MANUAL

F3C GENESIS 46

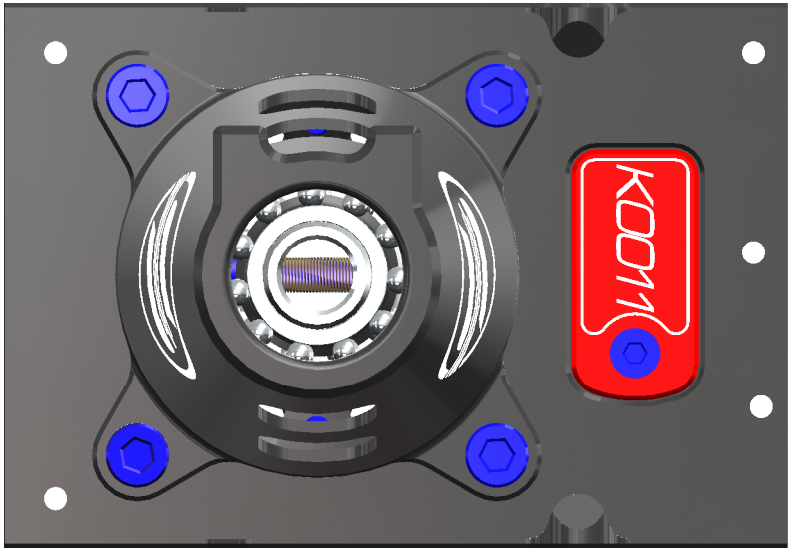
F3C GENESIS

THE ITALIAN HELI

SAB HELI DIVISION

Please read this user manual carefully, it contains instructions for the correct assembly of the model.
Please refer to the website *www.goblin-helicopter.com* for updates and other important information.

VERY IMPORTANT



You will find your serial number on the RED plate of the transmission module and on the product card included with your kit.
Please take a moment to register your kit online via our website at:

http://www.goblin-helicopter.com

It is extremely important that you take a moment to register your helicopter with us. This is the only way to ensure that you are properly informed about changes to your kit, such as upgrades, retrofits and other important developments. SAB Heli Division cannot be held responsible for any issues with your model and will not provide support unless you register your model.

The Serial number is also engraved in the Aluminum part.

Thank you for your purchase, we hope you enjoy your new Goblin helicopter!

SAB Heli Division

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GENESIS F3C TECHNICAL SPECIFICATIONS

- **AIRFRAME weight:** 3646 g excluding battery, (4525–4530 motor, 180A ESC, servos, FBL).
- **Main rotor diameter:** 1650 mm (with 737 mm blades).
- **Main blade length:** 690 to 750 mm.
- **Tail rotor diameter:** 292 mm (with 110 mm tail blades).
- **Tail blade length:** 105 to 115 mm.
- **Main shaft 12 mm, Tail shaft 6 mm.**
- **Molded carbon tail boom.**

KIT Includes:

- 21T motor pulley (other pulley sizes available).
- 1 battery tray with integrated connectors.

- **Cyclic Servos:** Standard size 40 mm.
- **Tail Servo:** Standard size 40 mm.

- **Main Rotor Ratio:** 6.1 to 8.4 : 1 (21T pulley included = 7.3 : 1).
- **Tail Rotor Ratio:** 4.1 to 5.0 : 1 (24T pulley included = 4.4 : 1).
- **Power system:** Supports 12S setups – Motor KV range: 340–420 KV.
- **Battery compartment dimensions:** 50 x 60 x 300 mm

- S737 (737mm main blades).
- S110 (110mm tail blades).

IMPORTANT NOTES

*This radio-controlled helicopter is not a toy.
*This radio-controlled helicopter can be very dangerous.
*This radio-controlled helicopter is a technically complex device which has to be built and handled very carefully.
*This radio-controlled helicopter must be built following these instructions. This manual provides the necessary information to correctly assemble the model.
*Inexperienced pilots must be monitored by expert pilots.
*All operators must wear safety glasses and take appropriate safety precautions.
*A radio-controlled helicopter must only be used in open spaces without obstacles, and far enough from people to minimize the possibility of accidents or of injury to property or persons.
*A radio-controlled helicopter can behave in an unexpected manner, causing loss of control of the model, making it very dangerous.
*Lack of care with assembly or maintenance can result in an unreliable and dangerous model.

***Neither SAB Heli Division nor its agents have any control over the assembly, maintenance and use of this product. Therefore, no responsibility can be traced back to the manufacturer. You hereby agree to release SAB Heli Division from any responsibility or liability arising from the use of this product.**

SAFETY GUIDELINES

*Fly only in areas designated for the use of model helicopters.
*Follow all control procedures for the radio frequency system.
*It is necessary that you know your radio system well. Check all functions of the transmitter before every flight.
*The blades of the model rotate at a very high speed; be aware of the danger they pose and the damage they may cause.
*Never fly in the vicinity of other people.

DAMAGE LIMITS

SAB HELI DIVISION SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. Further, in no event shall the liability of SAB Heli Division exceed the individual price of the product on which liability is asserted. As SAB Heli Division has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly the user accepts all resulting liability. If you as the Purchaser or user are not prepared to accept the liability associated with the use of this Product, you are advised to return this Product immediately in new and unused condition to the place of purchase.

LIMITED WARRANTY

SAB Heli Division reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

(a) This warranty is limited to the original Purchaser (“Purchaser”) and is not transferable. REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER This warranty covers only those Products purchased from an authorized SAB Heli Division dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for warranty claims.

(b) Limitations- SAB HELI DIVISION MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NONINFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER’S INTENDED USE.

(c) Purchaser Remedy - SAB Heli Division’s sole obligation hereunder shall be that SAB Heli Division will, at its option, replace any product determined by SAB Heli Division to be defective In the event of a defect, this is the Purchaser’s exclusive remedy. Replacement decisions are at the sole discretion of SAB Heli Division. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product. This warranty does not cover damage due to improper installation, operation, maintenance or attempted repair by anyone.

ADDITIONAL COMPONENTS REQUIRED

*Electric Motor

*Speed controller

*Batteries: 12S – 4200/5500mAh

*1 flybarless 3 axis control unit

*Radio power system.

*3 cyclic servos
*1 tail rotor servo

*6 channel radio control system on 2.4 GHz

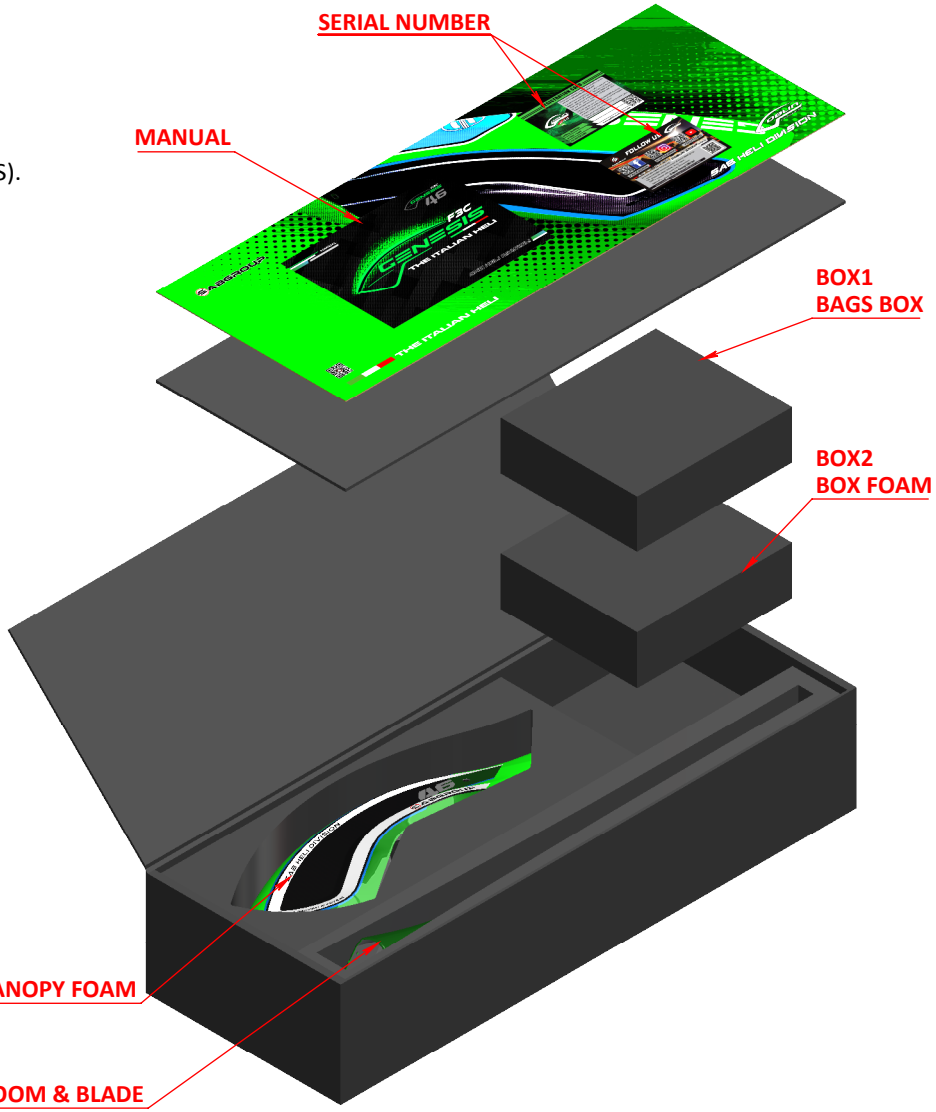
TOOLS, LUBRICANTS, ADHESIVES

*Generic pliers.
*Hexagonal driver, size 1.5, 2, 2.5, 3mm.
*4/5mm T-Wrench.
*5.5mm Socket wrench (for M3 nuts).
*8mm Hex fork wrench (for M5 nuts).

*Medium threadlocker (SAB p/n HA116-S).
*Strong retaining compound (SAB p/n HA115-S).
*Spray lubricant (eg. Try-Flow Oil).
*Synthetic grease (eg. Microlube 261).
*Cyanoacrylate adhesive.

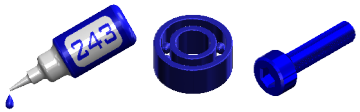
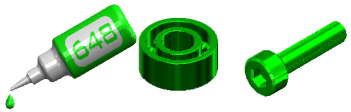
*Pitch Gauge (for set-up).
*Soldering equipment (for motor wiring).

INSIDE THE MAIN BOX THERE ARE:



NOTES FOR ASSEMBLY

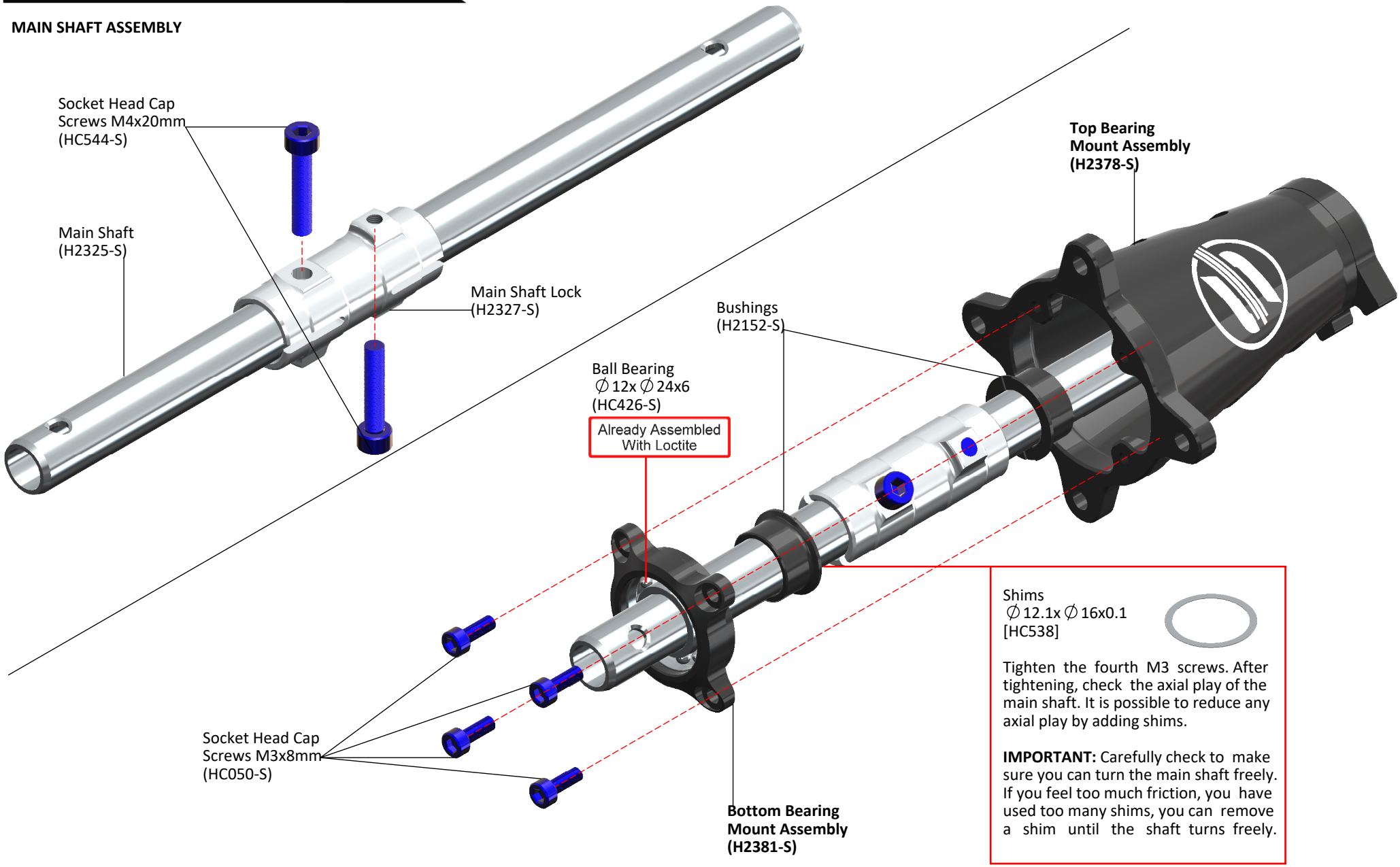
Please refer to this manual for assembly instructions for this model. Follow the order of assembly indicated. The instructions are divided into chapters, which are structured in a way that each step is based on the work done in the previous step. Changing the order of assembly may result in additional or unnecessary steps. Use thread lockers and retaining compounds as indicated. In general, each bolt or screw that engages with a metal part requires thread lock. It is necessary to pay attention to the symbols listed below:

Important	 Blue screw and blue bearing in the illustration means you need to use: **Threadlocker Medium Strength (SAB HA116-S)**	 Green screw and Green bearing in the illustration means you need to use: **Use retaining compound (SAB HA115-S)**
BOX XX, BAGXX Indicates that for this assembly phase you need materials that are: BOX xxx, BAG xxx.	 Use CA Glue	 Use Proper Lubricant

The assembly process is described in the following chapters. Each chapter provides you with the box, bag and/or foam numbers you will need for that chapter. The information is printed in a black box in the upper corner of the page.

BOXES 1-2, BAG FOR PAGE 5

MAIN SHAFT ASSEMBLY

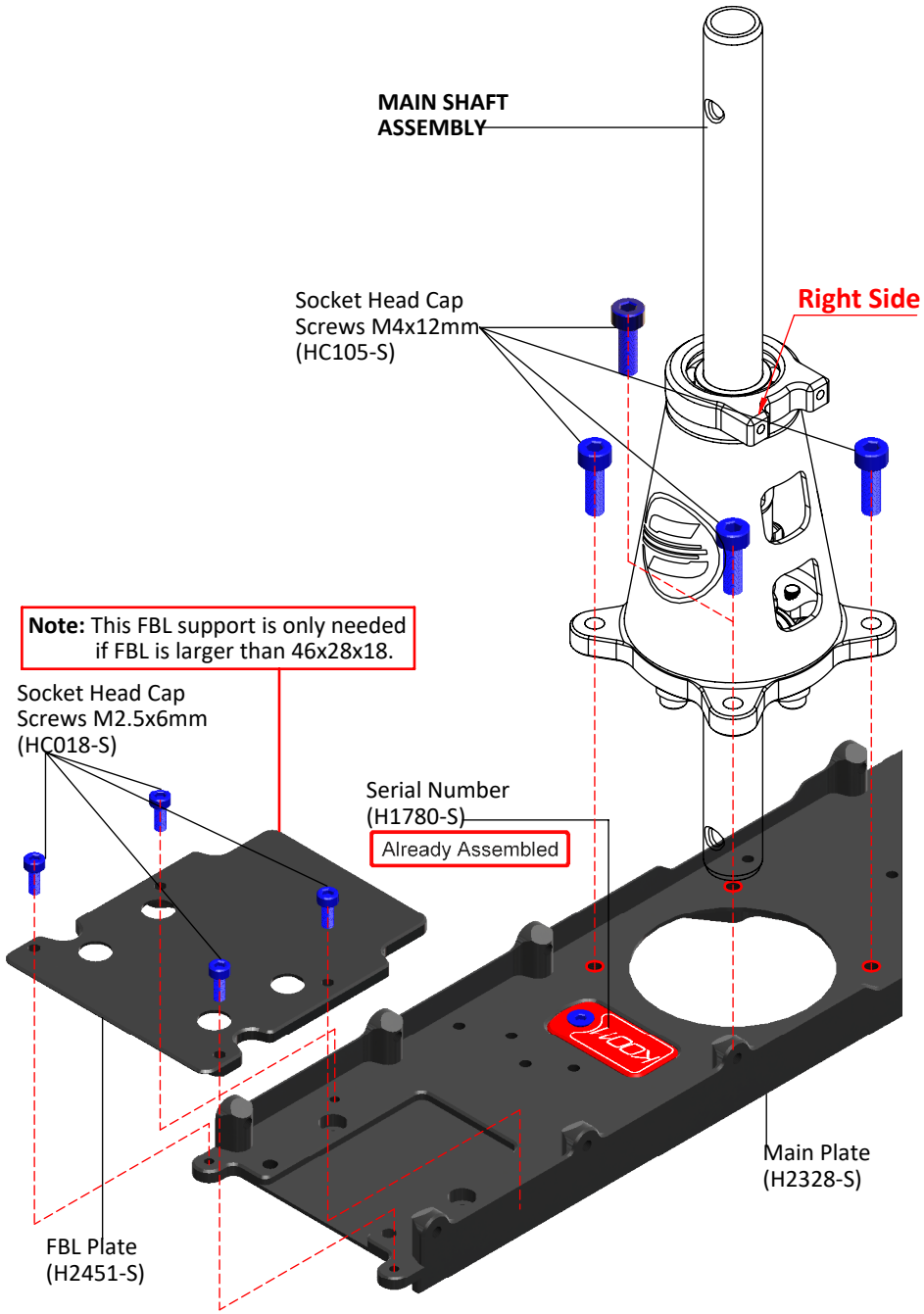


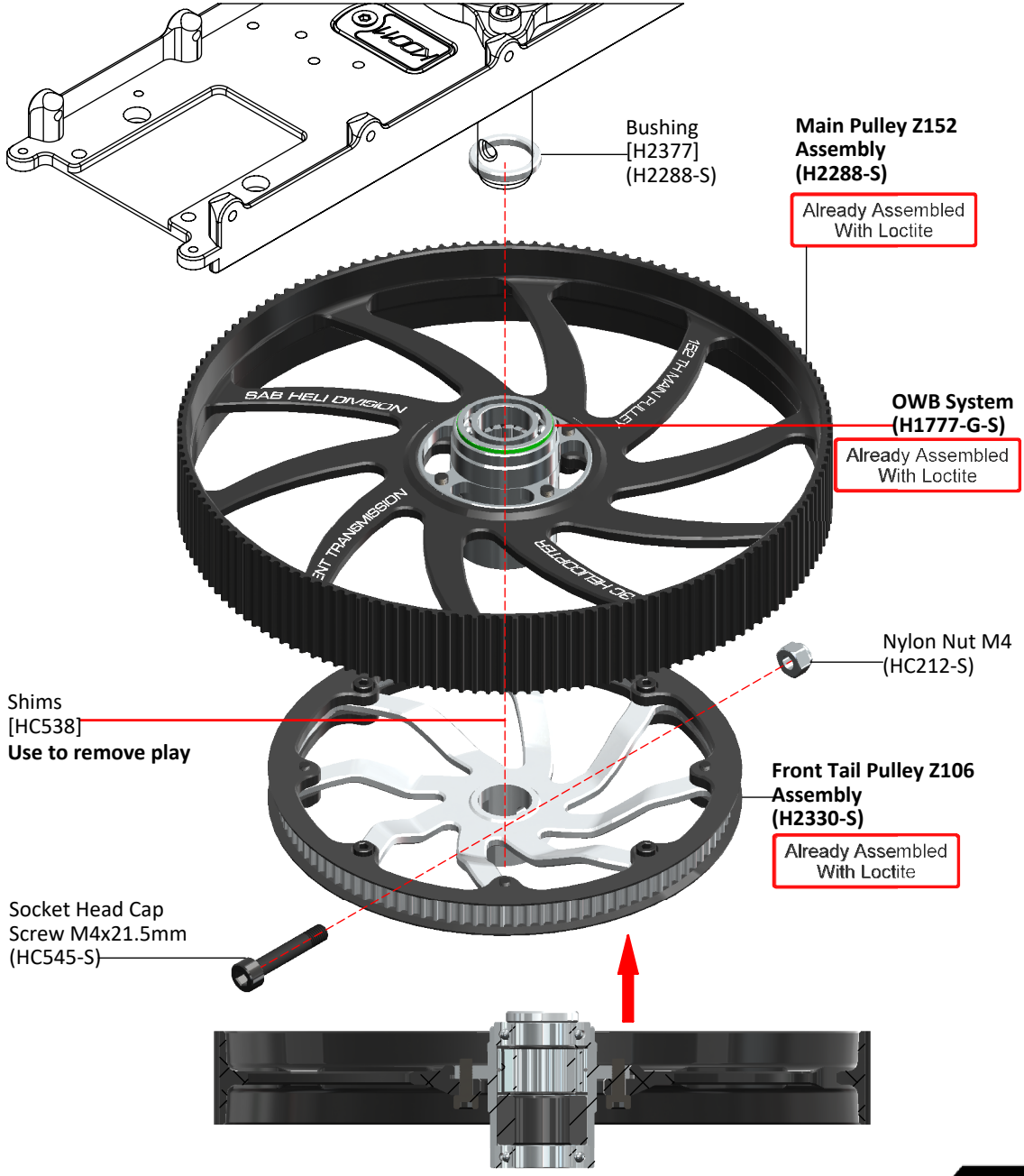
Shims
∅12.1x∅16x0.1
[HC538]

Tighten the fourth M3 screws. After tightening, check the axial play of the main shaft. It is possible to reduce any axial play by adding shims.

IMPORTANT: Carefully check to make sure you can turn the main shaft freely. If you feel too much friction, you have used too many shims, you can remove a shim until the shaft turns freely.

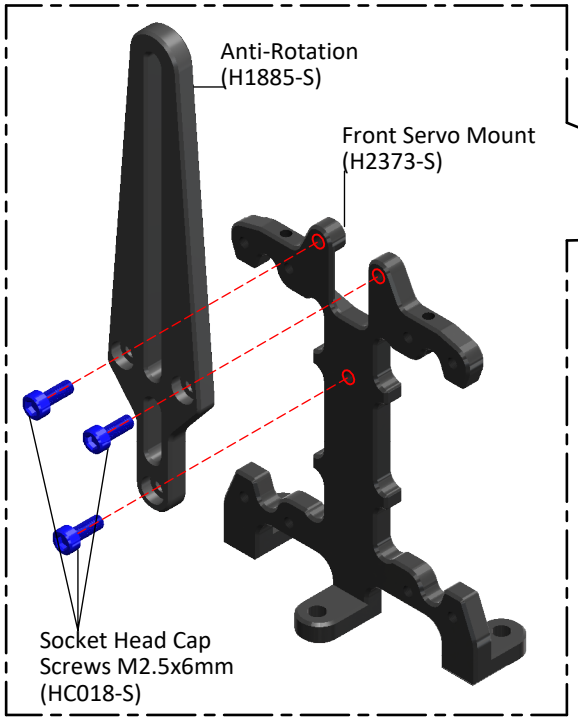
Boxes 1-2, Bag for page 6

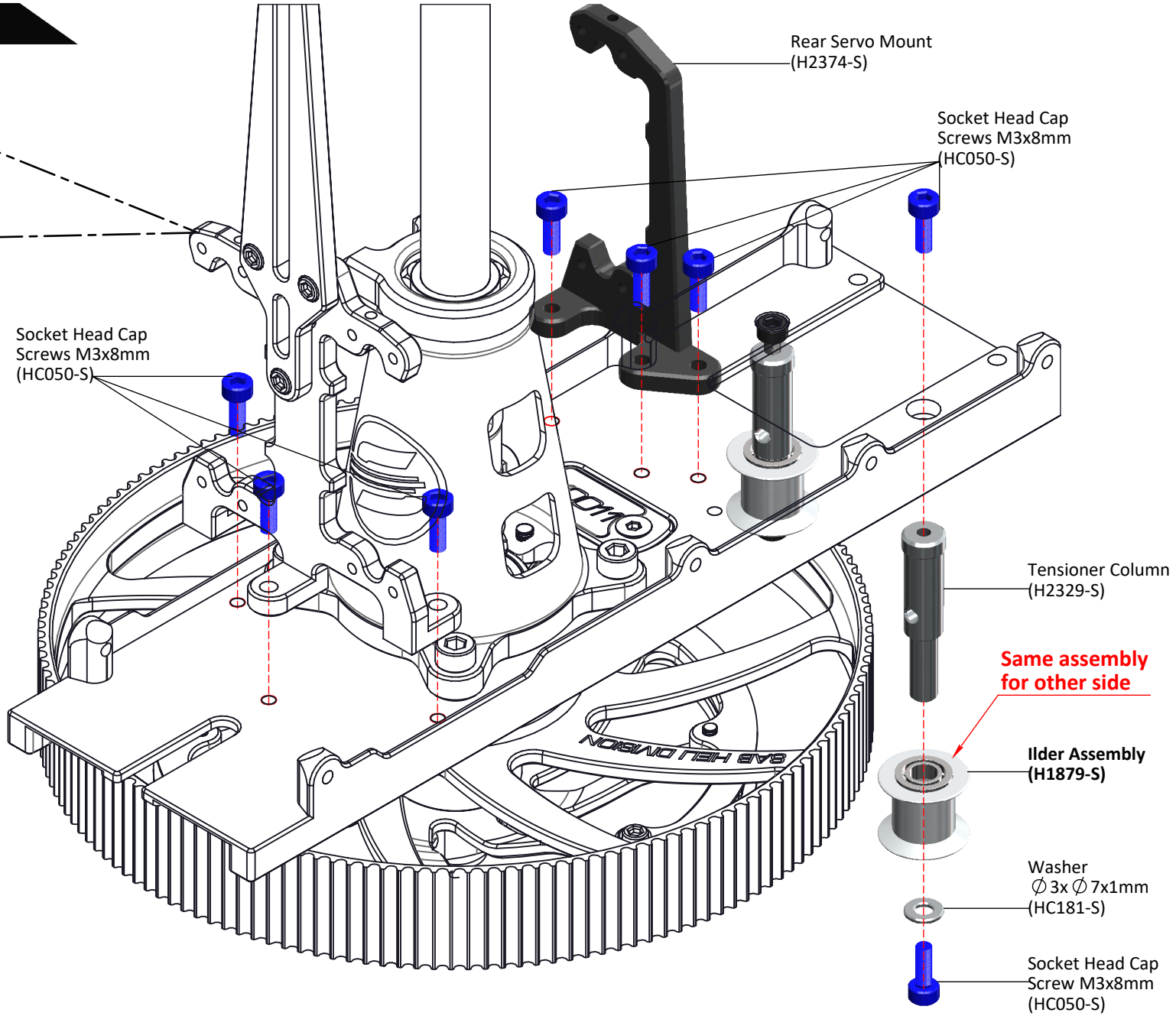




TRANMISSION GROUP ASSEMBLY

Box 1, Bag for page 7

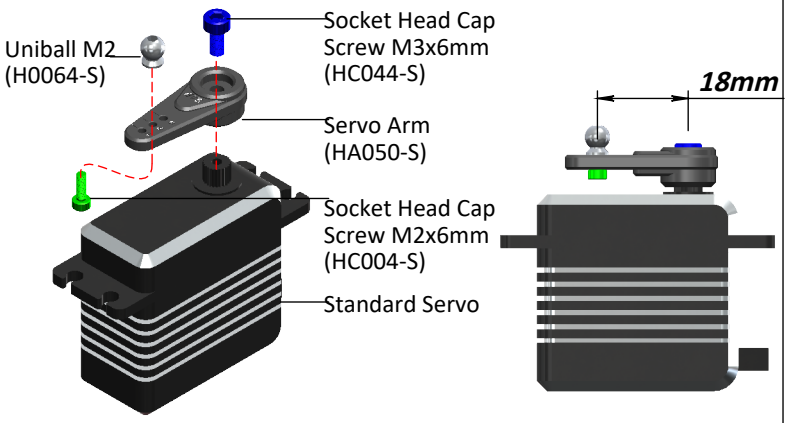


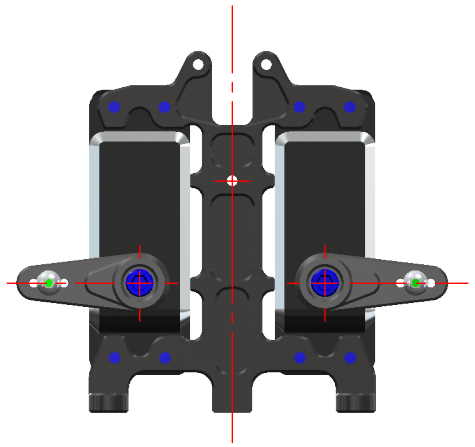


SERVO ASSEMBLY

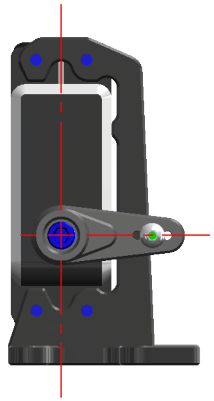
The linkage ball must be positioned 18 mm out on the servo arm.
The recommended servo arm to use is: SAB p/n [HA050/HA051].

Ensure the alignment of the servo arms (and sub trim set) before installation of the servos in the model.

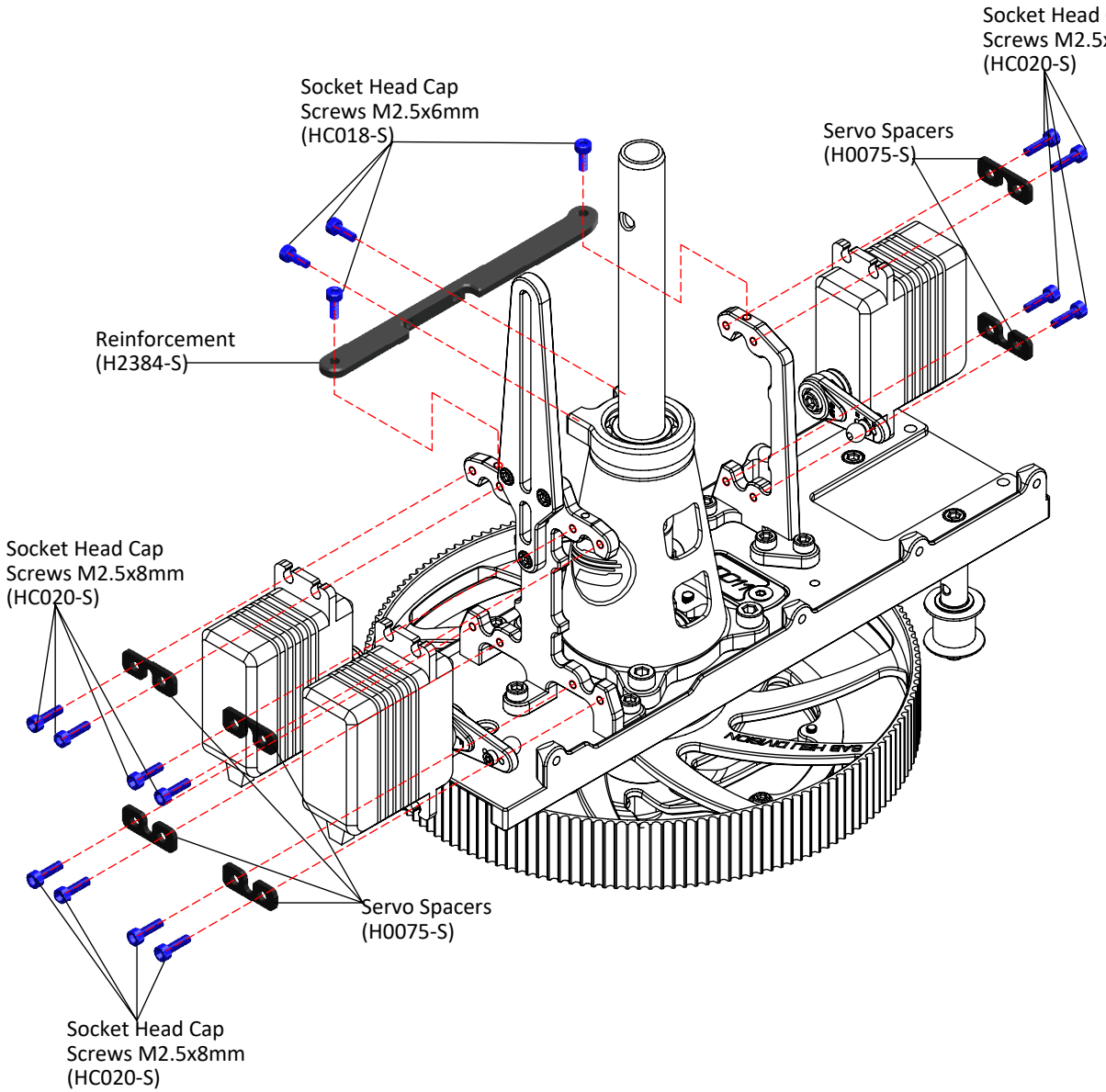




Front Servo

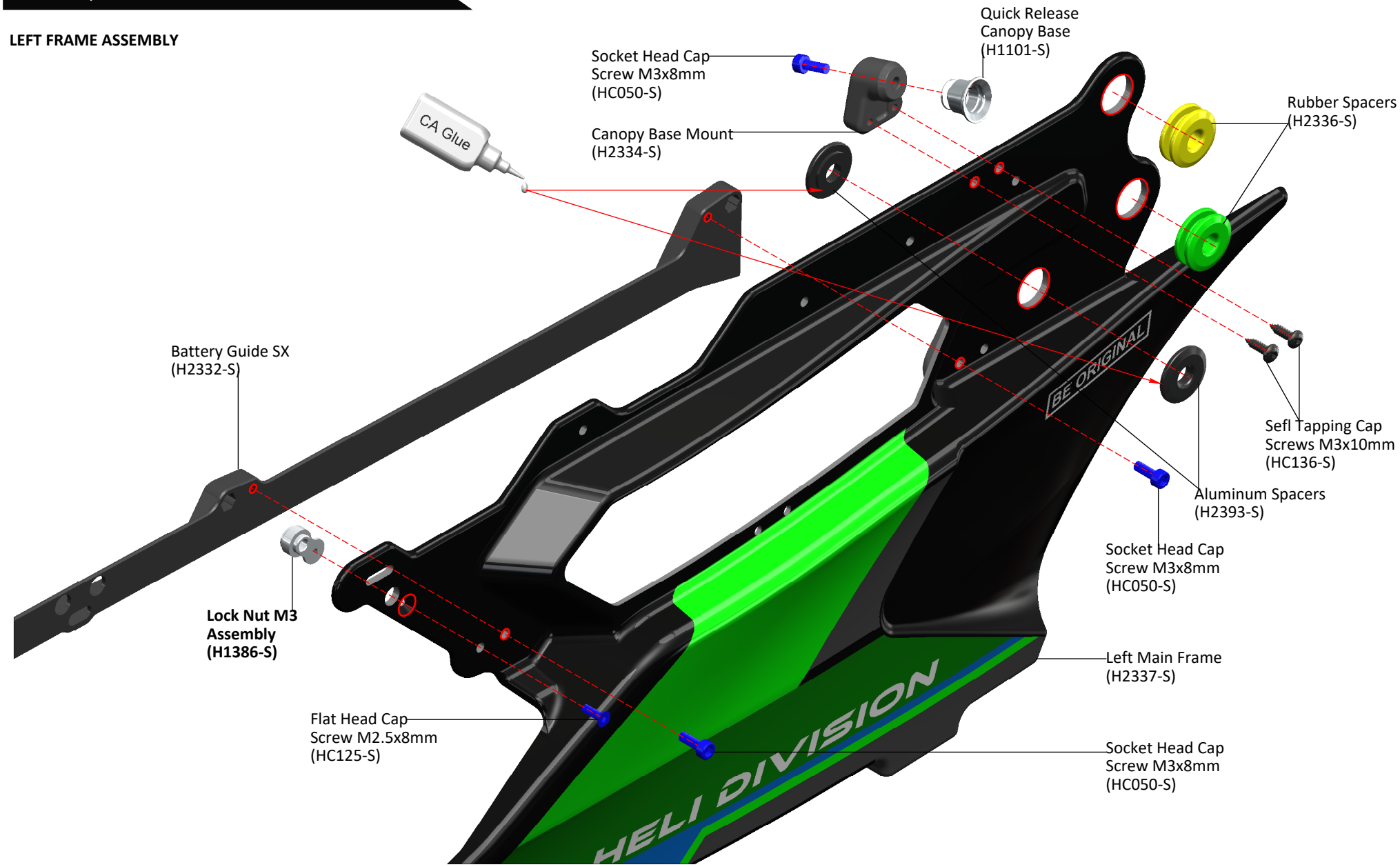


Rear Servo



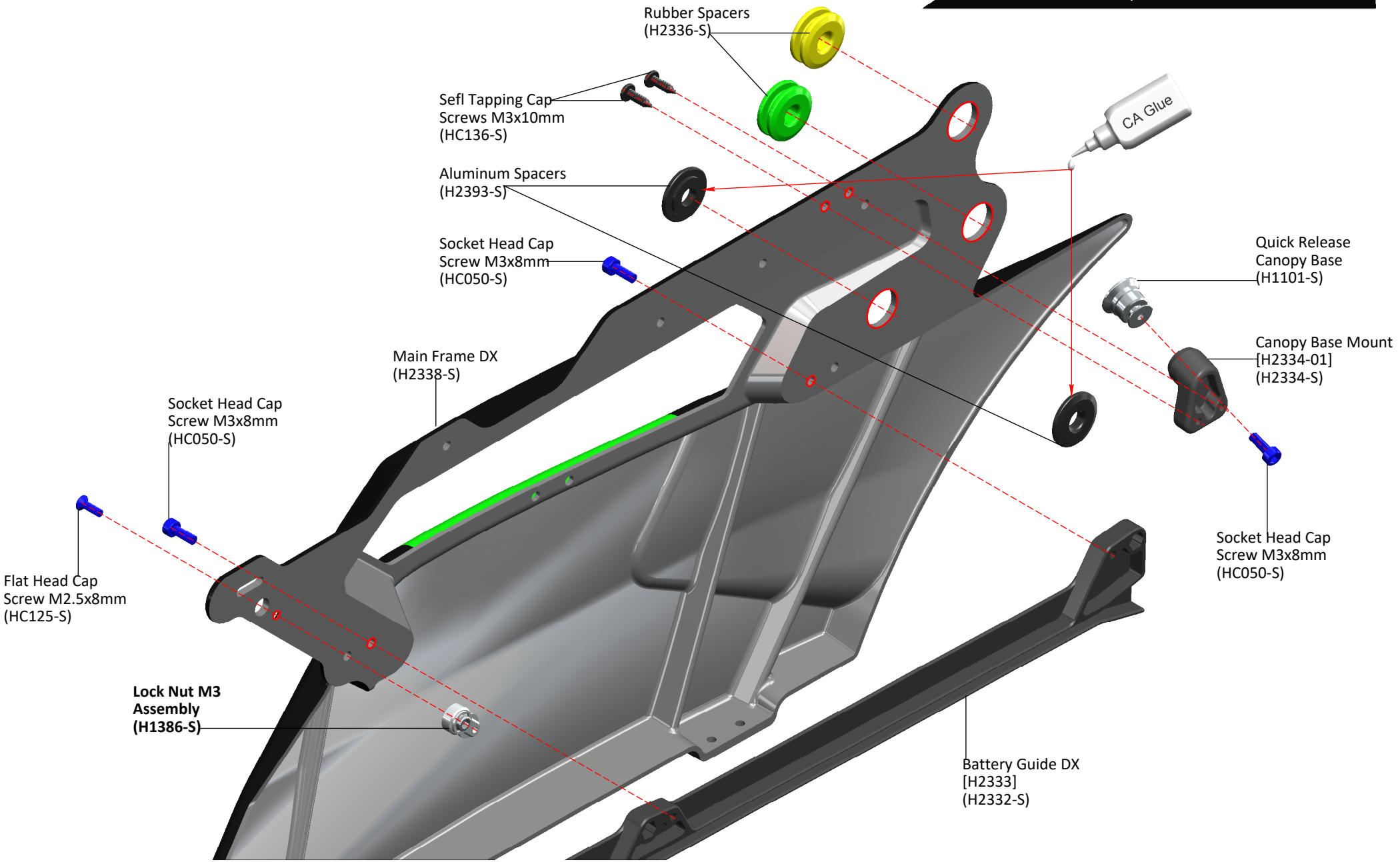
Box 1, Bag for page 9

LEFT FRAME ASSEMBLY

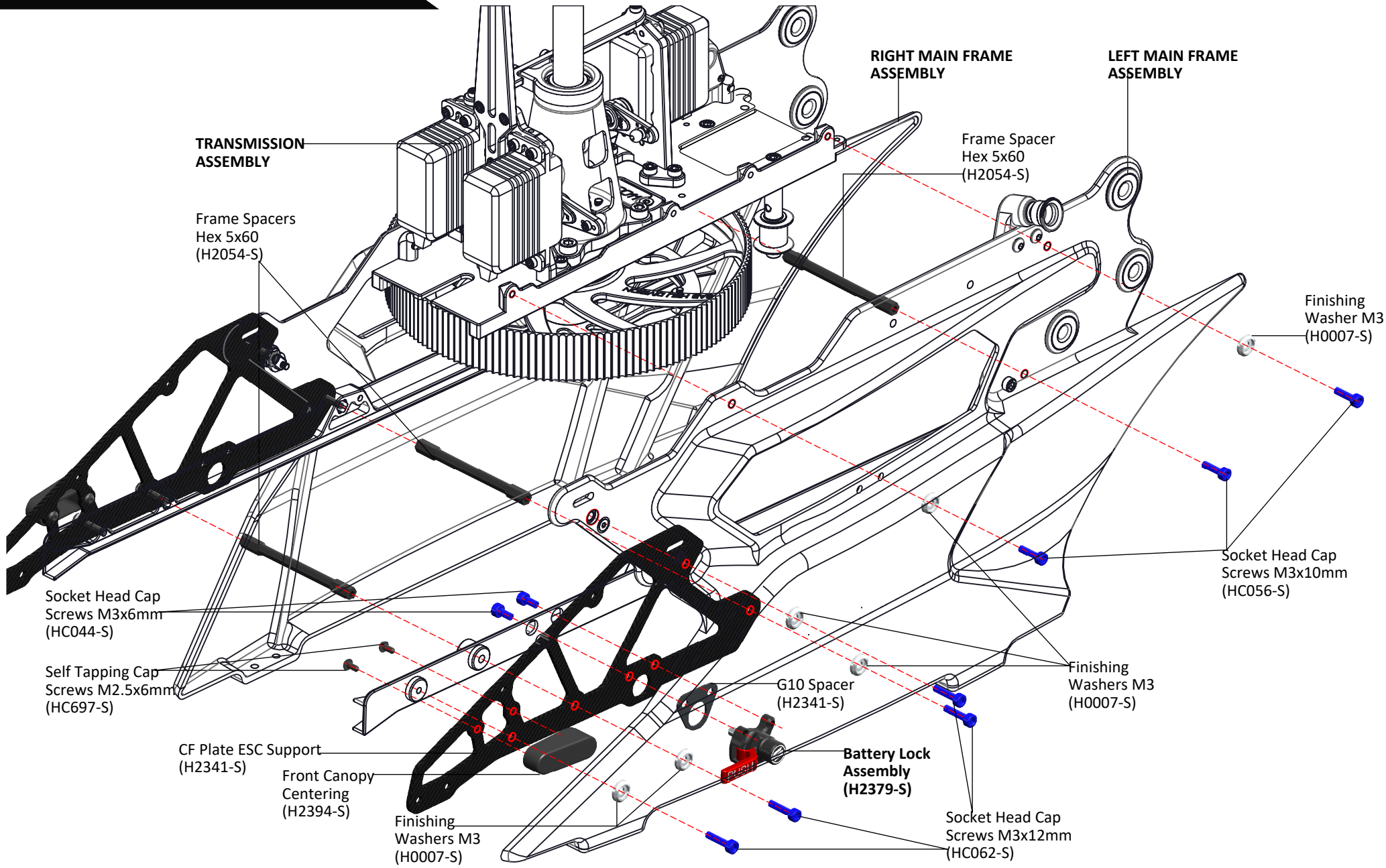


RIGHT MAIN FRAME ASSEMBLY

Box 1, Bag for page 10

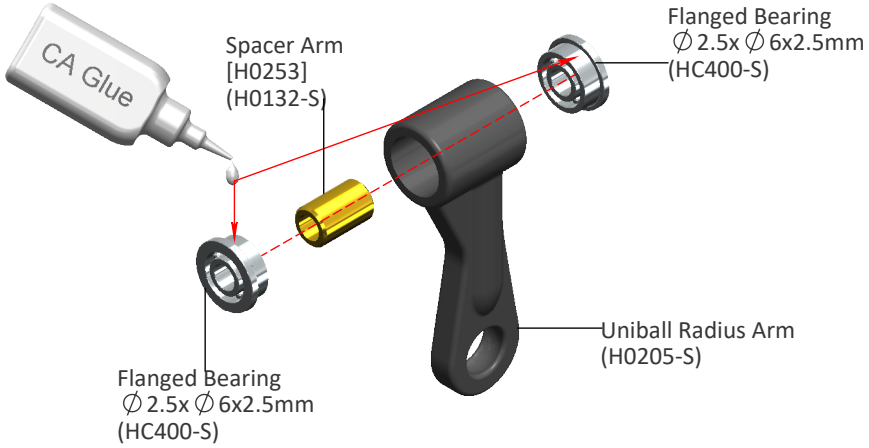


Box 1, Bag for page 11

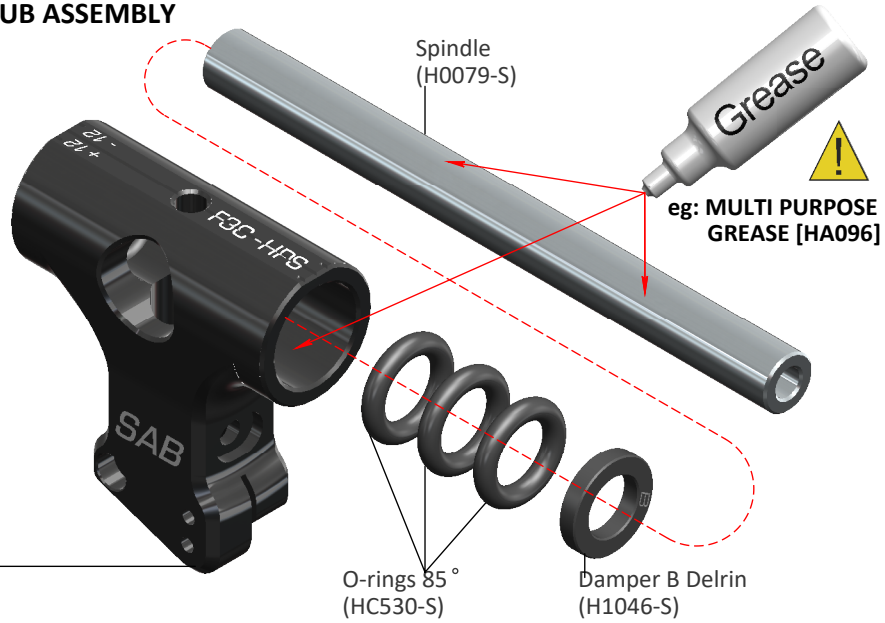


BOXES 1-2, BAG FOR PAGE 12

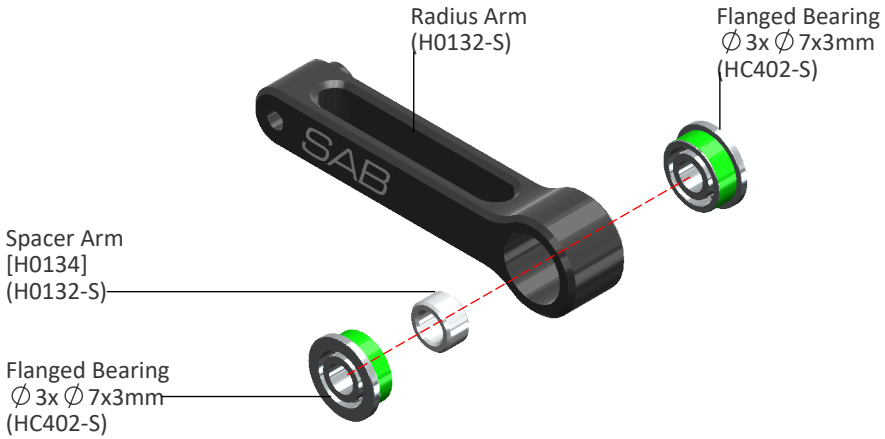
UNIBALL RADIUS ARM ASSEMBLY ...X2



CENTER HUB ASSEMBLY

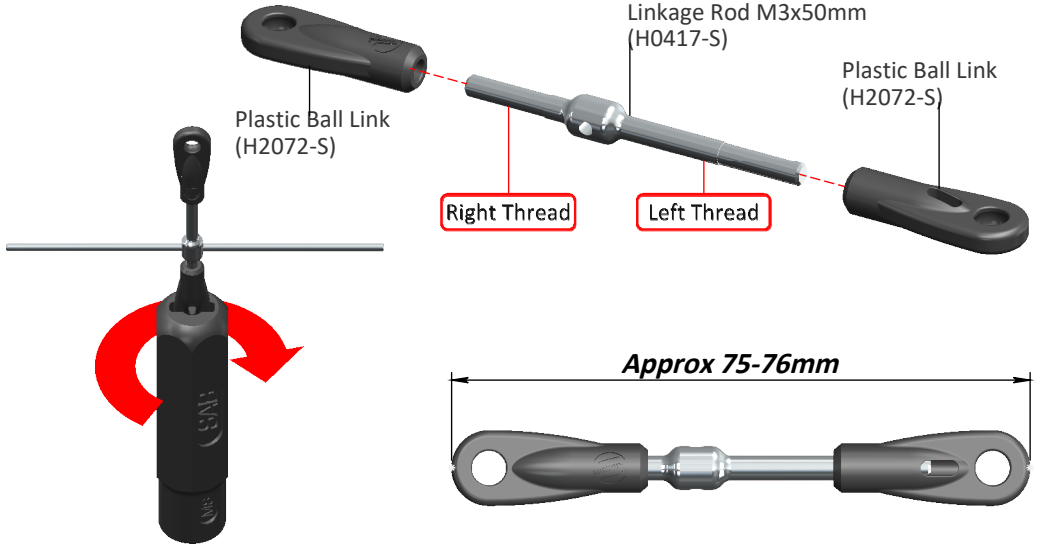


RADIUS ARM ASSEMBLY ...X2



PLEASE USE GREEN THREAD LOCK to secure the bearings to the radius arms. Failure to secure the bearing will result in excessive slop/play.

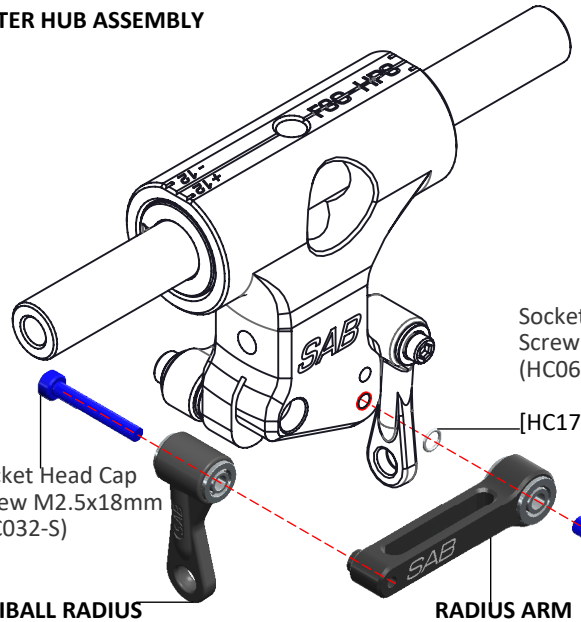
LINKAGE ROD A ASSEMBLY ...X2



Note: You can use HA016 to easily thread the plastic link onto the rods.

BOXES 1-2, BAG FOR PAGE 13

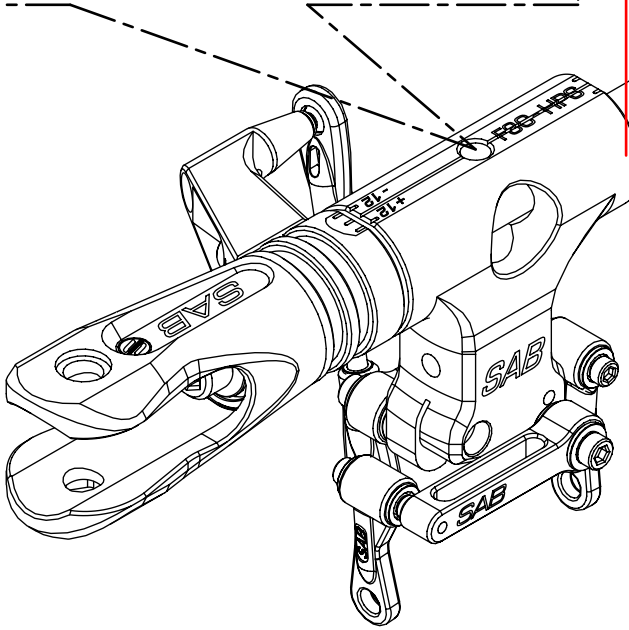
CENTER HUB ASSEMBLY



NOTE:

Shim ∅ 10x ∅ 16x0.2mm[HC232-S][Bag Shims].
After approximately 40/50 flights, please check preload, you can add one 0.2mm shim (HC232) on each side if preload has changed.
However, we suggest to replace the o-rings after about 100 flights.

eg: MULTI PURPOSE GREASE [HA096]

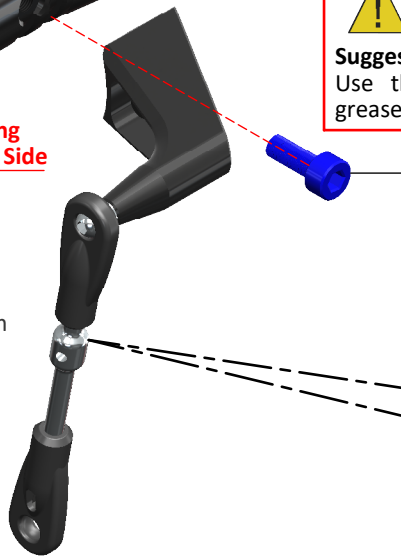


Blade Grip Assembly
(H1790-S)

Already assembled with 1 bearing

Lip Facing Bearing Side

Washer
∅ 10.1x ∅ 16x1mm
(H2146-S)



Suggested:
Use this hole to apply grease after several flights

Socket Head Cap
Screw M4x10mm
(HC102-S)

Bearing ∅ 10x ∅ 19x5mm
(HC422-S)

Washer
∅ 10x ∅ 16x1mm
(HC230-S)

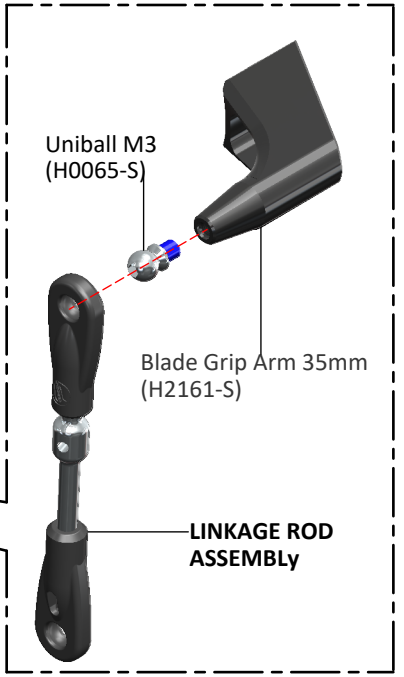
Socket Head Cap
Screw M6x10mm
(HC124-S)

Washer ∅ 6x ∅ 14 x1.5mm
(HC194-S)

Note: Smaller ID

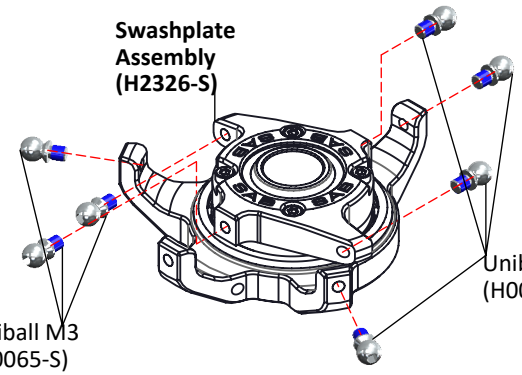
Thrust Bearing
∅ 10x ∅ 18x5.5mm
(HC438-S)

Note: Larger ID



BOXES 1-2, BAG FOR PAGE 14

SWASHPLATE ASSEMBLY



Socket Head Cap
Screw M3x12mm
(HC062-S)

HEAD GROUP ASSEMBLY

Metric Hex
Nylon Nut M4
(HC212-S)

Socket Head Cap
Screw M3x12mm
(HC062-S)

Grease

eg: MULTI PURPOSE GREASE [HA096]

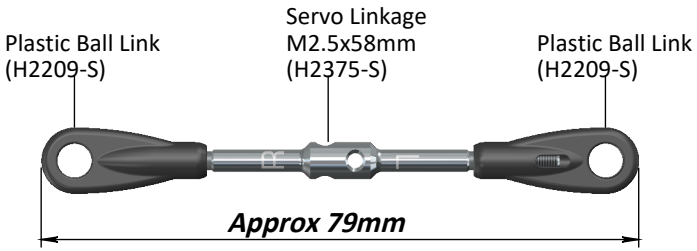
Socket Head Cap Screw
Shoulder M4x24mm
(HC111-S)

Reference Pin
(H1048-S)

FRAME & TRANSMISSION GROUP ASSEMBLY

Box 1, Bag for page 15

LINKAGE ROD B ASSEMBLY ... X3



Initial length for the rods from the servos to the swash plate.

SUGGESTED:
You can use the Swashplate Leveler H1116-S
(Not included KIT)

TRANSMISSION SETUP

It is important to choose the right reduction ratio to maximize efficiency based on your required flight performance.

It is recommended to use wiring and connectors appropriate for the currents generated in a helicopter of this class.

If you are using a head speed calculator which requires a main gear and pinion tooth count, use 152 teeth for the main gear

(this takes into account the two stage reduction) and the tooth count of your pulley as the pinion count.

BELOW IS A LIST OF AVAILABLE REDUCTION RATIOS:

H0175-18-S - **18T** Pinion = ratio **8.4:1**

H0175-19-S - **19T** Pinion = ratio **8.0:1**

H0175-20-S - **20T** Pinion = ratio **7.6:1**

H0175-21-S - **21T** Pinion = ratio **7.3:1**

H0175-22-S - **22T** Pinion = ratio **6.9:1**

H0175-23-S - **23T** Pinion = ratio **6.6:1**

H0175-24-S - **24T** Pinion = ratio **6.3:1**

H0175-25-S - **25T** Pinion = ratio **6.1:1**

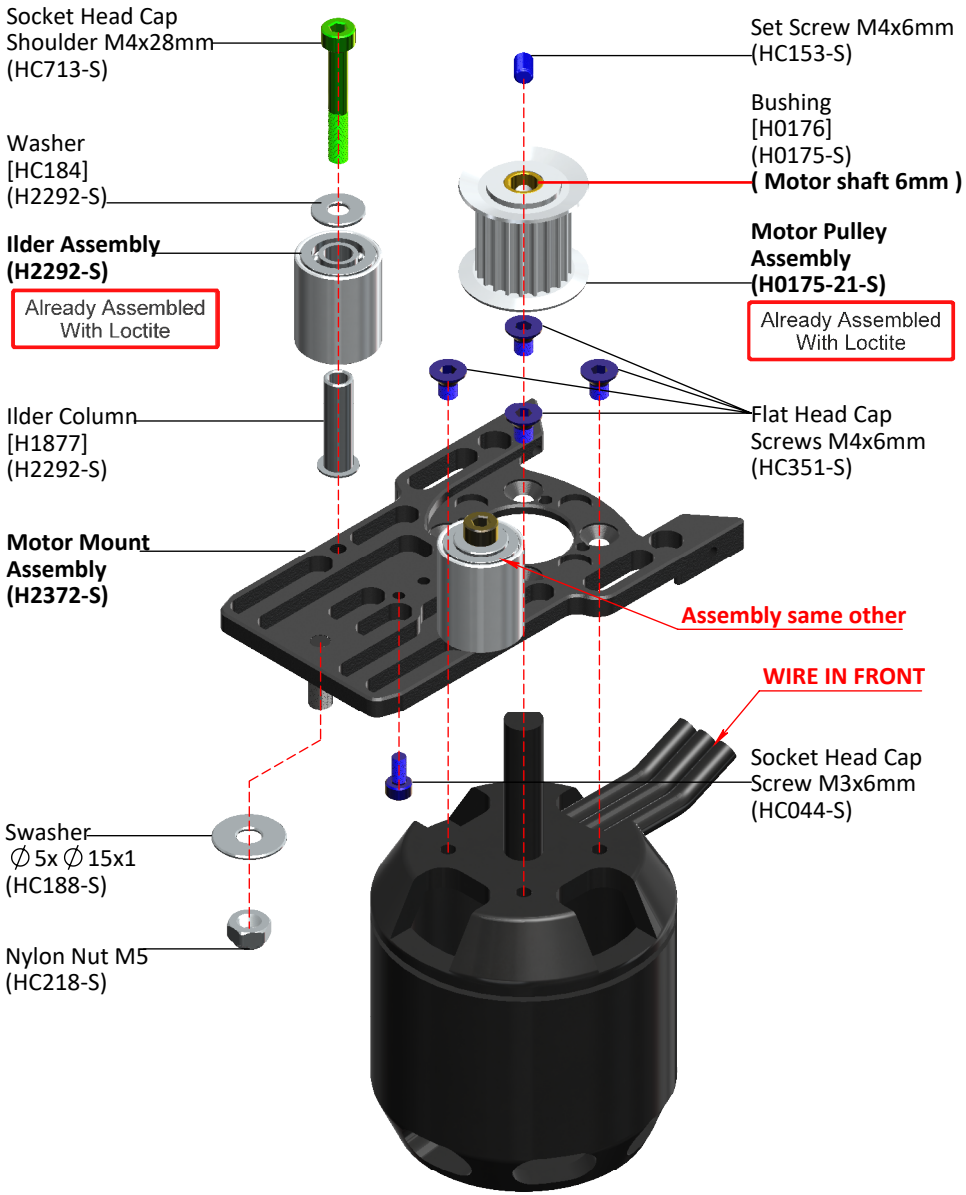
GOBLIN GENESIS F3C CONFIGURATIONS

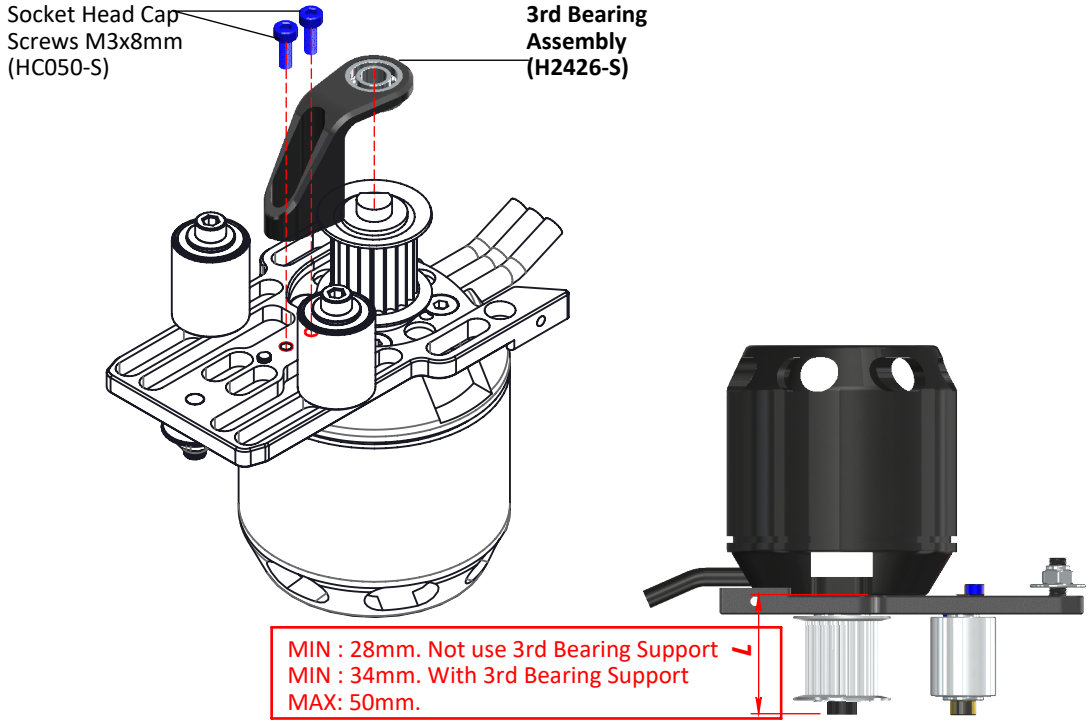
Rev:01

Battery	Motor	ESC	Pinion (a, b)	RPM Max (a, b)	Pitch
12S 4200/5500 mAh	Xnova Lightning 4525-365 kV	HW-200A	**21T / 22T**	**1900/2000**	± 12
	Kontronik PYRO 800-40 TENGU 4525HT/400 kV	Kosmik 160 YGE 205HVT	**20T / 21T**		
	Scorpion HK5 4525-365 kV	SCORPION II 14-200A	**21T / 22T**		

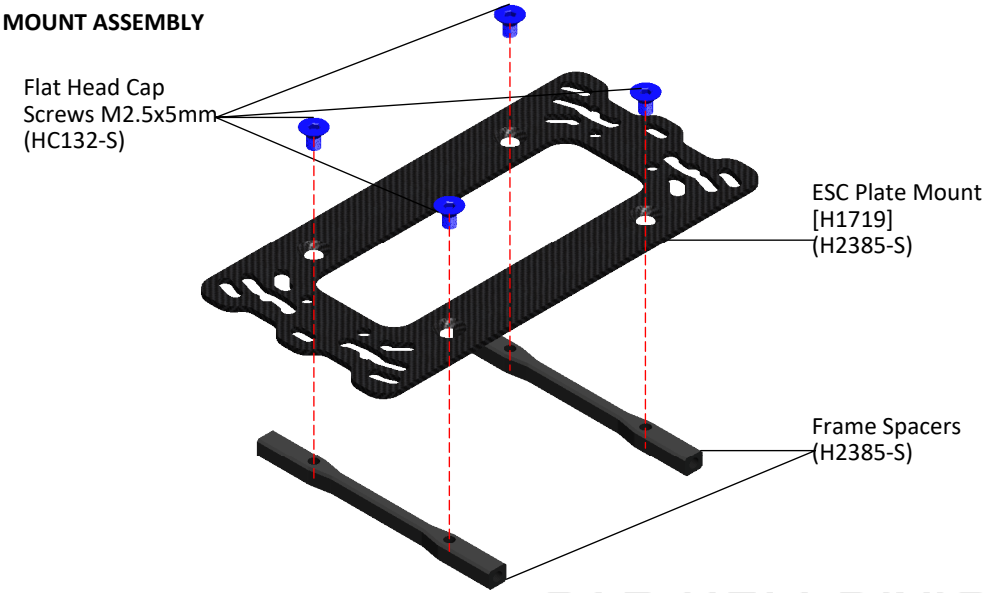
INSTALLATION OF THE MOTOR/ESC

BOXES 1-2, BAG FOR PAGE 17



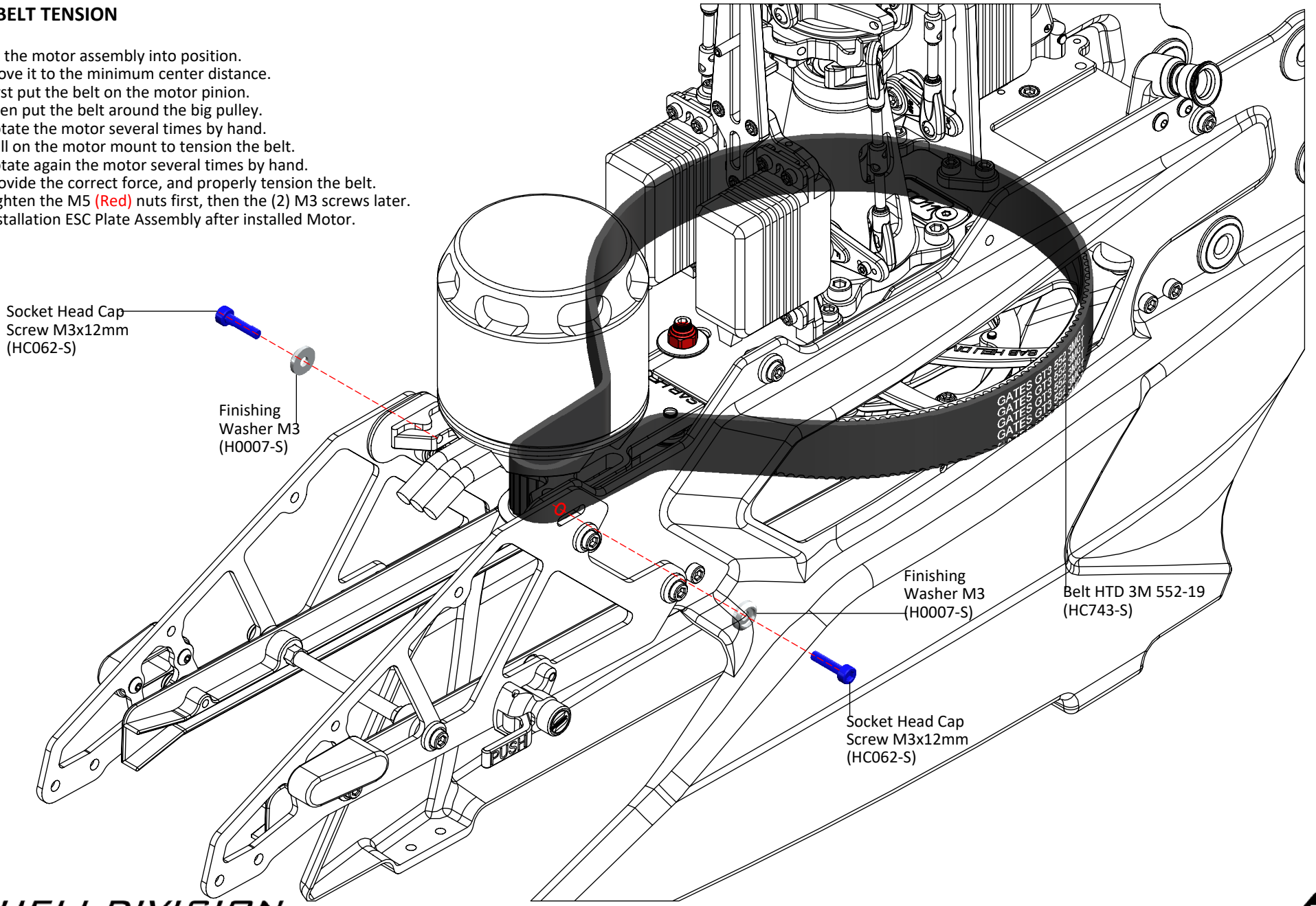


ESC MOUNT ASSEMBLY

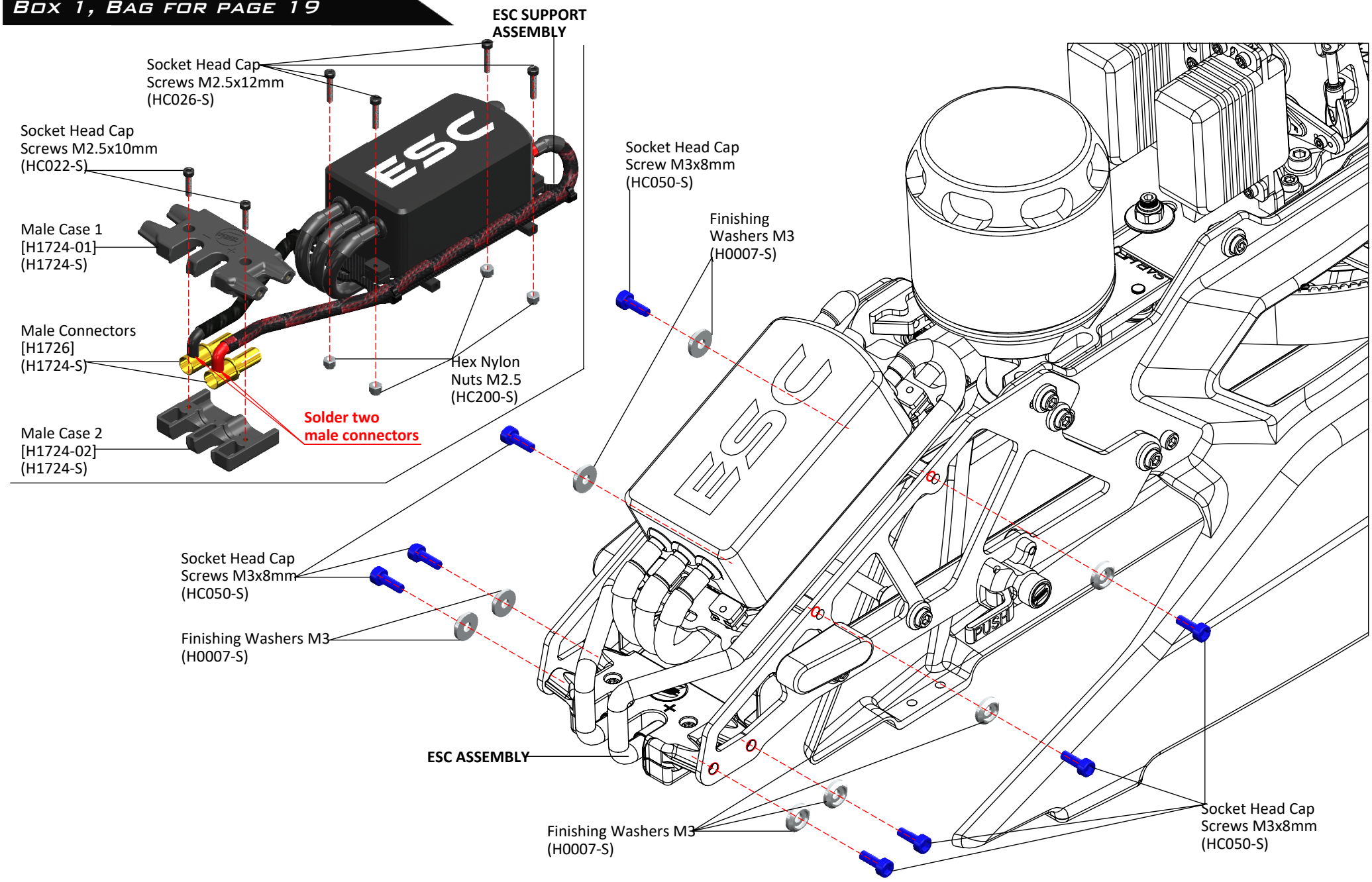


MOTOR BELT TENSION

*Fit the motor assembly into position.
*Move it to the minimum center distance.
*First put the belt on the motor pinion.
*Then put the belt around the big pulley.
*Rotate the motor several times by hand.
*Pull on the motor mount to tension the belt.
*Rotate again the motor several times by hand.
*Provide the correct force, and properly tension the belt.
*Tighten the M5 (Red) nuts first, then the (2) M3 screws later.
*Installation ESC Plate Assembly after installed Motor.



Box 1, Bag for page 19



BOXES 1-2, BAG FOR PAGE 20

NOTE:

It is a normal for the tail to feel a bit tight after initial assembly as the tail spindle preload is usually high when the helicopter is brand new. The preload will loosen up after 2-5 flights allowing the system to become smooth.

eg: MULTI PURPOSE GREASE [HA096]

Button Head Cap Screw M4x6mm (HC096-S)

Smaller ID

Thrust Bearing ∅5x∅10x4mm (HC435-S)

Larger ID

Spacer ∅7.5x∅10x0.5mm [H0349] (H0330-S)

Tail Blade Grip Assembly (H1893-S)

Already Assembled With Loctite

Socket Head Cap Screw M2x6mm (HC004-S)

Bearing ∅5x∅10x4mm (HC411-S)

Already Assembled

Spacer ∅5x∅8.5x0.75mm (H0330-S)

O-ring (HC335-S)

Spindle Shaft (H0329-S)

Tail Shaft (H2386-S)

eg: MULTI PURPOSE GREASE [HA096]

Uniball M2.5 (H0064-S)

TAIL PITCH SLIDER ASSEMBLY (H1091-S)

TAIL PITCH SLIDER ASSEMBLY

Socket Head Cap Screw M2x6mm (HC004-S)

Tail Pitch Slider Link (H0261-S)

Bushings [H0076] (H0261-S)

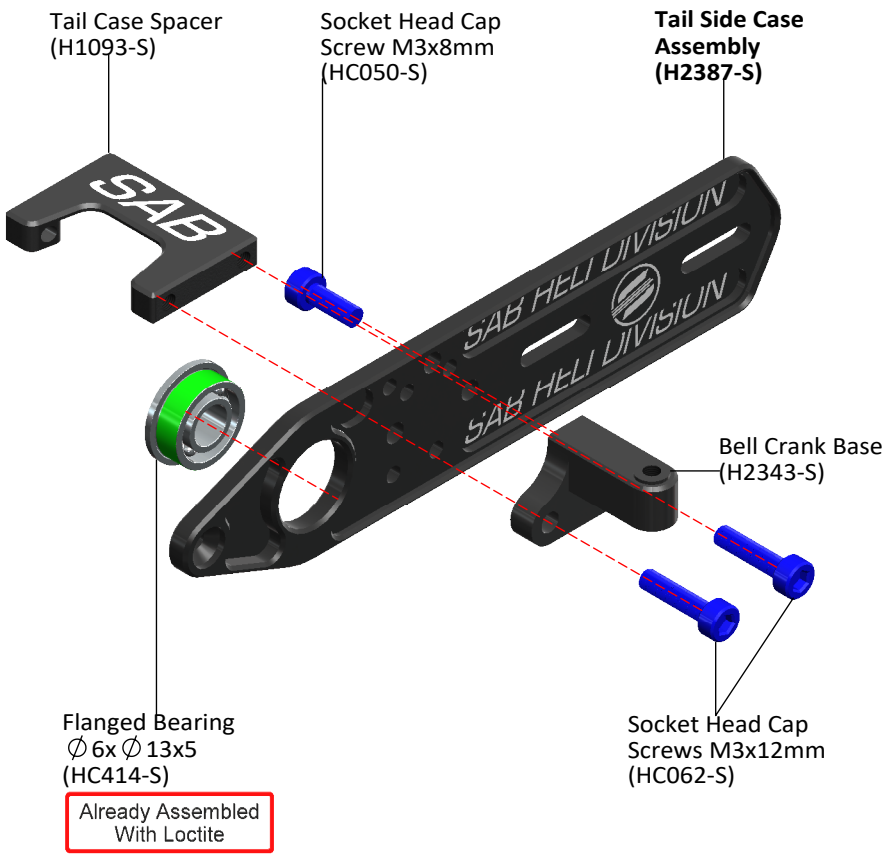
Tail Pitch Slider Assembly (H1091-S)

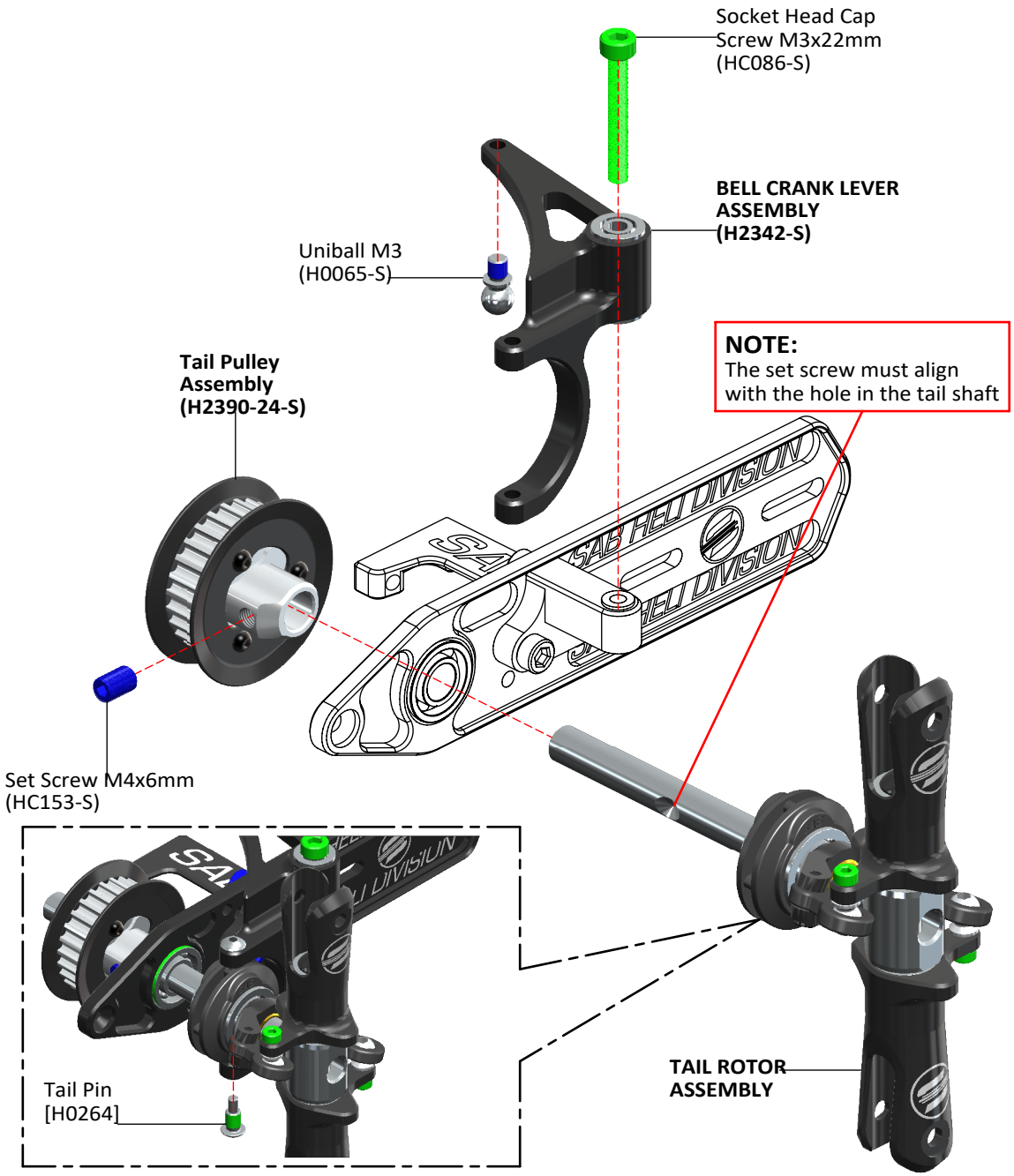
Already Assembled With Loctite

Tail Pitch Slider Link (H0261-S)

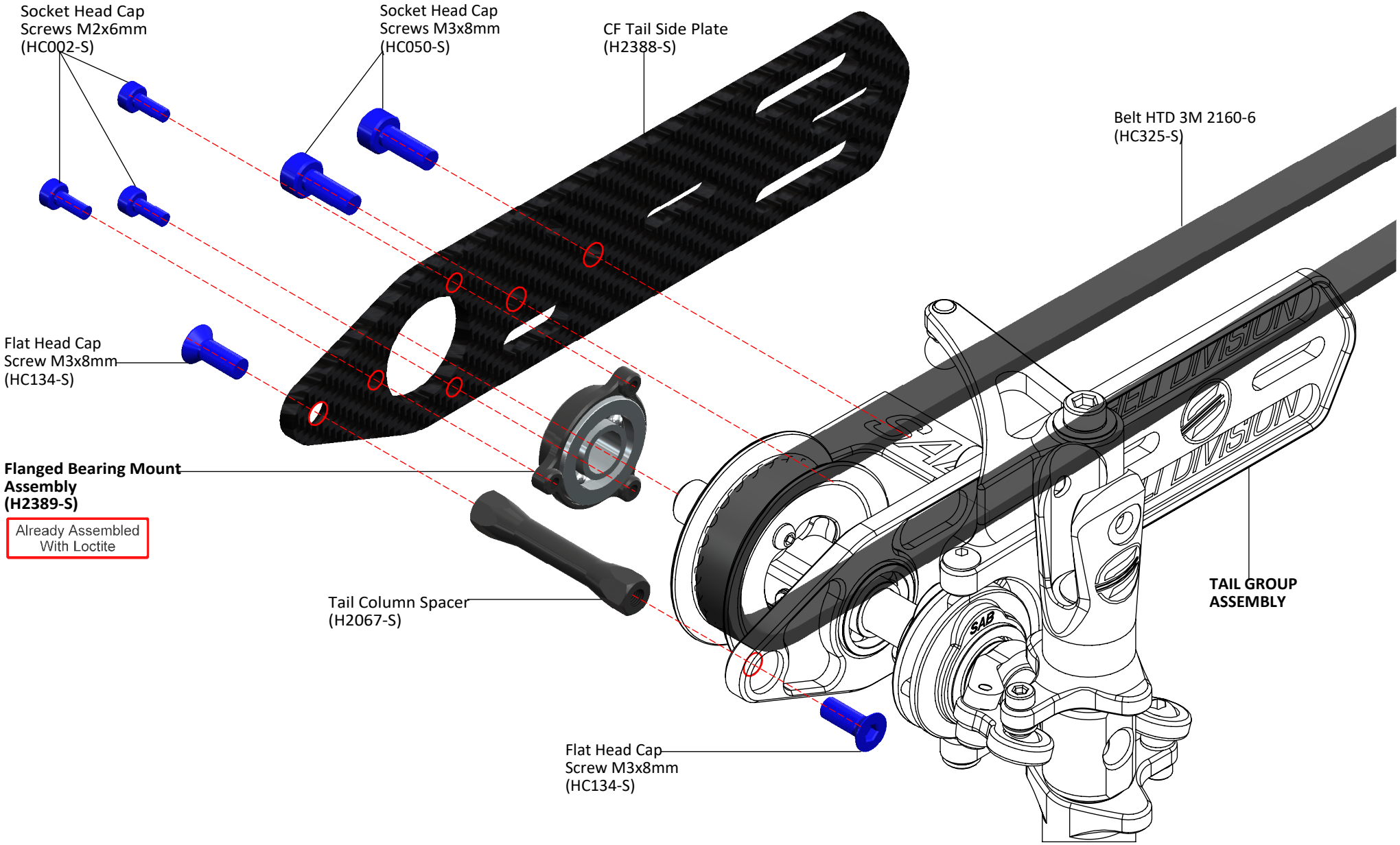
Socket Head Cap Screw M2x6mm (HC004-S)

BOXES 1-2, BAG FOR PAGE 21

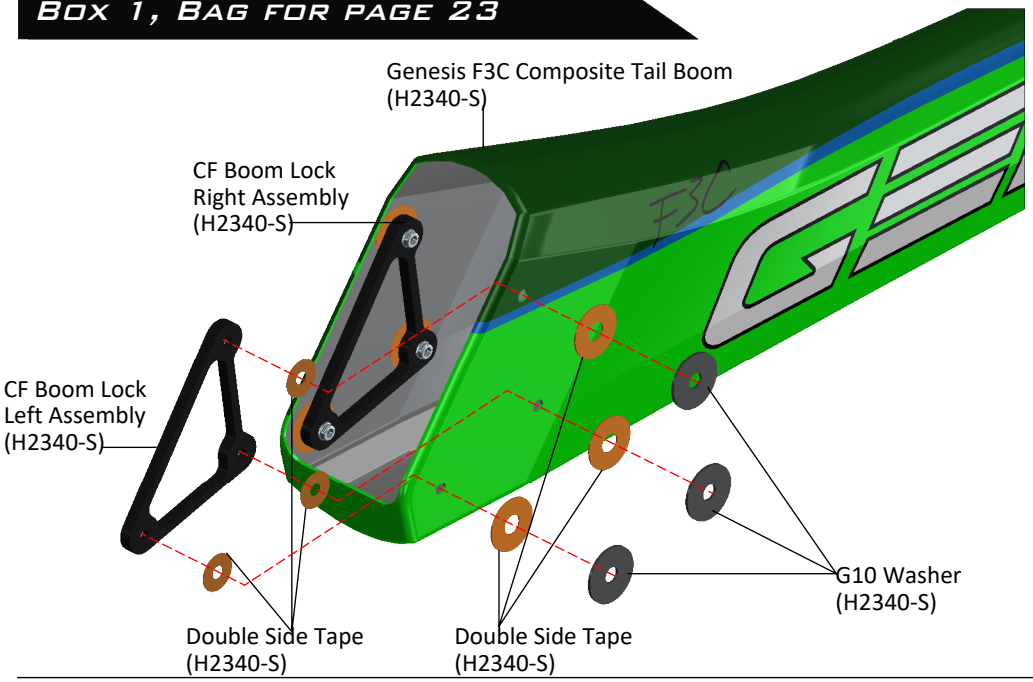




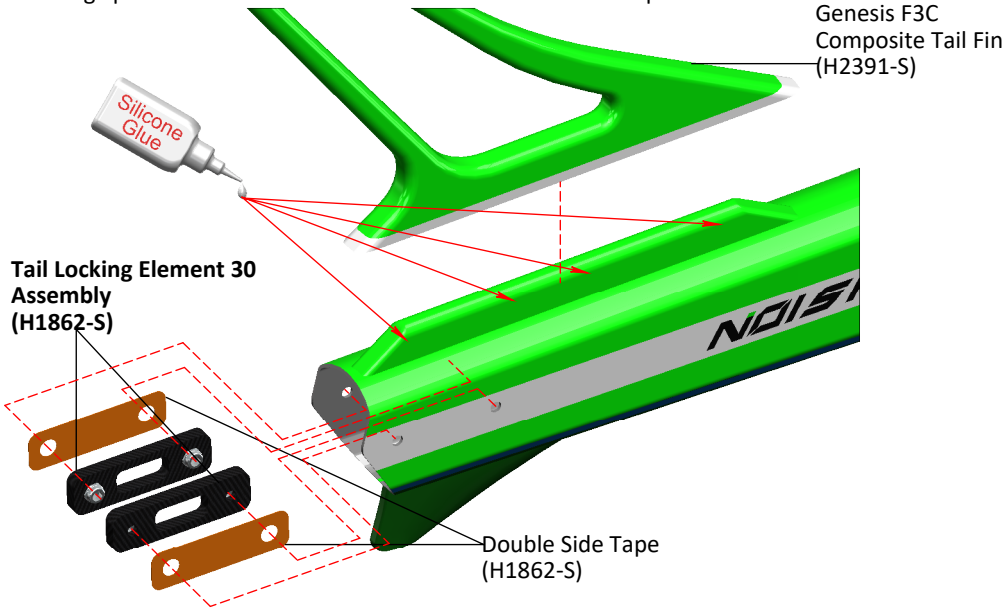
BOX 1, BAG FOR PAGE 22



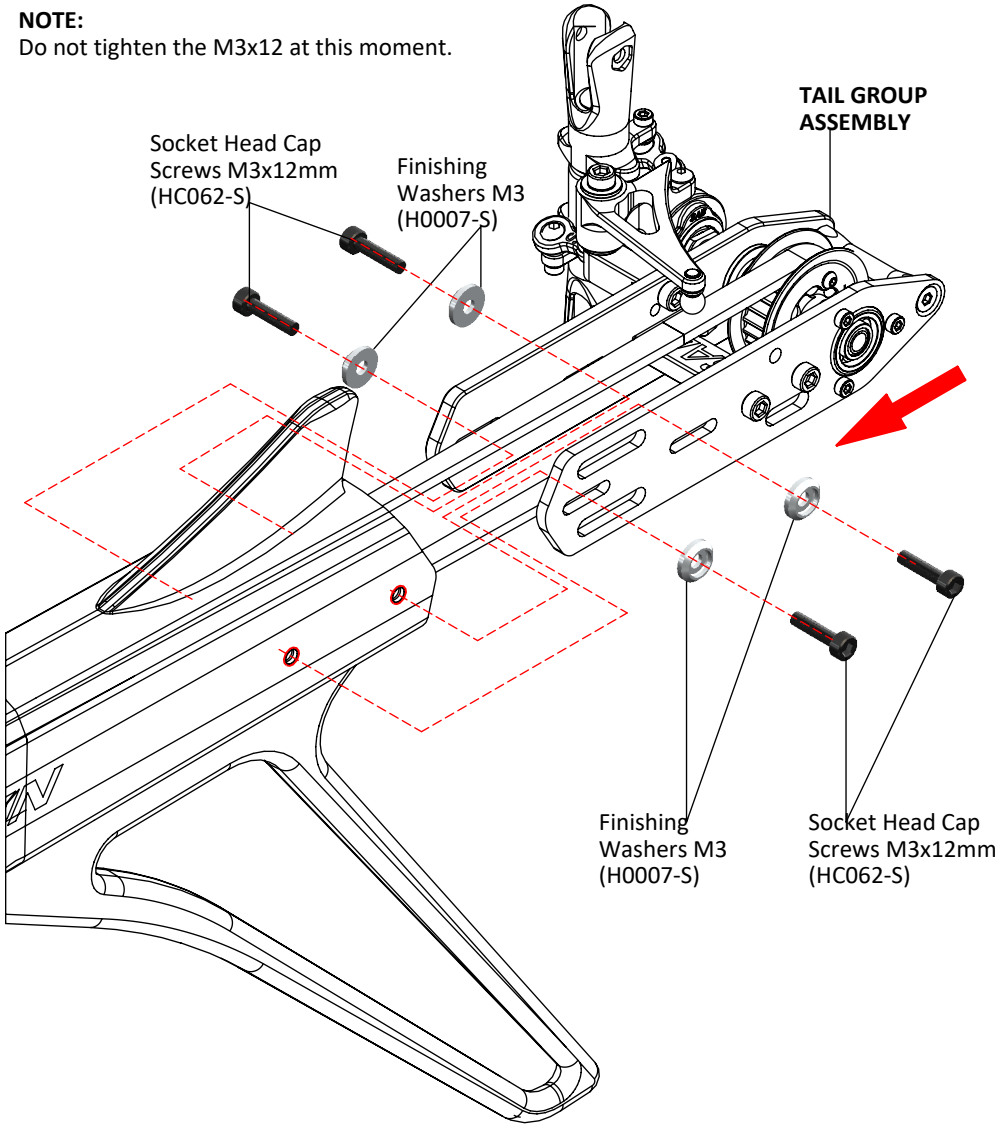
Box 1, Bag for page 23



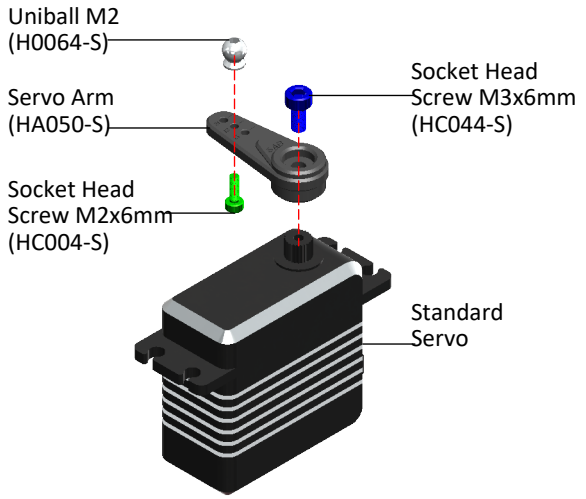
SUGGESTION: You can use M3x12 screws to aid in mounting the spacer and locking piece to the boom. Remove all screws after complete.



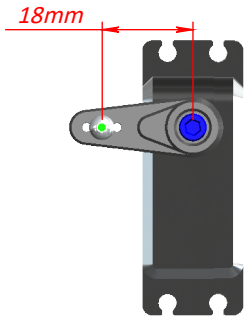
NOTE:
Do not tighten the M3x12 at this moment.



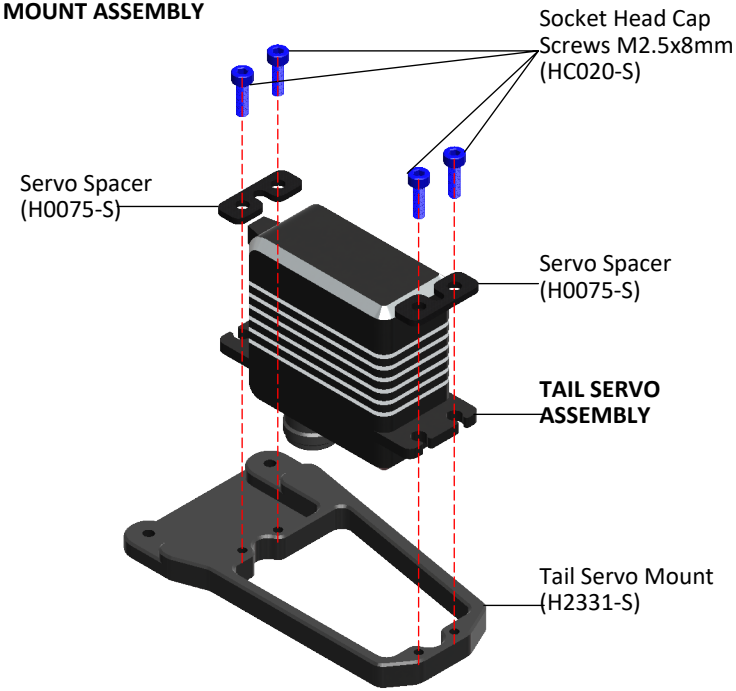
TAIL SERVO ASSEMBLY

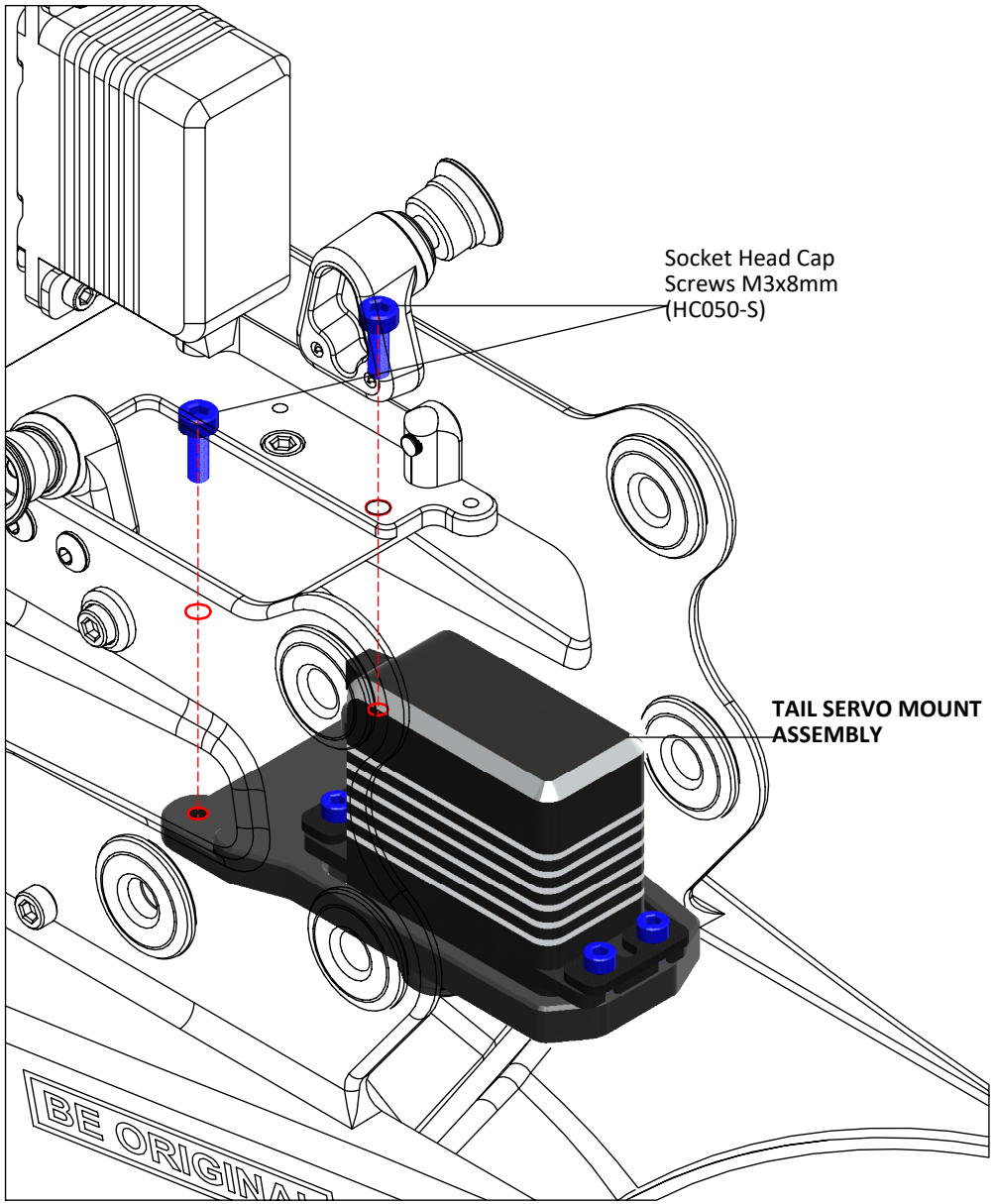


The distance between the axis and the ball must be around 18mm

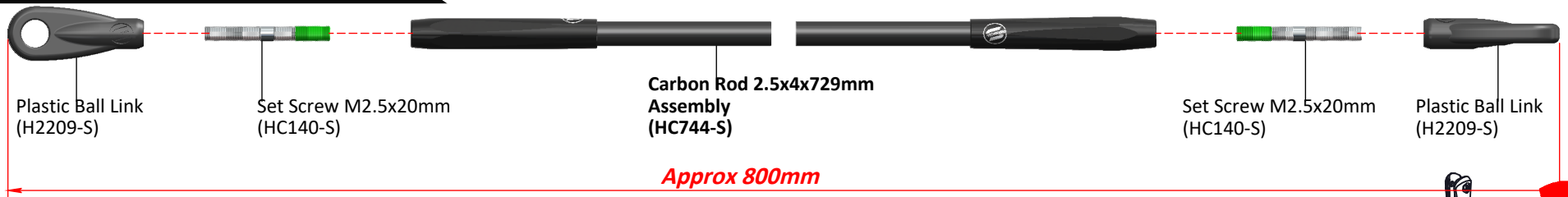


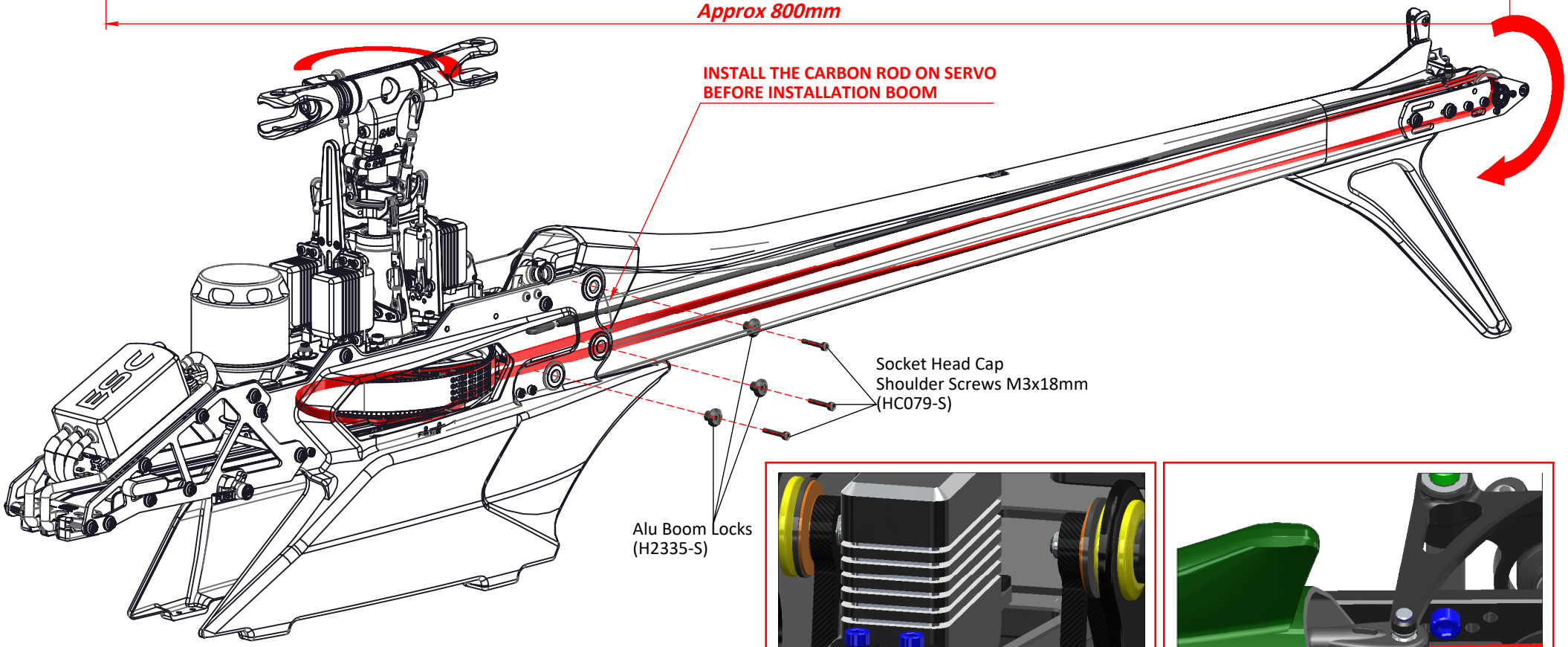
TAIL SERVO MOUNT ASSEMBLY





Boom Foam, Bag for page 25





TAIL BOOM ASSEMBLY

To fit the tail belt, loosen the tail case by loosening the 4 M3 screws (**Figure 1**).
*Install the belt onto the tail front pulley, checking the direction of rotation.
*Insert and tighten the 4 M4 screws.
*Rotate the tail drive several times by hand.
*Tension the tail case by hand and slowly tighten the 2 BLACK screws in (**Figure 2**).

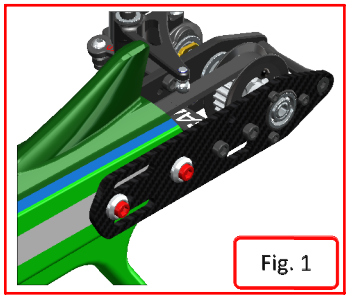


Fig. 1

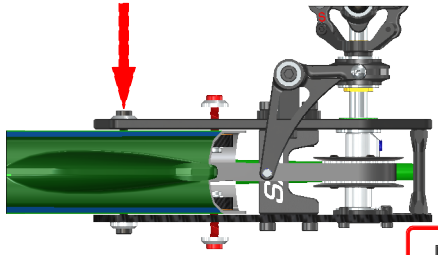


Fig. 2

TAIL BELT TENSION

To provide the correct tail belt tension, you can use the **"zig-zag"** method.

Figure 3, Loosen the 2 **RED** screws and the **BLUE** screw, then push the tail side in the direction indicated by the red arrow.
While pushing, tighten the **BLUE** screw.

Figure 4, Loosen the 2 **RED** screws and the **YELLOW** screw, then push the tail side as indicated by the red arrow. While pushing, tighten the **YELLOW** screw. Continue adjusting step by step until the tail belt is sufficiently tight. Note that a Hard 3D flying style will require more tension; once you achieve the desired tension, ensure all screws are tight and the tail shaft is perfectly aligned and straight.

Figure 5, The tail output shaft must be perpendicular to the boom mid-line.

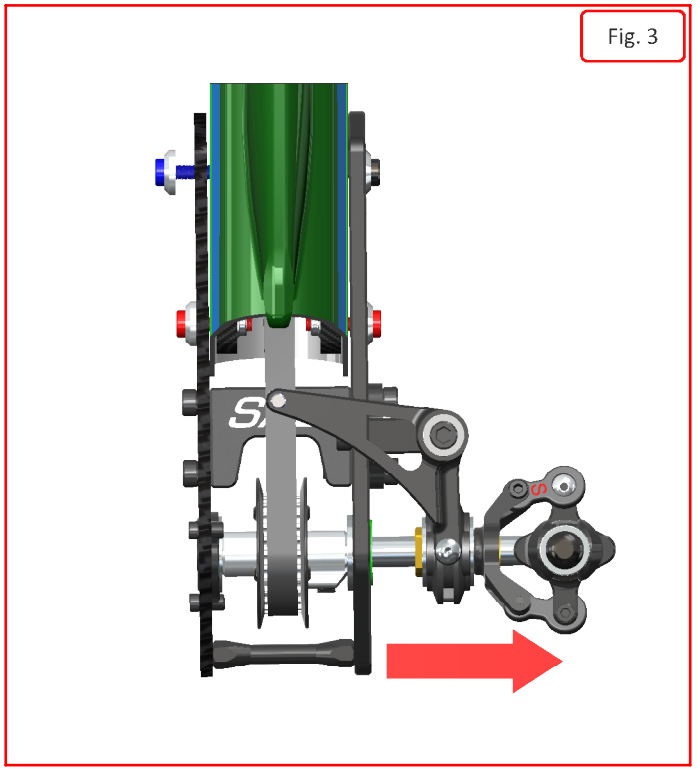


Fig. 3

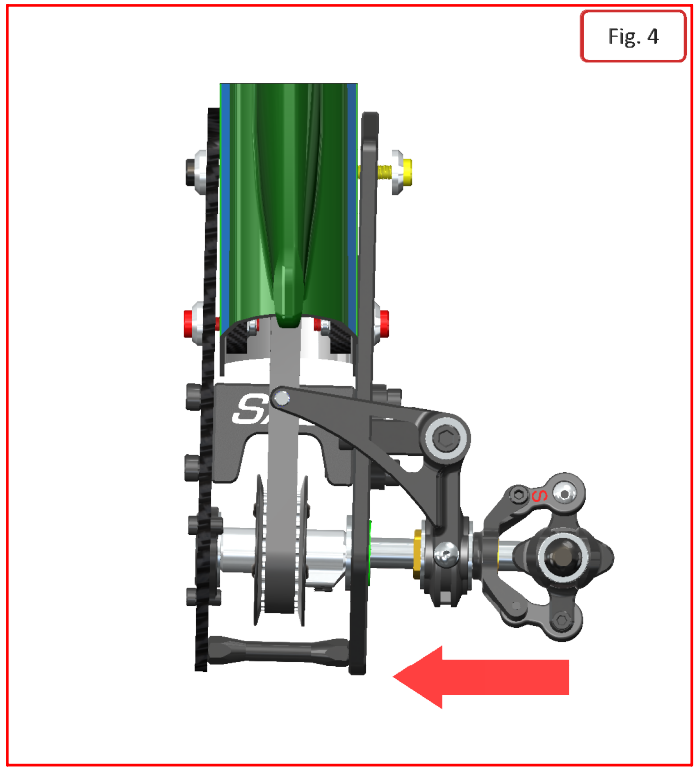


Fig. 4

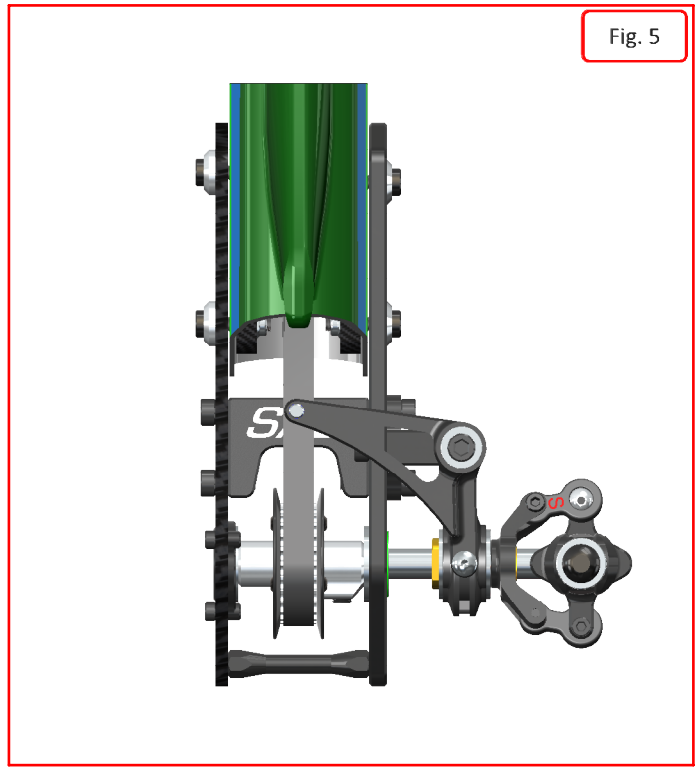
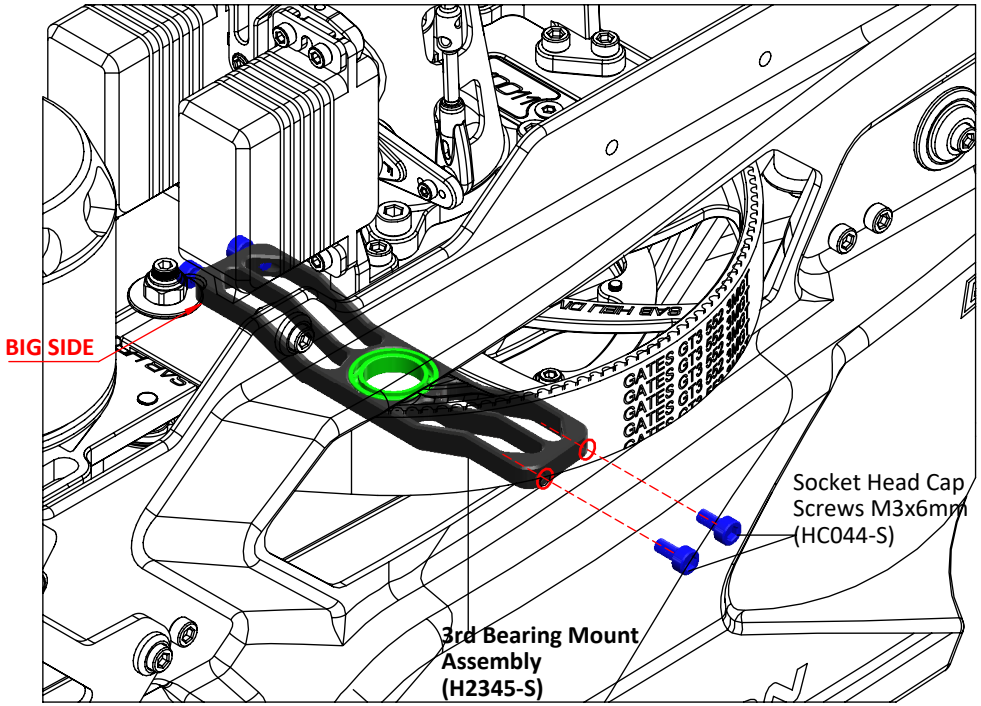
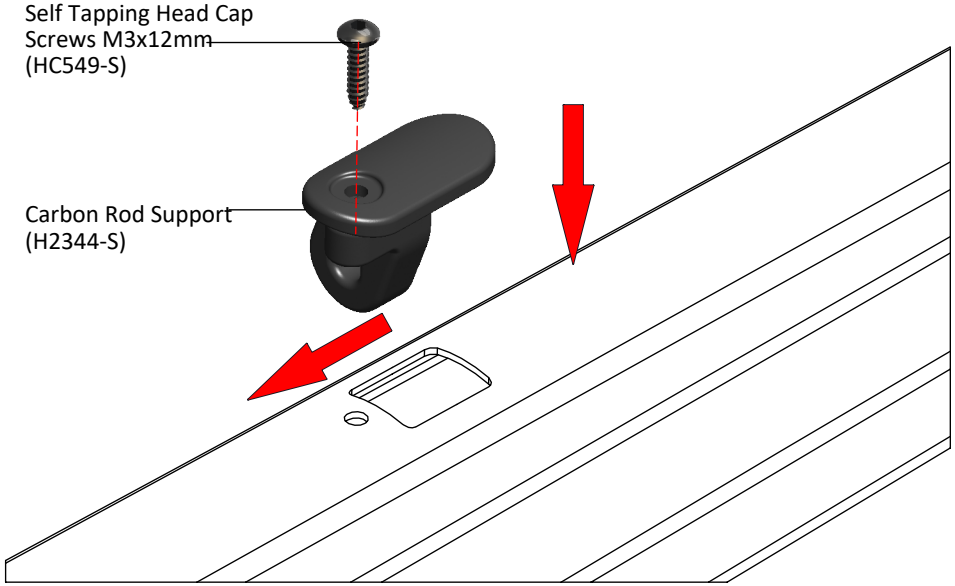


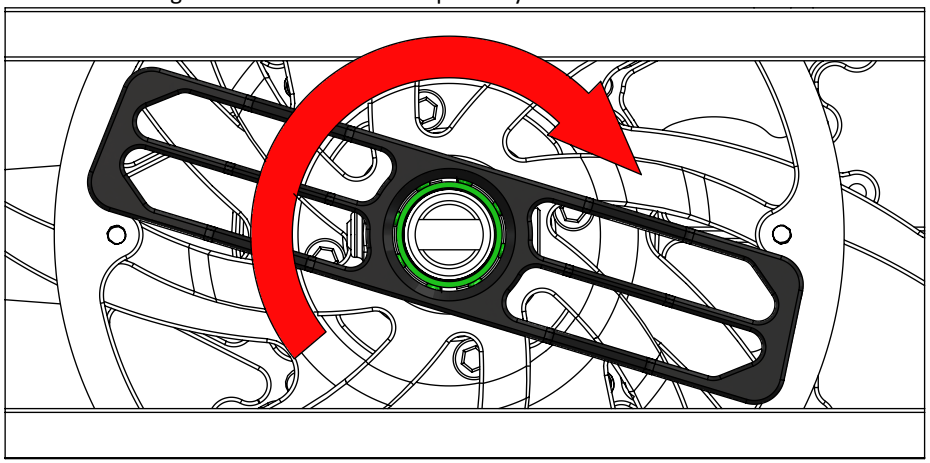
Fig. 5

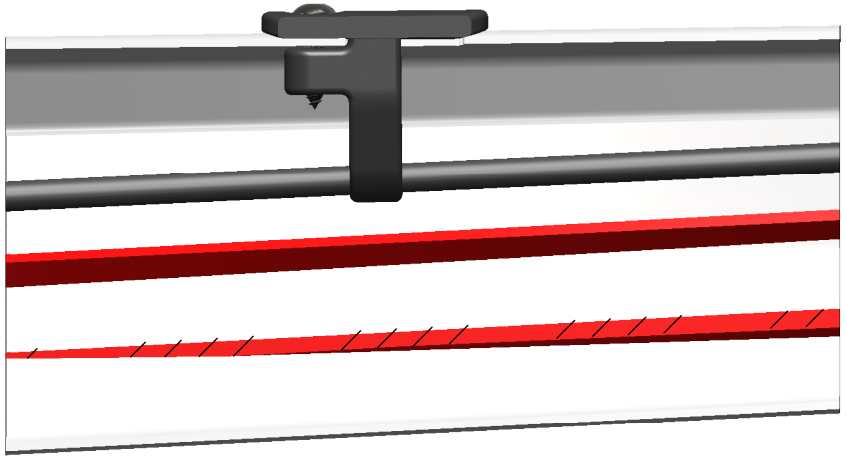
BAG FOR PAGE 27



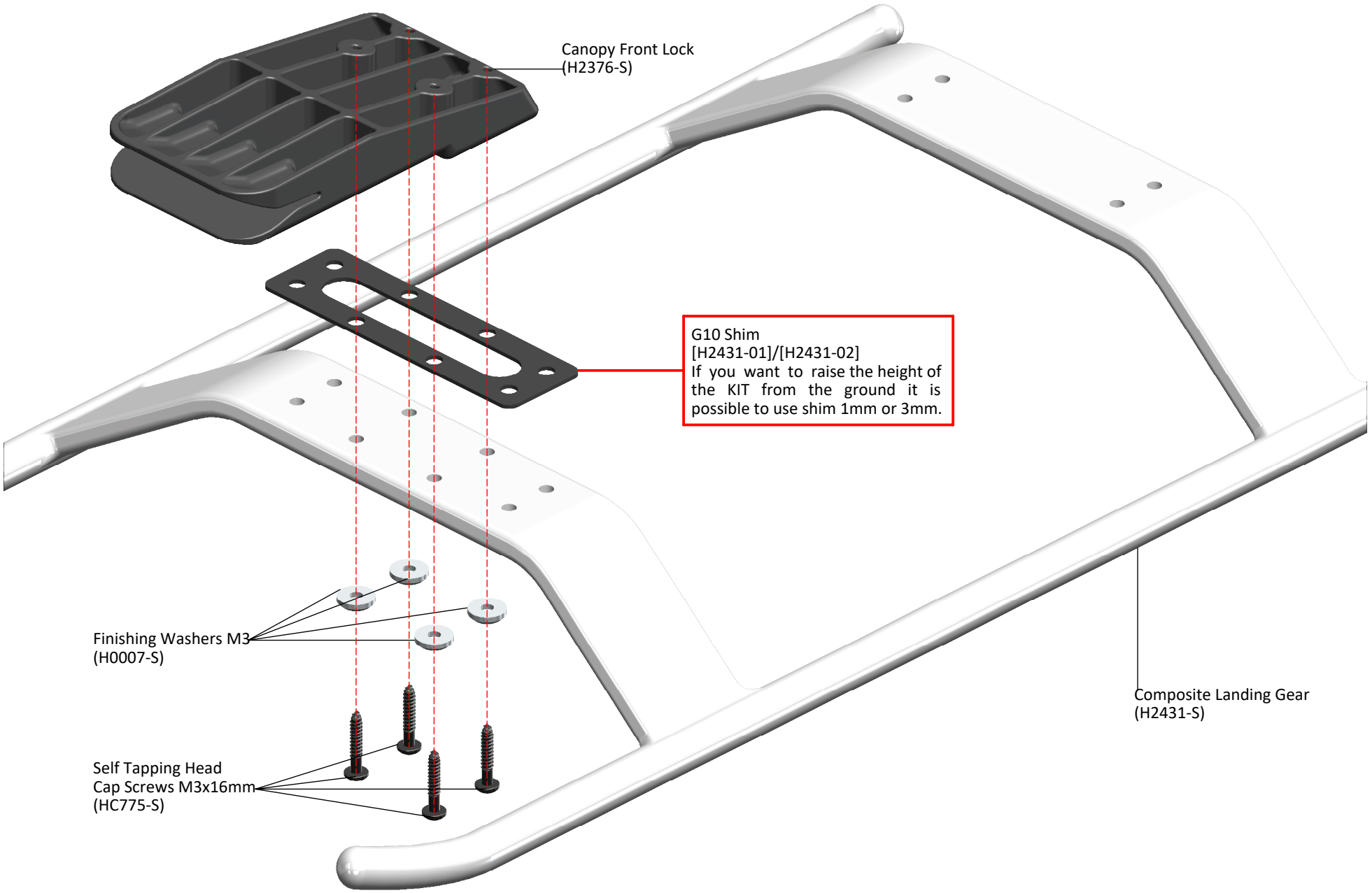


Note: Before rotating the part H2345, unscrew the screws connecting the frame to the main plate by 1 mm.

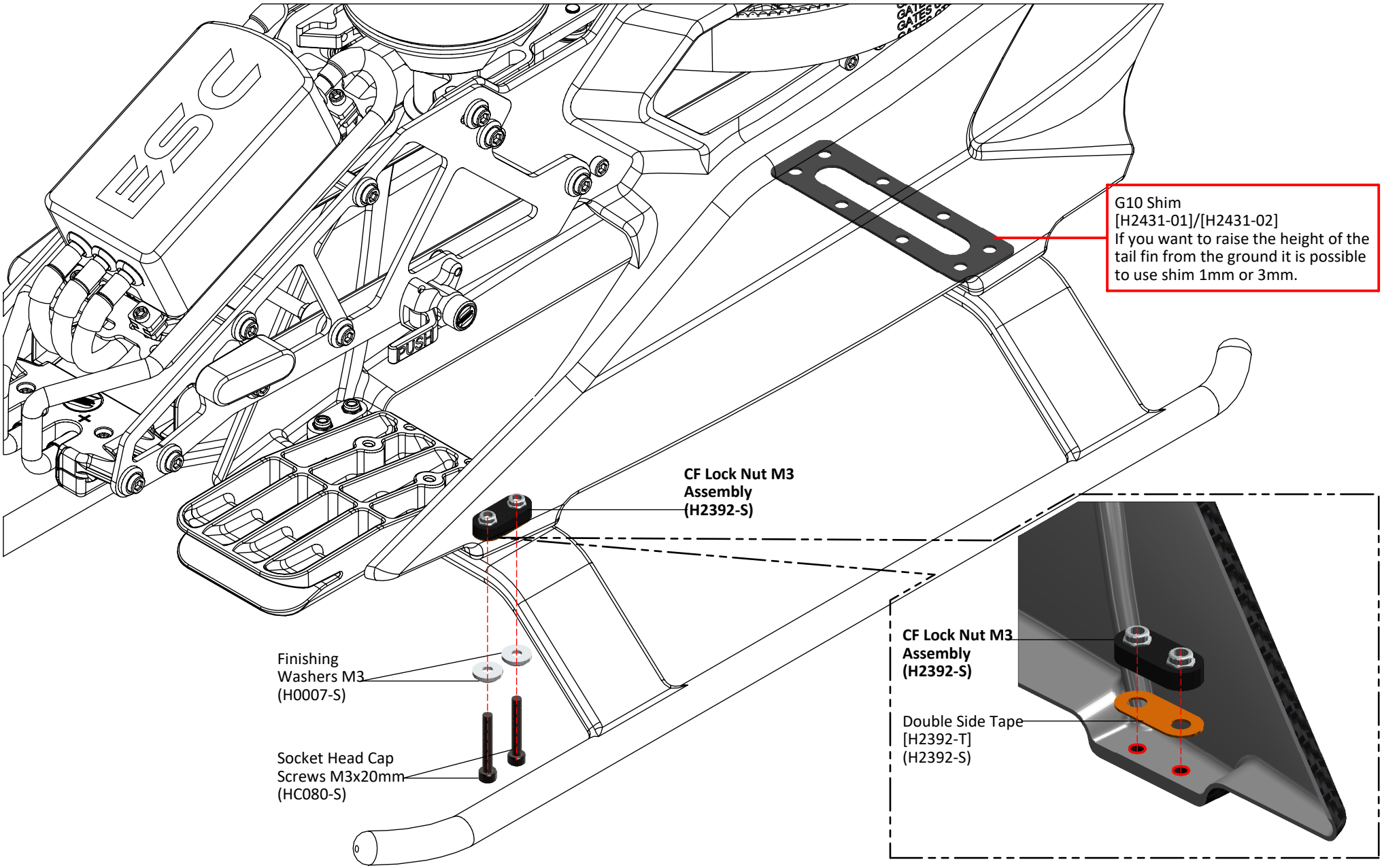




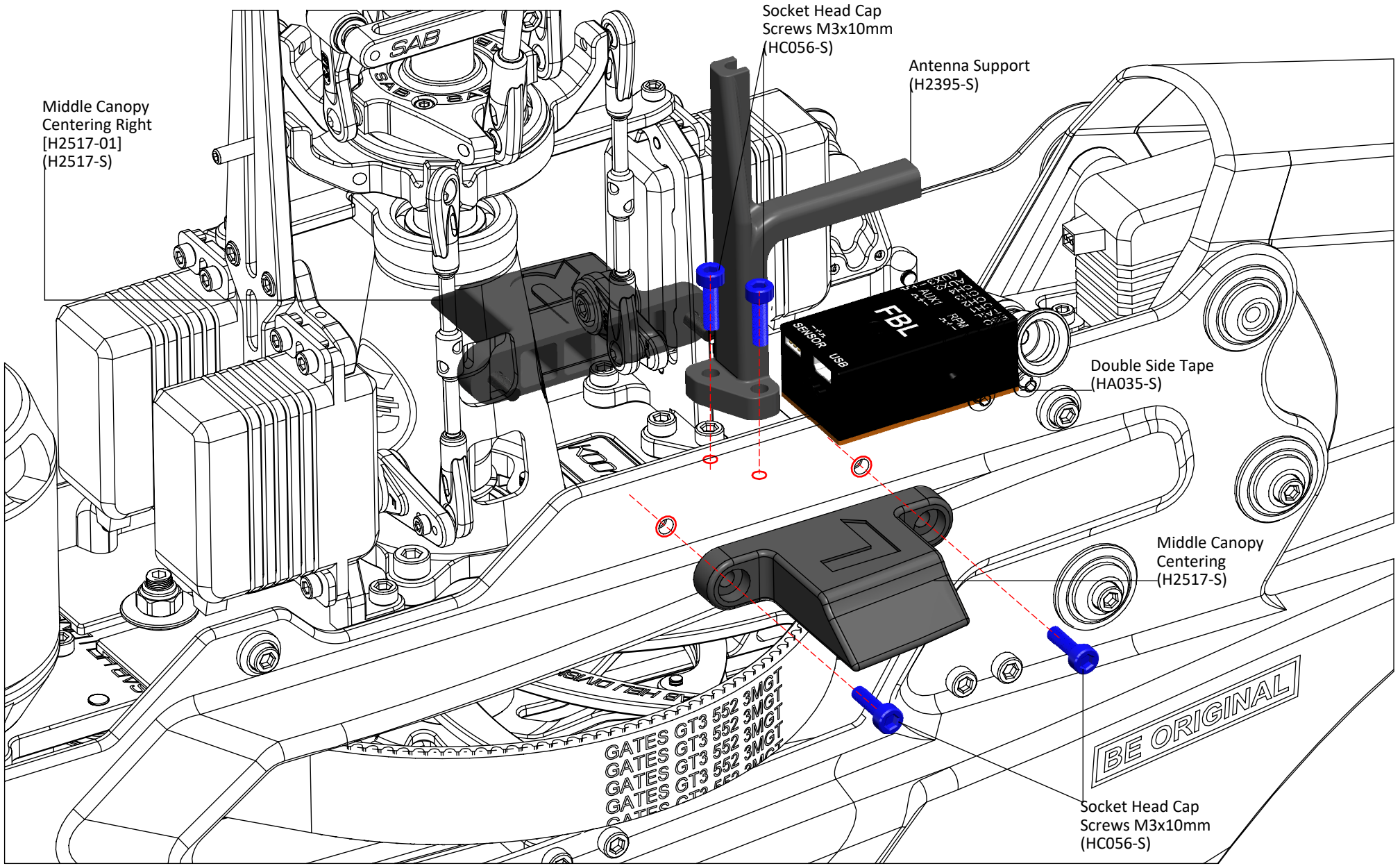
BOX 1, BAG FOR PAGE 28



Box 1, Bag for page 29



BOX 1, BAG FOR PAGE 30



BOX 1, BAG FOR PAGE 31

CANOPY

*Install Canopy grommets **(Figure.1)** and the two quick knobs **(Figure.2)**

*Fit the canopy in the red arrow zone, and insert the knobs.

*Confirm the canopy is secure prior to each flight.

Fig. 1

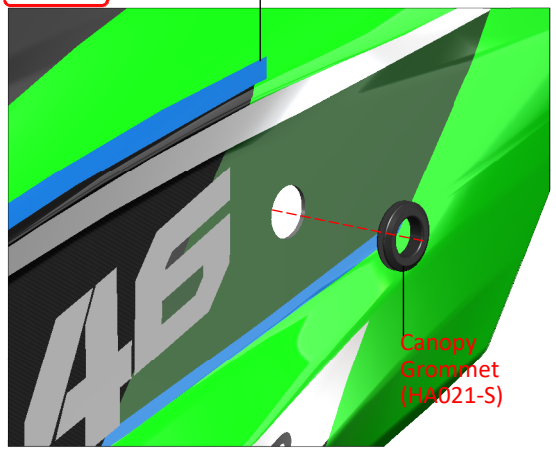
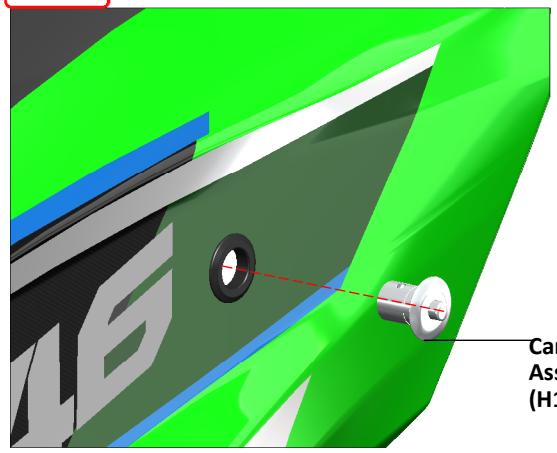
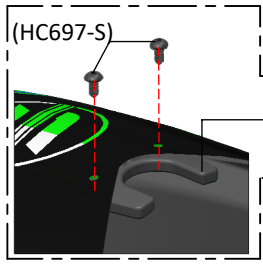
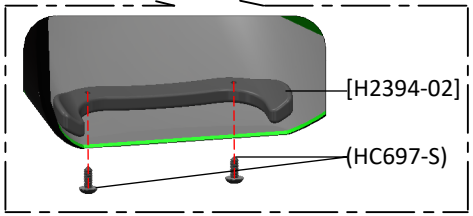


Fig. 2



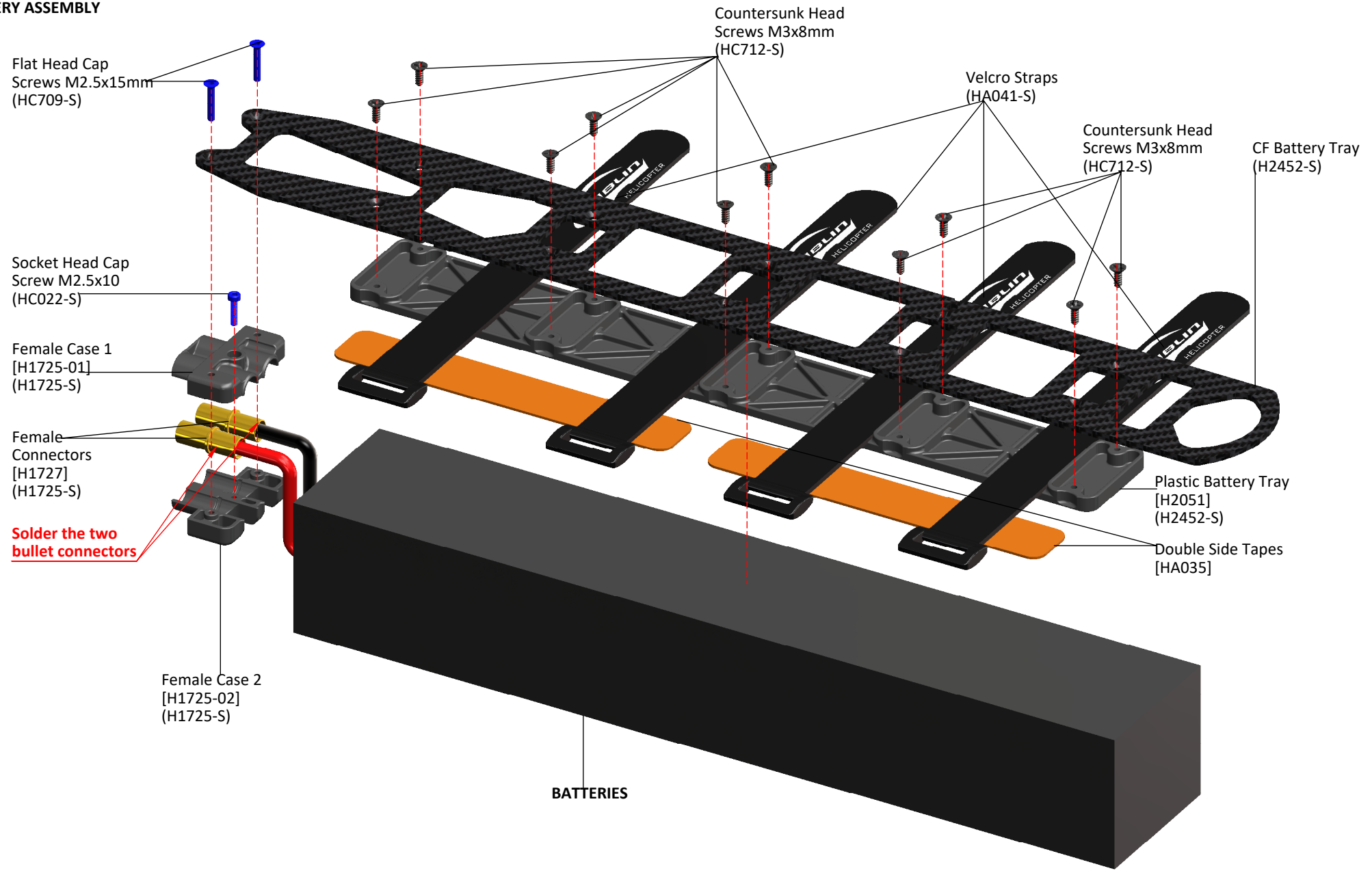




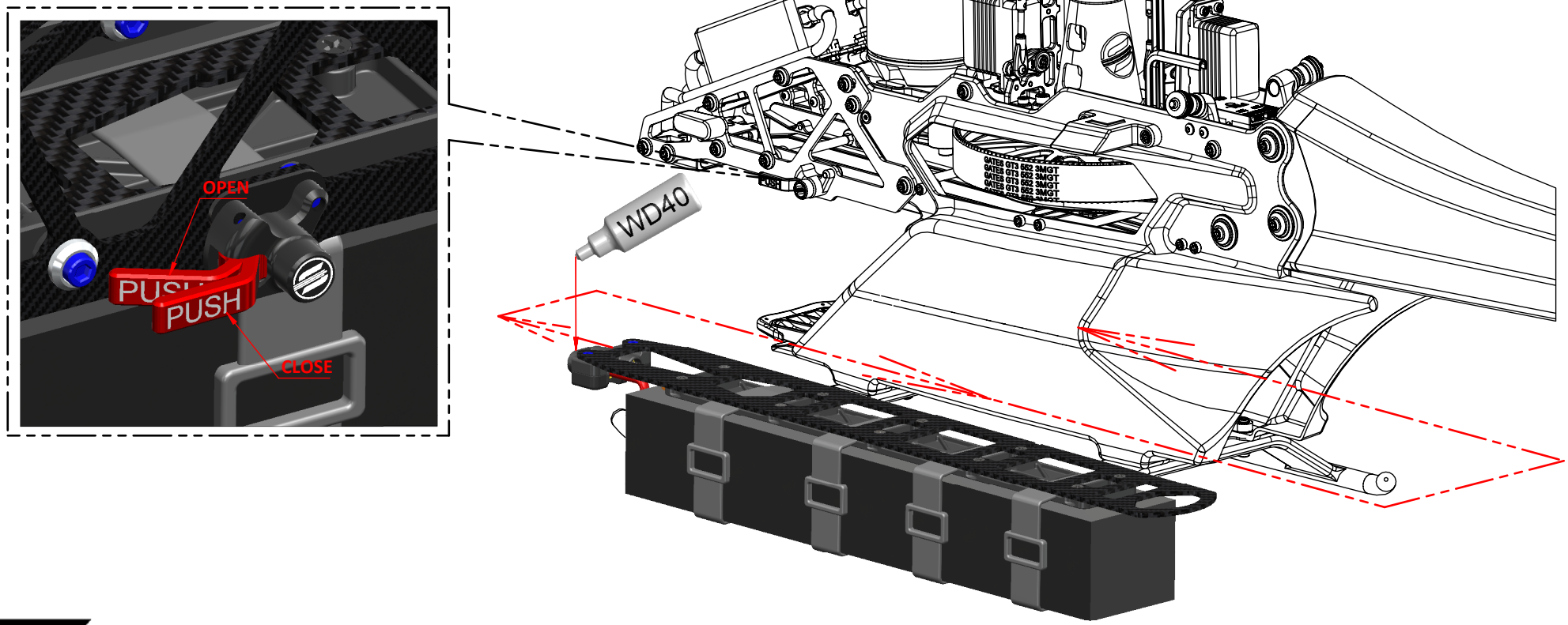
NOTE:
Put a very small drop of CA glue on the grommet and then insert the quick release canopy mount. This way when you remove the canopy, the mounts can not come off. Be careful not to block the quick release mechanism with glue.

BOX 1, BAG FOR PAGE 32

BATTERY ASSEMBLY



Before permanently mounting the batteries onto the battery tray, check the ideal position for the best center of gravity.



OPERATIONS BEFORE FLIGHT

*Set up the remote control and the flybarless system with utmost care.
*It is advisable to test the correct settings of the remote and flybarless system without main blades or tail blades fitted.
*Check that all wiring is isolated from the carbon/aluminum parts. It is good practice to protect them at the points where they are at most risk.
*Be sure of the gear ratio, verifying carefully the motor pulley in use. The forces acting on the mechanics increase enormously with increasing of rpm. Although the Goblin can fly at high rpm, for safety reasons we suggest to not exceed 2000rpm.

*Fit the main blades and tail blades. (**Figure.1** and **Figure.2**)
*Please make sure the main blades are tight on the blade grips, you should be able to violently jerk the head in both directions and the blades should not fold. Failure to tighten the blades properly can result in a boom strike. To fold the blades for storage, it is advisable to loosen them.
*Check the collective and cyclic pitch. For Acrobatic flight, set about +/-12°.

*It is important to check the correct tracking of the main blades.
On the Goblin, in order to correct the tracking, adjust the main link rod. This is provided with a right/left thread system that allows continuous fine adjustments of the length of the control rod; for this adjustment it is not necessary to detach the ball link.
*Confirm the canopy is secure prior to each flight.
* Make sure that the battery locking pin is back in its resting position, blocking in correct way the battery tray.

*Perform the first flight at a low headspeed, 1500 RPM.

After this first flight, do a general check of the helicopter. Verify that all screws are correctly tightened.

IN FLIGHT

ABOUT HEAD

The HPS head allows for a very broad range of dampening setups.
The dampers are composed of 3 O-ring (that defines the rigidity) and a technopolymer damper (that defines the maximum possible movement of the spindle).
Using different Oring and dampers you can get different responses of the model.
Oring
85 Shore: Soft for smooth response
95 Shore: Firm for direct and precise response
A = Max movement of the spindle, feeling more elastic.
B = Medium.
C = Min movement of the spindle, feeling more direct.
The kit includes B damper H1046-B with 85 Shore O-ring
[other Setting >>p/n H1135-S, HC530-S].

ABOUT TAIL

The boom is connected to three damper systems. If the model tends to wobble, you can try changing the dampers. For example, sometimes the three+three yellow dampers can reduce the wobble. It depends on the rotation speed and gyro settings.

BOX 2, BAG FOR PAGE 34

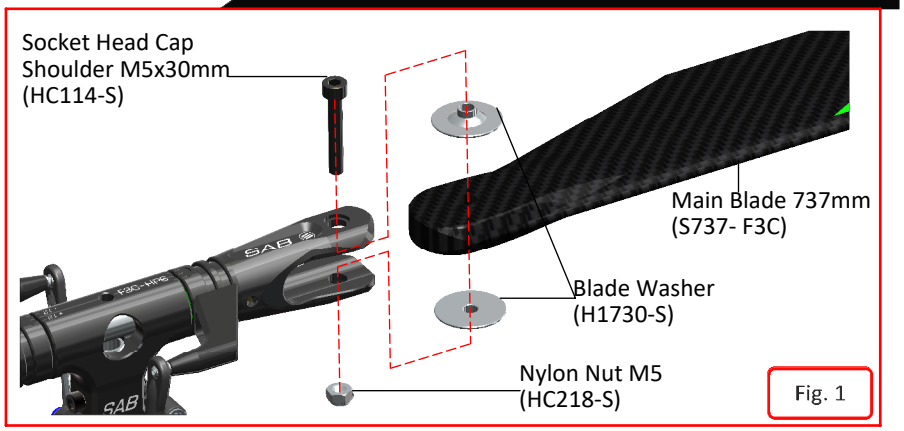


Fig. 1

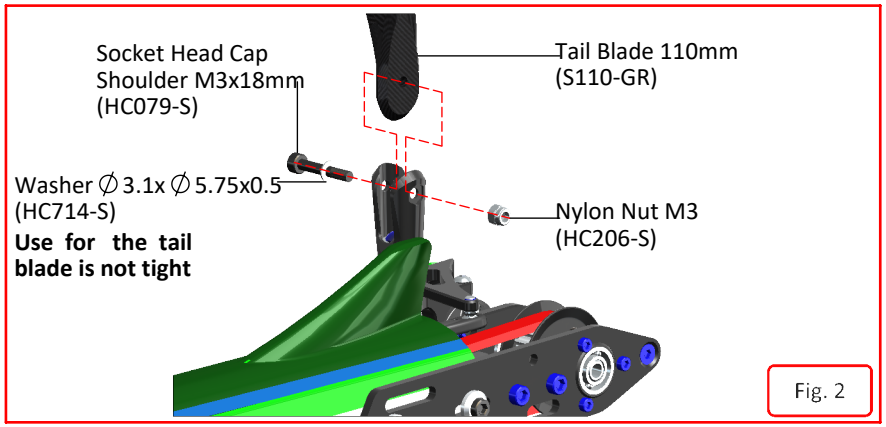


Fig. 2

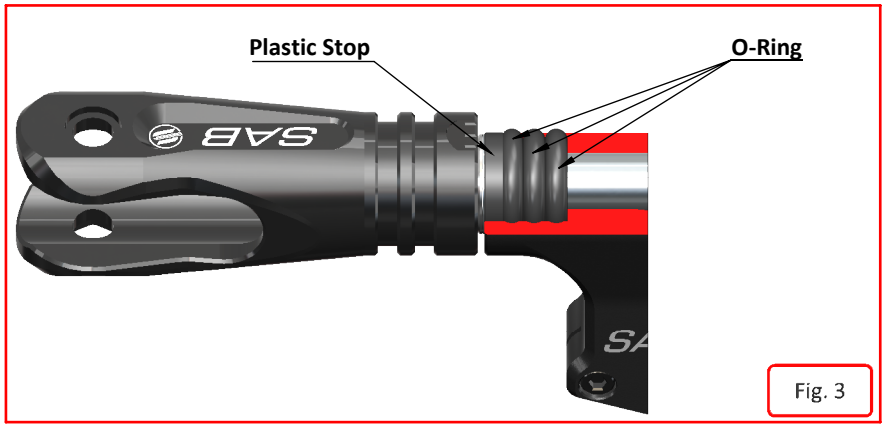
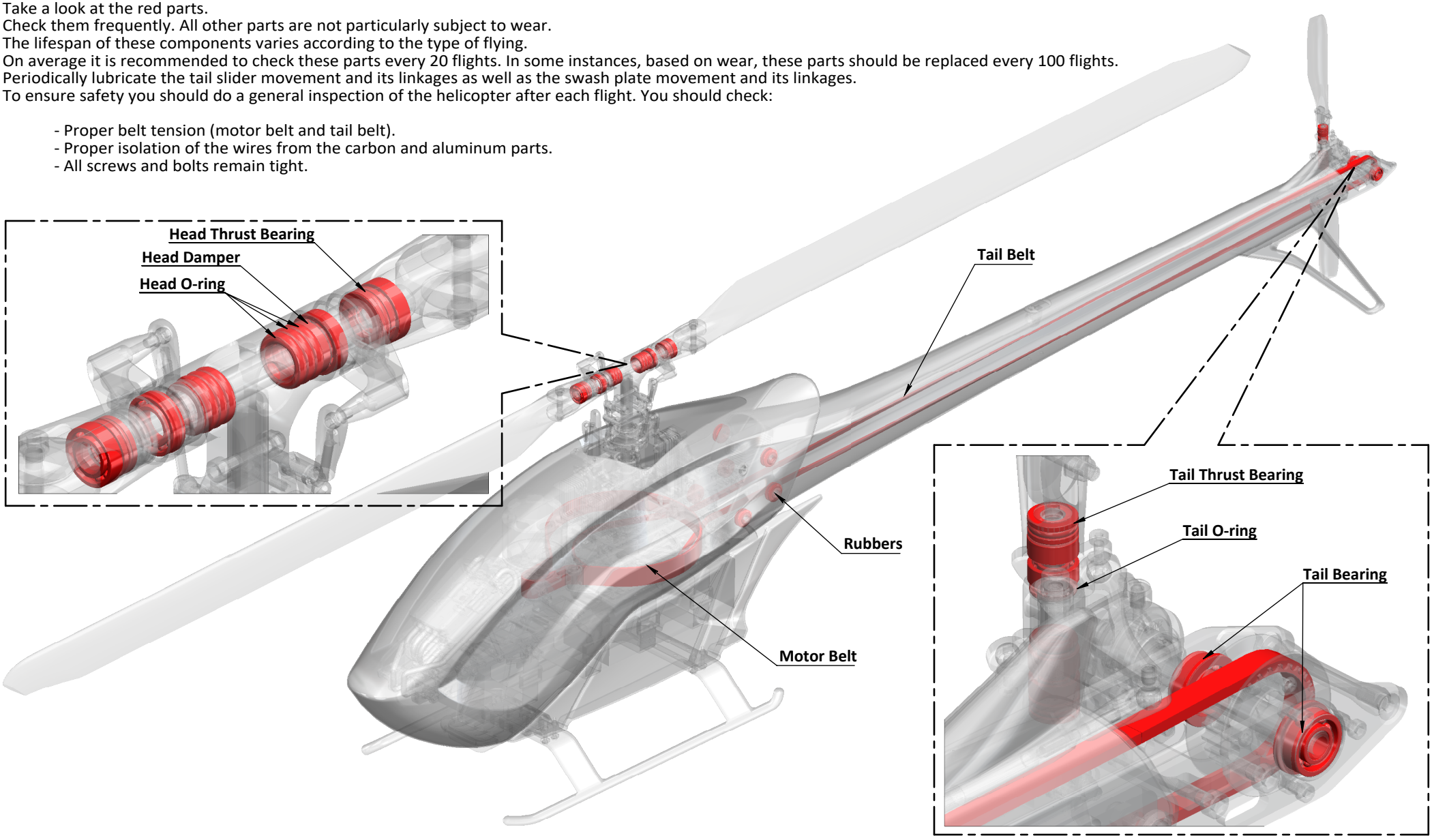


Fig. 3

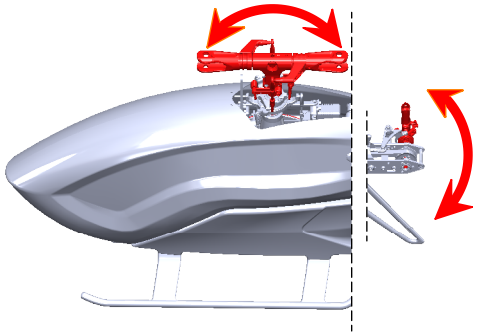
MAINTENANCE

Take a look at the red parts.
Check them frequently. All other parts are not particularly subject to wear.
The lifespan of these components varies according to the type of flying.
On average it is recommended to check these parts every 20 flights. In some instances, based on wear, these parts should be replaced every 100 flights.
Periodically lubricate the tail slider movement and its linkages as well as the swash plate movement and its linkages.
To ensure safety you should do a general inspection of the helicopter after each flight. You should check:

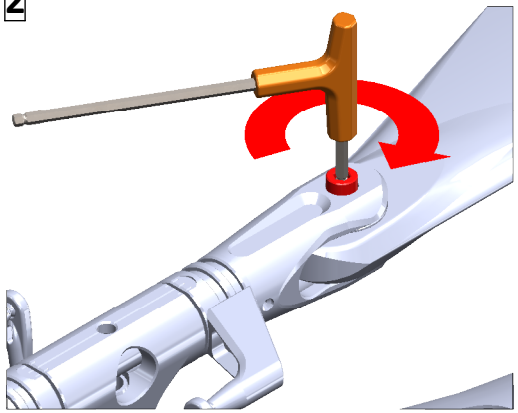
- Proper belt tension (motor belt and tail belt).
- Proper isolation of the wires from the carbon and aluminum parts.
- All screws and bolts remain tight.



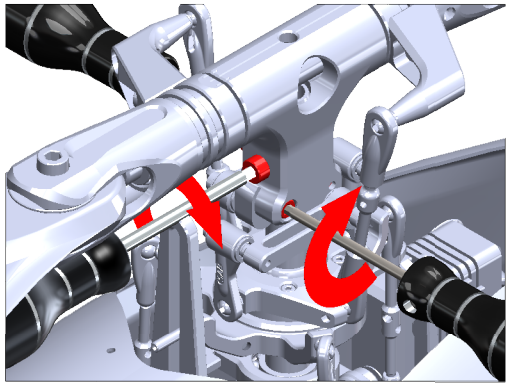
1 **Check the dampening on the main and tail rotor to be the same as always.**



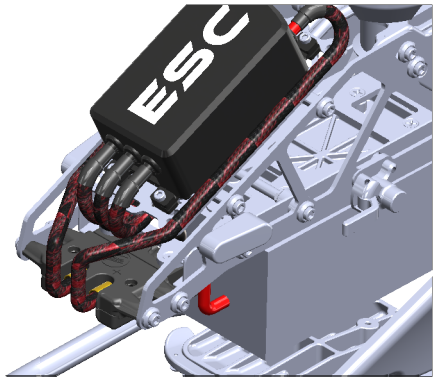
2 **Tighten the main blades before flight.**



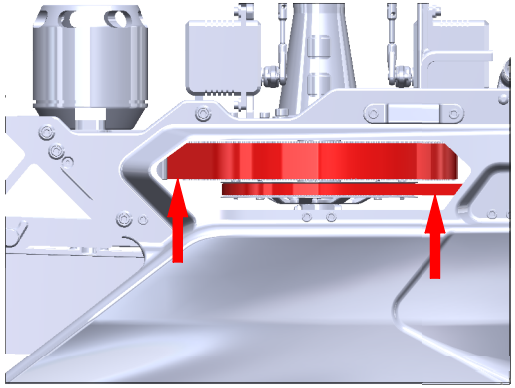
3 **Check main hub screws(M4 and 2 M3)**
Ensure they are tight.



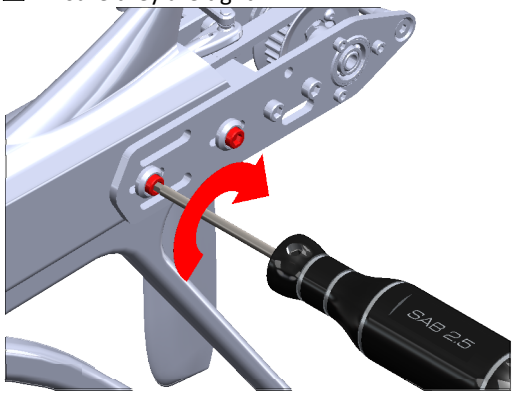
4 **Check all power connectors (Good mechanical connection).**



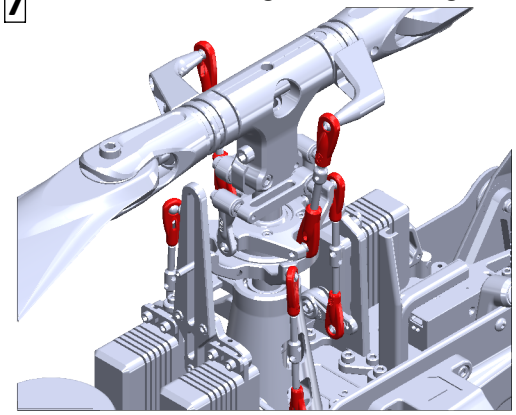
5 **Check Tail & Motor belt tension.**
The tension has to be tight.



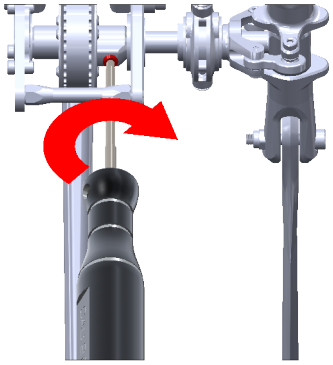
6 **Check the 4 M3x12 Tail group screws.**
Ensure they are tight.



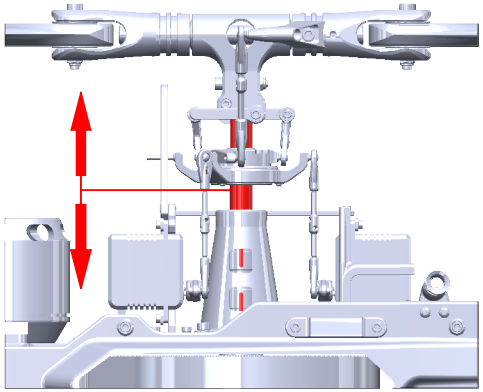
7 **Check the Main Linkages & Servo Linkages**



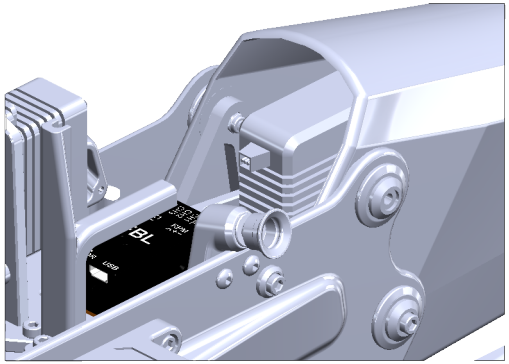
8 **Check tail pulley set screws:**
Ensure they are tight.
(It is suggested use a bit of retaining compound.)



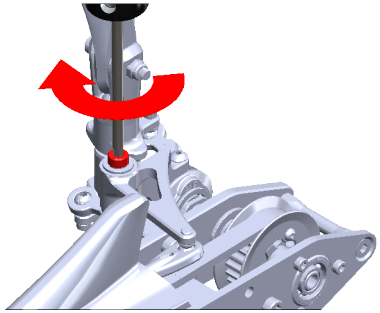
9 **Check for vertical play of the main shaft.**



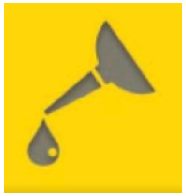
10 **Check if the FBL-RX connectors are OK (hot glue is recommended).**

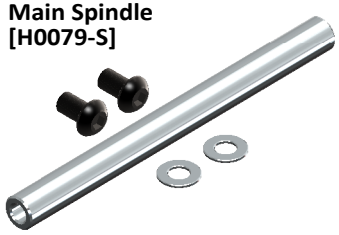
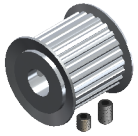
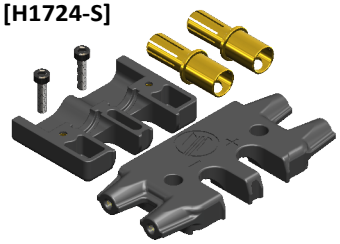
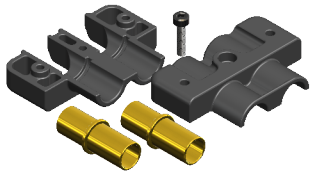
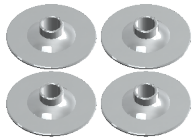
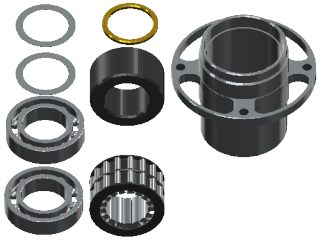


11 **Check the M3 bell crank:**
Belt crank movement must be smooth and the screw locked.
(It is suggested use a bit of retaining compound.)



12 **Be sure the follow parts are properly lubricated**
*Main shaft/swashplate
*Tail slider/tail shaft
*Carbon rod/carbon rod support
*All thrust bearings
*All plastic balls connections



Finishing Washer M3 [H0007-S]  - 10 x Finishing Washers M3.	**Unibal M2 [H0064-S]**  - 5 x Unibal M2. - 5 x Unibal Spacers. - 5 x Head Cap Screws M2x6. - 5 x Head Cap Screws M2x8.	**Unibal M3 [H0065-S]**  - 5 x Uniball M3.	**Servo Spacer [H0075-S]**  - 10 x Servo Spacers.	**Main Spindle [H0079-S]**  - 1 x Main Spindle. - 2 x Washers ∅ 6.1x ∅ 14x1.8 . - 2 x Button Cap Screws M6x10	**Aluminum Radius Arm [H0132-S]**  - 1 x Alu Radius Arm SET.
Motor Pulley [H0175-18/25-S]  - 1 x Motor Pulley Z18/25. - 1 x Motor Bushing. - 1 x Set Screw M4x4. - 1 x Set Screw M4x6.	**Plastic Radius Arm [H0205-S]**  - 2 x Plastic Radius Arms.	**Tail Pitch Slider Link [H0261-S]**  - 2 x Tail Pitch Slider Links. - 2 x Bushings ∅ 2x ∅ 3x3. - 2 x Head Cap Screws M2x6.	**Tail Spindle [H0329-S]**  - 1 x Tail Spindle. - 2 x Button Cap Screws M4x6.	**Spacer Set For Tail Rotor [H0330-S]**  - 2 x Tail Orings Damper. - 2 x Washers ∅ 5x ∅ 8.9x0,75. - 2 x Washers ∅ 7.5x ∅ 10x0,5.	**Linkage Rod M3x50 [H0417-S]**  - 2 x Linkage Rods M3x50. - 4 x Plastic Ball Linkages.
Damper Derlin [H1046-S]  - 2 x Dampers B. - 6 x O-rings 90 Shore.	**Reference Pin [H1048-S]**  - 1 x Reference Pin.	**Tail Case Spacer [H1093-S]**  - 1 x Tail Case Spacer. - 4 x Head Cap Screws M3x8.	**Quick Release Canopy [H1101-S]**  - 2 x Quick Release Canopy SET - 2 x Head Cap Screws M3x6.	**Lock Nut M3 [H1386-S]**  - 5 x Lock Nuts M3. - 5 x Nylon Nuts M3.	**Battery Lock [H1721-S]**  - 1 x Battery Lock Base. - 1 x Battery Lock Level. - 1 x Battery Lock Pin. - 1 x Battery Lock Spring. - 1 x Bushing ∅ 2,5x ∅ 4x6,3. - 1 x Flat Cap Screw M2.5x12. - 2 x Head Cap Screws M3x6.
SAB Male Connector D5 (ESC) [H1724-S]  - 1 x Male Connector D5 SET.	**SAB Female Connector D5 (Battery) [H1725-S]**  - 1 x Female Connector D5 SET.	**Main Blade Washer [H1730-S]**  - 4 x Main Blade Washers.	**Double OWB Mount SET [H1777-G-S]**  - 1 x Double OWB Mount SET.	**Serial Number [H1780-S]**  - 1 x Serial Number. - 1 x Flat Cap Screw M3x5.	**Main Blade Grip [H1790-S]**  - 1 x Main Blade Grip SET.

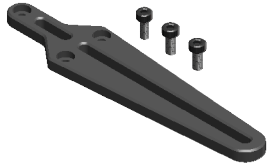
Tail Locking Element 30
[H1862-S]

- 2 x Tail Locking Elements 30.
- 2 x Double Side Tapes.
- 4 x Nylon Nuts M3.

Tail Belt Ilder D9x12.5
[H1879-S]

- 2 x Tail Belt Ilders D9x12.5.
- 4 x F.Bearings ∅5x∅9x3.

Anti-Rotation Guide
[H1885-S]



- 1 x Anti-Rotation Guide.
- 3 x Head Cap Screws M2.5x6.

Tail Blade Grip
[H1893-S]

- 2 x Tail Blade Grips.
- 2 x Washers ∅7,5x∅10x0,5.
- 2 x Button Cap Screws M4x6.
- 4 x Ball Bearings ∅5x∅10x4.
- 2 x Thrust Bearings ∅5x∅10x4.

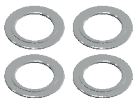
HEX 5 Spacer M3x60
[H2054-S]

- 2 x HEX 5 Spacers M3x60.

Tail Column Spacer
[H2067-S]

- 1 x Tail Column Spacer.
- 2 x Flat Cap Screws M3x8.

Washer ∅10.1x∅16x1
[H2146-S]

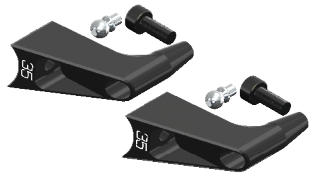


- 4 x Washers ∅10.1x∅16x1.

Bushing ∅12.1x∅15x8
[H2152-S]

- 2 x Bushings ∅12.1x∅15x8.
- 2 x Shims ∅12.1x∅16x0.1.

Blade Grip Arm 35
[H2161-S]



- 2 x Blade Grip Arms 35.
- 2 x Uniball M3.
- 2 x Head Cap Screws M4x10.

Plastic Ball Linkage M2.5
[H2209-S]

- 10 x Plastic Ball Linkages M2.5.

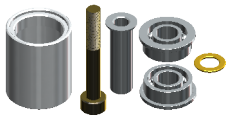
Plastic Ball Linkage M3
[H2210-S]

- 10 x Plastic Ball Linkages M3.

Main Pulley
[H2288-S]

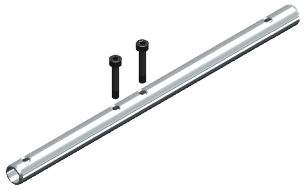
- 1 x Main Pulley.
- 1 x Bushing.
- 4 x Head Cap Screws M3x8.

Ilder D17.5x21
[H2292-S]



- 1 x Swasher ∅5x∅8.5x0,75.
- 1 x Idler Bearing Lock.
- 1 x Idler D17.5x21.
- 2 x Fl.Bearings ∅6x∅13x5.
- 1 x Shoulder Screw M4x28.

Main Shaft D12
[H2325-S]



- 1 x Main Shaft D12.
- 2 x Shoulder Screws M4x21.5.

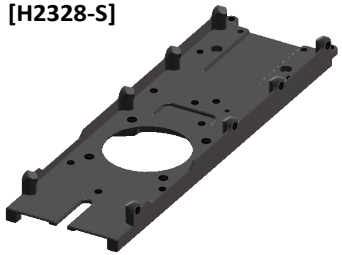
Swashplate Shaft D12
[H2326-S]

- 1 x Swashplate Shaft D12 SET.
- 7 x Uniball M3.
- 1 x Reference Pin.

Main Shaft D12 Lock
[H2327-S]

- 1 x Main Shaft D12 Lock.
- 2 x Shoulder Screws M4x21.5.

Main Plate
[H2328-S]



- 1 x Main Plate.

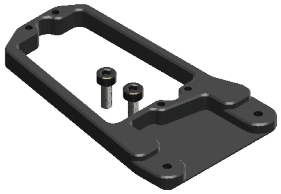
Tail Belt Tensioner
[H2329-S]

- 1 x Tail Belt Idler d9x12.5.
- 1 x Column Tensioner.
- 1 x Head Cap Screw M3x8.
- 1 x Washer 3x7x1.
- 1 x F.Bearing ∅5x∅9x3.

Front Tail Pulley
[H2330-S]

- 1 x Front Tail Pulley.
- 8 x Head Cap Screw M2,5x8.
- 1 x Nylon Nut M4.
- 2 x Shims ∅12.1x∅16x0.1.
- 1 x Shoulder Screw M4x21.5.

Tail Servo Mount
[H2331-S]

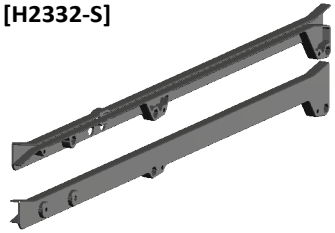


- 1 x Tail Servo Mount.
- 8 x Head Cap Screw M3x8.

Canopy Position Mount
[H2334-S]

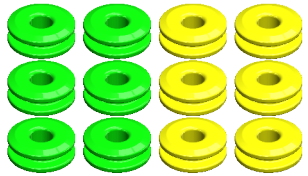
- 1 x SX Canopy Position Mount.
- 1 x DX Canopy Position Mount.
- 4 x Self Tapping Screws M3x10.

Battery Guide
[H2332-S]



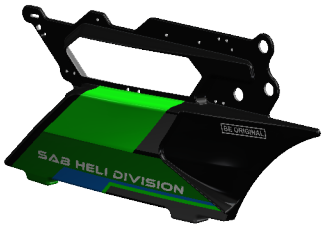
- 1 x SX Battery Guide.
- 1 x DX Battery Guide.

Boom Rubber Spacer
[H2336-S]



- 6 x Boom Rubbers 50 Shored.
- 6 x Boom Rubbers 70 Shored.

SX Main Frame
[H2337-S]



- 1 x SX Main Frame.

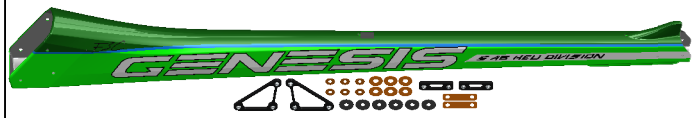
DX Main Frame
[H2338-S]

- 1 x DX Main Frame.

Genesis F3C Composite Canopy
[H2339-S]

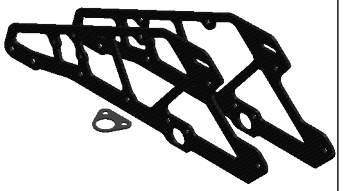
- 1 x Canopy.
- 2 x Canopy Grommets.
- 1 x Top Canopy Center.
- 1 x Bottom Canopy Center.
- 4 x Tapping Screws M2.2x6.

Genesis F3C Composite Tail Boom
[H2340-S]



- 2 x Tail Locking Elements.
- 2 x Double Side Tapes.
- 1 x Genesis F3C Composite Boom.
- 1 x CF Left Boom Lock.
- 1 x CF Right Boom Lock.
- 6 x G10 1mm Washers.
- 12 x Double Sided Tape.
- 10 x Nylon Nuts M3.

ESC Support
[H2341-S]



- 2 x ESC Supports.
- 1 x G10 Spacer.

SG767 Bell Crank
[H2342-S]

- 2 x Tail Pins.
- 1 x Uniball M3.
- 1 x SG767 Bell Crank SET.
- 1 x Head Cap Screw M3x22.

Bell Crank Base
[H2343-S]

- 1 x Bell Crank Base.
- 1 x Head Cap Screw M3x8.
- 1 x Head Cap Screw M3x12.

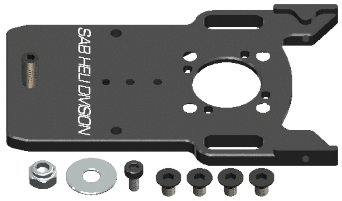
Carbon Rod Support
[H2344-S]

- 1 x Carbon Rod Support.
- 1 x Tapping Screw M3x12.

3rd Bearing Mount
[H2345-S]

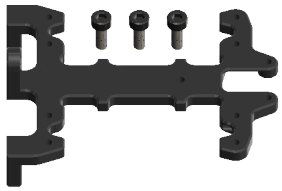
- 1 x 3rd Bearing Mount.
- 4 x Head Cap Screws M3x6.
- 1 x Bearing ∅ 12x ∅ 18x4.

Motor Mount
[H2372-S]



- 1 x Motor Mount SET.

Front Servo Mount
[H2373-S]

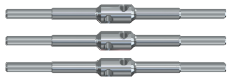


- 1 x Front Servo Mount.
- 3 x Head Cap Screws M3x8.

Rear Servo Mount
[H2374-S]

- 1 x Rear Servo Mount.
- 3 x Head Cap Screws M3x8.

Servo Linkage M2.5x58
[H2375-S]



- 3 x Servo Linkages M2.5x58.

Front Canopy Lock
[H2376-S]

- 1 x Front Canopy Lock.
- 4 x Finishing Washer M3.
- 4 x Tapping Screws M3x16.

Top Bearing Mount
[H2378-S]

- 1 x Top Bearing Mount.
- 1 x Bearing ∅ 12x ∅ 24x6.
- 4 x Head Cap Screws M4x12.

Bottom Bearing Mount
[H2381-S]

- 1 x Bottom Bearing Mount.
- 1 x Bearing ∅ 12x ∅ 24x6.
- 4 x Head Cap Screws M3x8.

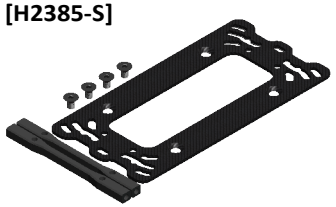
Center Hub
[H2383-S]

- 1 x Bottom Bearing Mount.
- 2 x Head Cap Screws M3x12.
- 1 x Shoulder Screw M4x24.
- 1 x Nylon Nut M4.

Reinforcement
[H2384-S]

- 1 x Reinforcement.
- 4 x Head Cap Screws M2.5x6.

ESC Mount
[H2385-S]



- 1 x ESC Plate Mount.
- 2 x ESC Mount Spaces 65.
- 4 x Flat Cap Screws M3x5.

Tail Shaft D6
[H2386-S]

- 1 x Tail Shaft D6.
- 2 x O-rings Shored 70.

Alu Tail Side Plate
[H2387-S]

- 1 x Alu Tail Side Plate.
- 1 x Bearing ∅ 6x ∅ 13x5.

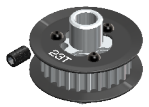
CF Tail Side Plate
[H2388-S]

- 1 x CF Tail Side Plate.

Tail Bearing Mount
[H2389-S]

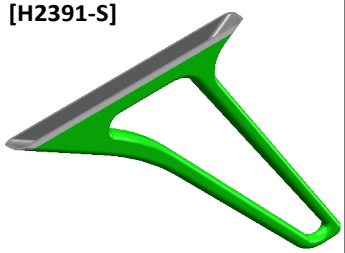
- 1 x Tail Bearing Mount.
- 1 x Bearing ∅ 6x ∅ 13x5.
- 3 x Head Cap Screws M2x5.

Tail Pulley Z23/Z26
[H2390-23/26-S]



- 1 x Plastic Battery Mount.
- 1 x Carbon Fiber Battery Tray.

Tail Fin
[H2391-S]



- 1 x Tail Fin.

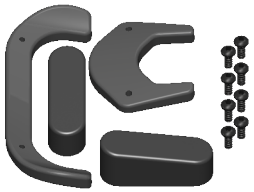
Lock Nut M3
[H2392-S]

- 4 x Lock Nuts M3.
- 4 x Double Side Tapes.
- 8 x Nylon Nuts M3.

Aluminum Boom Spacer
[H2393-S]

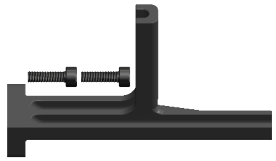
- 12 x Aluminum Boom Spacer.

SG767 Canopy Centering SET
[H2394-S]



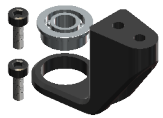
- 1 x Canopy Centering SET.

Antenna Support
[H2395-S]



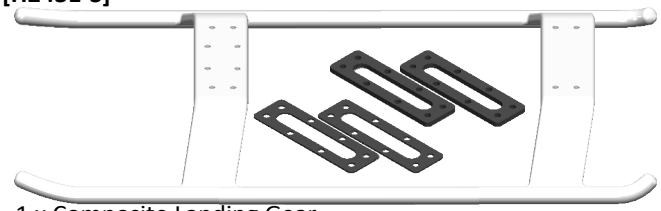
- 1 x Antenna Support.
- 1 x Head Cap Screw M3x10.

3rd Motor Bearing Mount
[H2426-S]



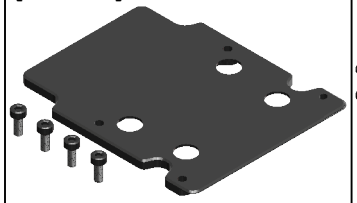
- 1 x 3rd Motor Bearing Mount.
- 1 x F. Bearing ∅6x∅13x5.
- 2 x Head Cap Screws M3x8.

Composite Landing Gear
[H2431-S]



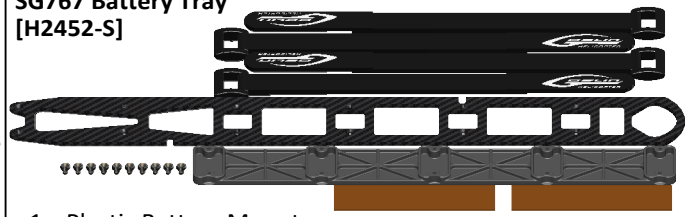
- 1 x Composite Landing Gear.
- 2 x G10 Spacer 1mm.
- 2 x G10 Spacer 3mm.

SG767 FBL Mount
[H2451-S]



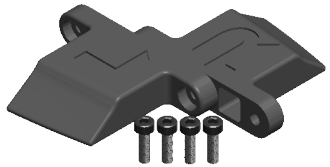
- 1 x Antenna Support.
- 4 x Head Cap Screws M2.5x6.

SG767 Battery Tray
[H2452-S]



- 1 x Plastic Battery Mount.
- 1 x Carbon Fiber Battery Tray.
- 2 x Double-sided Tapes 1mm.
- 10 x Flat Tapping Cap Screws M3x8.

Canopy Middle Centering
[H2517-S]



- 1 x Middle Centering SX.
- 1 x Middle Centering DX.
- 4 x Head Cap Screws M3x10.

Wrench Nuts M8
[HA016-S]

- 1 x Wrench Nut M8.

Canopy Grommet
[HA021-S]

- 5 x Canopy Grommets.

Double-sided Tape
[HA035-S]

- 2 x Double-sided Tapes.

Straps 20x250mm
[HA041-S]

- 2 x Straps 20x250mm.

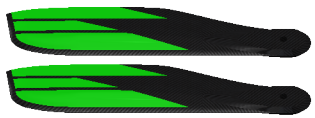
Zip Tie 2.5x200mm
[HA058-S]

- 50 x Zip Ties 2.5x200mm.

Foam Blade Holder
[HA072-S]

- 1 x Foam Blade Holder.

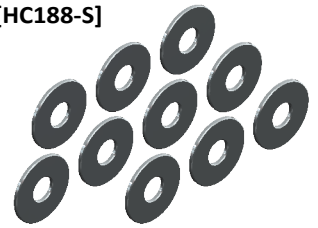
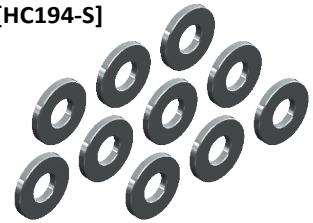
[S110-GR]



- 1 x Tail Blade 110mm.

[S737-F3C]

- 1 x Main Blade 737mm.

[HC002-S]  - 10 x Socket Head Cap Screws M2x5mm.	**[HC004-S]**  - 10 x Socket Head Cap Screws M2x6mm.	**[HC018-S]**  - 10 x Socket Head Cap Screws M2.5x6mm.	**[HC020-S]**  - 10 x Socket Head Cap Screws M2.5x8mm.	**[HC026-S]**  - 10 x Socket Head Cap Screws M2.5x12mm.	**[HC032-S]**  - 10 x Socket Head Cap Screws M2.5x18mm.
[HC044-S]  - 10 x Socket Head Cap Screws M3x6mm.	**[HC050-S]**  - 10 x Socket Head Cap Screws M3x8mm.	**[HC056-S]**  - 10 x Socket Head Cap Screws M3x10mm.	**[HC062-S]**  - 10 x Socket Head Cap Screws M3x12mm.	**[HC068-S]**  - 10 x Socket Head Cap Screws M3x16mm.	**[HC074-S]**  - 2 x Socket Head Shoulder Cap Screws M3x16mm. - 2 x Nylon Nut M3.
[HC079-S]  - 2 x Socket Head Shoulder Cap Screws M3x18mm. - 2 x Nylon Nut M3.	**[HC086-S]**  - 10 x Socket Head Cap Screws M3x22mm.	**[HC096-S]**  - 10 x Button Head Cap Screws M4x6mm.	**[HC102-S]**  - 10 x Socket Head Cap Screws M4x10mm.	**[HC105-S]**  - 10 x Socket Head Cap Screws M4x12mm.	**[HC111-S]**  - 10 x Socket Head Shoulder Cap Screws M4x24mm.
[HC114-S]  - 2 x Socket Head Shoulder Cap Screws M5x30mm. - 2 x Nylon Nuts M5.	**[HC124-S]**  - 10 x Socket Head Cap Screws M6x10mm.	**[HC125-S]**  - 10 x Flat Head Cap Screws M2.5x8mm.	**[HC132-S]**  - 10 x Flat Head Cap Screws M3x5mm.	**[HC134-S]**  - 10 x Flat Head Cap Screws M3x8mm.	**[HC135-S]**  - 10 x Flat Head Cap Screws M3x10mm.
[HC136-S]  - 10 x Self Tapping Cap Screws M3x10mm.	**[HC140-S]**  - 10 x Thread Rod M2.5x20.	**[HC153-S]**  - 10 x Set Screws M4x6.	**[HC181-S]**  - 10 x Washers ∅3x∅7x1.	**[HC188-S]**  - 10 x Washers ∅5.3x∅15x1.	**[HC194-S]**  - 10 x Washers ∅6.1x∅14x1.8

[HC200-S]

- 10 x Nylon Nuts M2.5.

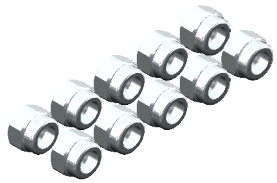
[HC206-S]

- 10 x Nylon Nuts M3.

[HC212-S]

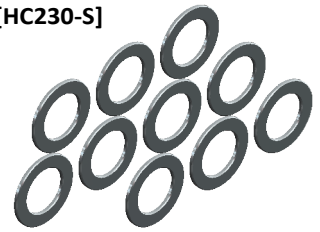
- 10 x Nylon Nuts M4.

[HC218-S]



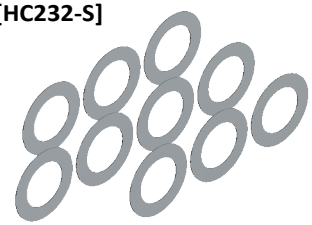
- 10 x Nylon Nuts M5.

[HC230-S]



- 10 x Washers ∅ 10x ∅ 16x1.

[HC232-S]



- 10 x Shims ∅ 10x ∅ 16x1.

[HC325-S]

- 1 x Belt HTD 3M 2160-6.

[HC335-S]

- 4 x O-rings 70 Shore.

[HC351-S]

- 10 x Flat Head Cap Screws M4x6mm.

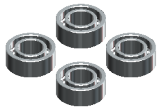
[HC400-S]

- 4 x Flanged Bearings ∅ 2,5x ∅ 6x2,6.

[HC402-S]

- 4 x Flanged Bearings ∅ 3x ∅ 7x3.

[HC411-S]



- 4 x Ball Bearings ∅ 5x ∅ 10x4.

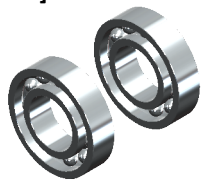
[HC414-S]

- 4 x Flanged Bearings ∅ 6x ∅ 13x5.

[HC422-S]

- 2 x Ball Bearings ∅ 10x ∅ 19x5.

[HC426-S]



- 2 x Ball Bearings ∅ 12x ∅ 24x6.

[HC435-S]

- 2 x Thrust Bearings ∅ 5x ∅ 10x4.

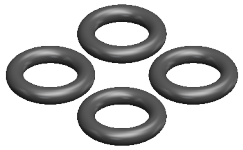
[HC438-S]

- 2 x Thrust Bearings ∅ 10x ∅ 18x5.5.

[HC490-S]

- 10 x Self Tapping Cap Screws M2.2x6mm.

[HC529-S]



- 4 x O-rings 95 Shore.

[HC545-S]

- 10 x Socket Head Shoulder Screws M4x21.5mm.

[HC549-S]

- 10 x Self Tapping Cap Screws M3x12mm.

[HC697-S]

- 10 x Self Tapping Cap Screws M2.5x6mm.

[HC712-S]

- 10 x Countersunk Head Cap Screws M3x8mm.

[HC713-S]

- 10 x Socket Head Shoulder Screws M4x28mm.

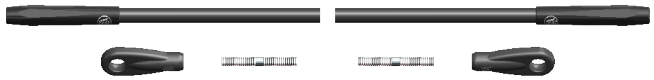
[HC714-S]

- 10 x Washers ∅ 3.1x ∅ 5.75x0.5mm.

[HC743-S]

- 1 x Belt HTD 3M 552-19.

[HC744-S]



- 2 x Carbon Rods D4 Protect.
- 2 x Thread Rods M2.5x20mm.
- 2 x Plastic Ball Linkages M2.5.
- 1 x Carbon Rod 2.5x4x729±1mm.

[HC775-S]

- 10 x Self Tapping Cap Screws M3x16mm.

The manual can be downloaded here

GENESIS F3C

DOWNLOADED HERE

FLY SAFE

GENESIS SG767

Release 1.0 -February 2026

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