M7 OMPHOBBY

Instruction Manual

Revision 1

OMPHOBBY M7


OMPHOBBY M7
1418mm


OMPHOBBY
363mm
194mm

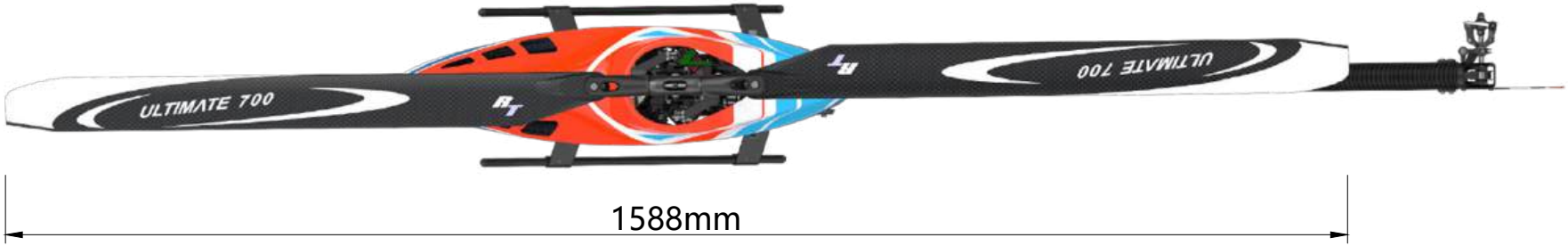

ULTIMATE 700
ULTIMATE 700
1588mm

Table of Contents

Symbol Description

Note

Use AB Glue

Use Grease

Use Thread Lock

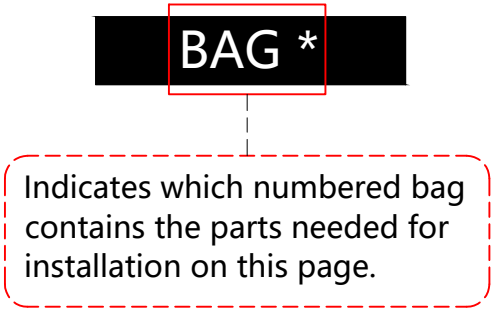


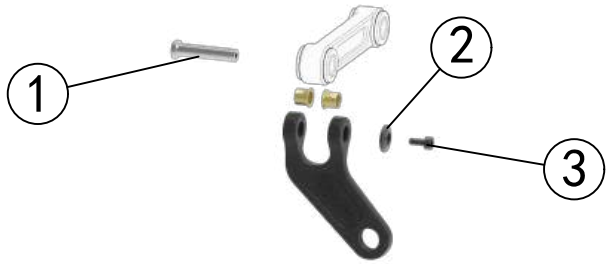
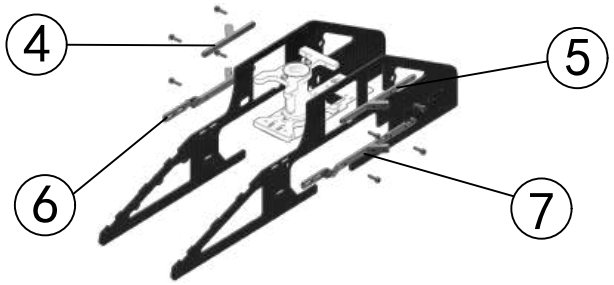
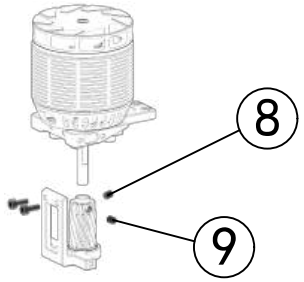
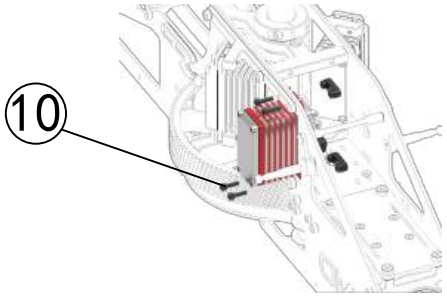
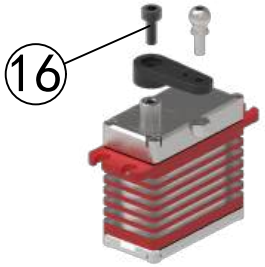
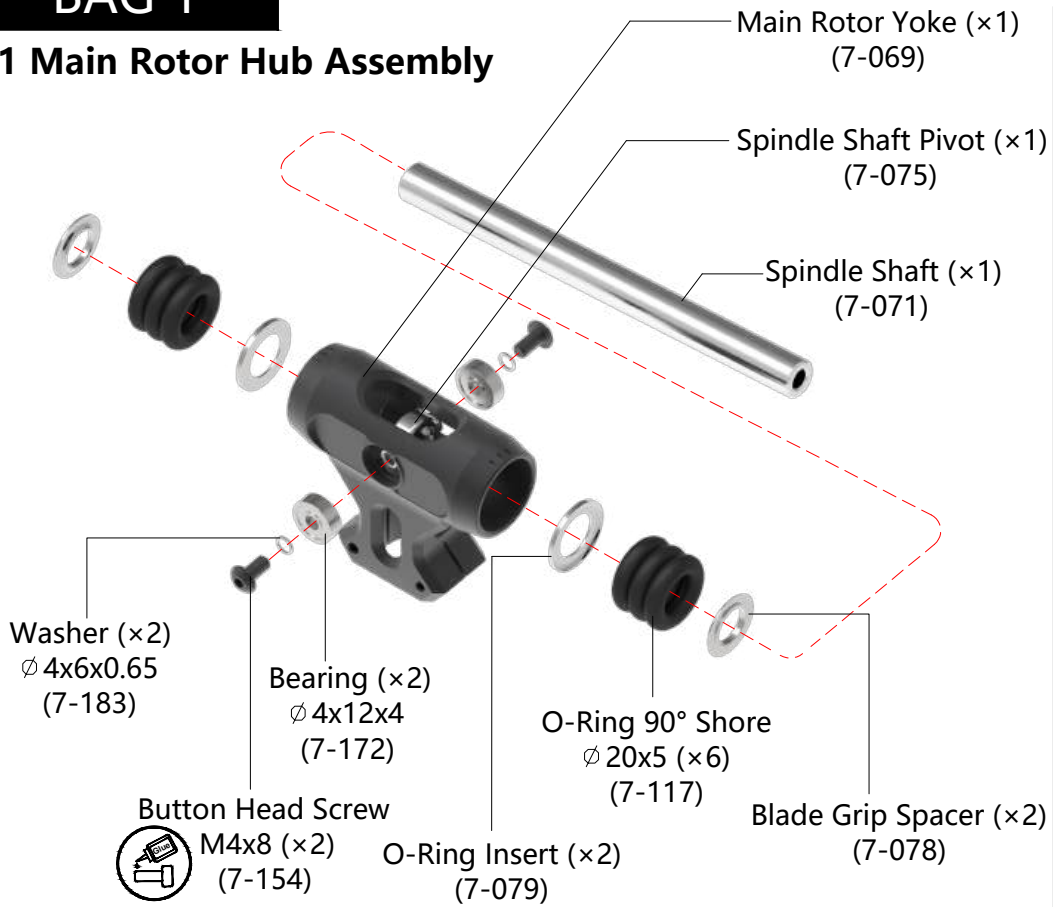
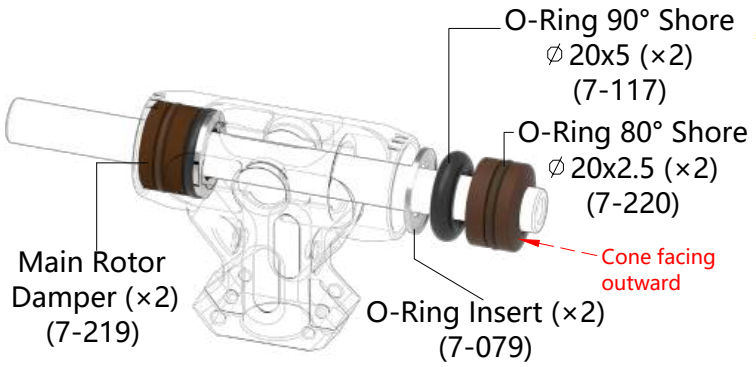
Illustration	Changed Parts	Description
	① Driver Pin (×2) (7-159) ② Pin Washer (×2) (7-246) ③ Hex Screw M2x4 (×2) (7-119)	The screw connection method for the pitch assist arm has been changed from M1.6 thread to M2 thread.
	④ Servo Mount Upper R (×1) (7-050) ⑤ Servo Mount Upper L (×1) (7-232) ⑥ Servo Mount Lower R (×1) (7-053) ⑦ Servo Mount Lower L (×1) (7-054)	The left side servo mounts now connect to the rear servo for increased rigidity and precision.
	⑧ Set Screw M4x3 (×1) (7-247) ⑨ Set Screw M4x4 (×1) (7-141)	The length of the screws used to secure the motor pinion has been modified from M4x5 and M4x4 to M4x4 and M4x3.
	⑩ Hex Screw M2.5x12 (×4) (7-124)	The length of the screws used to secure Servo 1 has been modified from M2.5x8 to M2.5x12.

Illustration	Changed Parts	Description
	⑪ Tail Control Rod Ends (×2) (7-112) ⑫ Hex Screw M2x4 (×2) (7-119)	The design of the ball joint link has been optimized, and M2x4 hex screws have been added for clamping.
	⑬ Hex Screw M2.5x5 (×4) (7-259) ⑭ Metal Servo Arm Lock-Left (×1) (7-255) ⑮ Metal Servo Arm Lock-Right (×3) (7-256)	The design of the metal servo arm has been optimized, and M2.5x5 hex screws have been added for clamping.
	⑯ Hex Screw M3x6 (×4) (7-126)	The screw size for securing the servo arm has been changed from M3x8 to M3x6.
	⑰ Ball Joint Screw M3xΦ6x4.2 (7-144)	The length of the ball joint screw has been changed from M3xΦ6x4.6mm to M3xΦ6x4.2mm.

BAG 1

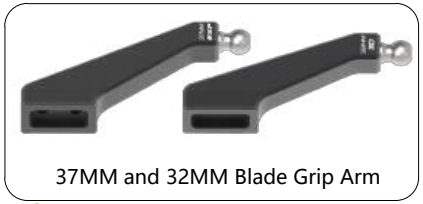
01 Main Rotor Hub Assembly





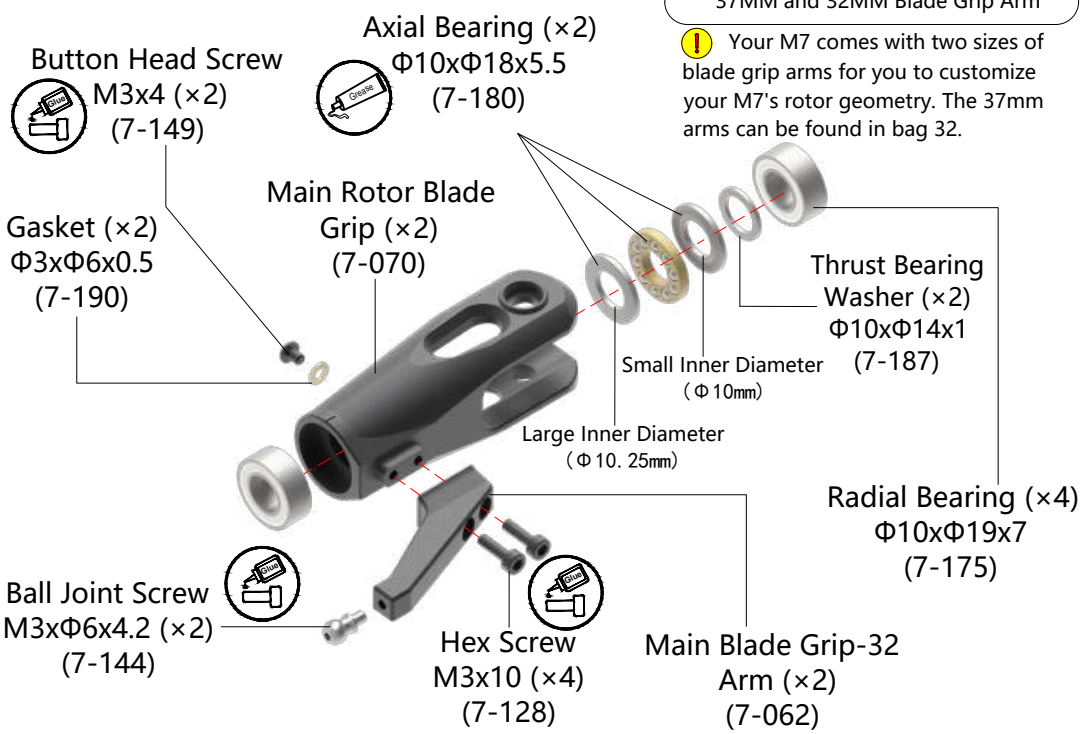
Your M7 comes with optional POM dampers for extremely hard response. POM dampers are made for high headspeeds and may cause adverse effects at medium to lower RPM, such as excessive control cross coupling, wobbling and in-flight resonance. Do not fly below 1100RPM with POM dampers installed. POM dampers are to be installed as shown. Do not use Blade Grip Spacer 7-078! These can be found in bag 32.

02 Main Rotor Blade Grip Assembly

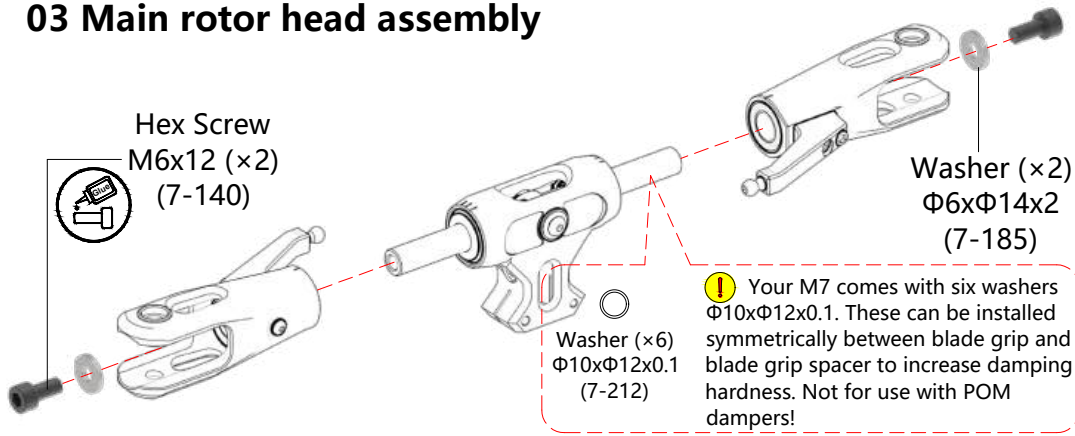


Your M7 comes with two sizes of blade grip arms for you to customize your M7's rotor geometry. The 37mm arms can be found in bag 32.

The axial bearing cage's open side must face outward towards the rotor blade to prevent premature axial bearing failure.

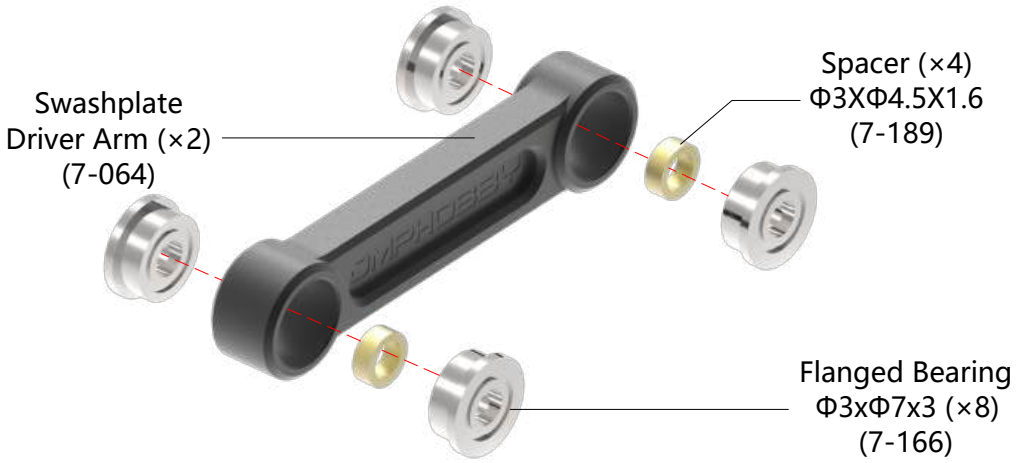


03 Main rotor head assembly



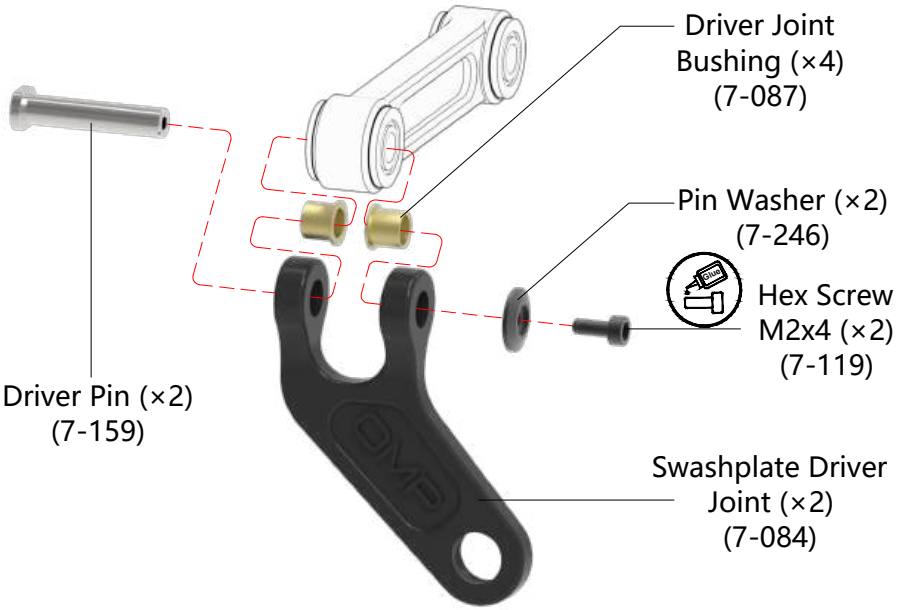
Your M7 comes with six washers Φ10xΦ12x0.1. These can be installed symmetrically between blade grip and blade grip spacer to increase damping hardness. Not for use with POM dampers!

01 Swashplate Driver Arm Assembly

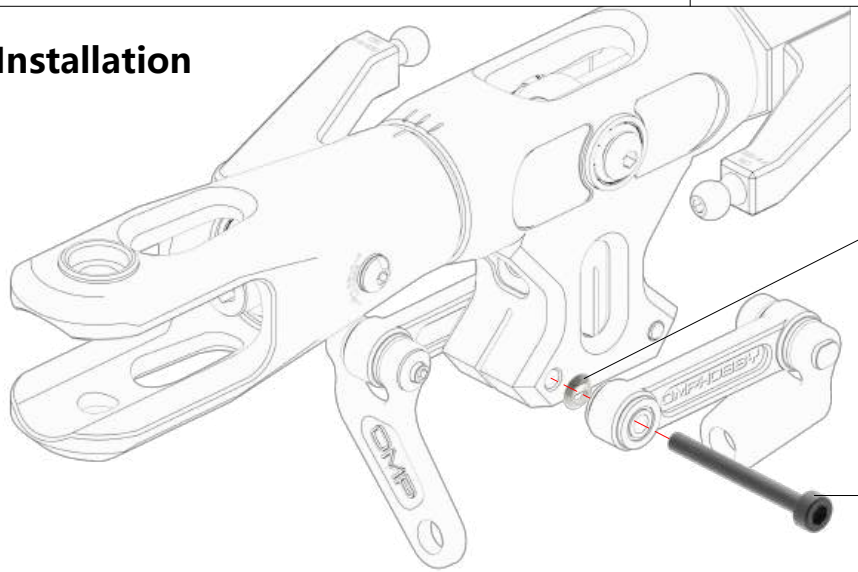


02 Swashplate Driver Joint Assembly

BAG 2



03 Swashplate Driver Installation

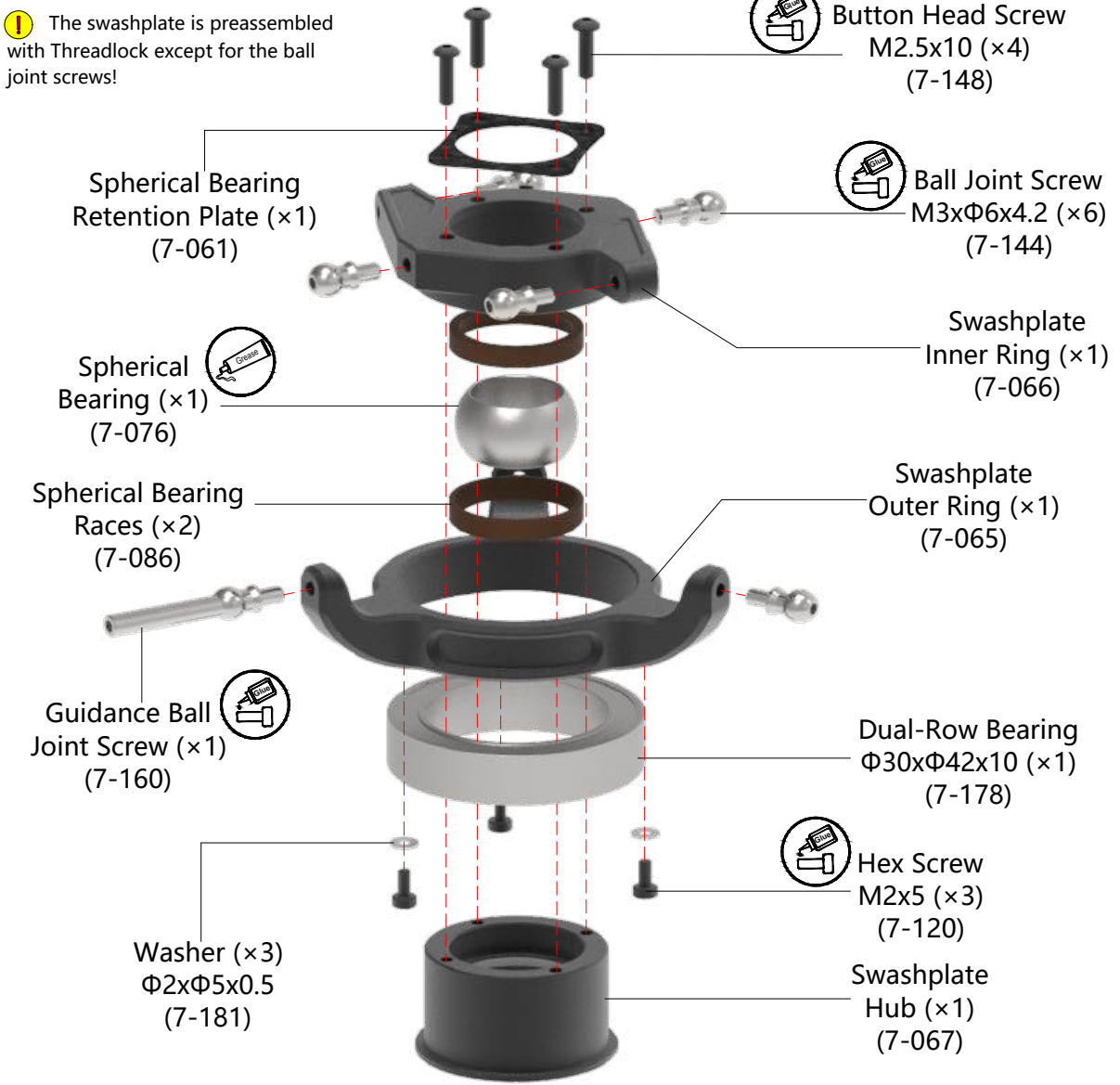


⚠ Loosely assemble without Loctite! The swashplate driver screws may only be tightened with Loctite once the main rotor assembly is installed on the main shaft.

BAG 3

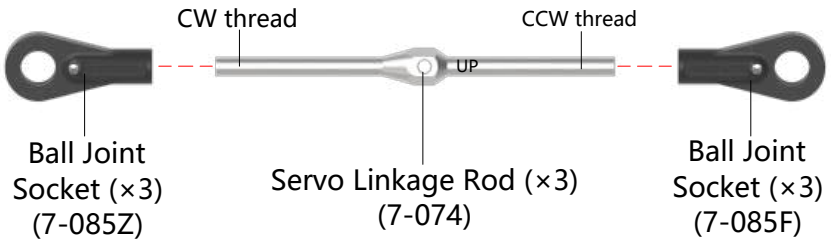
01 Swashplate Assembly

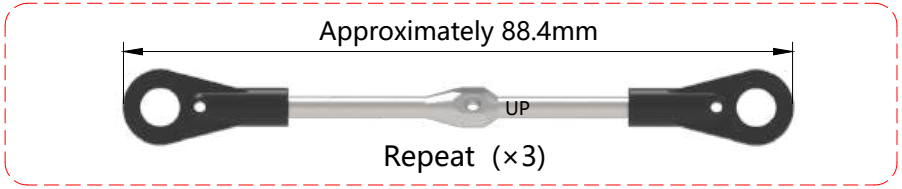
The swashplate is preassembled with Threadlock except for the ball joint screws!

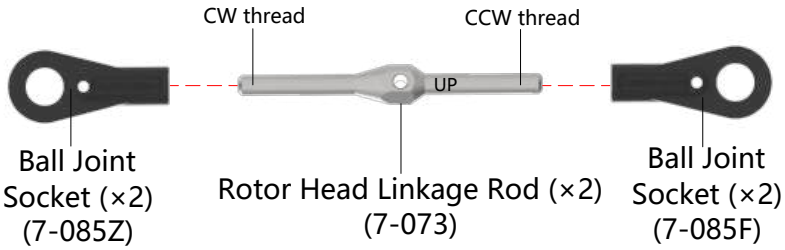


02 Control Linkage Assembly

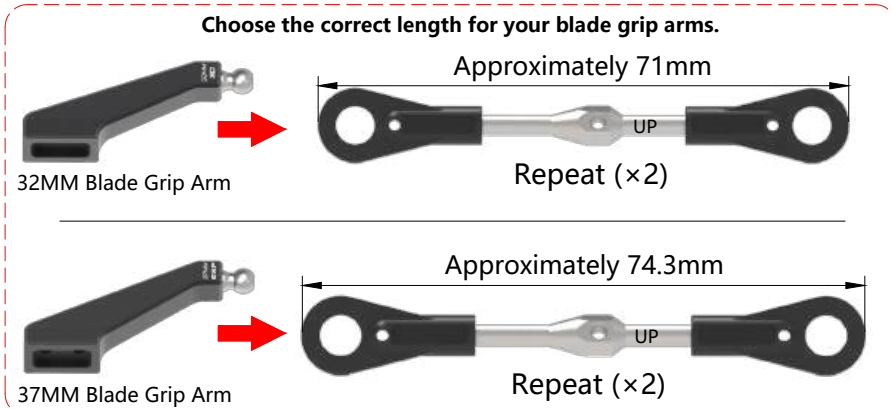
When assembling pay attention to the CW thread and CCW thread connections between the connecting rod and the ball head.



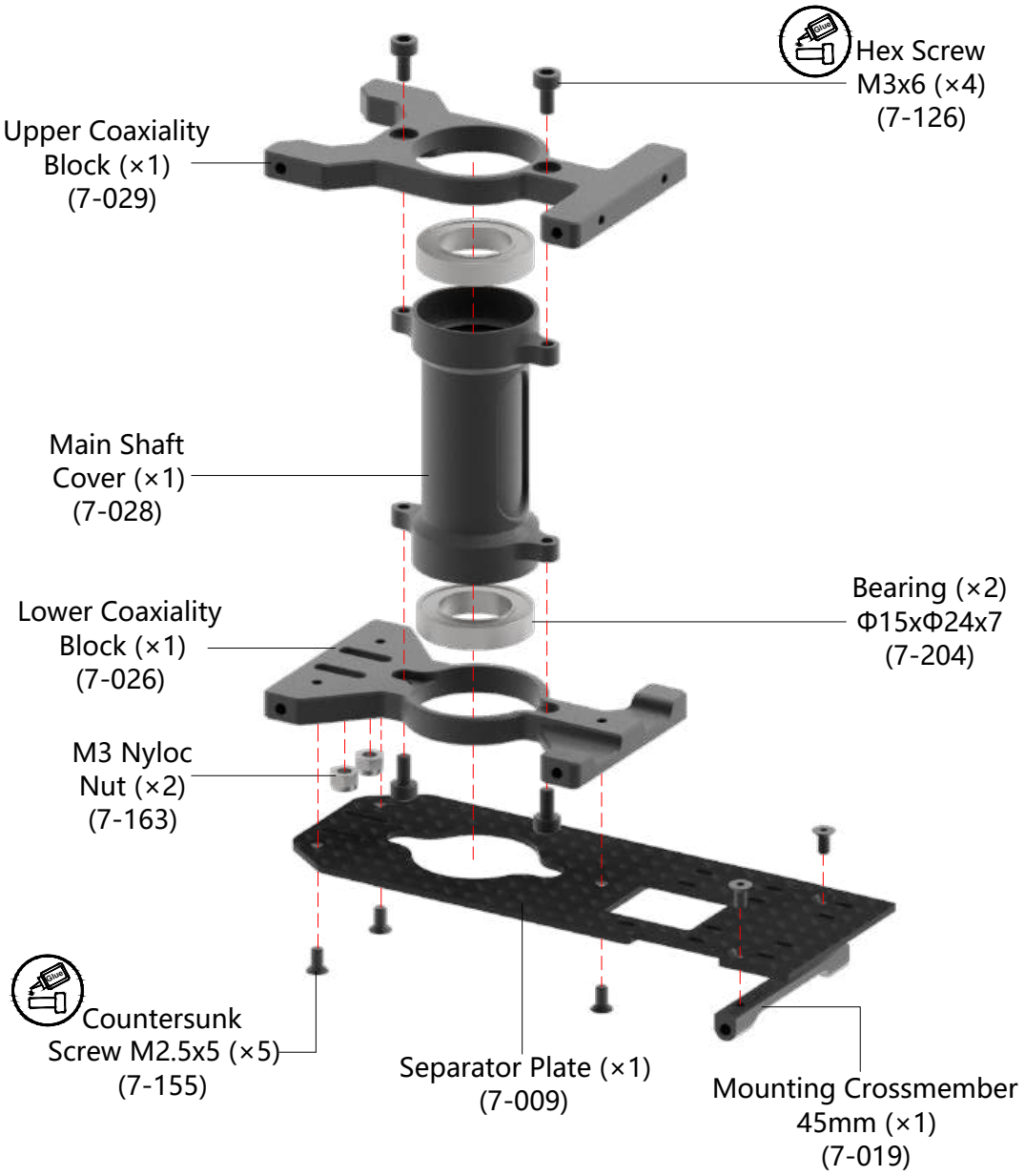




Choose the correct length for your blade grip arms.

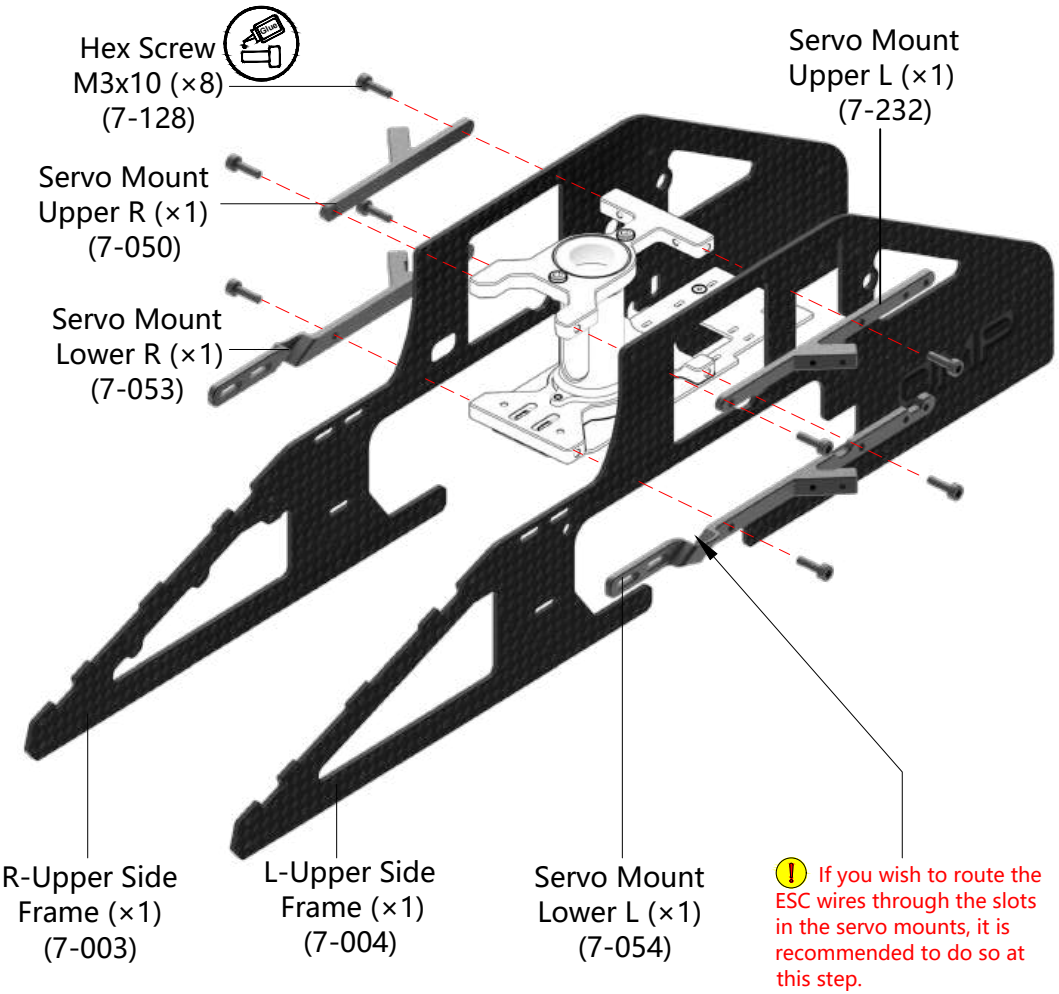


01 Central Dome Assembly



02 Upper Side Panel Assembly

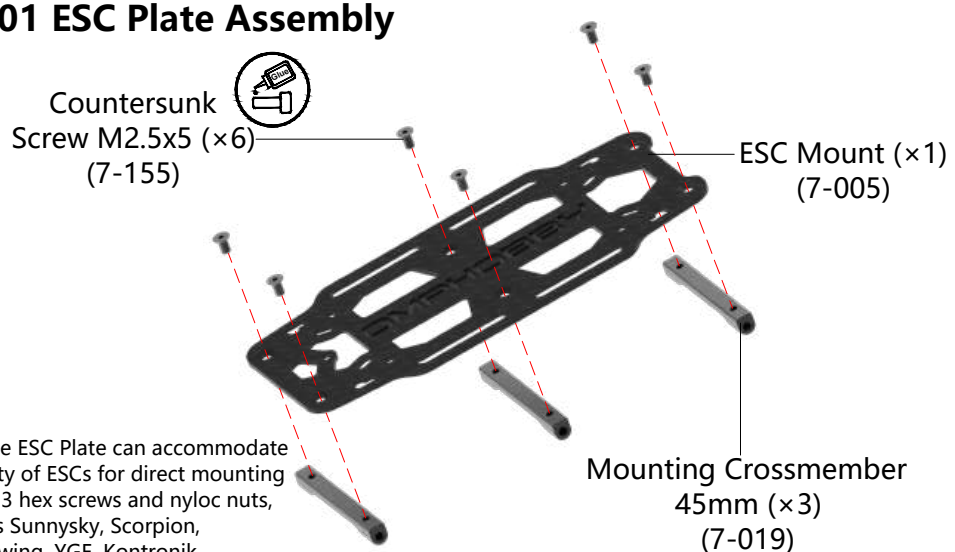
BAG 4



If you wish to route the ESC wires through the slots in the servo mounts, it is recommended to do so at this step.

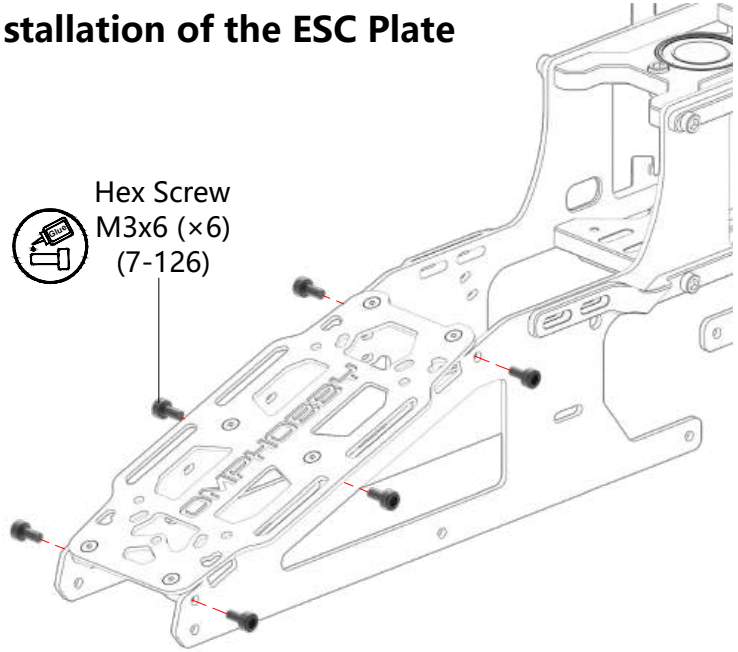
BAG 5

01 ESC Plate Assembly

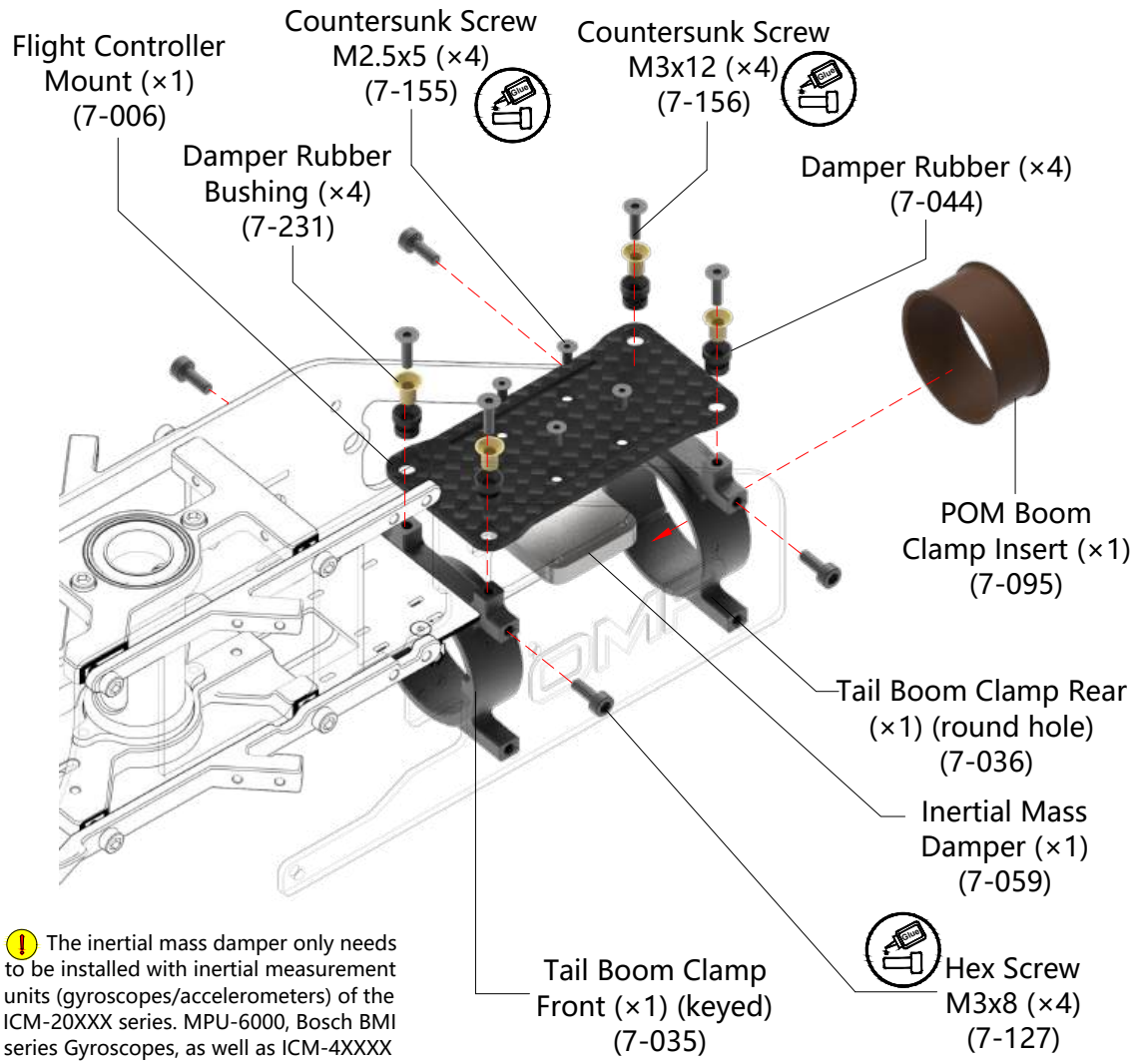


The ESC Plate can accommodate a variety of ESCs for direct mounting with M3 hex screws and nyloc nuts, such as Sunnysky, Scorpion, Hobbywing, YGE, Kontronik.

02 Installation of the ESC Plate

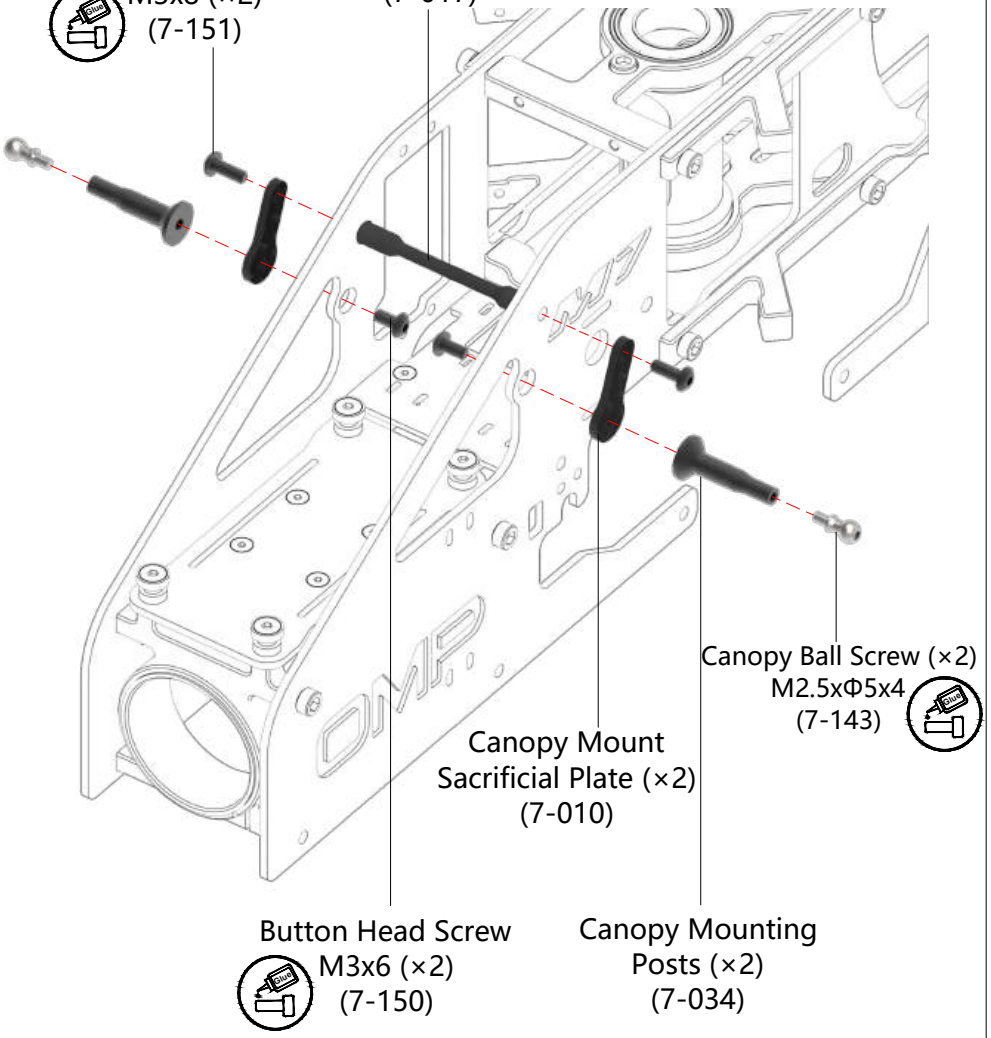


03 Flight Controller Mount and Boom Clamps



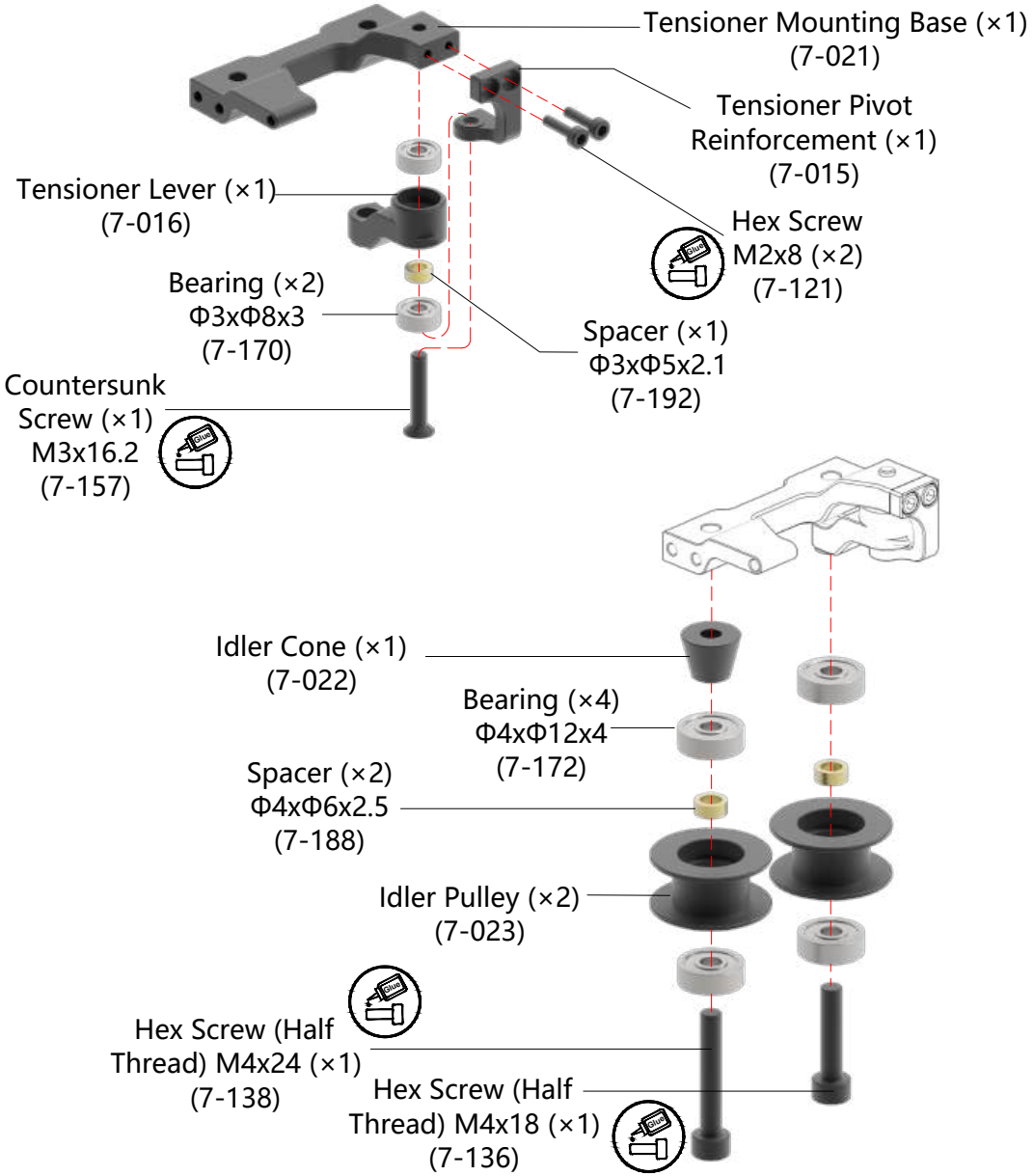
The inertial mass damper only needs to be installed with inertial measurement units (gyroscopes/accelerometers) of the ICM-20XXX series. MPU-6000, Bosch BMI series Gyroscopes, as well as ICM-4XXXX series IMUs do not require the mass damper to be installed.

01 Canopy Mount Assembly



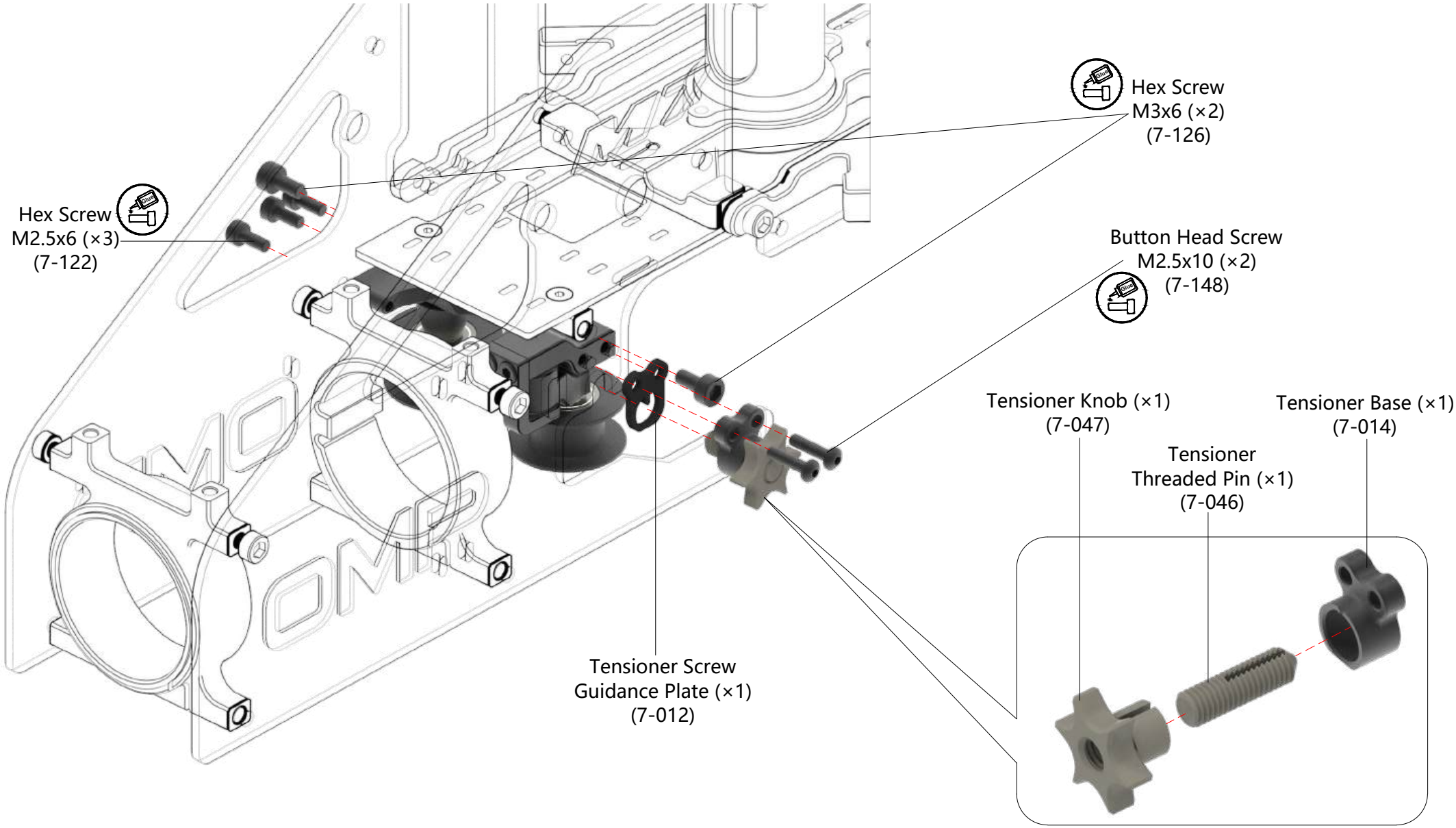
02 Tensioner Idler Pulley Assembly

BAG 6

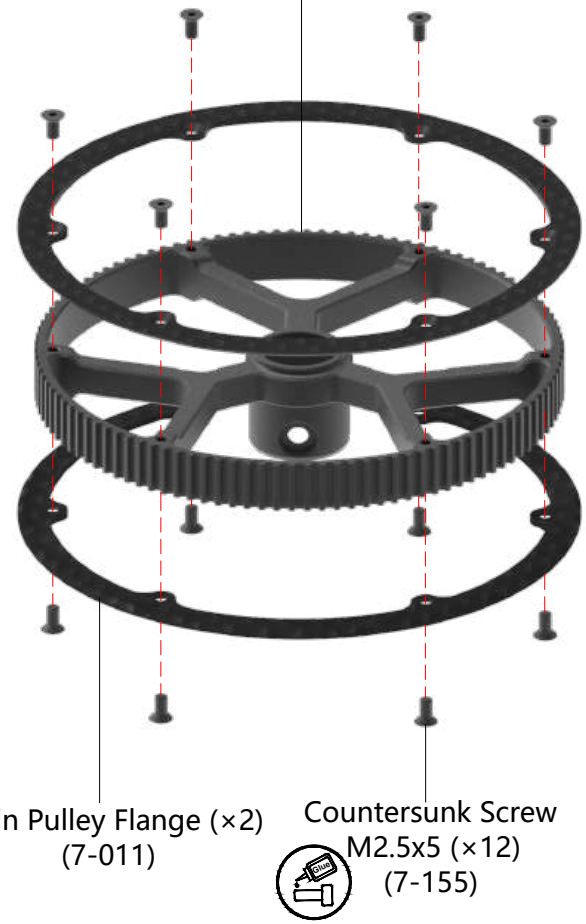


BAG 7

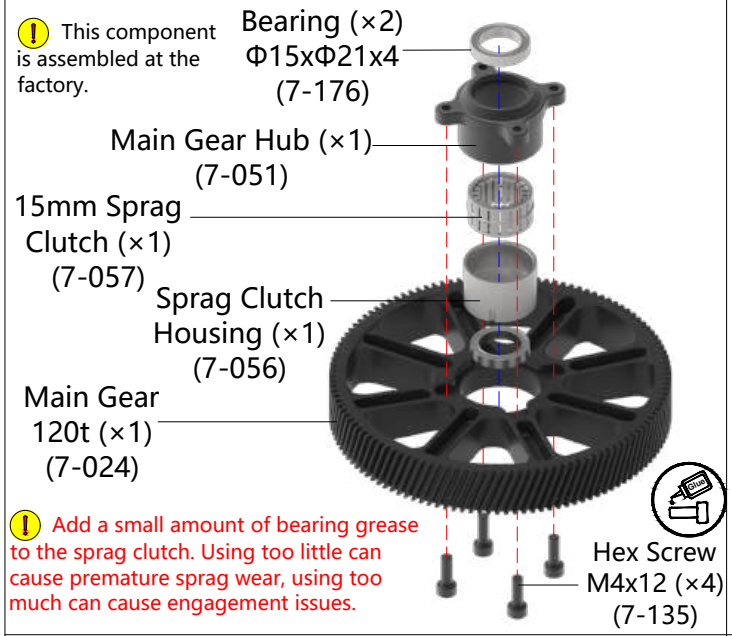
01 Tensioner Assembly



01 Main Pulley Assembly

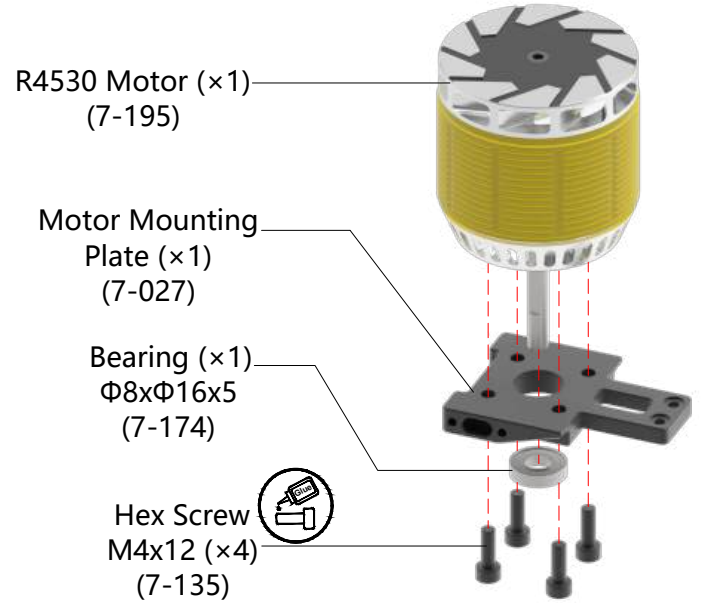


02 Main Gear Assembly

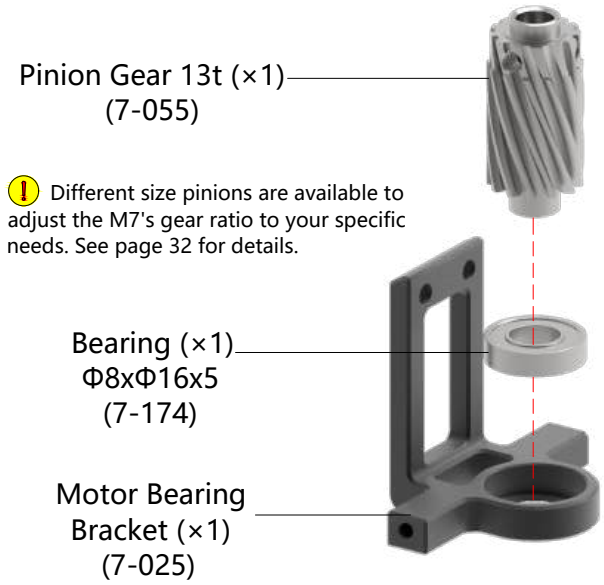


03 Motor Installation

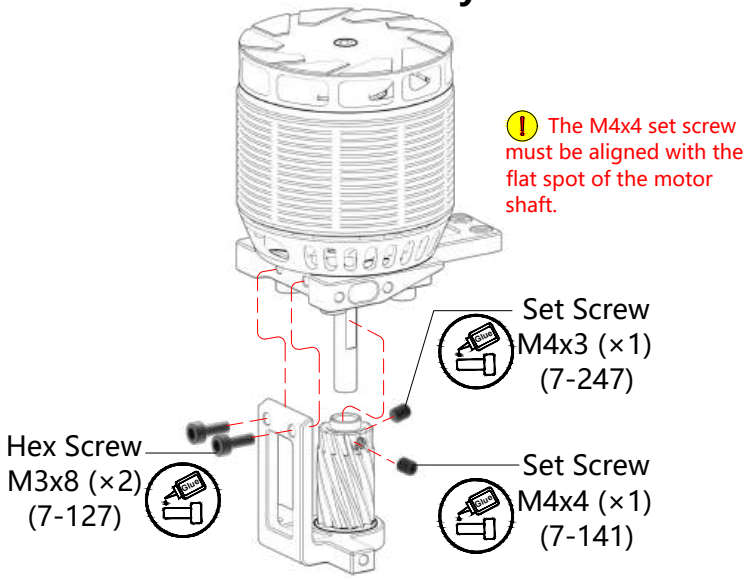
BAG 8



04 Counterbearing Assembly

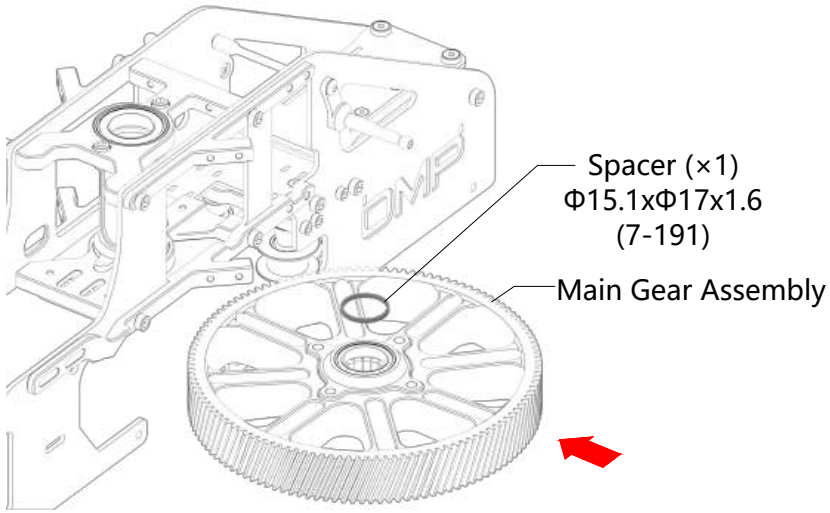


05 Motor Mount Assembly

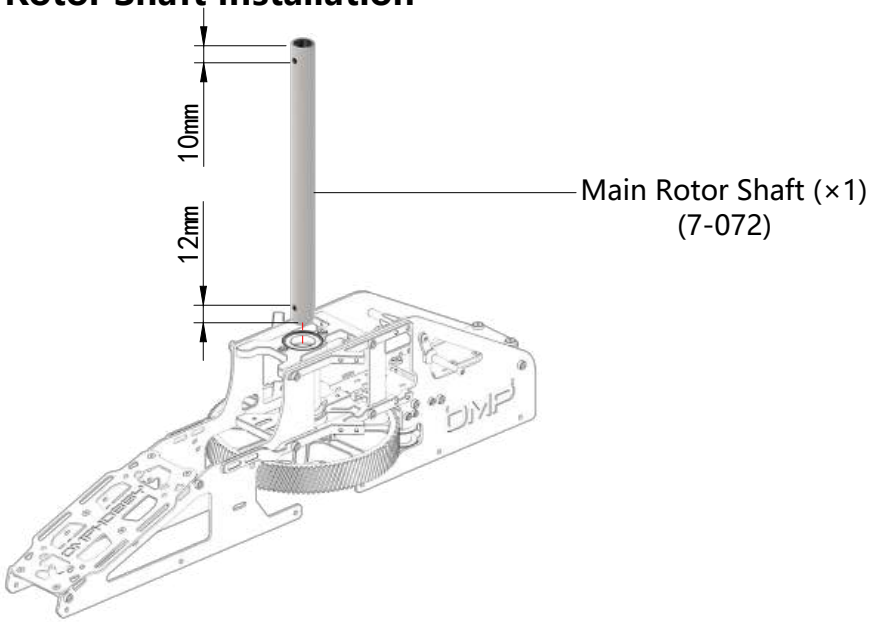


BAG 9

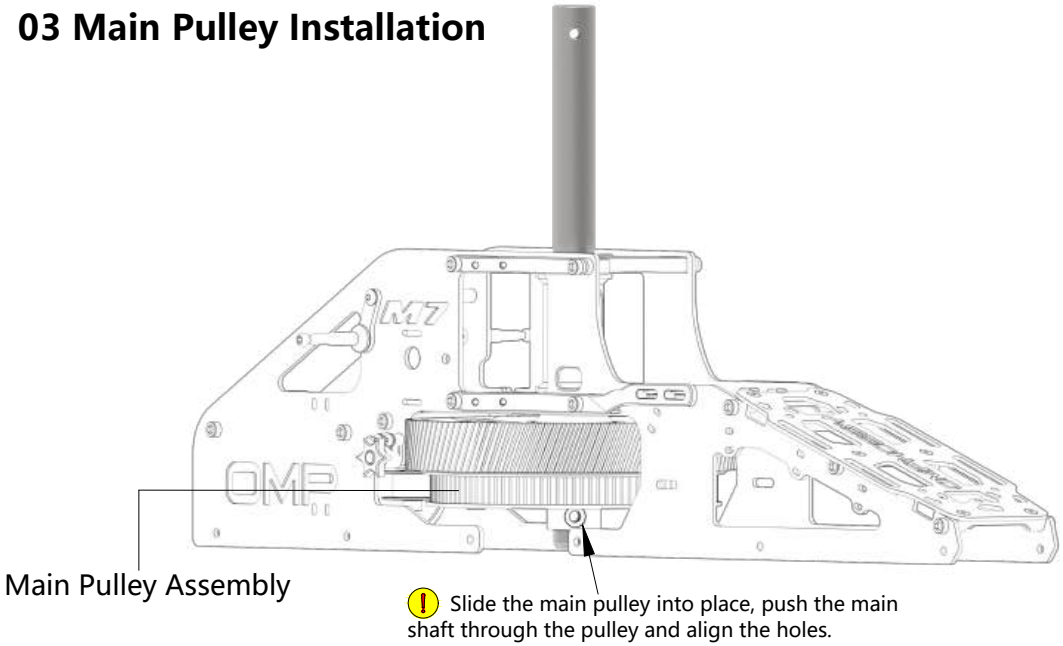
01 Pre-installation of the main drive gear



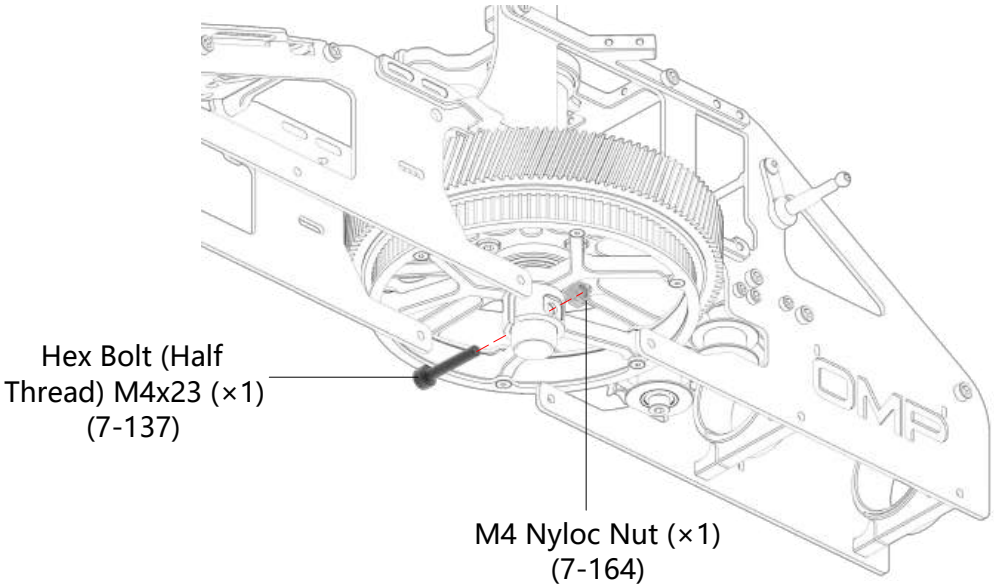
02 Main Rotor Shaft Installation



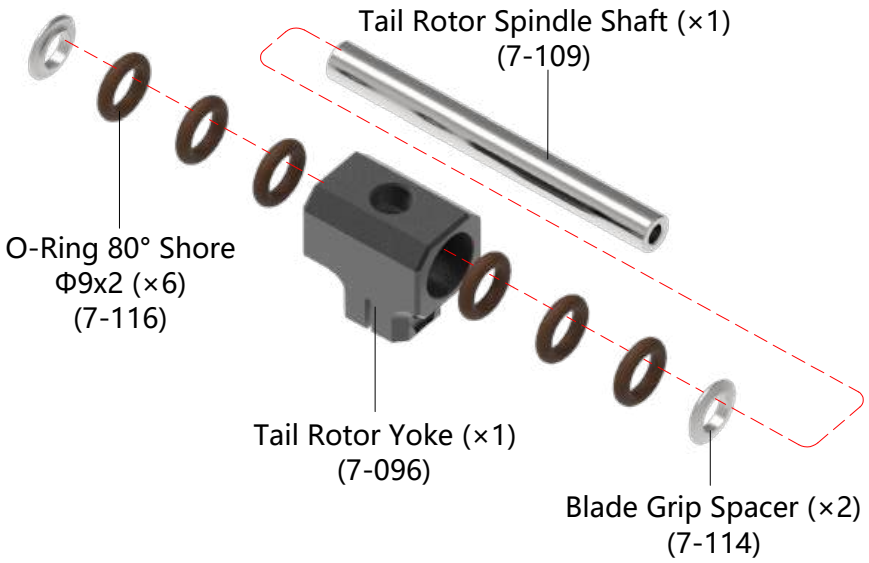
03 Main Pulley Installation



04 Lower Main Shaft Bolt Installation

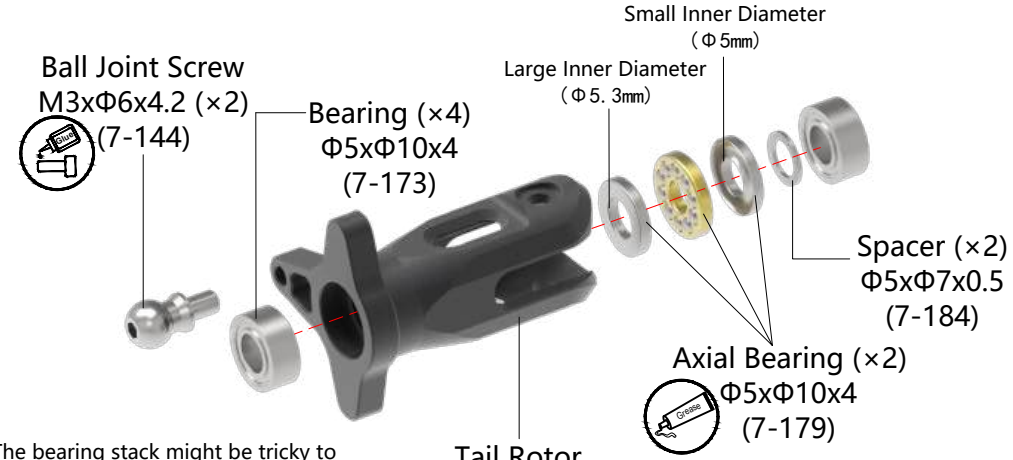


01 Tail Rotor Hub Assembly



02 Tail Rotor Blade Grip Assembly

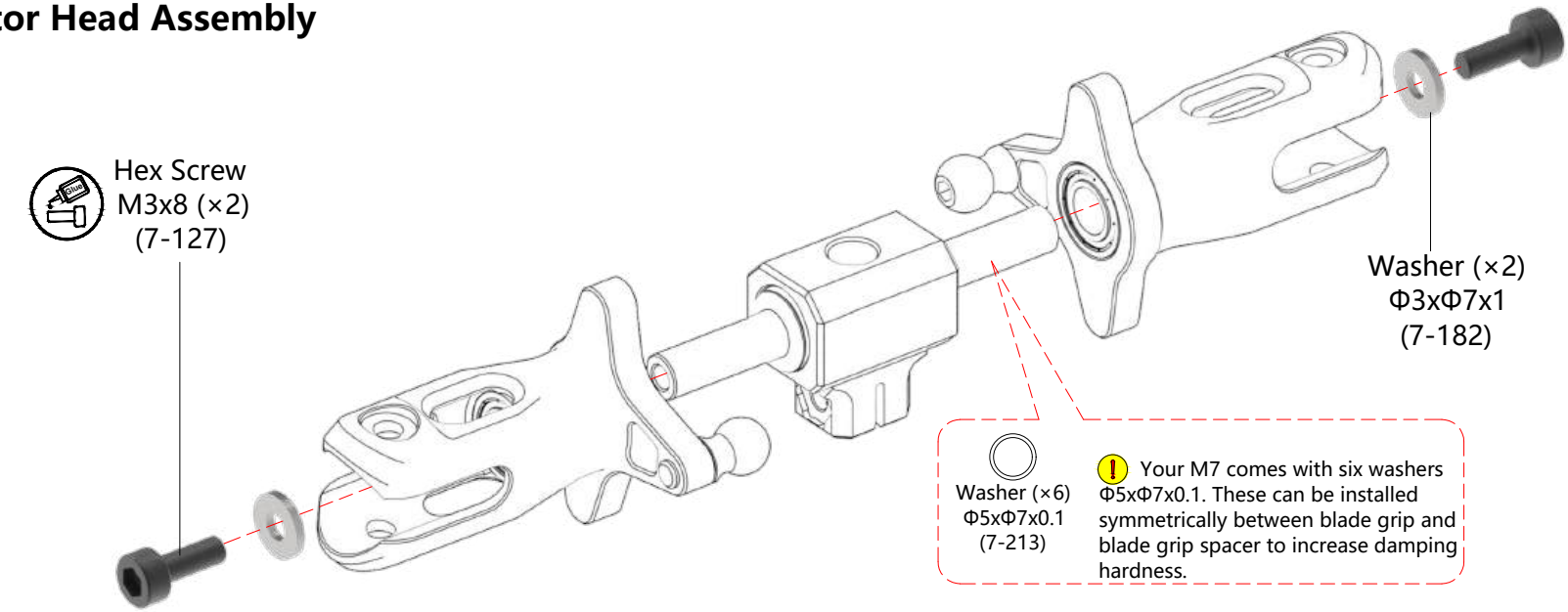
BAG 10



The bearing stack might be tricky to align with the bore in the blade grip. Assembling the stack on the spindle shaft and pushing it in that way can make the installation easier.

The axial bearing cage's open side must face outward towards the rotor blade to prevent premature axial bearing failure.

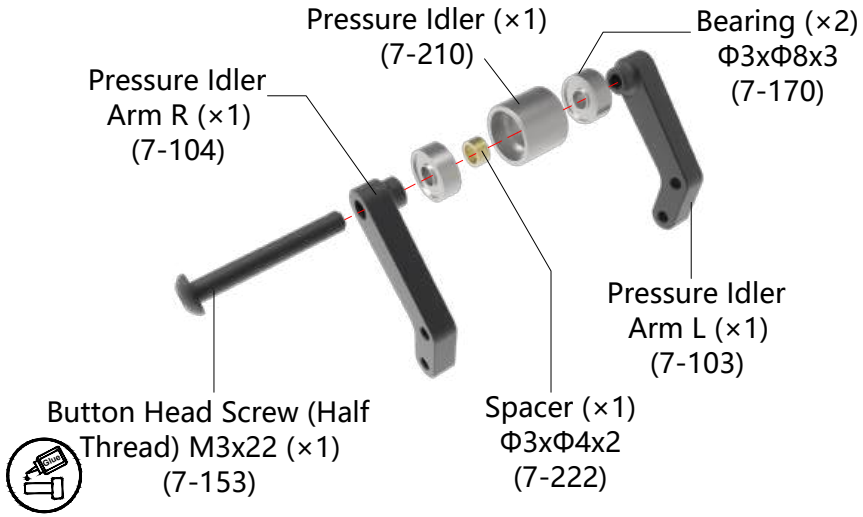
03 Tail Rotor Head Assembly



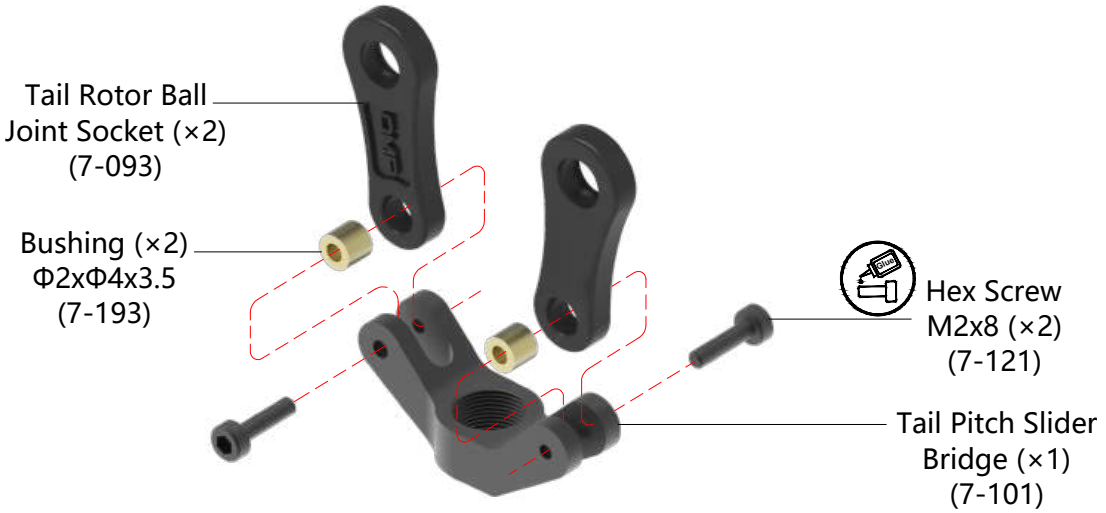
Your M7 comes with six washers Φ5xΦ7x0.1. These can be installed symmetrically between blade grip and blade grip spacer to increase damping hardness.

BAG 11

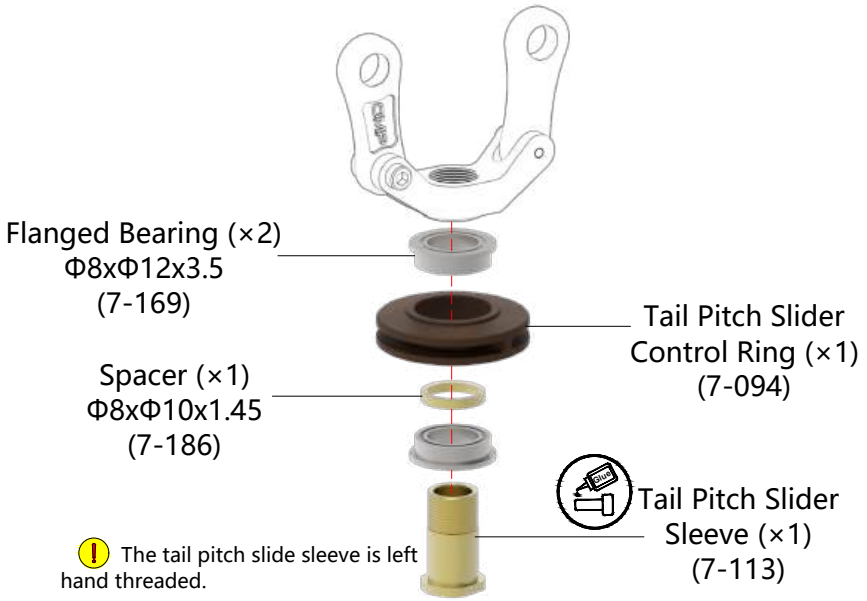
01 Tail Belt Pressure Idler Assembly



02 Tail Pitch Slider Bridge Assembly

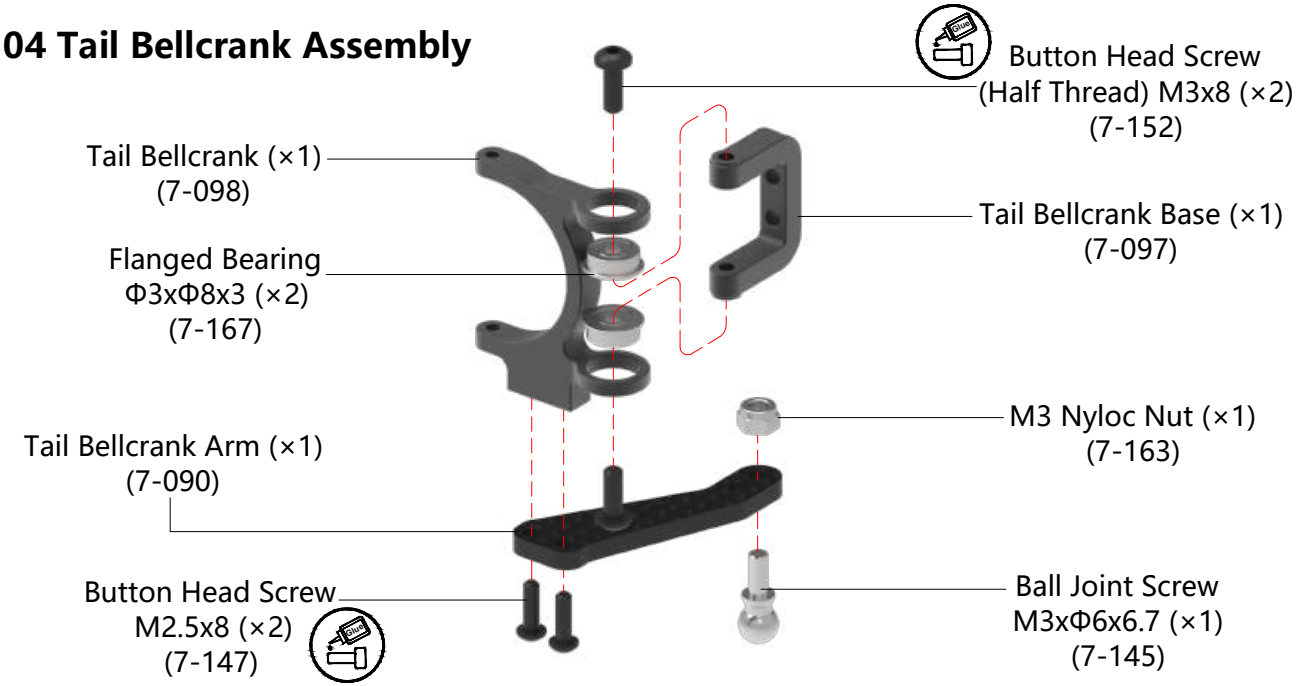


03 Tail Pitch Slider Ring Assembly

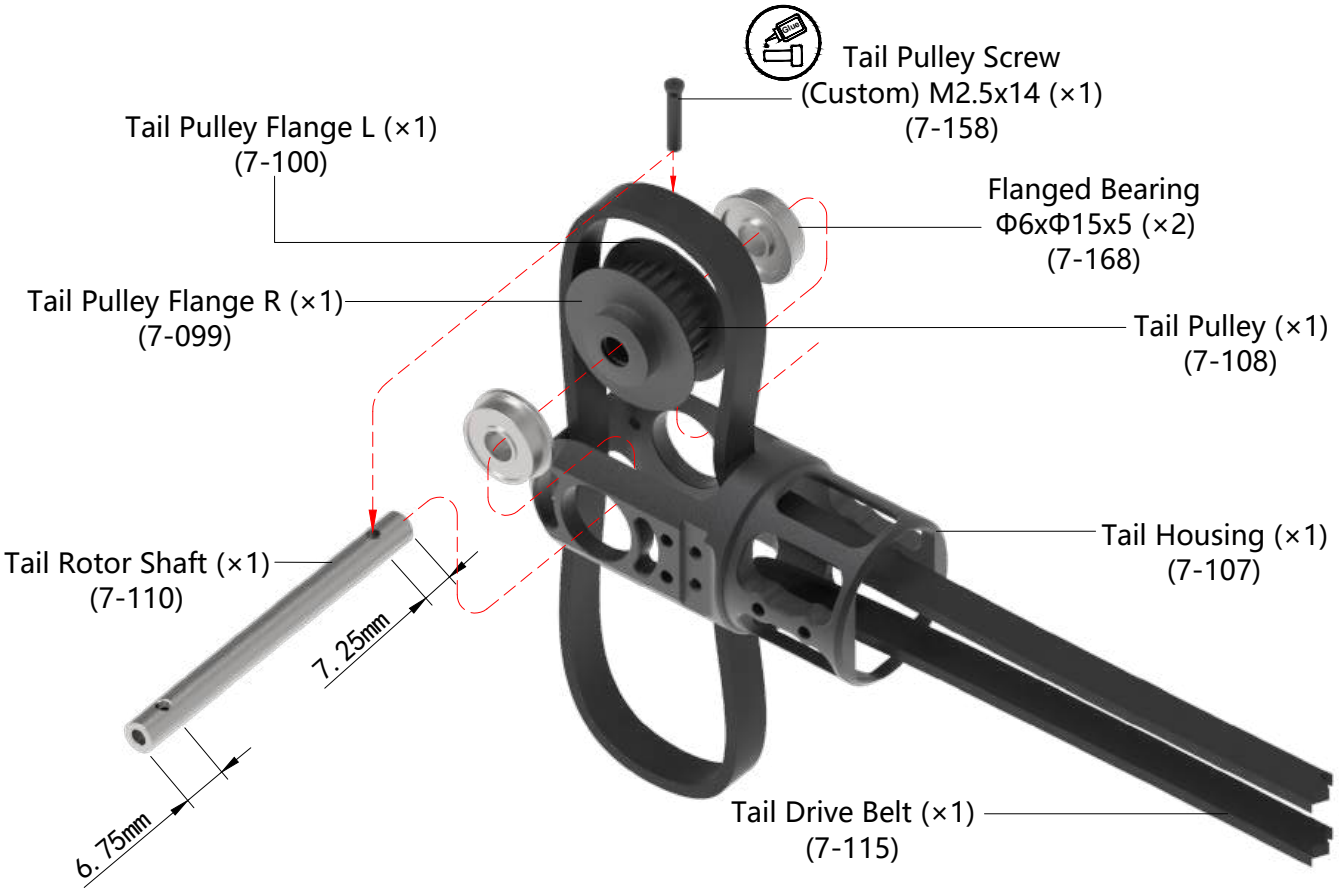


The tail pitch slide sleeve is left hand threaded.

04 Tail Bellcrank Assembly



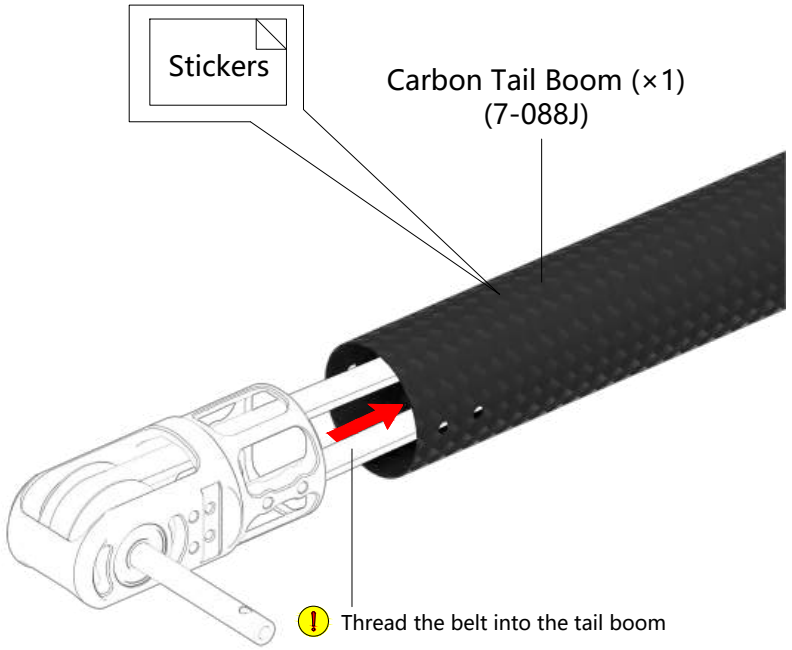
01 Tail Gearbox Assembly



02 Tail Gearbox Installation

BAG 12

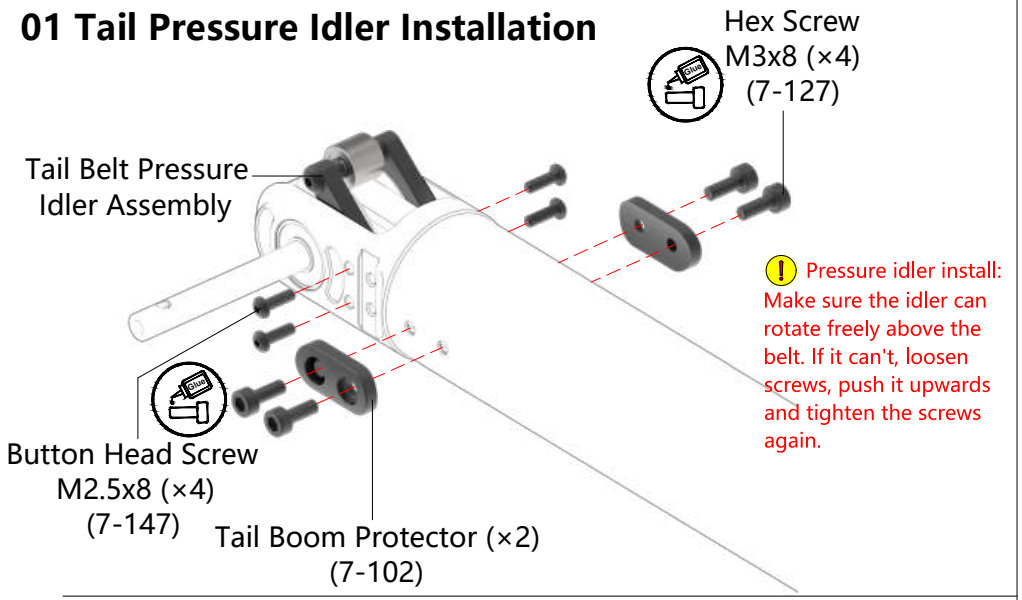
Your M7 comes with two tail boom options: Carbon Fiber and painted Aluminium. Feel free to choose whichever you like best!



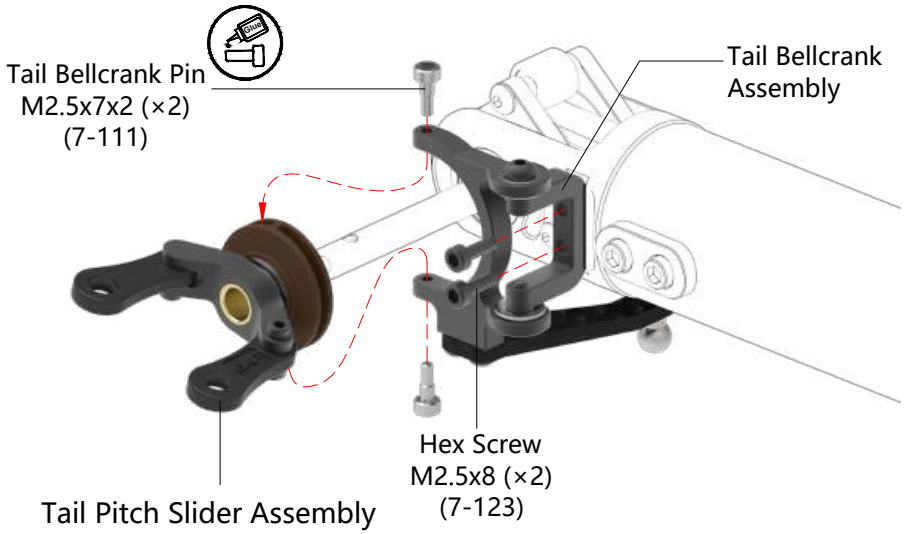
Please refer to page 33 for the sticker placement.

BAG 13

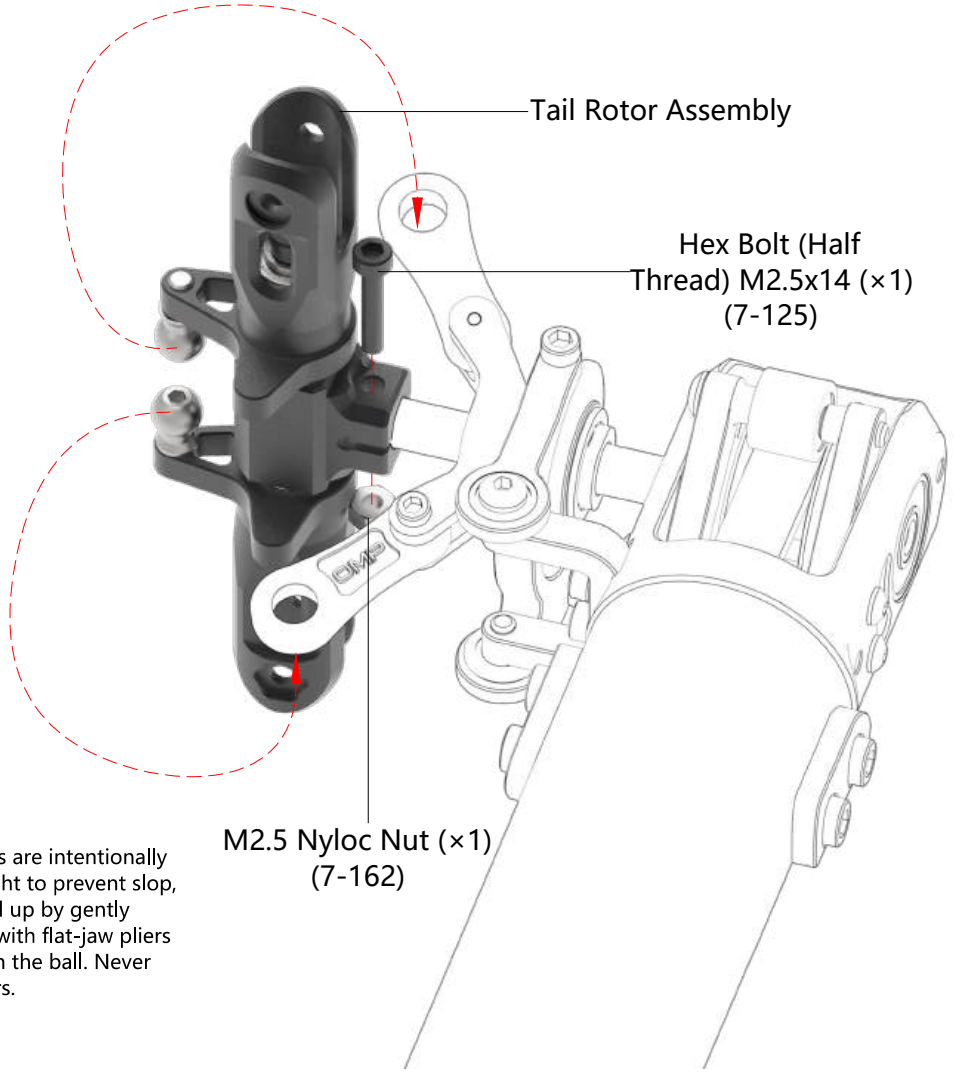
01 Tail Pressure Idler Installation



02 Tail Pitch Slider Installation

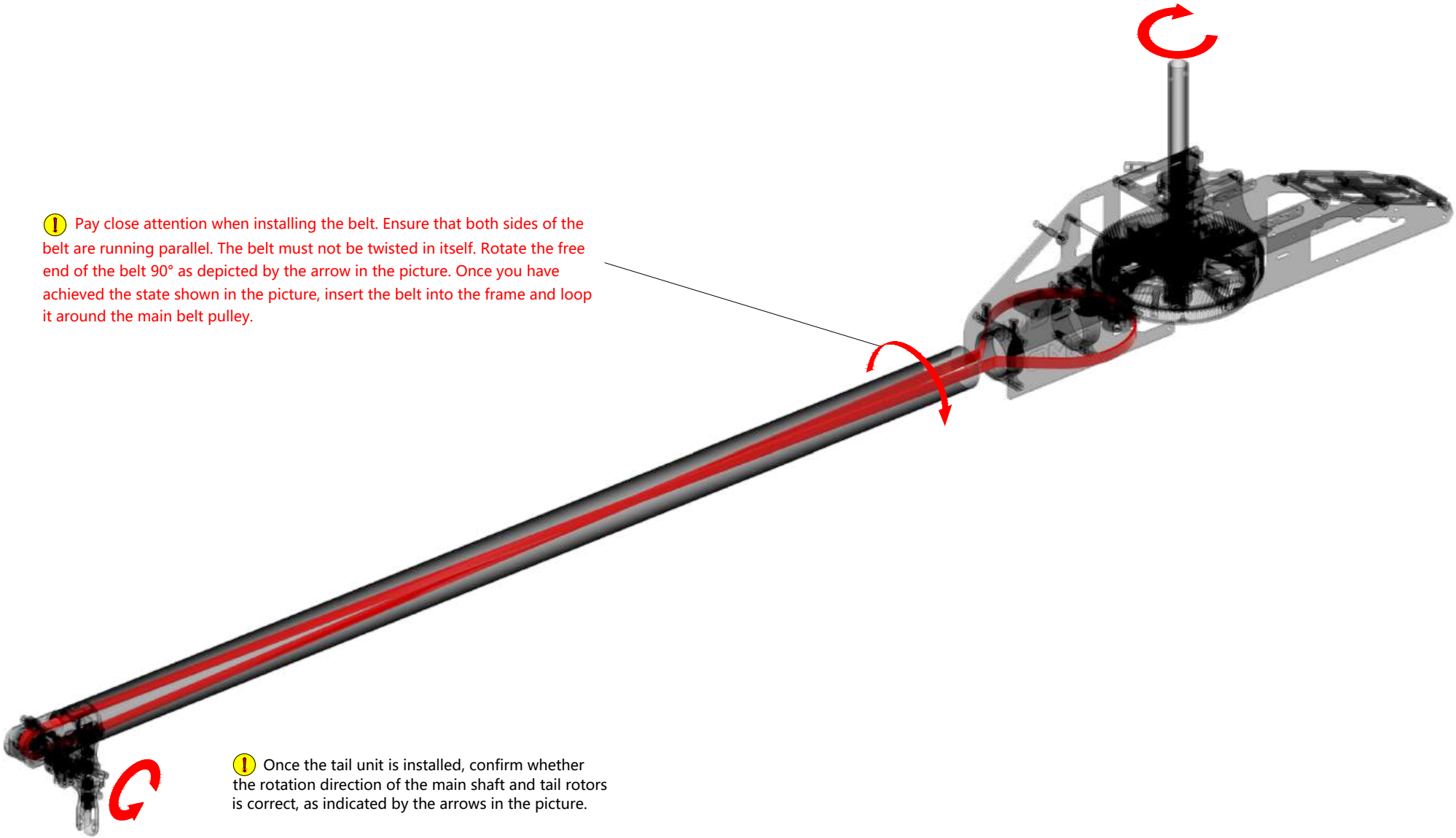


03 Tail Rotor Installation



The ball joints are intentionally manufactured tight to prevent slop, they can be freed up by gently squeezing them with flat-jaw pliers when installed on the ball. Never use serrated pliers.

01 Attach the tail boom assembly to the frame

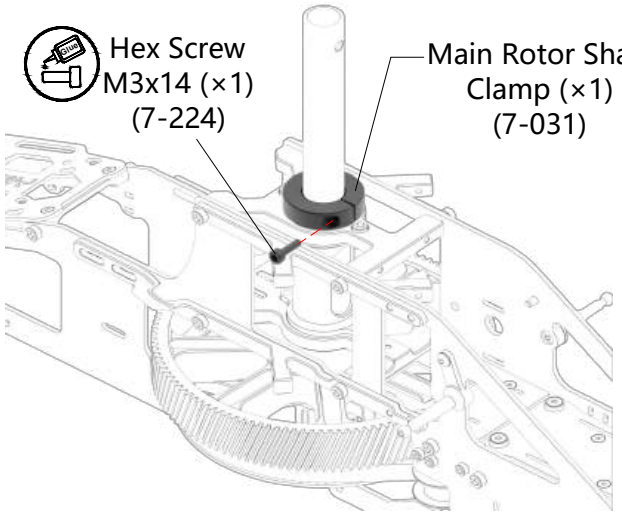


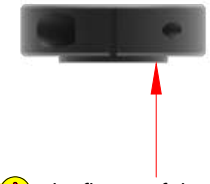
⚠ Pay close attention when installing the belt. Ensure that both sides of the belt are running parallel. The belt must not be twisted in itself. Rotate the free end of the belt 90° as depicted by the arrow in the picture. Once you have achieved the state shown in the picture, insert the belt into the frame and loop it around the main belt pulley.

⚠ Once the tail unit is installed, confirm whether the rotation direction of the main shaft and tail rotors is correct, as indicated by the arrows in the picture.

BAG 15

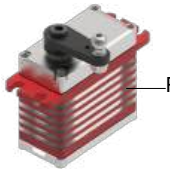
01 Main Rotor Shaft Clamp Installation

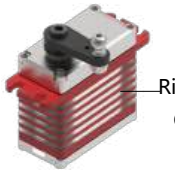




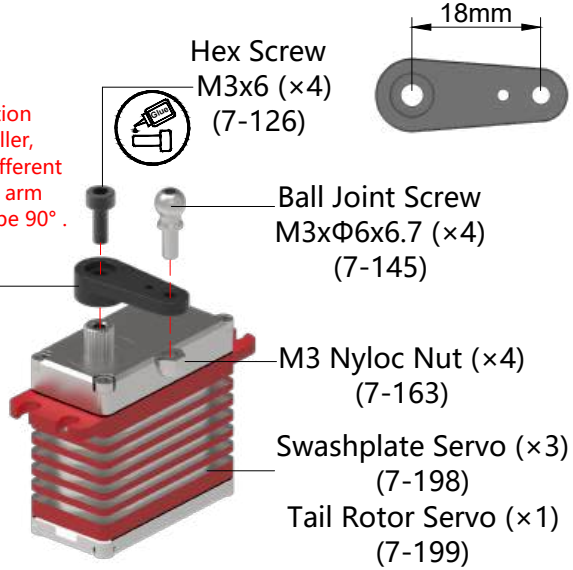
The flange of the clamp ring should face downwards and contact the bearing. Ensure there is no vertical play in the main shaft after installation.

02 Servo Assembly





After finding the neutral position with the help of your flight controller, assemble three servos with two different arm orientations. The angle of the arm relative to the servo body should be 90° .

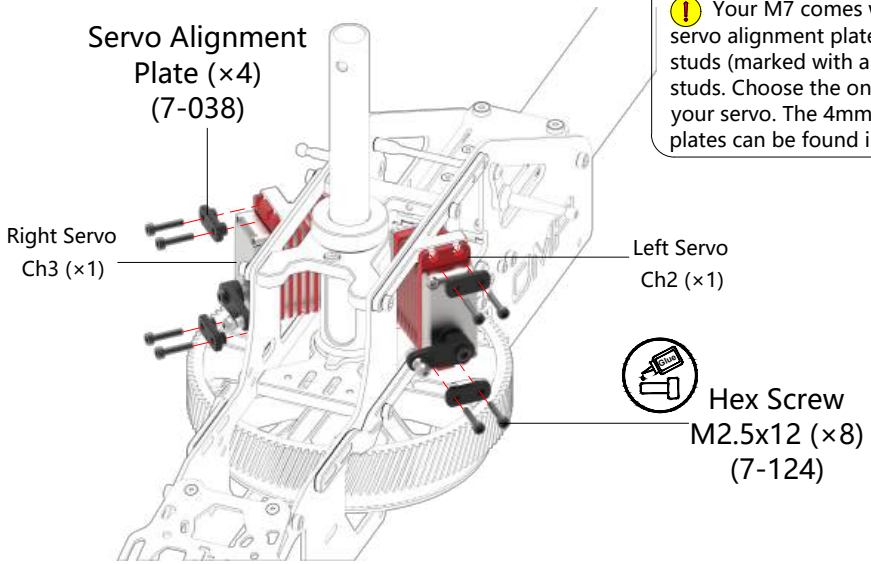


If using OMP plastic servo arms, please use M3xΦ6x6.7 ball joint screws with nyloc nuts.

If you are using metal servo arms, please use M3xΦ6x4.2 ball joint screws without nyloc nuts.

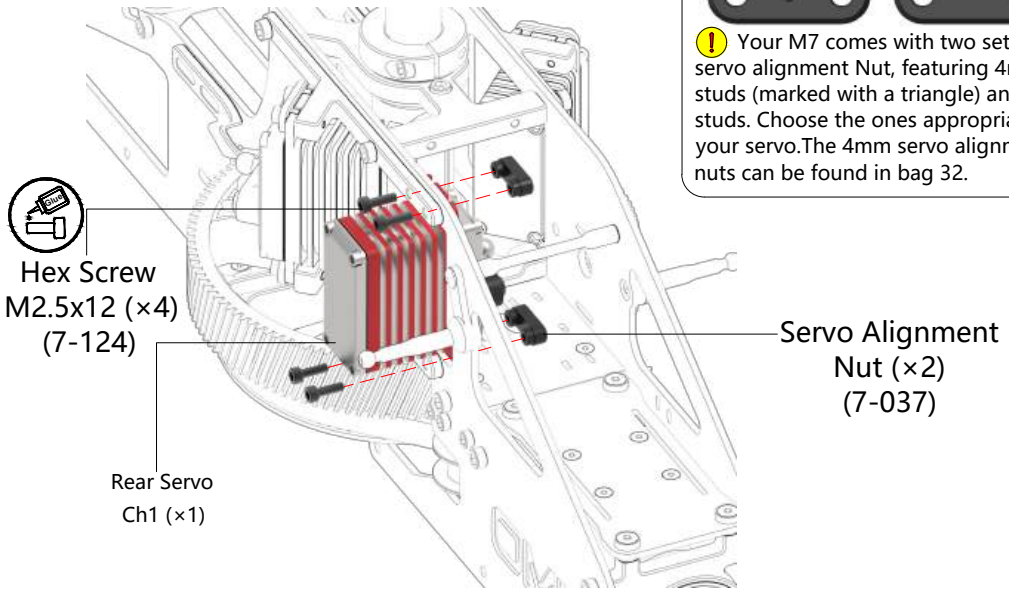
03 Front Servo Installation

Your M7 comes with two sets of servo alignment plates, featuring 4mm studs (marked with a triangle) and 5mm studs. Choose the ones appropriate for your servo. The 4mm servo alignment plates can be found in bag 32.



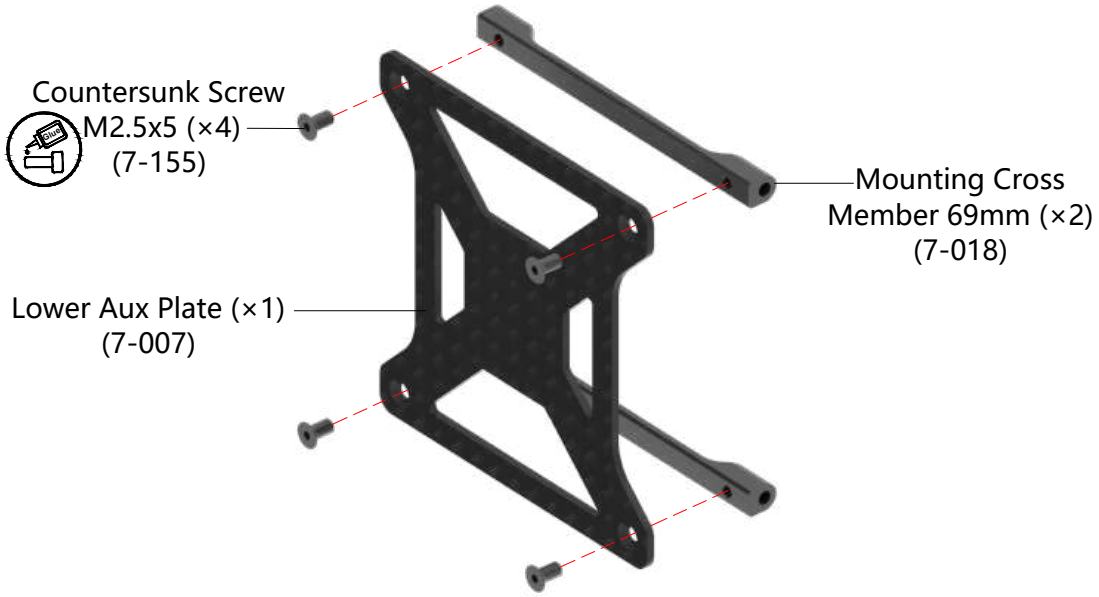
04 Rear Servo Installation

Your M7 comes with two sets of servo alignment Nut, featuring 4mm studs (marked with a triangle) and 5mm studs. Choose the ones appropriate for your servo.The 4mm servo alignment nuts can be found in bag 32.

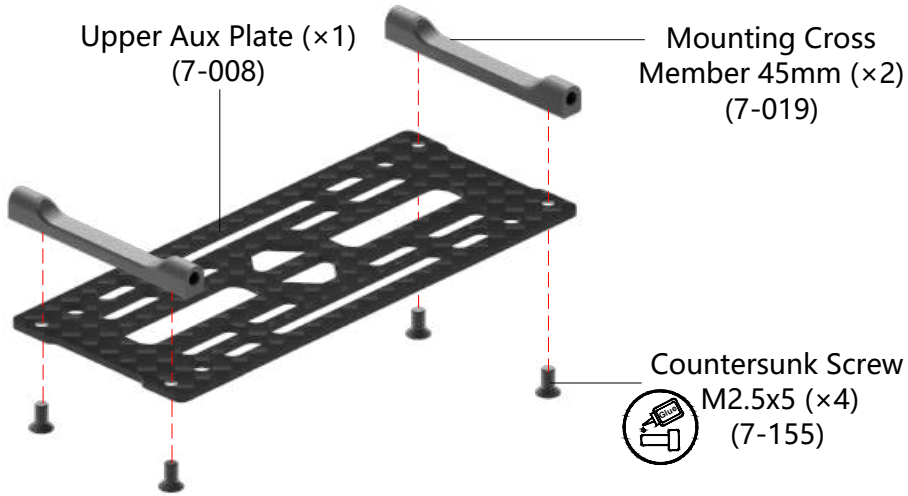


BAG 16

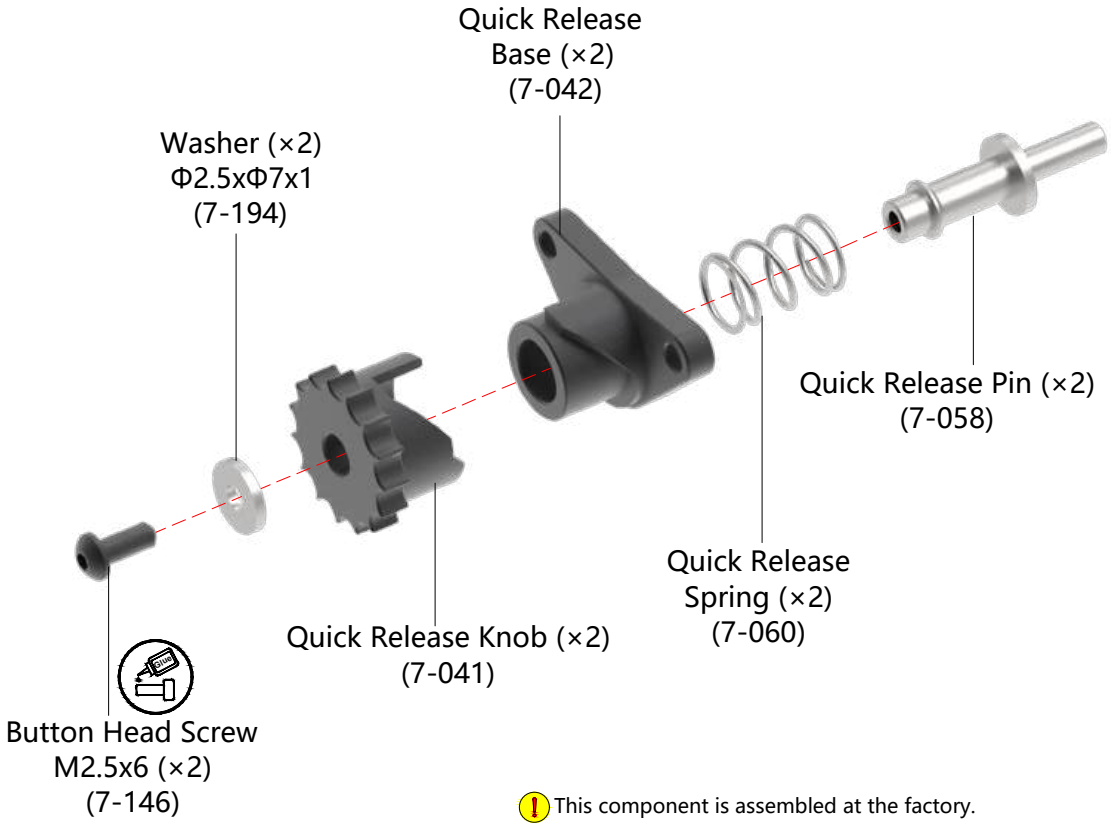
01 Lower Aux Plate Assembly



02 Upper Aux Plate Assembly



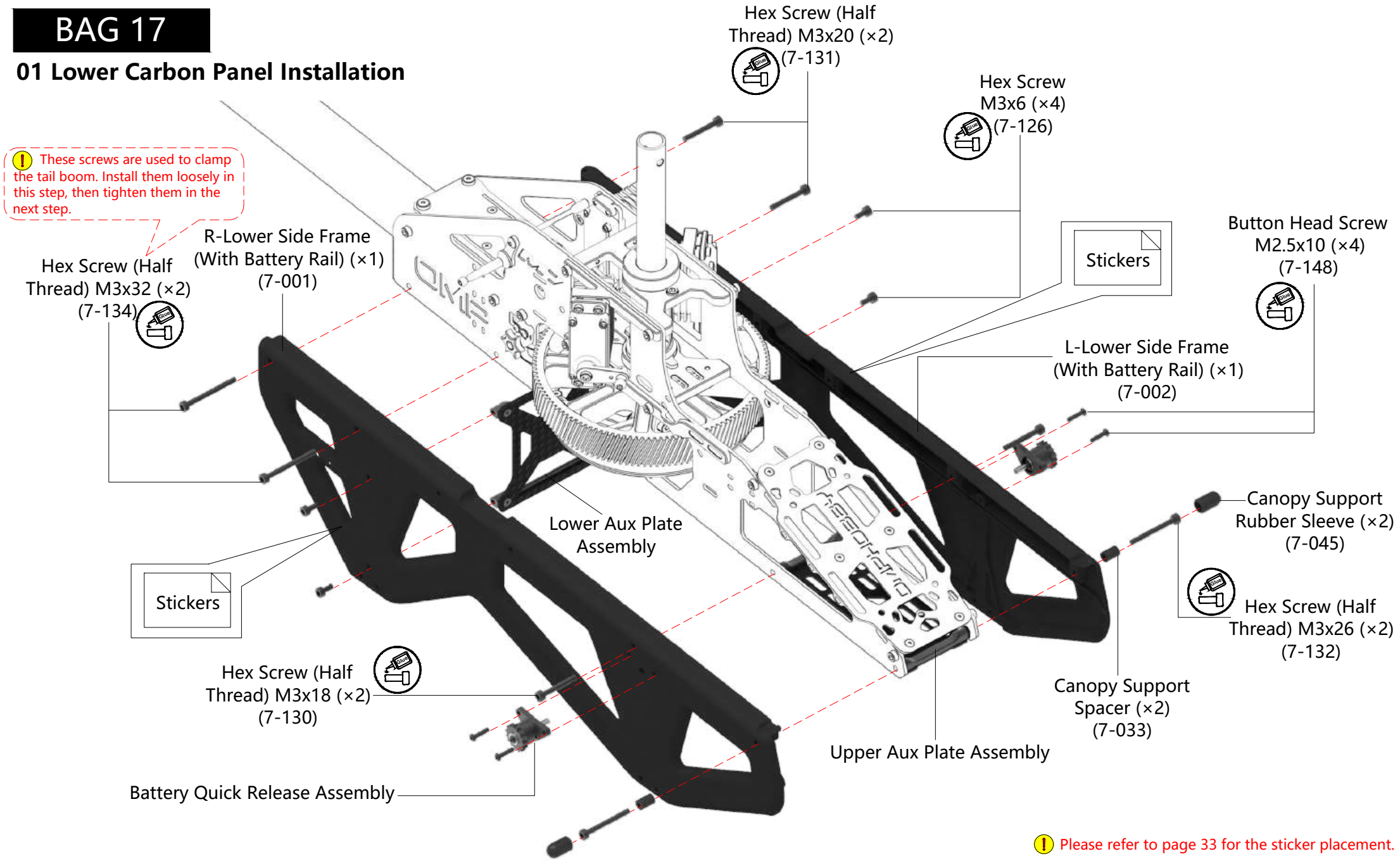
03 Battery Quick Release Assembly



This component is assembled at the factory.

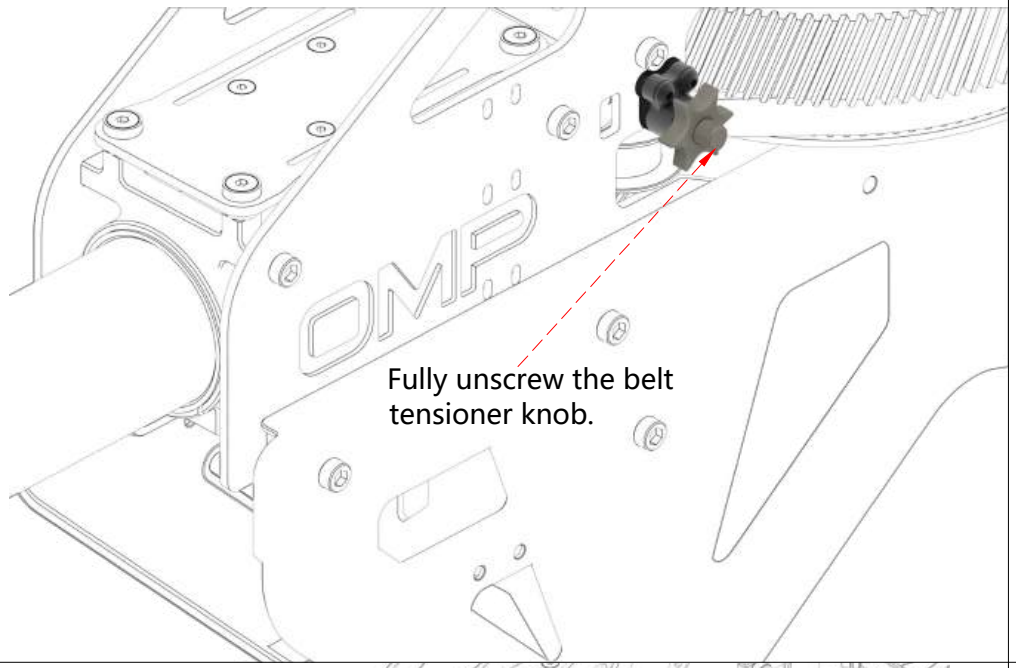
BAG 17

01 Lower Carbon Panel Installation

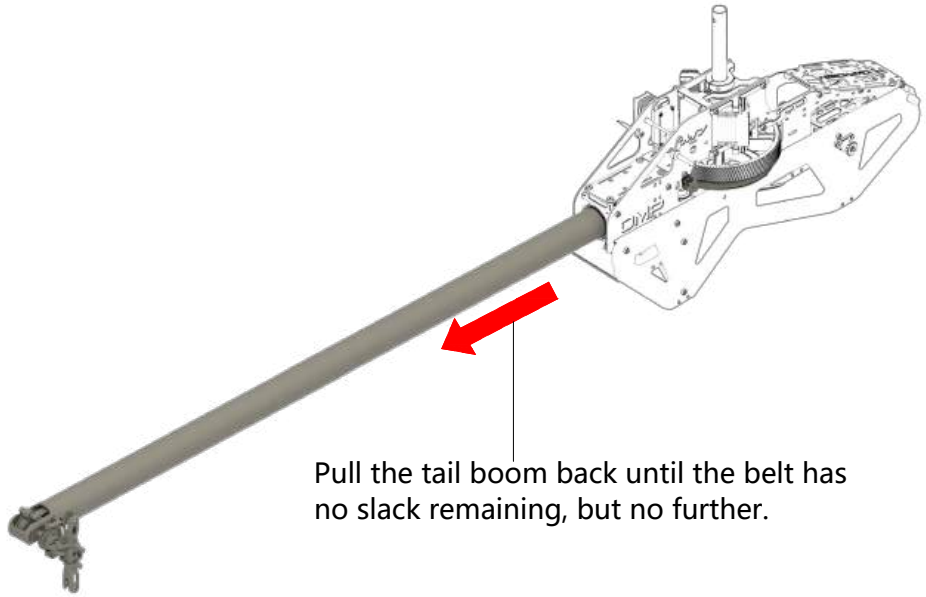


Please refer to page 33 for the sticker placement.

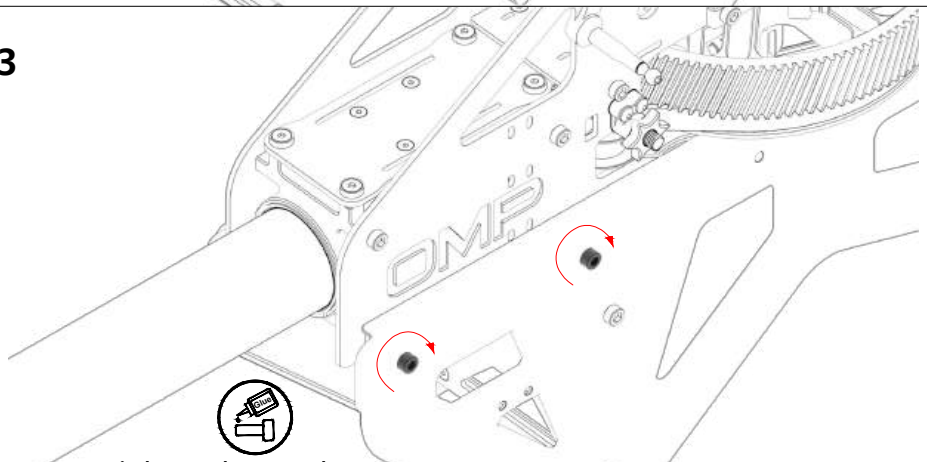
Step 1



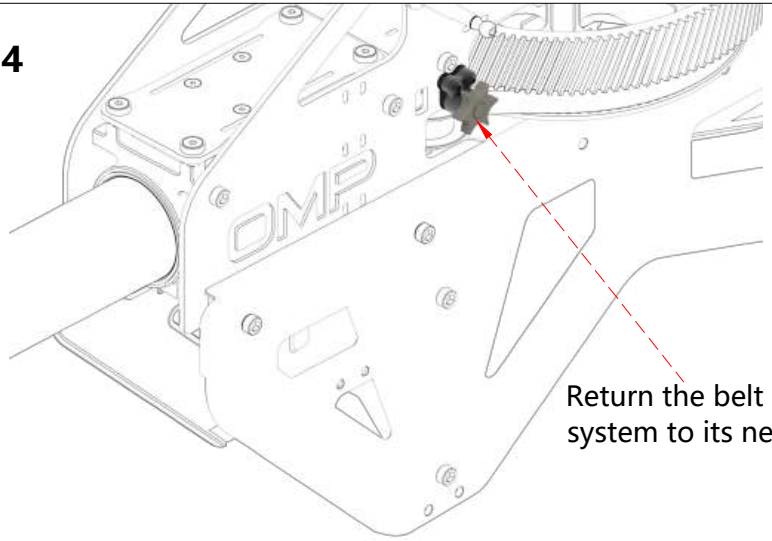
Step 2



Step 3



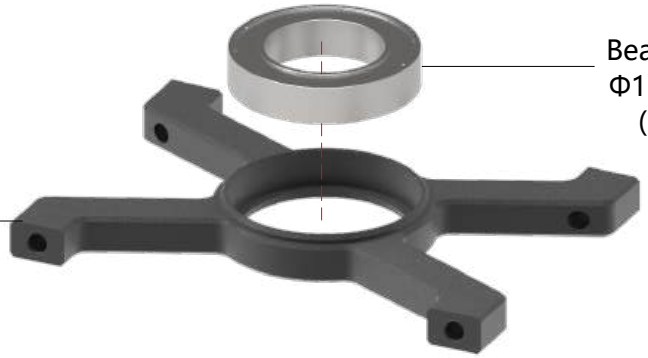
Step 4



⚠ Confirm good tension of the belt!

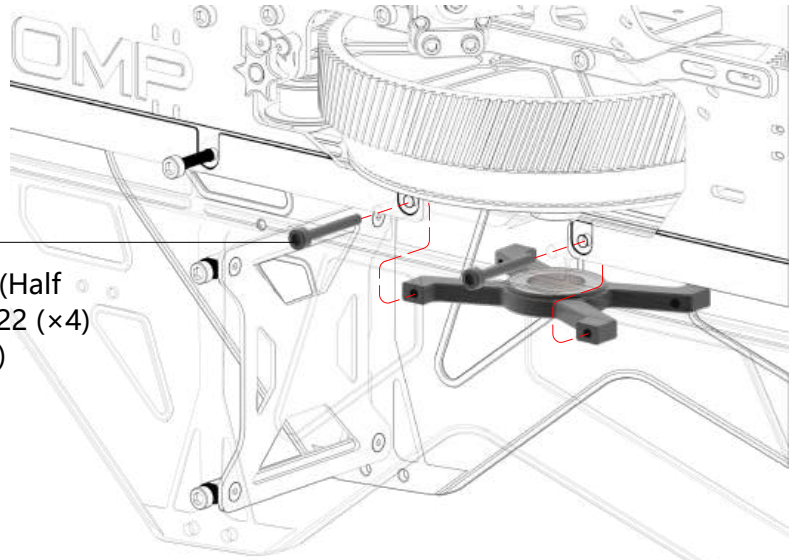
BAG 19

01 3rd Main Shaft Bearing Block



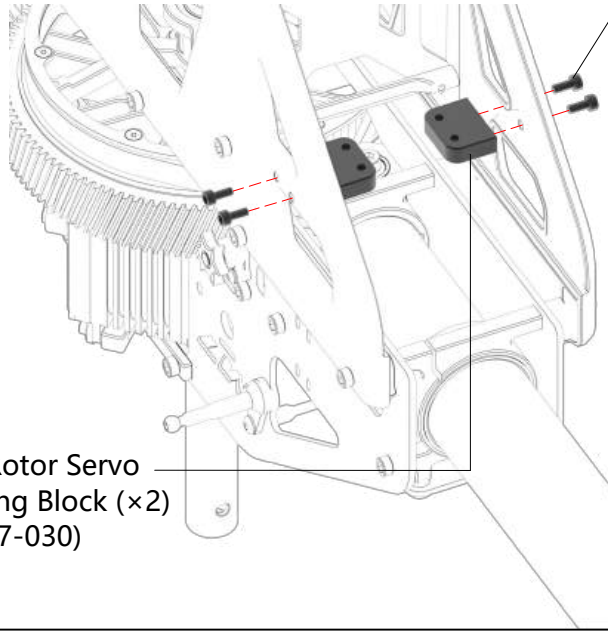
Bearing (×1)
Φ15xΦ24x5
(7-177)

Lower Bearing
Block (×1)
(7-020)



Hex Screw (Half
Thread) M3x22 (×4)
(7-223)

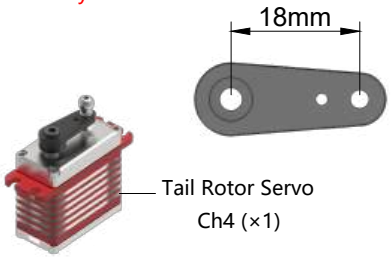
02 Tail Rotor Servo Installation



Hex Screw
M2.5x6 (×4)
(7-122)

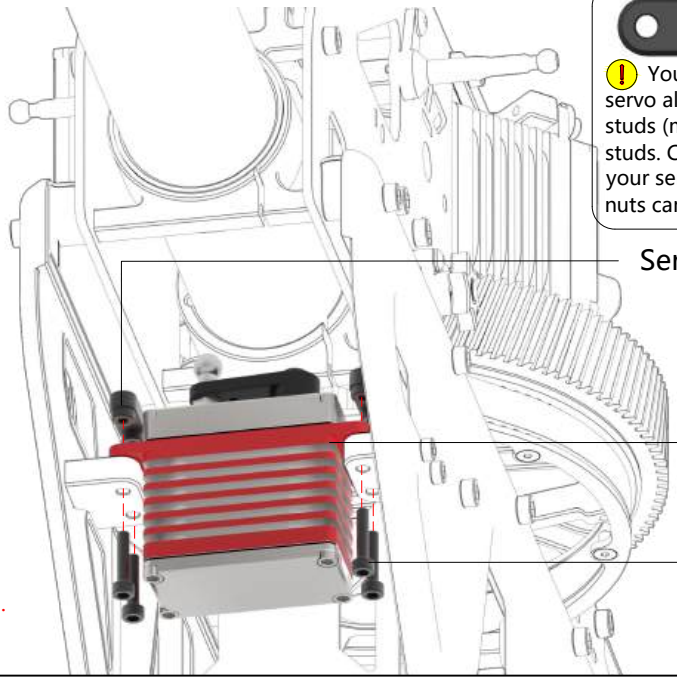
Tail Rotor Servo
Mounting Block (×2)
(7-030)

! After finding the neutral position with the help of your flight controller, assemble the tail rotor servo. The angle of the arm relative to the servo body should be 180° .



Tail Rotor Servo
Ch4 (×1)

! Center the tail servo for correct servo arm alignment before installation.



! Your M7 comes with two sets of servo alignment Nut, featuring 4mm studs (marked with a triangle) and 5mm studs. Choose the ones appropriate for your servo.The 4mm servo alignment nuts can be found in bag 32.

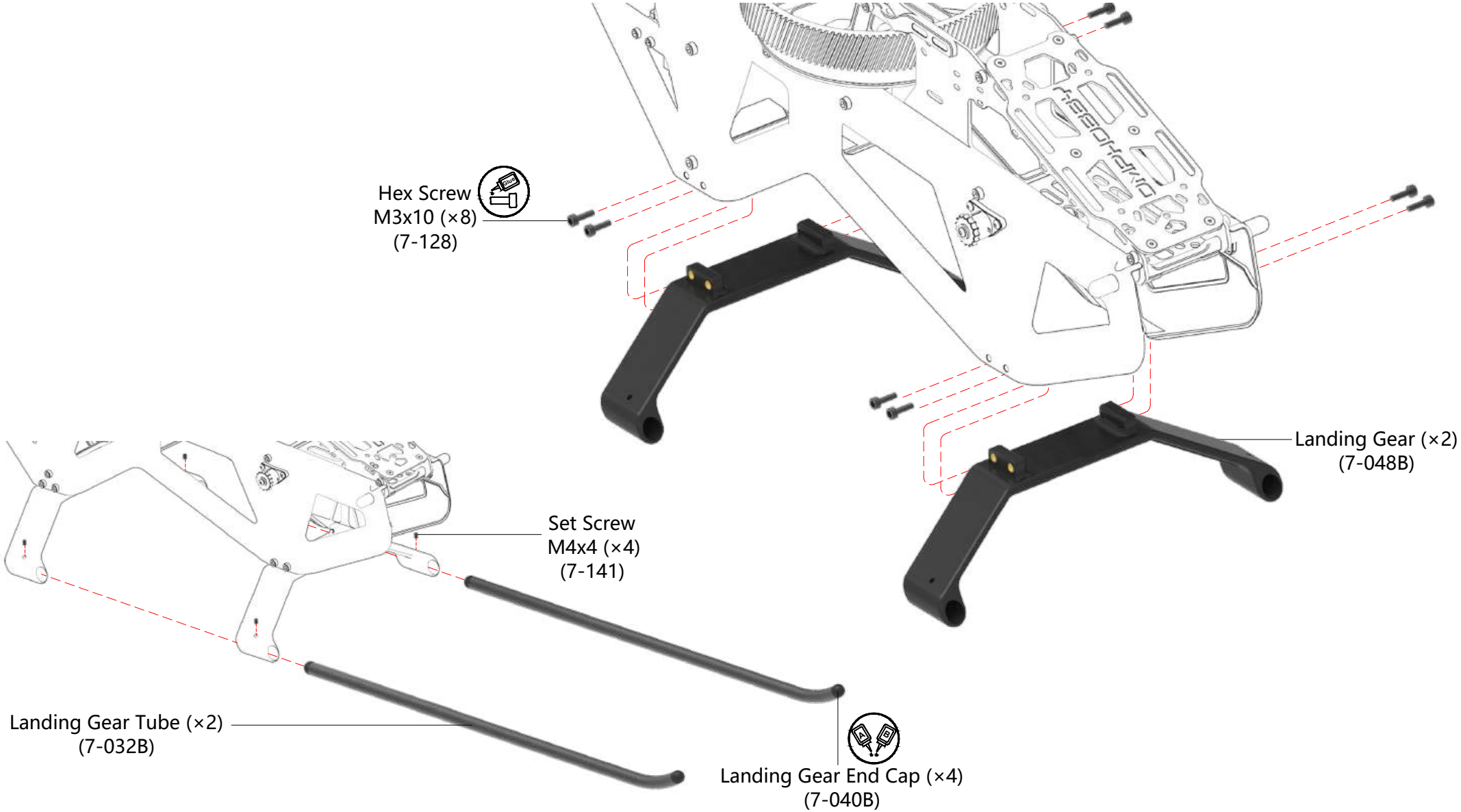
Servo Alignment
Nut (×2)
(7-037)

Tail Rotor Servo
Ch4 (×1)

Hex Screw
M2.5x12 (×4)
(7-124)

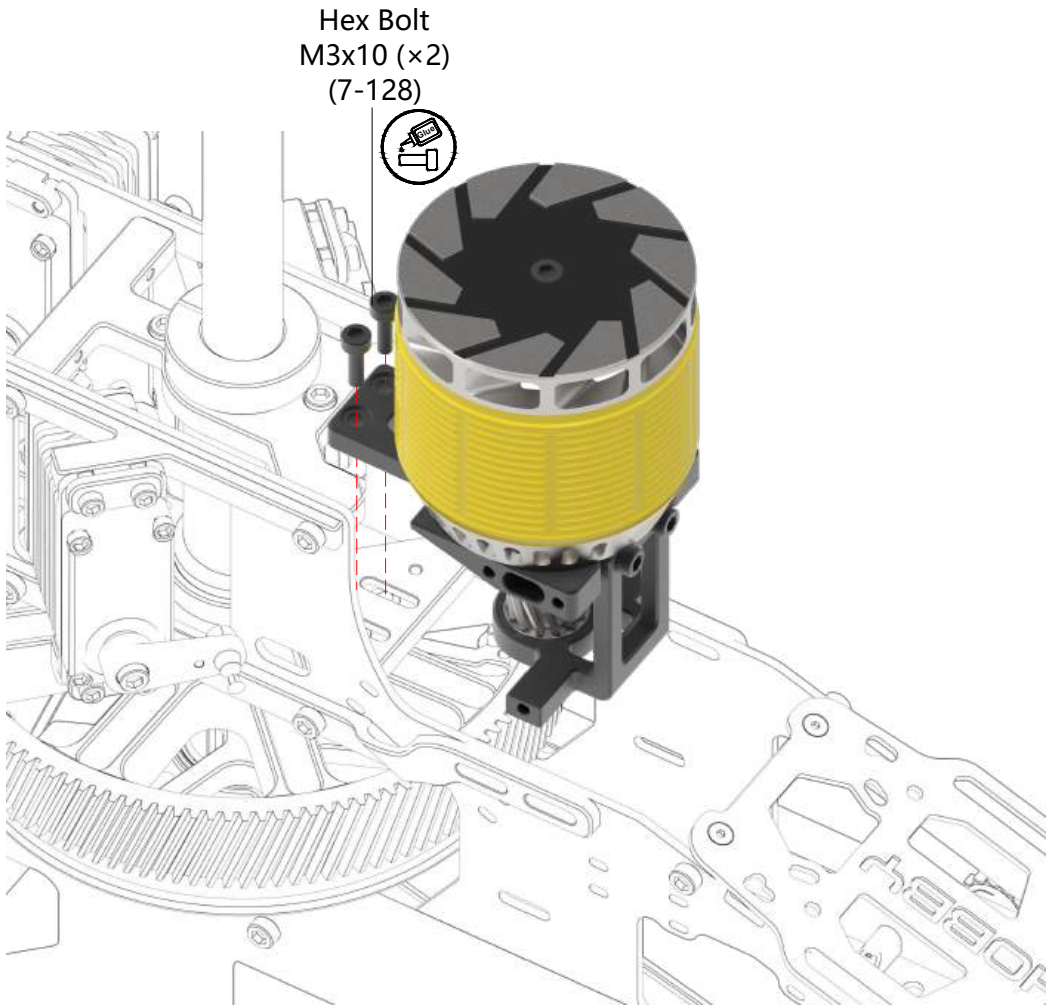
01 Installation of the Landing Gear

BAG 20



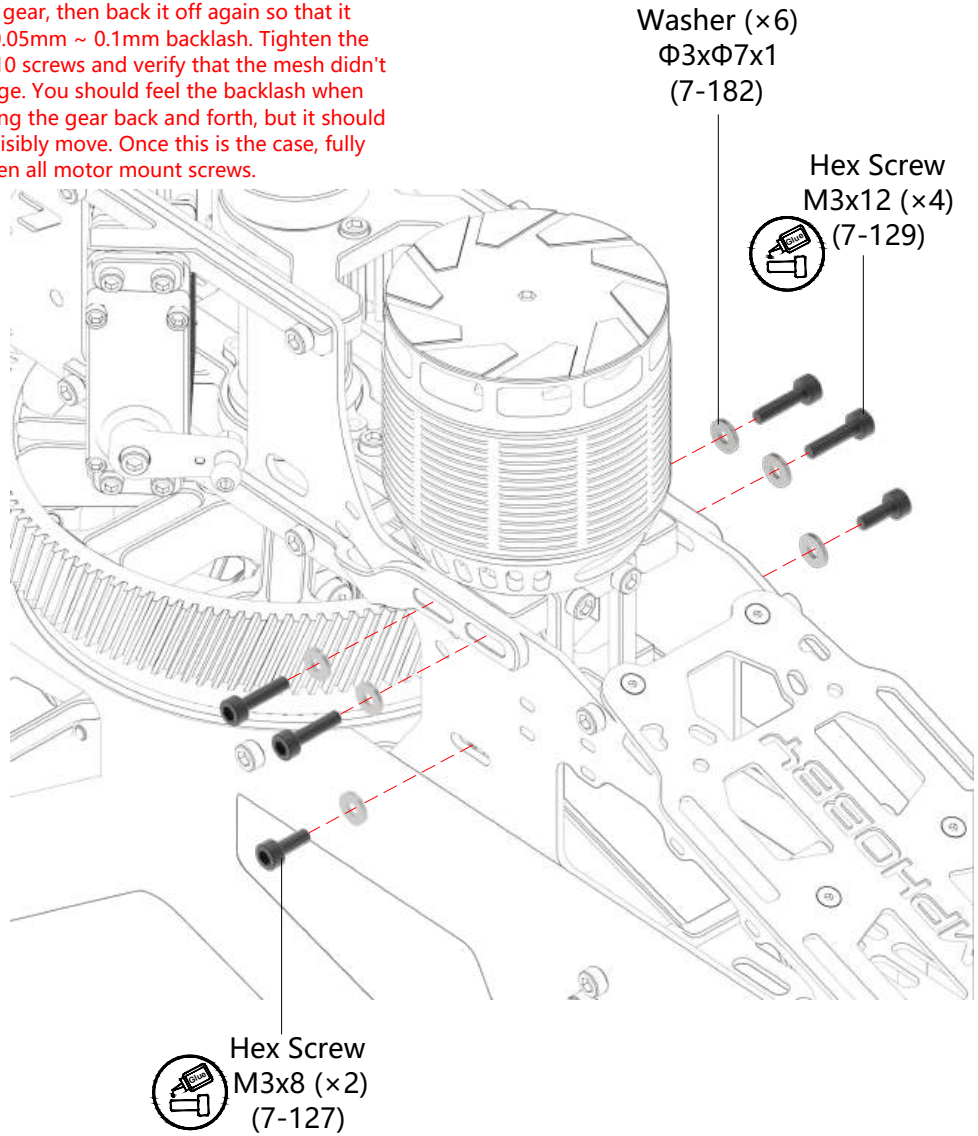
BAG 21

01 Motor Mount Installation



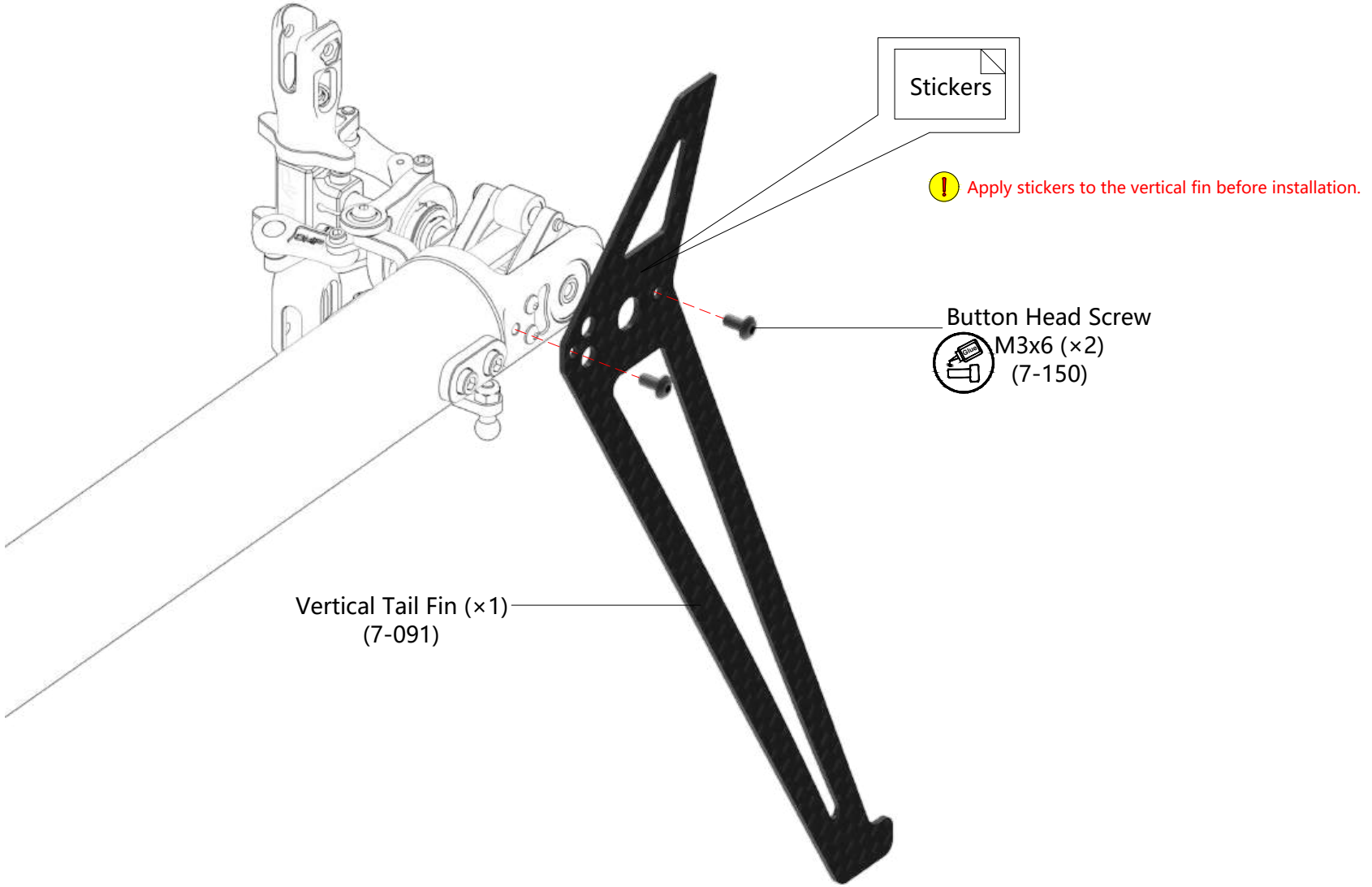
02 Motor Mount Clamping

⚠ Push the pinion all the way against the main gear, then back it off again so that it has 0.05mm ~ 0.1mm backlash. Tighten the M3x10 screws and verify that the mesh didn't change. You should feel the backlash when moving the gear back and forth, but it should not visibly move. Once this is the case, fully tighten all motor mount screws.



01 Vertical Tail Fin

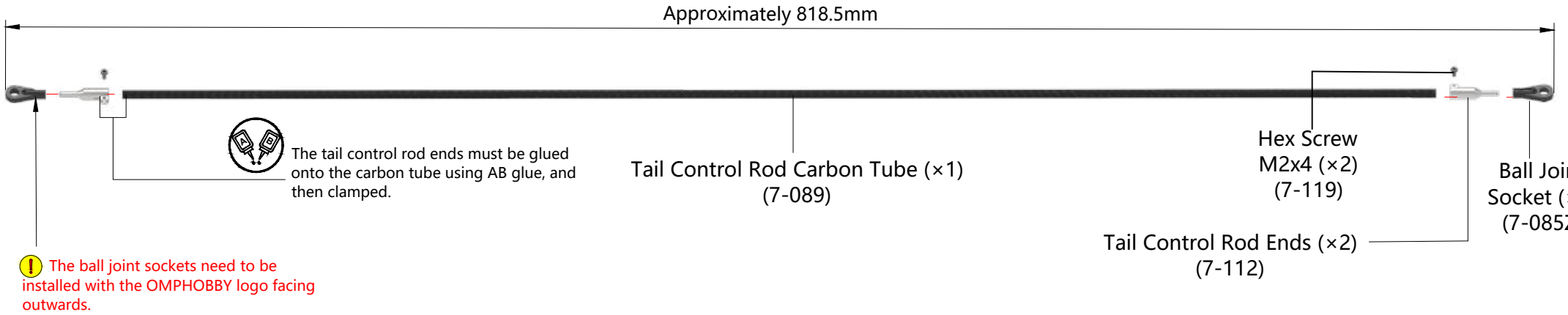
BAG 22



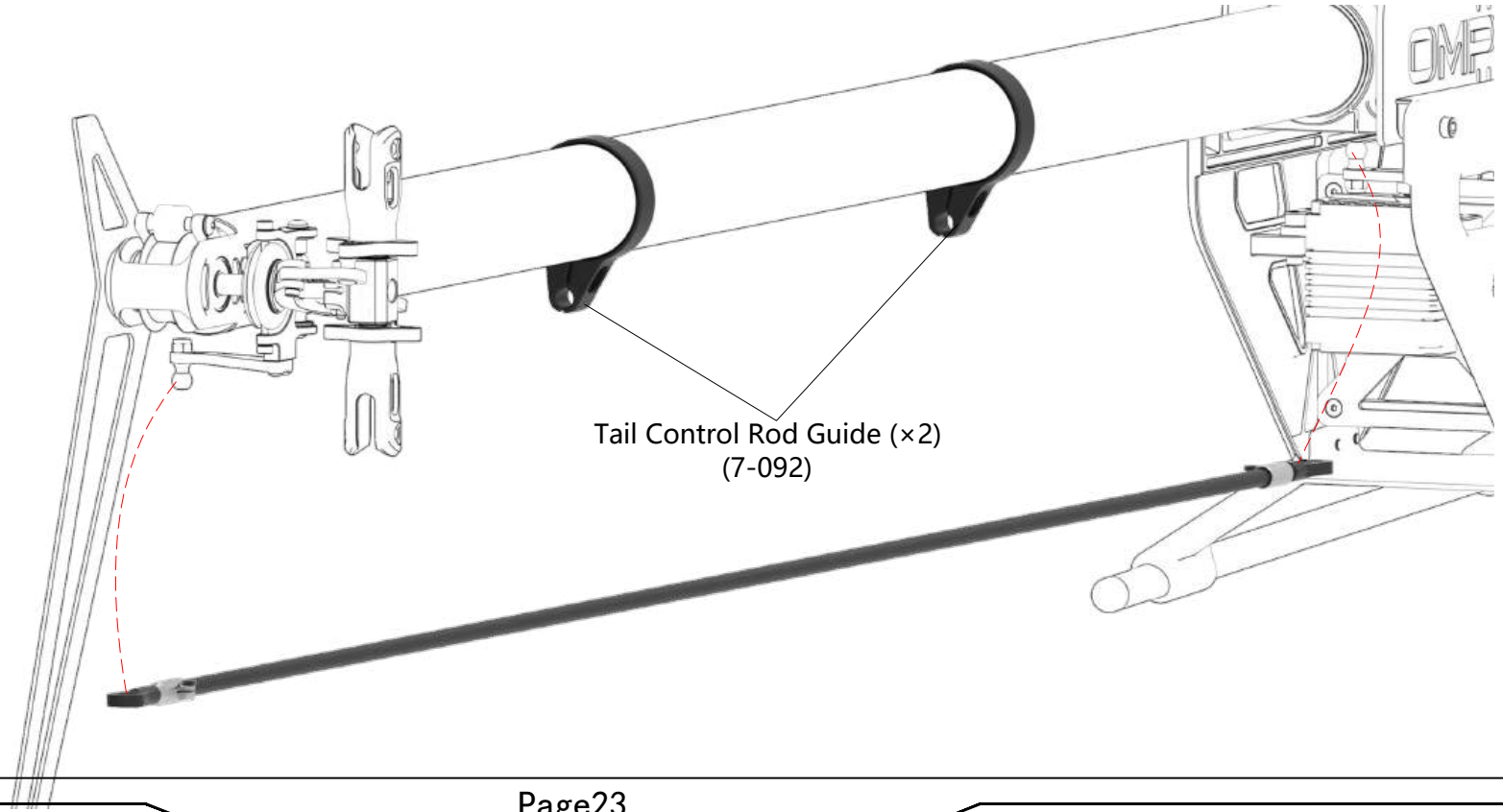
Please refer to page 33 for the sticker placement.

BAG 23

01 Tail Control Rod Assembly



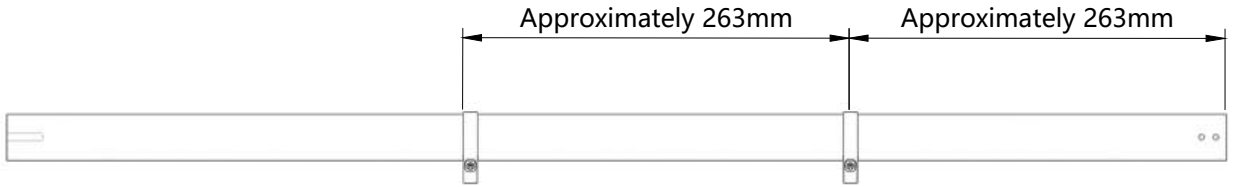
! The ball joint sockets need to be installed with the OMPHOBBY logo facing outwards.

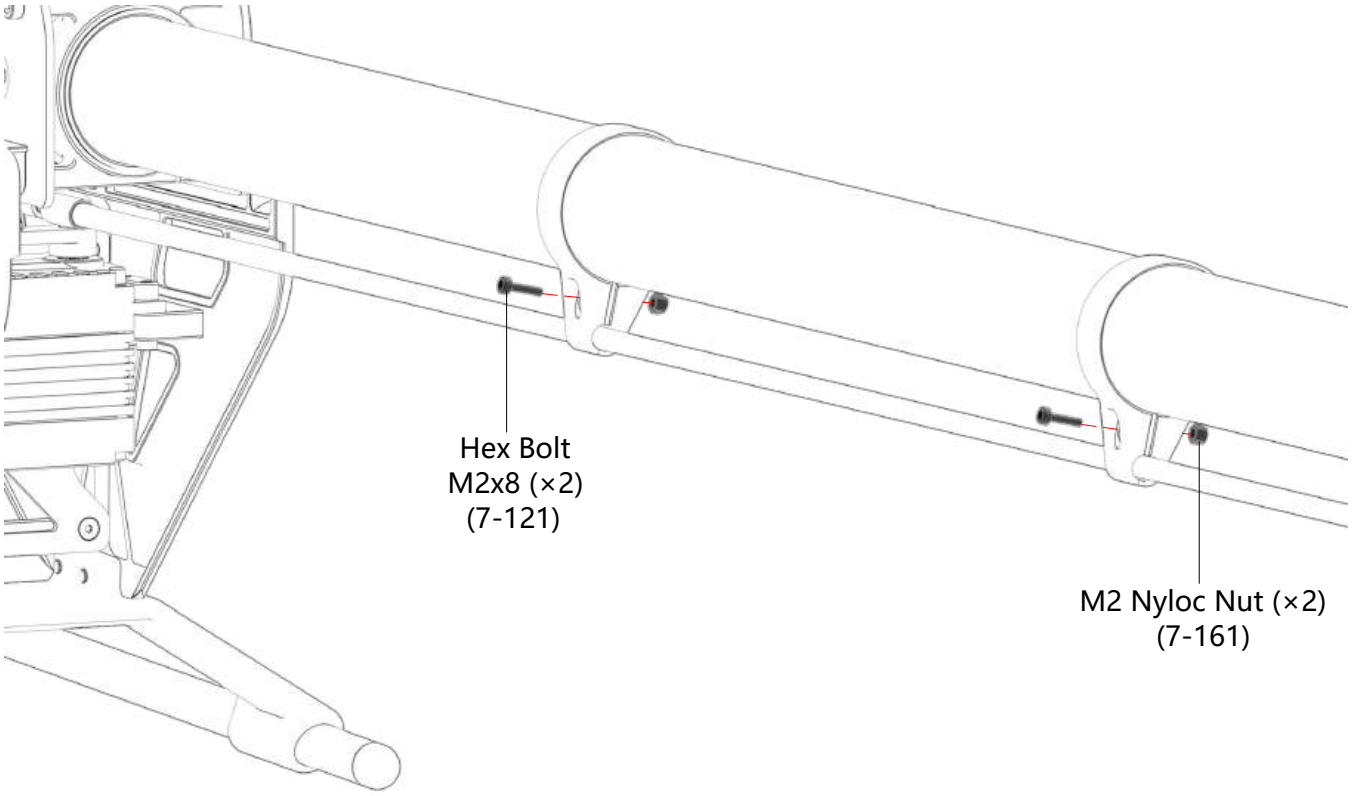


! The ball joints are intentionally manufactured tight to prevent slop, they can be freed up by gently squeezing them with flat-jaw pliers when installed on the ball. Never use serrated pliers.

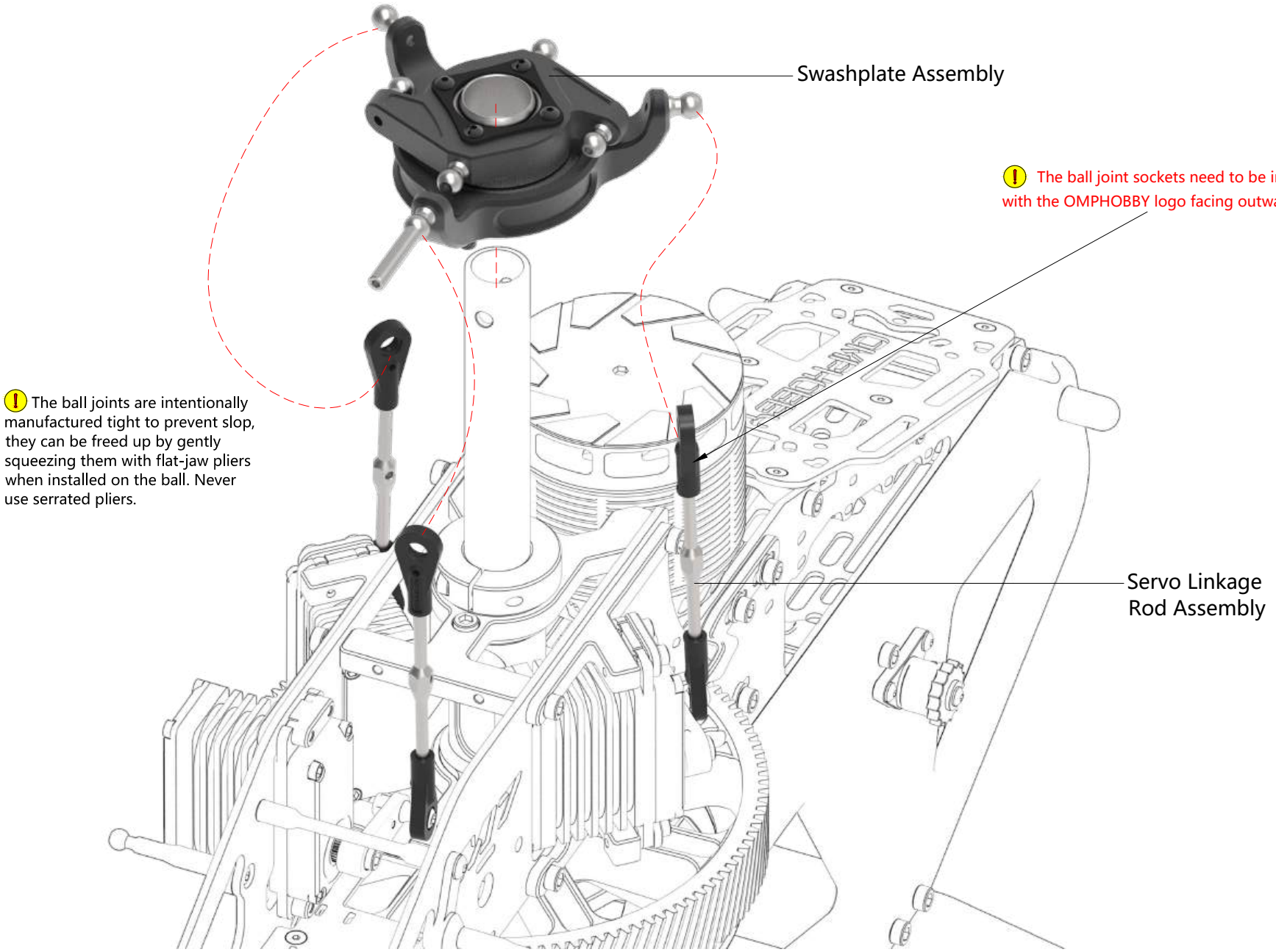
01 Tail Control Rod Guides installation and Alignment

BAG 24



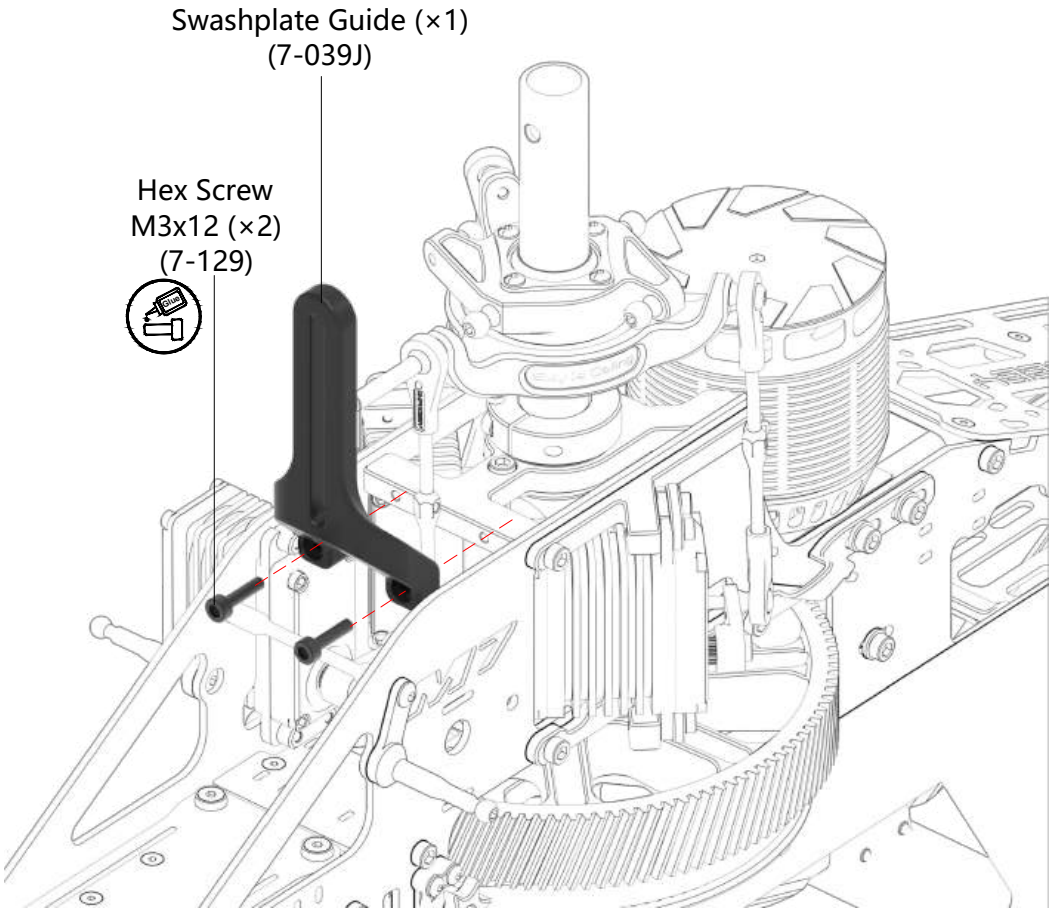


01 Swashplate Installation

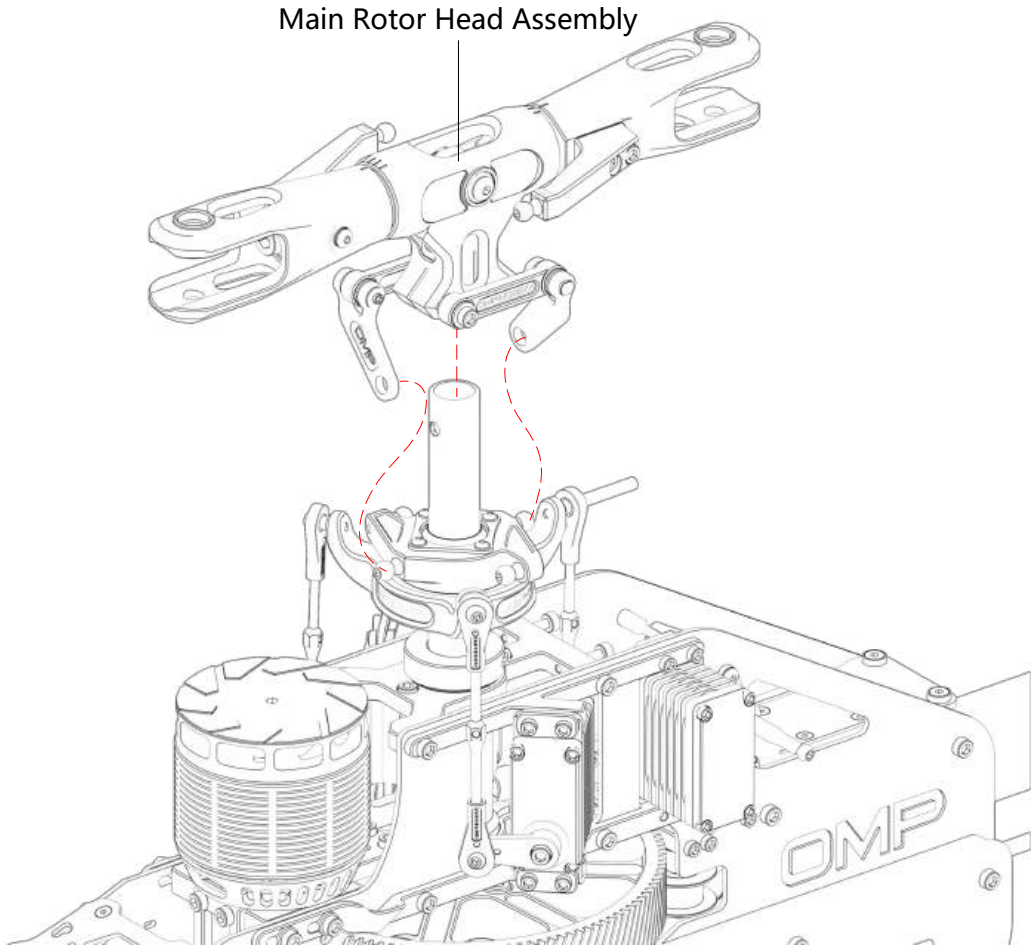


BAG 26

01 Swashplate Guide Installation



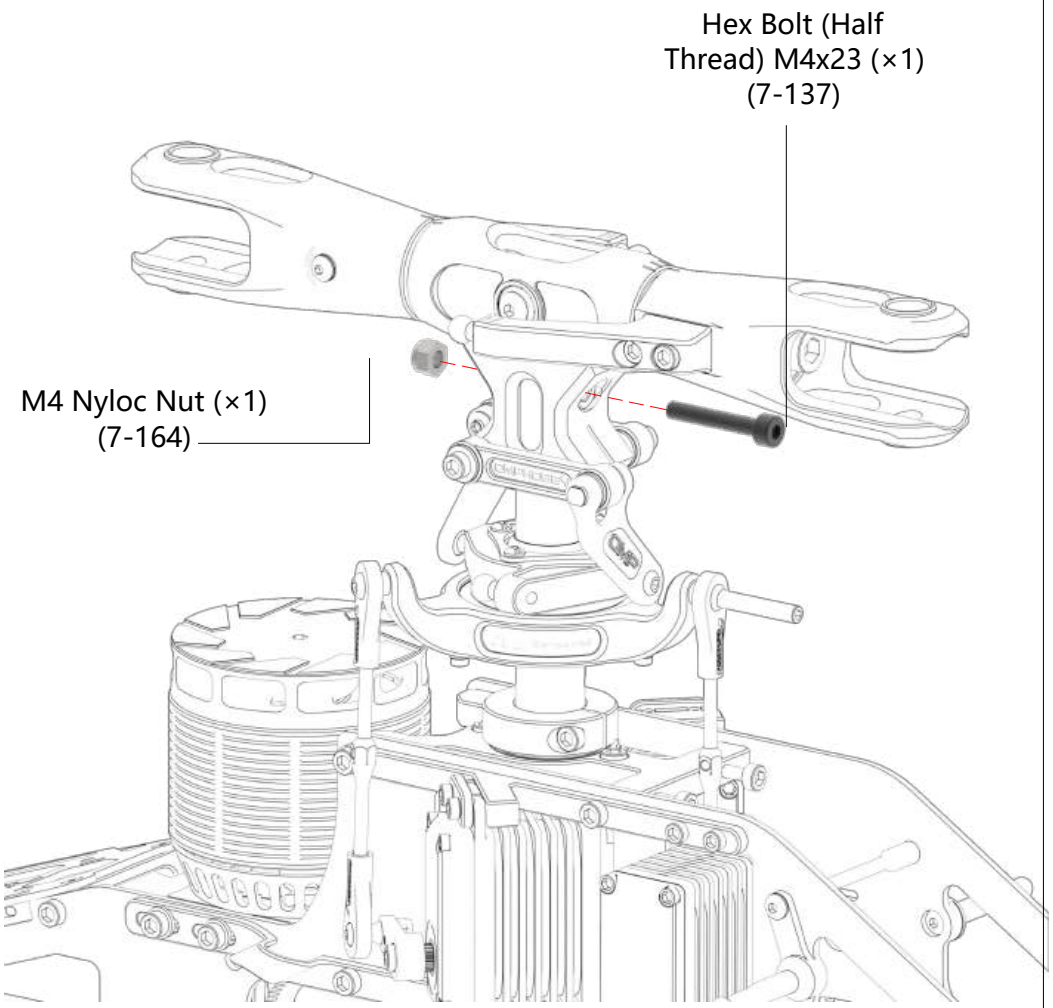
02 Main Rotor Head Installation



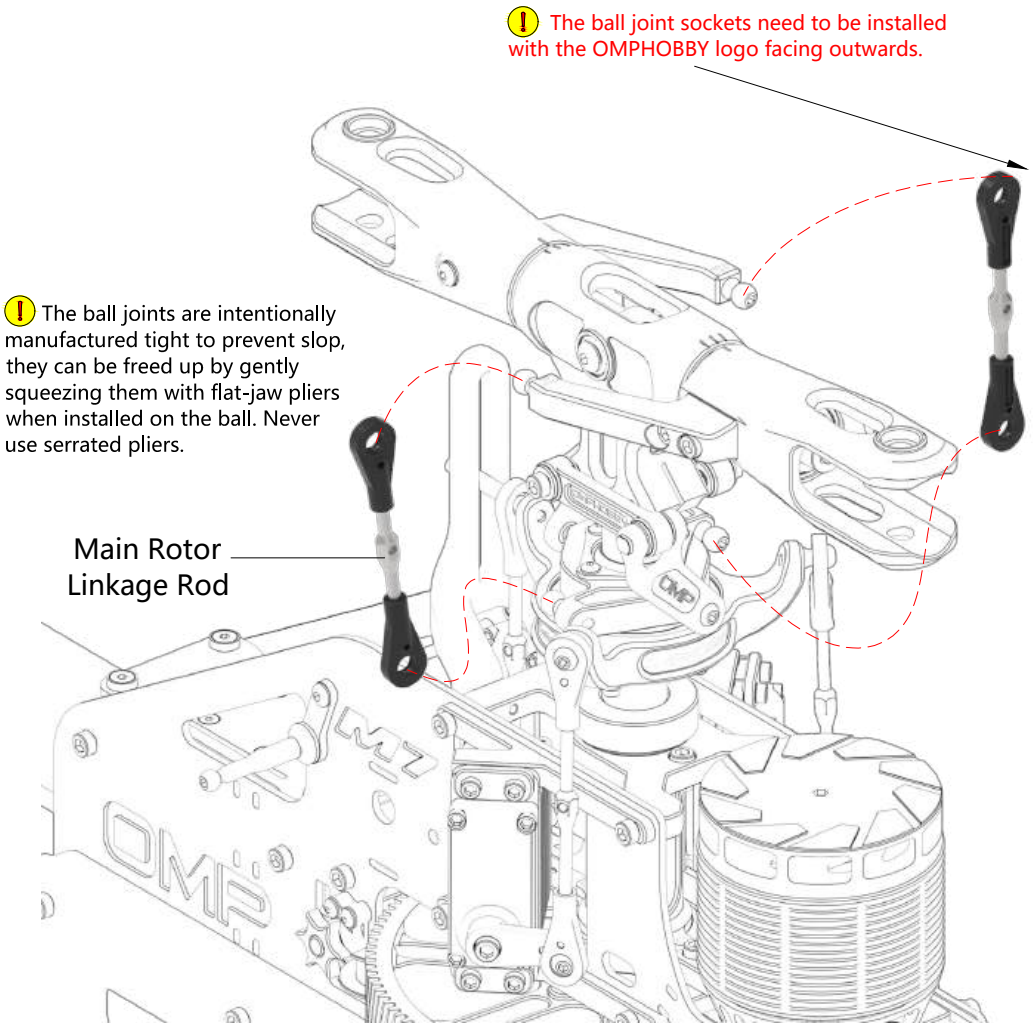
The swashplate driver arm screws are tightened in this step to clamp the main rotor yoke onto the main shaft. Tighten the screws evenly and in small steps to ensure proper alignment!

BAG 27

01 Main Rotor Installation

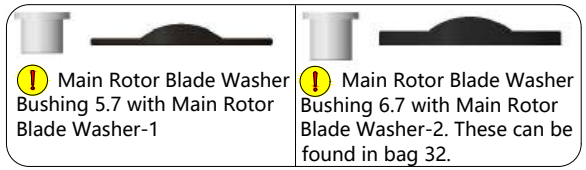


02 Main Rotor Linkage Installation



01 Main Rotor Blade Installation

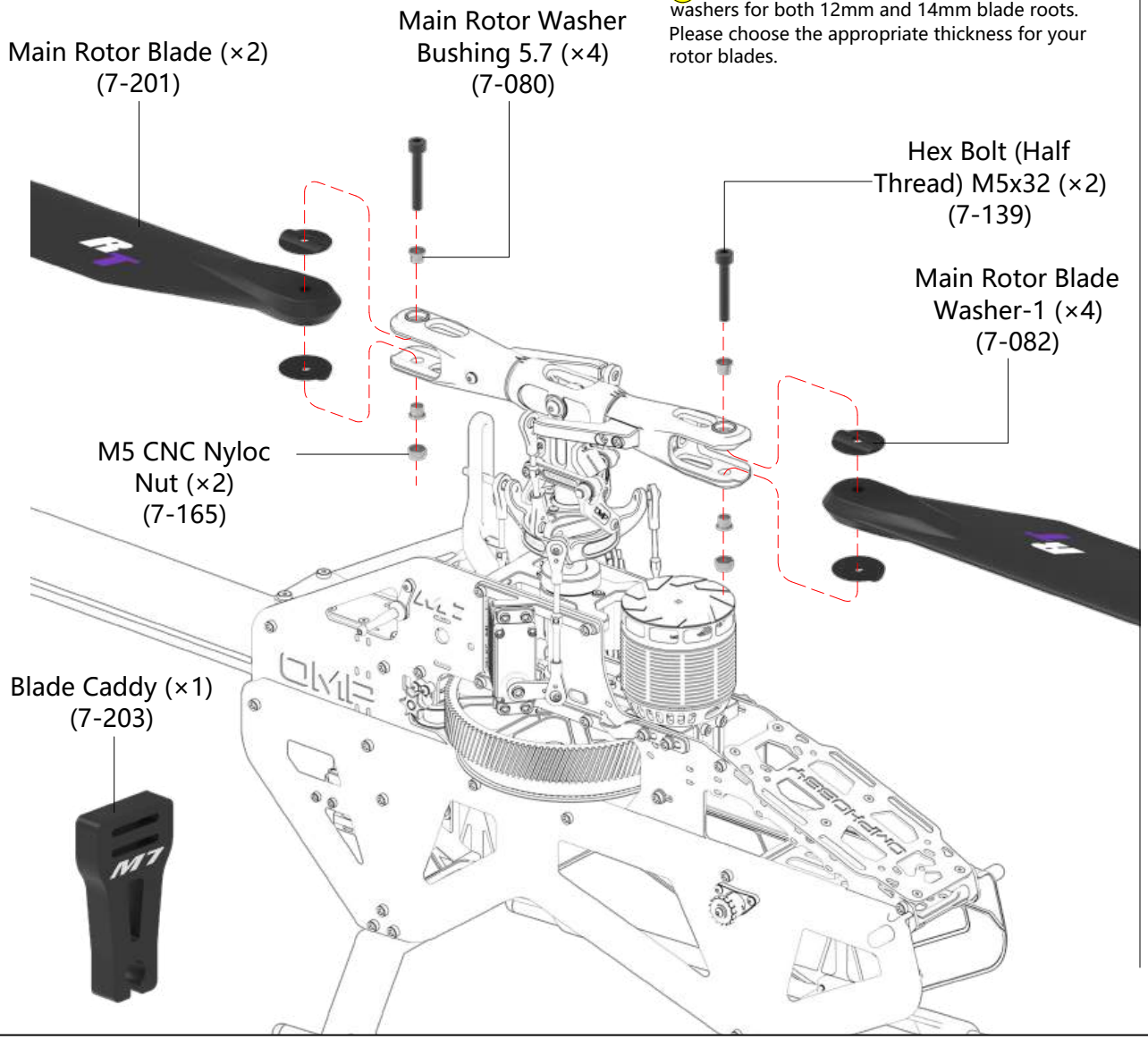
⚠ Max Blade Length: 715+116



⚠ Main Rotor Blade Washer Bushing 5.7 with Main Rotor Blade Washer-1

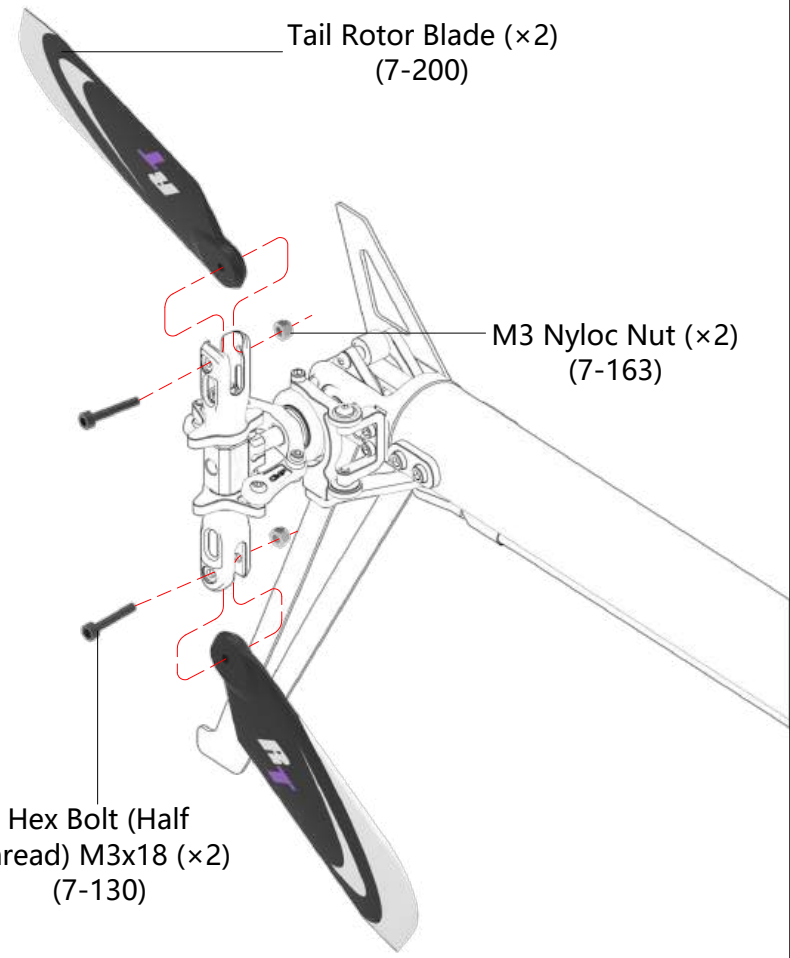
⚠ Main Rotor Blade Washer Bushing 6.7 with Main Rotor Blade Washer-2. These can be found in bag 32.

⚠ Your M7 comes with self retained rotor blade washers for both 12mm and 14mm blade roots. Please choose the appropriate thickness for your rotor blades.



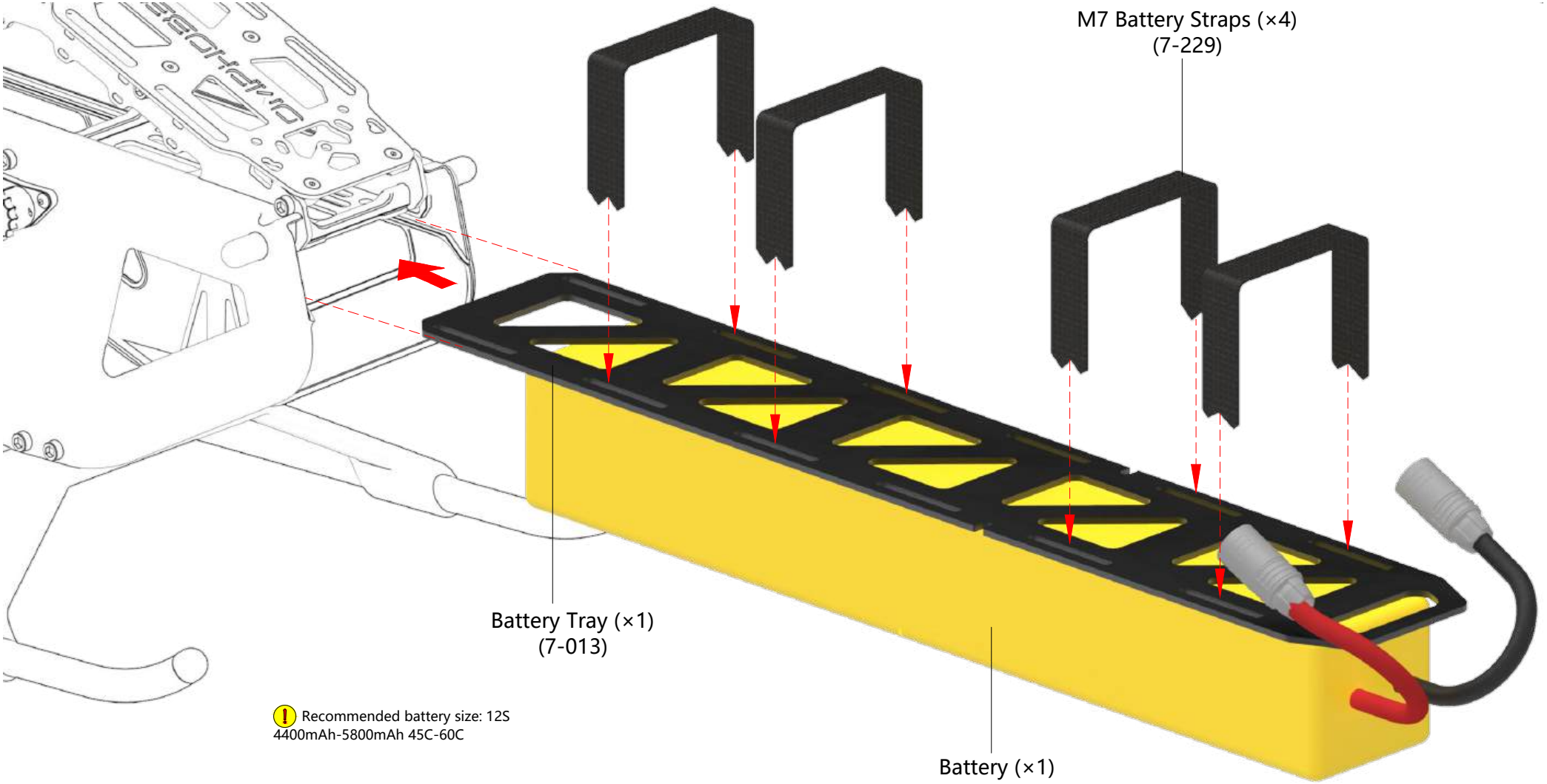
02 Tail Rotor Blade Installation

BAG 28

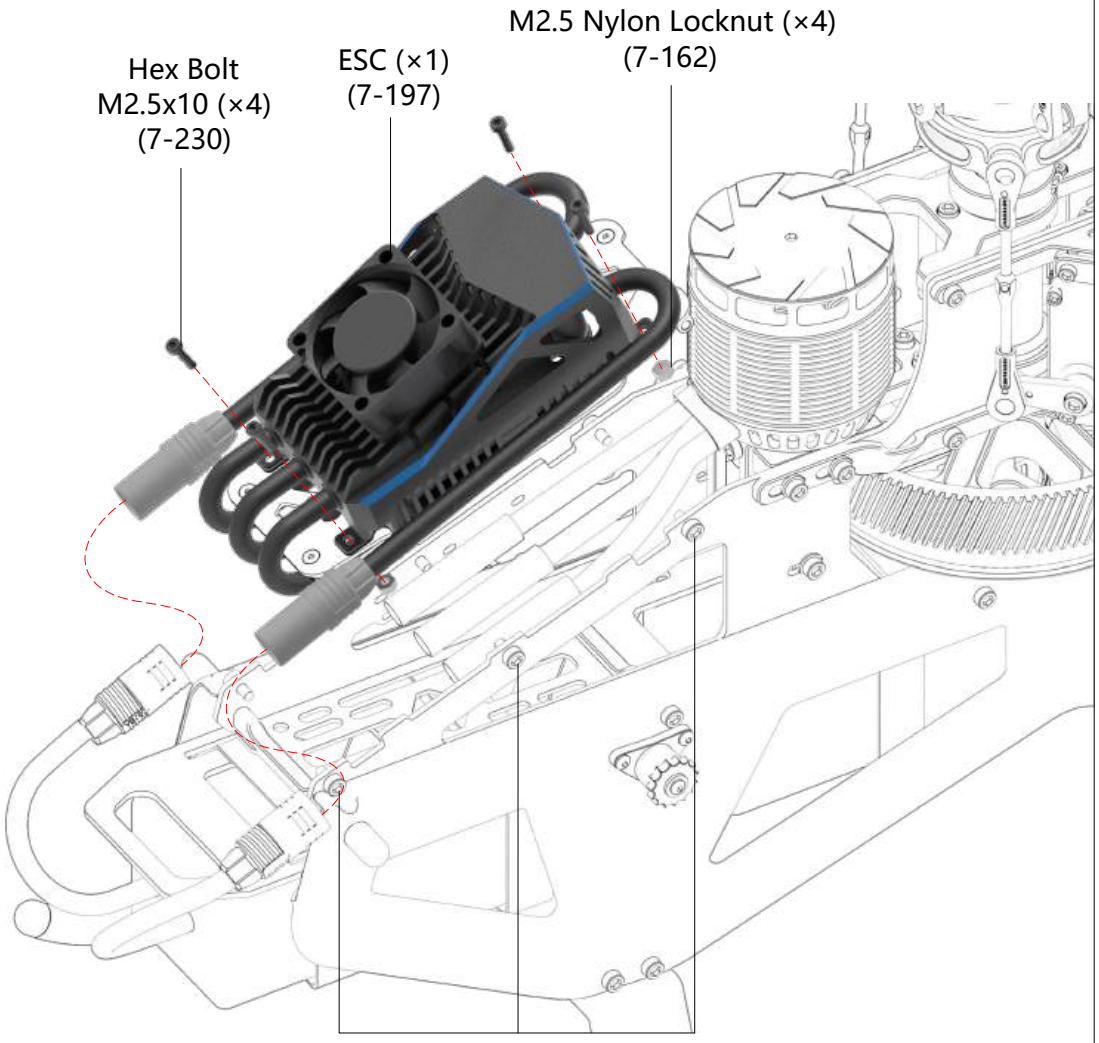


BAG 29

01 Battery Installation



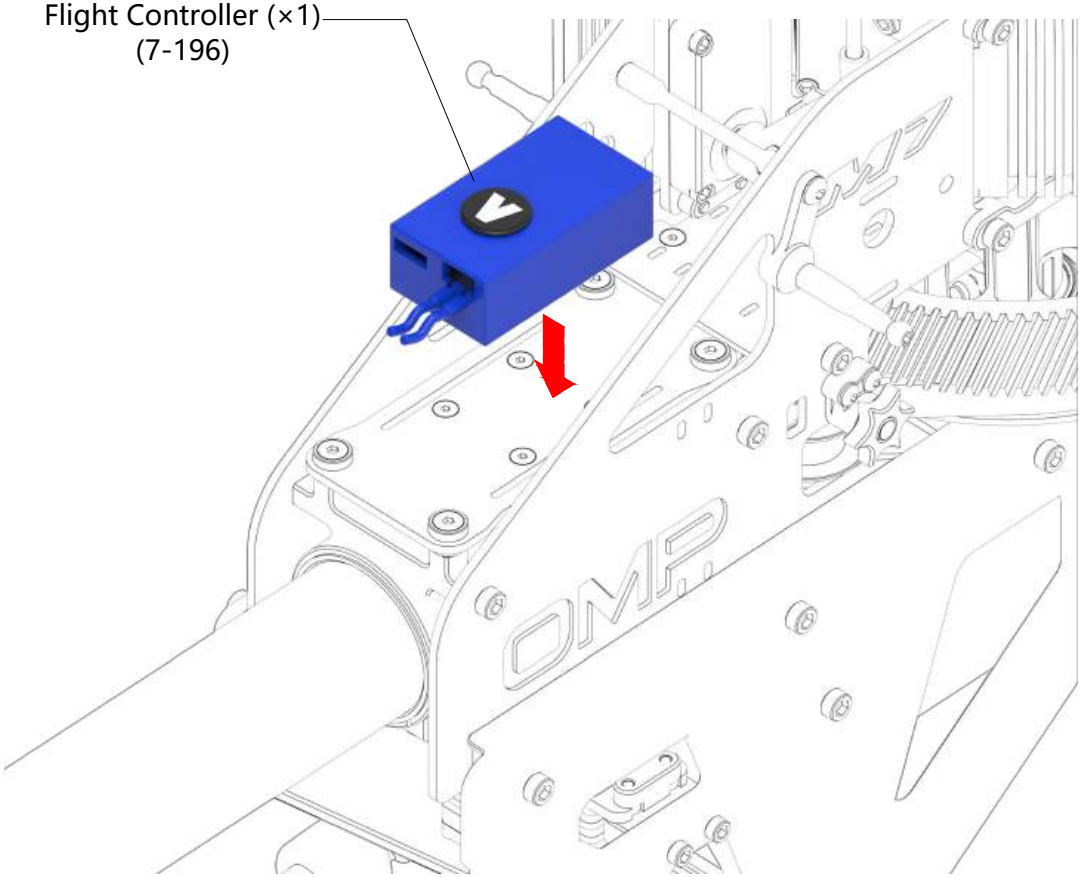
01 ESC Installation



These six screws can be removed when installing the ESC for easier installation.

02 Flight Controller Installation

BAG 30



BAG 31

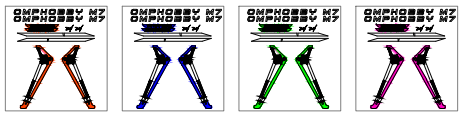
01 Canopy Installation

Canopy Latch (×2)
(7-043)

Canopy (×1)
(7-202O)

To remove the canopy, follow the steps in reverse order

Optional and complimentary accessories included with your M7

Name	Picture	Quantity/Explain
Color Tail Boom		Color depends on your M7's canopy color
Metal Servo Arm		1 set
Stickers		Color depends on your M7's canopy color
37MM Blade Grip Arm		2 pcs
Servo Alignment Plate-V Servo Alignment Nut-V		4 pcs
Main Rotor Washer Bushing 6.7 Main Rotor Blade Washer-2		4 pcs
Battery Mounting Plate		1 pcs
POM dampers		2 pcs

Collective Pitch and Rotor Speed Recommendations

Flying Style	Recommended RPM Range	Recommended Collective Pitch Range
Sport	1500-1700RPM	±13°
Aerobatics	1600-1800RPM	±14°
Soft 3D	1700-1900RPM	±14°
Regular 3D	1800-2000RPM	±14°
Hard 3D	2100-2300RPM	±13°
Hovering	1200-1500RPM	-5° +12°
Low RPM 3D	1200-1500RPM	±15°

- Minimum RPM with POM dampers installed:1100RPM
- Maximum Rotor Speed: 2400RPM (Including all in-flight transients)
- Maximum Collective Pitch below 1700RPM: ±15°
- Maximum Collective Pitch 1700RPM-2100RPM: ±14°
- Maximum Collective Pitch above 2100RPM: ±13°
- Recommended Rotor Blades: RotorTech 700mm Ultimate
- Cyclic angles for RF2: 14.4° with 32mm arms, 12.5° with 37mm arms.
- Tail Ratio: 110:22 Teeth, 1:5.0
- Tail blade angles: 44.5° CW, 31.2° CCW

Transmission Setup

Main Gear	Pinion	Gear Ratio
120t	11t	10.91
	12t	10.00
	13t*	9.23
	14t	8.57
	15t	8.00

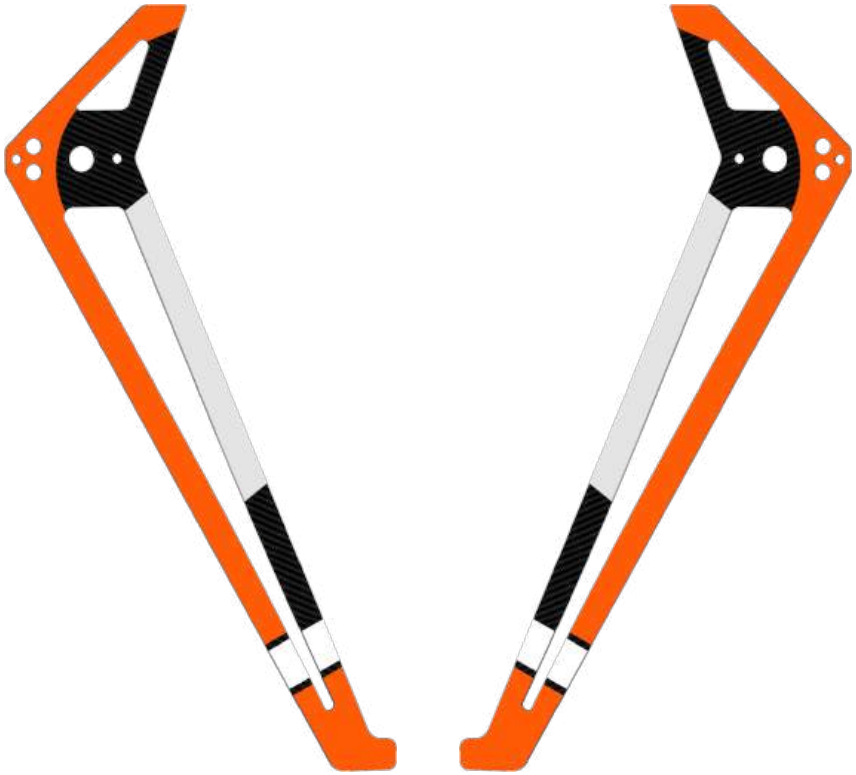
Your M7 comes with a 13t pinion, which is a perfect match for 3D flying with a Kv of around 520 RPM/V. Should you be looking to run a different motor Kv or headspeed, the M7 allows for use of a wide range of motor pinions, through which you can choose the gear ratio best suited for your particular power system.

Tail boom sticker

Sticker placement on the Right side panel

Sticker placement on the Left side panel

Fin sticker



Model: OSHM7001

Canopy (×1) (7-202O)
Canopy Latch (×2) (7-043)

Model: OSHM7002

Canopy (×1) (7-202G)
Canopy Latch (×2) (7-043)

Model: OSHM7003

Canopy (×1) (7-202Y)
Canopy Latch (×2) (7-043)

Model: OSHM7004

Canopy (×1) (7-202P)
Canopy Latch (×2) (7-043)

Model: OSHM7005

Motor Mounting Plate (×1) (7-027)
Hex Screw M4x12 (×4) (7-135)
Bearing Φ8xΦ16x5 (×1) (7-174)

Model: OSHM7006

Motor Bearing Bracket (×1) (7-025)
Hex Screw M3x8 (×4) (7-127)
Washer Φ3xΦ7x1 (×2) (7-182)
Bearing Φ8xΦ16x5 (×1) (7-174)

Model: OSHM7007

L-Upper Side Frame (×1) (7-004)

Model: OSHM7008

R-Upper Side Frame (×1) (7-003)

Model: OSHM7009

L-Lower Side Frame (With Battery Rail) (×1) (7-002)

Model: OSHM7010

R-Lower Side Frame (With Battery Rail) (×1) (7-001)

Model: OSHM7011

Main Rotor Yoke (×1) (7-069)
Hex Bolt (Half Thread) M4x23 (×1) (7-137)
M4 Nyloc Nut (×1) (7-164)

Model: OSHM7012

O-Ring 90° Shore ∅20x5 (×6) (7-117)
O-Ring Insert (×2) (7-079)
Blade Grip Spacer (×2) (7-078)

Model: OSHM7013

Main Rotor Damper (×2) (7-219)
O-Ring 80° Shore ∅20x2.5 (×2) (7-220)
O-Ring 90° Shore ∅20x5 (×2) (7-117)

Model: OSHM7014

Main Rotor Blade Grip (×1) (7-070)
Hex Bolt (Half Thread) M5x32 (×1) (7-139)
M5 CNC Nyloc Nut (×1) (7-165)
Hex Screw M6x12 (×1) (7-140)
Washer Φ6xΦ14x2 (×1) (7-185)
Button Head Screw M3x4 (×1) (7-149)
Gasket (×1) Φ3xΦ6x0.5 (7-190)

Model: OSHM7015

Main Rotor Shaft (×1) (7-072)

Model: OSHM7016

Spindle Shaft Pivot (×1) (7-075)
Button Head Screw M4x8 (×2) (7-154)
Washer ∅4x6x0.65 (×2) (7-183)
Bearing Φ4xΦ12x4 (×2) (7-172)

Model: OSHM7017

Spindle Shaft (×1) (7-071)
Hex Screw M6x12 (×2) (7-140)
Washer Φ6xΦ14x2 (×2) (7-185)

Model: OSHM7018

Main Blade Grip Arm-32 (×2) (7-062)
Hex Screw M3x10 (×4) (7-128)
Ball Joint Screw M3xΦ6x4.2 (×2) (7-144)

Model: OSHM7019

Main Blade Grip Arm-37 (×2) (7-063)
Hex Screw M3x10 (×4) (7-128)
Ball Joint Screw M3xΦ6x4.2 (×2) (7-144)

Model: OSHM7020

Swashplate Driver Arm (×2) (7-064)
Spacer Φ3XΦ4.5X1.6 (×4) (7-189)
Hex Screw (Half Thread) M3x27.6 (×2) (7-133)
Bearing Spacer (×2) (7-077)
Flanged Bearing Φ3xΦ7x3 (×8) (7-166)

Model: OSHM7183

Swashplate Driver Joint (×2) (7-084)
Driver Pin (×2) (7-159)
Hex Screw M2x4 (×2) (7-119)
Pin Washer (×2) (7-246)
Driver Joint Bushing (×4) (7-087)

Model: OSHM7022

Servo Linkage Rod (×3) (7-074)
Ball Joint Socket (×3) (7-085Z)
Ball Joint Socket (×3) (7-085F)

Model: OSHM7023

Rotor Head Linkage Rod (×2) (7-073)
Ball Joint Socket (×2) (7-085Z)
Ball Joint Socket (×2) (7-085F)

Model: OSHM7024

Ball Joint Socket (×4) (7-085Z)
Ball Joint Socket (×4) (7-085F)

Model: OSHM7025

Swashplate Outer Ring (×1) (7-065)
Swashplate Inner Ring (×1) (7-066)
Swashplate Hub (×1) (7-067)
Spherical Bearing Retention Plate (×1) (7-061)
Spherical Bearing Races (×2) (7-086)
Spherical Bearing (×1) (7-076)
Button Head Screw M2.5x10 (×4) (7-148)
Ball Joint Screw M3xΦ6x4.2 (×6) (7-144)
Guidance Ball Joint Screw (×1) (7-160)
Hex Screw M2x5 (×3) (7-120)
Washer Φ2xΦ5x0.5 (×3) (7-181)
Dual-Row Bearing Φ30xΦ42x10 (×1) (7-178)

Model: OSHM7026

Swashplate Outer Ring (×1) (7-065)

Model: OSHM7027

Swashplate Inner Ring (×1) (7-066)

Model: OSHM7028

Swashplate Hub (×1) (7-067)

Model: OSHM7029

Spherical Bearing (×1) (7-076)
Spherical Bearing Races (×2) (7-086)

Model: OSHM7031

Swashplate Guide (×1) (7-039J)
Hex Screw M3x12 (×2) (7-129)

Model: OSHM7032

Main Rotor Shaft Clamp (×1) (7-031)
Hex Screw M3x14 (×1) (7-224)

Model: OSHM7033

Upper Coaxiality Block (×1) (7-029)
Hex Screw M3x10 (×4) (7-128)

Model: OSHM7034

Lower Coaxiality Block (×1) (7-026)
Hex Screw M3x10 (×4) (7-128)

Model: OSHM7035

Main Shaft Cover (×1) (7-028)
Hex Screw M3x6 (×4) (7-126)

Model: OSHM7036

Lower Bearing Block (×1) (7-020)
Bearing Φ15xΦ24x5 (×1) (7-177)
Hex Screw (Half Thread) M3x22 (×4)
(7-223)

Model: OSHM7037

Tail Boom Clamp Front (×1) (keyed) (7-035)
Hex Screw M3x8 (×2) (7-127)
Hex Screw (Half Thread) M3x20 (×1) (7-131)
Hex Screw (Half Thread) M3x32 (×1) (7-134)

Model: OSHM7038

Tail Boom Clamp Rear (×1) (round hole) (7-036)
Hex Screw M3x8 (×2) (7-127)
Hex Screw (Half Thread) M3x20 (×1) (7-131)
Hex Screw (Half Thread) M3x32 (×1) (7-134)
POM Boom Clamp Insert (×1) (7-095)

Model: OSHM7039

OMP Plastic Servo Arm (×6) (7-049J)

Model: OSHM7192

Hex Screw M2.5x5 (×4) (7-259)
Hex Screw M3x6 (×4) (7-126)
Ball Joint Screw M3xΦ6x4.2 (×4) (7-144)
Metal Servo Arm Lock-Left (×1) (7-255)
Metal Servo Arm Lock-Right (×3) (7-256)

Model: OSHM7041

Tail Rotor Servo Mounting Block (×2)
(7-030)
Hex Screw M2.5x6 (×4) (7-122)

Model: OSHM7042

Servo Alignment Plate-V (×2) (7-208)
Hex Screw M2.5x12 (×4) (7-124)

Model: OSHM7043

Servo Alignment Nut-V (×2) (7-209)
Hex Screw M2.5x12 (×4) (7-124)

Model: OSHM7044

Servo Alignment Plate (×2) (7-038)
Hex Screw M2.5x12 (×4) (7-124)

Model: OSHM7045

Servo Alignment Nut (×2) (7-037)
Hex Screw M2.5x12 (×4) (7-124)

Model: OSHM7046

Servo Mount Upper R (×1) (7-050)

Model: OSHM7047

Servo Mount Lower L (×1) (7-054)
Hex Screw M2.5x12 (×2) (7-124)

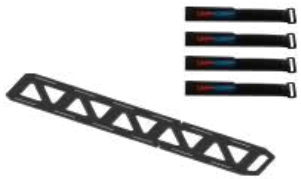
Model: OSHM7048

Servo Mount Lower R (×1) (7-053)

Model: OSHM7049

Quick Release Knob (×1) (7-041)
Quick Release Base(×1) (7-042)
Quick Release Spring (×1) (7-060)
Quick Release Pin (×1) (7-058)
Button Head Screw M2.5x6 (×1) (7-146)
Washer Φ2.5xΦ7x1 (×1) (7-194)
Button Head Screw M2.5x10 (×2) (7-148)

Model: OSHM7050



Battery Tray (×1) (7-013)
M7 Battery Straps (×4) (7-229)

Model: OSHM7051

M7 Battery Straps (×4) (7-229)

Model: OSHM7052

ESC Mount (×1) (7-005)
Hex Screw M3x6 (×6) (7-126)
Countersunk Screw M2.5x5 (×6) (7-155)

Model: OSHM7053

Mounting Crossmember 45mm (×2)
(7-019)

Accessories package

Model: OSHM7054

Flight Controller Mount (×1) (7-006)
Damper Rubber (×4) (7-044)
Damper Rubber Bushing (×4) (7-231)
Countersunk Screw M3x12 (×4) (7-156)

Model: OSHM7055

Inertial Mass Damper (×1) (7-059)
Countersunk Screw M2.5x5 (×4) (7-155)

Model: OSHM7056

Lower Aux Plate (×1) (7-007)
Hex Screw M3x6 (×4) (7-126)
Countersunk Screw M2.5x5 (×4) (7-155)

Model: OSHM7057

Mounting Cross Member 69mm (×2)
(7-018)

Model: OSHM7058

Upper Aux Plate (×1) (7-008)
Countersunk Screw M2.5x5 (×4) (7-155)
Hex Screw (Half Thread) M3x26 (×2) (7-132)
Canopy Support Rubber Sleeve (×2) (7-045)
Hex Screw (Half Thread) M3x18 (×2) (7-130)
Canopy Support Spacer (×2) (7-033)

Model: OSHM7059

Separator Plate (×1) (7-009)
Countersunk Screw M2.5x5 (×2) (7-155)
Hex Screw M3x6 (×2) (7-126)

Model: OSHM7060

Main Gear 120t (×1) (7-024)
Hex Screw M4x12 (×4) (7-135)

Model: OSHM7061

Sprag Clutch Housing (×1) (7-056)
15mm Sprag Clutch (×1) (7-057)
Main Gear Hub (×1) (7-051)
Bearing Φ15xΦ21x4 (×2) (7-176)

Model: OSHM7062

Main Pulley 110t (×1) (7-052)
Main Pulley Flange (×2) (7-011)
Countersunk Screw M2.5x5 (×12) (7-155)
Hex Bolt (Half Thread) M4x23 (×1) (7-137)
M4 Nyloc Nut (×1) (7-164)

Model: OSHM7063

Tail Drive Belt (×1) (7-115)

Model: OSHM7064

Idler Pulley (×2) (7-023)
Idler Cone (×1) (7-022)
Hex Screw (Half Thread) M4x24 (×1) (7-138)
Hex Screw (Half Thread) M4x18 (×1) (7-136)
Spacer (×2) Φ4xΦ6x2.5 (7-188)
Bearing (×4) Φ4xΦ12x4 (7-172)

Model: OSHM7065

Tensioner Mounting Base (×1) (7-021)
Tensioner Pivot Reinforcement (×1) (7-015)
Tensioner Lever (×1) (7-016)
Countersunk Screw (×1) M3x16.2 (7-157)
Hex Screw M2x8 (×2) (7-121)
Spacer Φ3xΦ5x2.1 (×1) (7-192)
Bearing Φ3xΦ8x3 (×2) (7-170)

Model: OSHM7066

Tensioner Knob (×1) (7-047)
Tensioner Threaded Pin (×1) (7-046)
Tensioner Base (×1) (7-014)
Tensioner Screw Guidance Plate (×1) (7-012)
Button Head Screw M2.5x10 (×2) (7-148)

Model: OSHM7067

Canopy Mounting Posts (×2) (7-034)
Crossmember 45mm (×1) (7-017)
Canopy Ball Screw M2.5xΦ5x4 (×2) (7-143)
Button Head Screw M3x6 (×2) (7-150)
Button Head Screw M3x8 (×2) (7-151)
Canopy Mount Sacrificial Plate (×2) (7-010)

Model: OSHM7068

Landing Gear (×2) (7-048W)
Hex Screw M3x10 (×8) (7-128)
Set Screw M4x4 (×4) (7-141)

Model: OSHM7069

Landing Gear (×2) (7-048B)
Hex Screw M3x10 (×8) (7-128)
Set Screw M4x4 (×4) (7-141)

Model: OSHM7070

Landing Gear Tube (×2) (7-032W)
Landing Gear End Cap (×4) (7-040W)

Model: OSHM7071

Landing Gear Tube (×2) (7-032B)
Landing Gear End Cap (×4) (7-040B)

Model: OSHM7072

Carbon Tail Boom (×1) (7-088J)

Model: OSHM7073

Color Tail Boom (×1) (7-214O)

Model: OSHM7074

Color Tail Boom (×1) (214G)

Model: OSHM7075

Color Tail Boom (×1) (7-214Y)

Model: OSHM7076

Color Tail Boom (×1) (7-214P)

Model: OSHM7077

Tail Control Rod Guide (×2) (7-092)
Hex Bolt M2x8 (×2) (7-121)
M2 Nyloc Nut (×2) (7-161)

Model: OSHM7078	Model: OSHM7079	Model: OSHM7080	Model: OSHM7081	Model: OSHM7082
 Tail Control Rod Carbon Tube (×1) (7-089) Ball Joint Socket (×2) (7-085Z) Tail Control Rod Ends (×2) (7-112) Hex Screw M2x4 (×2) (7-119)	 Tail Pitch Slider Bridge (×1) (7-101) Tail Rotor Ball Joint Socket (×2) (7-093) Bushing Φ2xΦ4x3.5 (×2) (7-193) Hex Screw M2x8 (×2) (7-121) Tail Pitch Slider Control Ring (×1) (7-094) Tail Pitch Slider Sleeve (×1) (7-113) Spacer Φ8xΦ10x1.45 (×1) (7-186) Flanged Bearing Φ8xΦ12x3.5 (×2) (7-169)	 Tail Bellcrank Base (×1) (7-097) Button Head Screw (Half Thread) M3x8 (×2) (7-152) Hex Screw M2.5x8 (×2) (7-123)	 Tail Bellcrank (×1) (7-098) Flanged Bearing Φ3xΦ8x3 (×2) (7-167)	 Tail Bellcrank Arm (×1) (7-090) Button Head Screw M2.5x8 (×2) (7-147)

Model: OSHM7083	Model: OSHM7084	Model: OSHM7085	Model: OSHM7086	Model: OSHM7087	Model: OSHM7088
 Tail Boom Protector (×2) (7-102) Hex Screw M3x8 (×4) (7-127)	 Tail Rotor Yoke (×1) (7-096) Hex Bolt (Half Thread) M2.5x14 (×1) (7-125) M2.5 Nyloc Nut (×1) (7-162)	 Tail Rotor Blade Grip (×1) (7-106) Hex Screw M3x8 (×1) (7-127) Washer Φ3xΦ7x1 (×1) (7-182) Spacer Φ5xΦ7x0.5 (×1) (7-184)	 Tail Rotor Shaft (×1) (7-110)	 Tail Rotor Spindle Shaft (×1) (7-109) Hex Screw M3x8 (×2) (7-127) Washer Φ3xΦ7x1 (×2) (7-182)	 Blade Grip Spacer (×2) (7-114) O-Ring 80° Shore Φ9x2 (×6) (7-116)

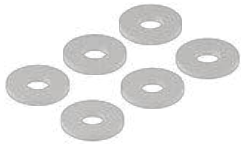
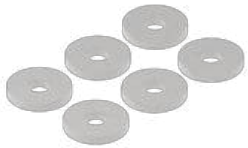
Model: OSHM7089	Model: OSHM7090	Model: OSHM7091	Model: OSHM7092
 Tail Housing (×1) (7-107) Flanged Bearing Φ6xΦ15x5 (×2) (7-168)	 Vertical Tail Fin (×1) (7-091) Button Head Screw M3x6 (×2) (7-150)	 Tail Pulley (×1) (7-108) Tail Pulley Flange R (×1) (7-099) Tail Pulley Flange L (×1) (7-100) Tail Pulley Screw (Custom) M2.5x14 (×1) (7-158)	 Pressure Idler Arm L (×1) (7-103) Pressure Idler Arm R (×1) (7-104) Pressure Idler (×1) (7-210) Button Head Screw (Half Thread) M3x22 (×1) (7-153) Spacer Φ3xΦ4x2 (×1) (7-222) Bearing Φ3xΦ8x3 (×2) (7-170) Button Head Screw M2.5x8 (×4) (7-147)

Model: OSHM7093	Model: OSHM7094	Model: OSHM7095	Model: OSHM7096	Model: OSHM7097	Model: OSHM7098
 Button Head Screw M2.5x6 (×8) (7-146)	 Button Head Screw M2.5x8 (×8) (7-147)	 Button Head Screw M2.5x10 (×8) (7-148)	 Button Head Screw M3x4 (×8) (7-149)	 Button Head Screw M3x6 (×8) (7-150)	 Button Head Screw M3x8 (×8) (7-151)

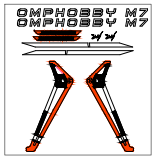
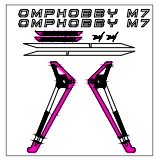
Model: OSHM7099	Model: OSHM7100	Model: OSHM7101	Model: OSHM7182	Model: OSHM7103	Model: OSHM7104
 Button Head Screw (Half Thread) M3x8 (×8) (7-152)	 Button Head Screw (Half Thread) M3x22 (×8) (7-153)	 Button Head Screw M4x8 (×8) (7-154)	 Hex Screw M2x4 (×8) (7-119)	 Hex Screw M2x5 (×8) (7-120)	 Hex Screw M2x8 (×8) (7-121)

Accessories package

Model: OSHM7105	Model: OSHM7106	Model: OSHM7107	Model: OSHM7108	Model: OSHM7109	Model: OSHM7110
 Hex Screw M2.5x6 (×8) (7-122)	 Hex Screw M2.5x8 (×8) (7-123)	 Hex Screw M2.5x12 (×8) (7-124)	 Hex Bolt (Half Thread) M2.5x14 (×8) (7-125)	 Hex Screw M3x6 (×8) (7-126)	 Hex Screw M3x8 (×8) (7-127)
Model: OSHM7111	Model: OSHM7112	Model: OSHM7113	Model: OSHM7114	Model: OSHM7115	Model: OSHM7116
 Hex Screw M3x10 (×8) (7-128)	 Hex Screw M3x12 (×8) (7-129)	 Hex Bolt (Half Thread) M3x18 (×8) (7-130)	 Hex Screw (Half Thread) M3x20 (×8) (7-131)	 Hex Screw (Half Thread) M3x22 (×8) (7-223)	 Hex Screw (Half Thread) M3x26 (×8) (7-132)
Model: OSHM7117	Model: OSHM7118	Model: OSHM7119	Model: OSHM7120	Model: OSHM7121	Model: OSHM7122
 Hex Screw (Half Thread) M3x27.6 (×8) (7-133)	 Hex Screw (Half Thread) M3x32 (×8) (7-134)	 Hex Screw M4x12 (×8) (7-135)	 Hex Screw (Half Thread) M4x18 (×8) (7-136)	 Hex Bolt (Half Thread) M4x23 (×2) (7-137) M4 Nyloc Nut (×2) (7-164)	 Hex Screw (Half Thread) M4x24 (×8) (7-138)
Model: OSHM7123		Model: OSHM7124		Model: OSHM7125	Model: OSHM7187
 Hex Bolt (Half Thread) M5x32 (×2) (7-139) M5 CNC Nyloc Nut (×2) (7-165) Main Rotor Washer Bushing 5.7 (×4) (7-080) Main Rotor Blade Washer-1 (×4) (7-082)		 Hex Bolt (Half Thread) M5x32 (×2) (7-139) M5 CNC Nyloc Nut (×2) (7-165) Main Rotor Washer Bushing 6.7 (×4) (7-081) Main Rotor Blade Washer-2 (×4) (7-083)		 Tail Pulley Screw (Custom) M2.5x14 (×4) (7-158)	 Driver Pin (×4) (7-159)
Model: OSHM7184	Model: OSHM7127	Model: OSHM7129	Model: OSHM7130	Model: OSHM7131	Model: OSHM7132
 Set Screw M4x3 (×8) (7-247)	 Set Screw M4x4 (×8) (7-141)	 Guidance Ball Joint Screw (×2) (7-160)	 Canopy Ball Screw M2.5xΦ5x4 (×4) (7-143)	 Ball Joint Screw M3xΦ6x4.2 (×4) (7-144)	 Ball Joint Screw M3xΦ6x6.7 (×4) (7-145)

Model: OSHM7133	Model: OSHM7134	Model: OSHM7135	Model: OSHM7136	Model: OSHM7137	Model: OSHM7138
					
M2 Nyloc Nut (×8) (7-161)	M2.5 Nyloc Nut (×8) (7-162)	M3 Nyloc Nut (×8) (7-163)	M4 Nyloc Nut (×8) (7-164)	M5 CNC Nyloc Nut (×4) (7-165)	Bushing Φ2xΦ4x3.5 (×6) (7-193)
Model: OSHM7139	Model: OSHM7140	Model: OSHM7141	Model: OSHM7142	Model: OSHM7143	Model: OSHM7144
					
Washer Φ2xΦ5x0.5 (×6) (7-181)	Washer Φ2.5xΦ7x1 (×6) (7-194)	SpacerΦ3XΦ4.5X1.6 (×6) (7-189)	Spacer Φ3xΦ5x2.1 (×6) (7-192)	Gasket Φ3xΦ6x0.5 (×6) (7-190)	Washer Φ3xΦ7x1 (×6) (7-182)
Model: OSHM7145	Model: OSHM7146	Model: OSHM7147	Model: OSHM7148	Model: OSHM7149	Model: OSHM7150
					
Washer ∅4x6x0.65 (×6) (7-183)	Spacer Φ4xΦ6x2.5 (×6) (7-188)	Spacer Φ5xΦ7x0.5 (×6) (7-184)	Washer Φ6xΦ14x2 (×6) (7-185)	Spacer Φ8xΦ10x1.45 (×6) (7-186)	Thrust Bearing Washer Φ10xΦ14x1 (×6) (7-187)
Model: OSHM7151	Model: OSHM7152	Model: OSHM7153	Model: OSHM7154	Model: OSHM7155	Model: OSHM7156
					
Spacer Φ15.1xΦ17x1.6 (×6) (7-191)	Flanged Bearing Φ3xΦ7x3 (×2) (7-166)	Flanged Bearing Φ3xΦ8x3 (×2) (7-167)	Flanged Bearing Φ6xΦ15x5 (×2) (7-168)	Flanged Bearing Φ8xΦ12x3.5 (×2) (7-169)	Axial Bearing Φ5xΦ10x4 (×2) (7-179)
Model: OSHM7157	Model: OSHM7158	Model: OSHM7159	Model: OSHM7160	Model: OSHM7161	Model: OSHM7162
					
Axial Bearing Φ10xΦ18x5.5 (×2) (7-180)	Bearing Φ3xΦ8x3 (×2) (7-170)	Bearing Φ4xΦ12x4 (×2) (7-172)	Bearing Φ5xΦ10x4 (×2) (7-173)	Bearing Φ8xΦ16x5 (×2) (7-174)	Bearing Φ10xΦ19x7 (×2) (7-175)

Accessories package

Model: OSHM7163	Model: OSHM7164	Model: OSHM7165	Model: OSHM7166	Model: OSHM7167	Model: OSHM7168
					
Bearing Φ15xΦ21x4 (×1) (7-176)	Bearing Φ15xΦ24x5 (×1) (7-177)	Bearing Φ15xΦ24x7 (×1) (7-204)	Bearing Φ30xΦ42x10 (×1) (7-178)	Blade Caddy (×1) (7-203)	Main Rotor Blade (×2) (7-201)
Model: OSHM7169	**Model: OSHM7030**	**Model: OSHM7170**	**Model: OSHM7171**	**Model: OSHM7172**	**Model: OSHM7173**
					
Tail Rotor Blade (×2) (7-200)	300A ESC (×1) (7-197)	R4530 Motor (×1) (7-195)	Pinion Gear 13t (×1) (7-055) Set Screw M4x3 (×1) (7-247) Set Screw M4x4 (×1) (7-141)	Pinion Gear 11t (×1) (7-235) Set Screw M4x3 (×1) (7-247) Set Screw M4x4 (×1) (7-141)	Pinion Gear 12t (×1) (7-236) Set Screw M4x3 (×1) (7-247) Set Screw M4x4 (×1) (7-141)
Model: OSHM7174	**Model: OSHM7175**	**Model: OSHM7176**	**Model: OSHM7177**	**Model: OSHM7178**	**Model: OSHM7179**
					
Pinion Gear 14t (×1) (7-237) Set Screw M4x3 (×1) (7-247) Set Screw M4x4 (×1) (7-141)	Pinion Gear 15t (×1) (7-238) Set Screw M4x3 (×1) (7-247) Set Screw M4x4 (×1) (7-141)	Swashplate Levelling Tool (×1) (7-215)	Orange Sticker (×1) (7-239)	Blue Sticker (×1) (7-240)	Green Sticker (×1) (7-241)
Model: OSHM7180	**Model: OSHM7181**	**Model: OSHM7185**	**Model: OSHM7186**	**Model: OSHM7188**	**Model: OSHM7189**
					
Pink Sticker (×1) (7-242)	Canopy Mount Sacrificial Plate (×2) (7-242)	Backup Capacitor 25F 8.4V (×1) (7-251)	Backup Capacitor 25F 12V (×1) (7-252)	Landing Gear Rubber Ring（Black）(×4) (7-118)	Landing Gear Rubber Ring（White）(×4) (7-243)
Model: OSHM7190	**Model: OSHM7191**	**Model: OSHM7193**	**Model: OSHM7194**		
					
Landing Gear Rubber Ring（Blue）(×4) (7-250)	Servo Mount Upper L (×1) (7-232) Hex Screw M2.5x12 (×2) (7-124)	Hex Screw M2.5x6 (×1) (7-122) Hex Screw M3x6 (×1) (7-126) Ball Joint Screw M3xΦ6x4.2 (×1) (7-144) MKS Metal Servo Arm Lock-Left (×1) (7-257)	Hex Screw M2.5x6 (×1) (7-122) Hex Screw M3x6 (×1) (7-126) Ball Joint Screw M3xΦ6x4.2 (×1) (7-144) MKS Metal Servo Arm Lock-Right (×1) (7-258)		

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Carefully check your model before each flight to ensure it is airworthy.

Consider flying only in areas dedicated to the use of model helicopters.

Check and inspect the flying area to ensure it is clear of people and obstacles.

Rotor blades can rotate at very high speeds! Be aware of the danger they pose.

Always keep the model at a safe distance from other pilots and spectators.

Avoid maneuvers with trajectories towards a crowd.

Always maintain a safe distance from the model.