 1×M4×4 Set screw	XL70H14  2×Titanium Servo linkage 4×Ball link	XL70H14-1  2×Titanium Main rotor linkage 4×Ball link	XL70V2A01  1×Bearing 17×26×5	XL70NB03-1  2×Magnet for governor
XL70NB29  1×Fuel tank	XL70NB29-1  1×Fuel nipple 1× Silicone grommet	XL70NB29-2  1×Fuel filter 1×Fuel tube	XL70NB33  1×Throttle rod 2× Protos ball link	XL70T09B  1×Tail Pitch Lever NME 2×M2.5×6 screw 2'Bearing 3×7×3 Flange 2×M2.5×6 Pitch lever screw
XL70T12-1  1×Tail Shaft Slide Bushing	XL70T12-2  1×Tail Pitch Slider 2×Bearing MF128ZZ	ART. XL70B02  2×Pitch Slider Fork Bushing	XL70T12-4  1'Tail pitch slider WC 2'Hex screw M2*8 2'Ball 5mm M3*3	XL70T13-2  1×Tapered End Tail Shaft 1×M4×10 Flat head screw

XL70T14-1B  1×Tail Center Hub NME	XL70T15  2×Tail Damper	XL70T16B  1×Tail grip NME 1×M3 17 Screw 1×M3 Nut 1×4.72mm ball 2×Bearing 5 10 4	XL70T17  4×Ball bearing 5 10 4	XL70T18  2×Thrust Bearing F5-10M
XL70T20  1×Tail Spindle 2 M4 6 Screw	XL70V2B04  2×rear canopy mount 2×M3 12 set screw 2×C clip	XL70V2B07-1  1×Rear gyro plate	XL70V2B12  1×100T Front Pulley 1×M4 25 screw	XL70V2B21  1×New One Way Bearing Hub upper 1×New One Way Bearing Hub lower 2× Bearing 15 21 4 6 M3 12 Screw
XL70V2NA01  2×Bearing 10 15 4	XL70V2NA02  1×Roller bearing 10 14 10	XL70V2B04-2  2×Quick release canopy mount	XL70V2NA04  2×Rubber grommet 2×M3 35 screw 2×Plastic tube	XL70V2NA05  1×Crank shaft tool 4×Screw M3 25 4×Screw M3.5 25
XL70V2NA06  1×Clutch puller 1×M8 1 set screw	XL70V2NA07  5×Set screw m5 16	XL70V2NB01  8×Hex screw M3 8 2×Hex screw M3 6 1×Main Shaft Bearing Block V2	XL70V2NB02  1× Carbon Frame	XL70V2NB03  1×Clutch Bell 1×Clutch liner
XL70V2NB04  1×Clutch Liner	XL70V2NB05  1×Lower Clutch Bell Bearing Block 6×M3 6 screw	XL70V2NB06-1  1×17T Pinion V2 1× Roller bearing 10 14 10	XL70V2NB07  1×Frame spacer	XL70V2NB08  1×Lower carbon frame

XL70V2NB09  1×Left engine mount 1×Right engine mount 8×Hex screw M3×6 4×Hex screw M4×16 4×M4 Washer	XL70V2NB10  1×Front belt idler mount upper 1×Front belt idler mount lower 2×Pulley 4×Bearing 3×9×4 2×Pin 3×17 10×M2.5×6 Screw 2×M2.5×10 Screw		XL70V2NB12  1×Center Carbon Fiber Plate	
XL70V2NB11  1×Third Bearing Block Nitro 6×M3×16 Screw 2×M2.5×6 screw 2×M3×6 screw 4×M3×20 screw	XL70V2NB13  1×Bell crank 1×Bell crank mount 2×Bearing 3×7×3 Flange 1×5mm ball M2.5 1×5mm ball M3 1×M3×10 Button head screw	XL70V2NB14  1×Fan shroud Mounting Block 1×Carbon fiber plate 2×M3×6 screw 2×M3×20 screw 2×M3×14 Set screw		
XL70V2NB15  2×M3×12 Screw 4×M2.5×6 Screw 2×M3×6 Screw 1×Landing Gear Mount(Front)	XL70V2NB16  2×M3×12 Screw 4×M3×6 Screw 1×Landing Gear Mount(Rear)	XL70V2NB17  1×Bottom plate 2×Silicon grommet	XL70V2NB18  1×Left fuel tank holder 1×Right fuel tank holder	XL70V2NB19  1×Fan
XL70V2NB20-2  1×Engine shaft 1×Starter coupling 1×Tapered washer 1×Fan nut 1×Small-angle taper sleeve 1×bearing 7×19×6	XL70V2NB02-1  1×Nitro Left Side Frame	XL70V2NB21  1×Starter head	XL70V2NB 22-1  1×Pre-Balanced Clutch	XL70V2B11-1  1×18mm Heavy Duty Main Gear 106T Mod1 V2
XL70V2NB23  1×Clutch bearing block upper 2×M3×6 screw 2×Rubber grommet 2×M3×35 screw 2×Plastic tube	XL70V2NB25  1×Gyro Tray 2×Spacer 4×M3×6 Flat head screw 4×M3×6 screw		XL70V2NB28-1  1×Collet For Engine Shaft V2	

XL70V2NB26  1×Battery Tray 2×Spacer 4×M3×6 Flat head screw 4×M3×6 screw	XL70V2NB27  1×Front carbon plate 2×Spacer 4×M3×6 Flat head screw 4×M3×6 screw	XL70V2B02  1×Main Shaft Bearing Spacer	XL70V2B05-1  1×Tail Boom Clamp 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	
Tail pushrod  1×Tail pushrod 2×Ball link 5mm	XL70V2NT02  1×Carbon Tail Control Rod nitro	XL70V2T01  1×Tail Boom V2	XL70V2T02B-1  1×Ultra light tail case 2×M3×6 screw 4×M3×6 Button head screw 1×M3×30 screw	XL70V2T03  1×8mm Tail Belt V2
XL70V2T04-1  1×20T tail pulley 1×M4×4 Set screw	XL70V2T04  1×21T tail pulley 1×M4×4 Set screw	XL70V2T05-2  1×Vertical Fin	XL52A12  4×Ball Bearing 3`7`3	XL70V2NT03  2×Rear Belt Idler Spacer 2×Bearing 3×7×3 1×Washer 3×6×1
XL70V2T07B-1  1×Tail Pitch Control Arm nitro 2×M2.5×6 screw 1×5mm ball	XL70V2T08-1  2×Tapered tail rod end 2×Tapered screw 2×Ball link 1×5mm ball M3×3 1×5mm ball M2×4.8	XL70V2T09  2×Tail Control Rod Guide 2×M2×8 Screw 2×M2 Nut	XL70V2T11B-1  1×Tail Pitch Lever Support 1×M3×8 screw	XL76H02-4  4×POM blade washer 1mm
XL76H02-5  4×POM blade washer 2mm	XL76H02B  1×Main Blade Grip Specter V2 NME 2× Hex screw M3×10	XL76H04  2×Screw M4`25 1×Wraith E F3C / Specter V2 Main Shaft	XL70H04  1×Double Row Angular Contact Bearing 3800	XL70B13-1  1× Anti-Rotation Bracket Mount 1×Anti-Rotation Bracket 4×M2.5×10 Screw 2×M3×12 Set screw 2×M3×6 Screw

SPECTER
N I T R O
M A N U A L



W W W . X L P O W E R - R C . C O M