

MANUAL



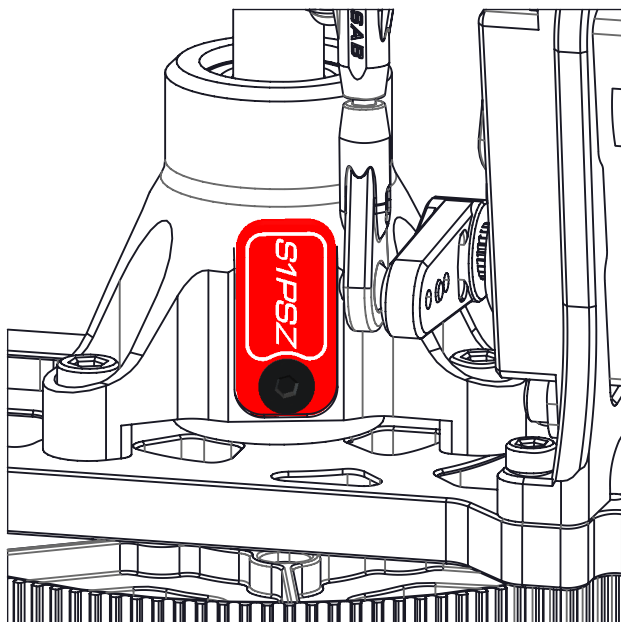
mini
GENESIS

THE ITALIAN HELI

EAB HELI DIVISION



Please read this user manual carefully, it contains instructions for the correct assembly of the model.
Please refer to the web site 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 web site 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 printed laser on the Aluminum part.

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

SAB Heli Division

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GOBLIN MINI GENESIS TECHNICAL SPECIFICATIONS



- **AIRFRAME weight:** 1080gr (with blades and motor, no battery and electronics).
- **Main rotor diameter:** 935mm (with 420 mm blades).
- **Main blade length:** 380 to 420 mm.
- **Tail rotor diameter:** 192 mm (with 72 mm tail blades).
- **Tail blade length:** 55 to 72 mm.
- **Main shaft** 8 mm, **Tail shaft** 5 mm.
- **Molded carbon tail boom.**

KIT Includes:

- 1 Motor Pulley 20T.
- 1 Battery Tray with straps and connectors.

- **Cyclic Servos:** Micro size 23 mm.
- **Tail Servo:** Mini size 35 mm.
- **Main Rotor Ratio** : 1 : 6,3 to 1 : 5.
- **Tail Rotor Ratio** : 4 : 1.
- **Maximum battery size:** 40x51x135mm.
- **Recommended battery:** 6S 2200/2700 mAh.
- **Recommended battery weight:** approximately 350-420gr.

- 420mm Main Blades.
- 72mm Tail Blades.



IMPORTANT SAFETY WARNING



- * This radio-controlled helicopter is not a toy. It should only be assembled, setup and operated by an adult.
- * This radio-controlled helicopter is a technically complex device which must 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.
- * 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.
- * 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.
- * Fly only in areas dedicated to the use of model helicopters.
- * Follow all control procedures for your radio frequency system >>>> Follow instructions and information provided by radio system, electronic speed controller, flight control system (gyro) manufacturers regarding safety, radio frequency control, setup/configuration, operations and other best practices.
- * It is necessary that you know your radio system well. Check all functions of the transmitter before every flight. >>>> It is crucial that you know your radio system, electronic speed controller and flight control system well. Properly check all their functions and connections 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

ASSUMPTION OF RISK

Neither SAB Heli Division nor its agents have any control over the assembly, maintenance, and use of this product.

For this reason, SAB Heli Division is not responsible for injury, death or damage to people, things and / or to the product.

By assembling any component of this product, the user declares to have read and understood the following terms and conditions and agrees to be bound by them.

Failure to observe the above warnings and precautions may increase the risk of serious injury or death to yourself or surrounding people, damage to the product, or both.

SAB Heli Division shall not even 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.

By the act of use, setup, or assembly the user accepts all resulting liability.

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.

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 an unused condition to the place of purchase.

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 non infringement, 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

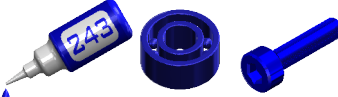
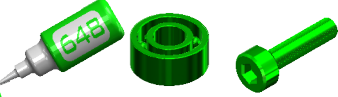
- * Motor size: 3215-3220; 900-1000 Kv/V.
- *Speed controller: 6S capable, 60-80 Amps.
- *Batteries: 6S 2200/2700 mAh.
- *1 flybarless 3 axis control unit.
- *Radio power system.
- *3 Micro cyclic servos.
- *1 Mini tail rotor servo.
- *6 channel radio control system on 2.4 GHz.

TOOLS, LUBRICANTS, ADHESIVES

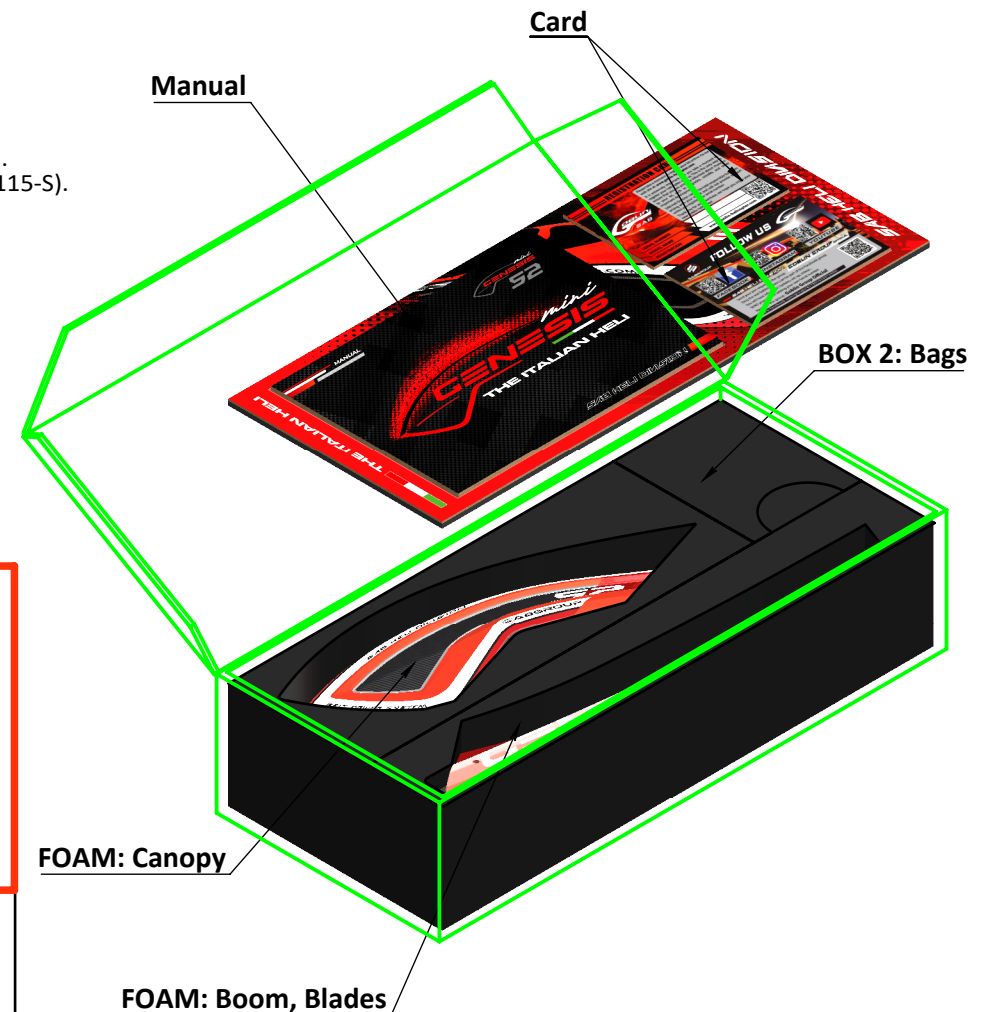
- *Generic pliers.
- *Hexagonal driver, size 1.5, 2, 2.5, 3mm.
- *4/5mm T-Wrench.
- *5.5mm Socket wrench (for M3 nuts).
- *8mm Hex fork wrench (for M5 nuts).
- *Medium threadlocker (SAB p/n HA116-S).
- *Strong retaining compound (SAB p/n HA115-S).
- *Spray lubricant (eg. Try-Flow Oil).
- *Synthetic grease (eg. Microlube 261).
- *Cyanoacrylate adhesive.
- *Pitch Gauge (for set-up).
- *Soldering equipment (for motor wiring).

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: Thread Locker Medium Strength (SAB HA116-S)	 Green screw and Green bearing in the illustration means you need to 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

INSIDE THE MAIN BOX THERE ARE:



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.

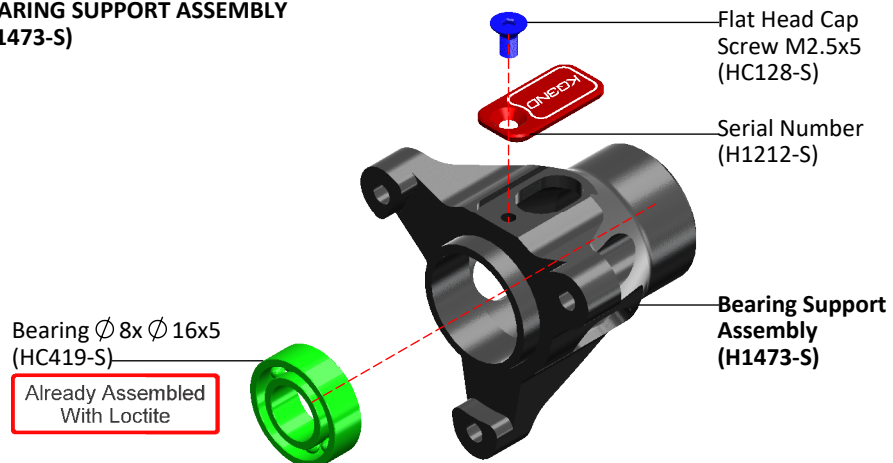
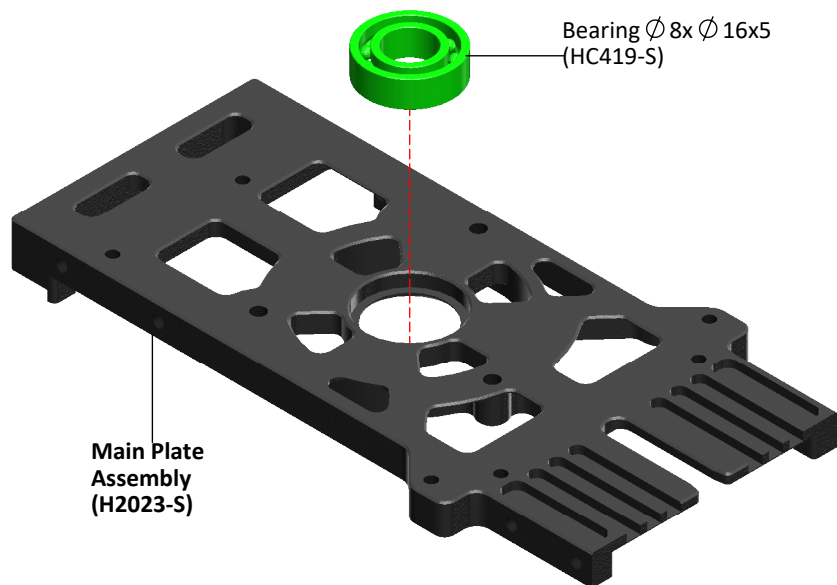


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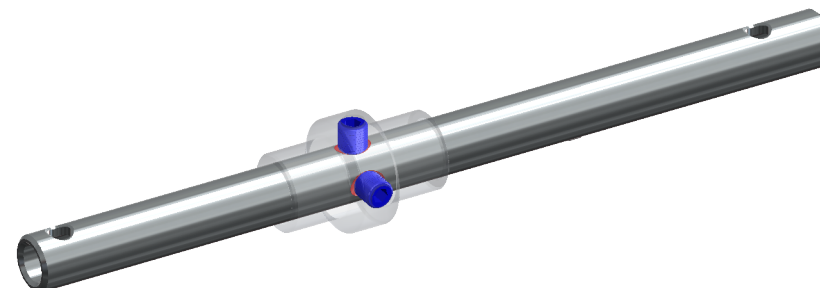
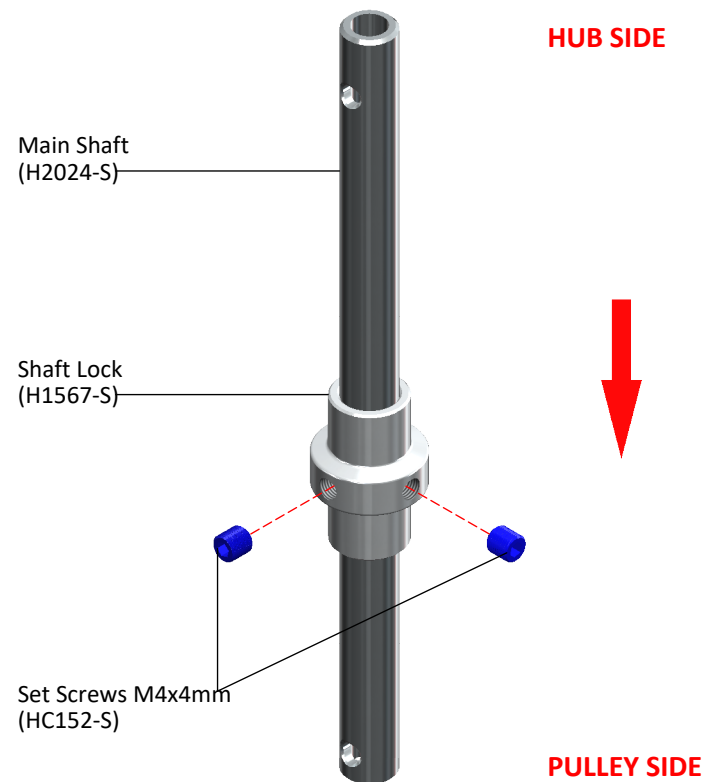
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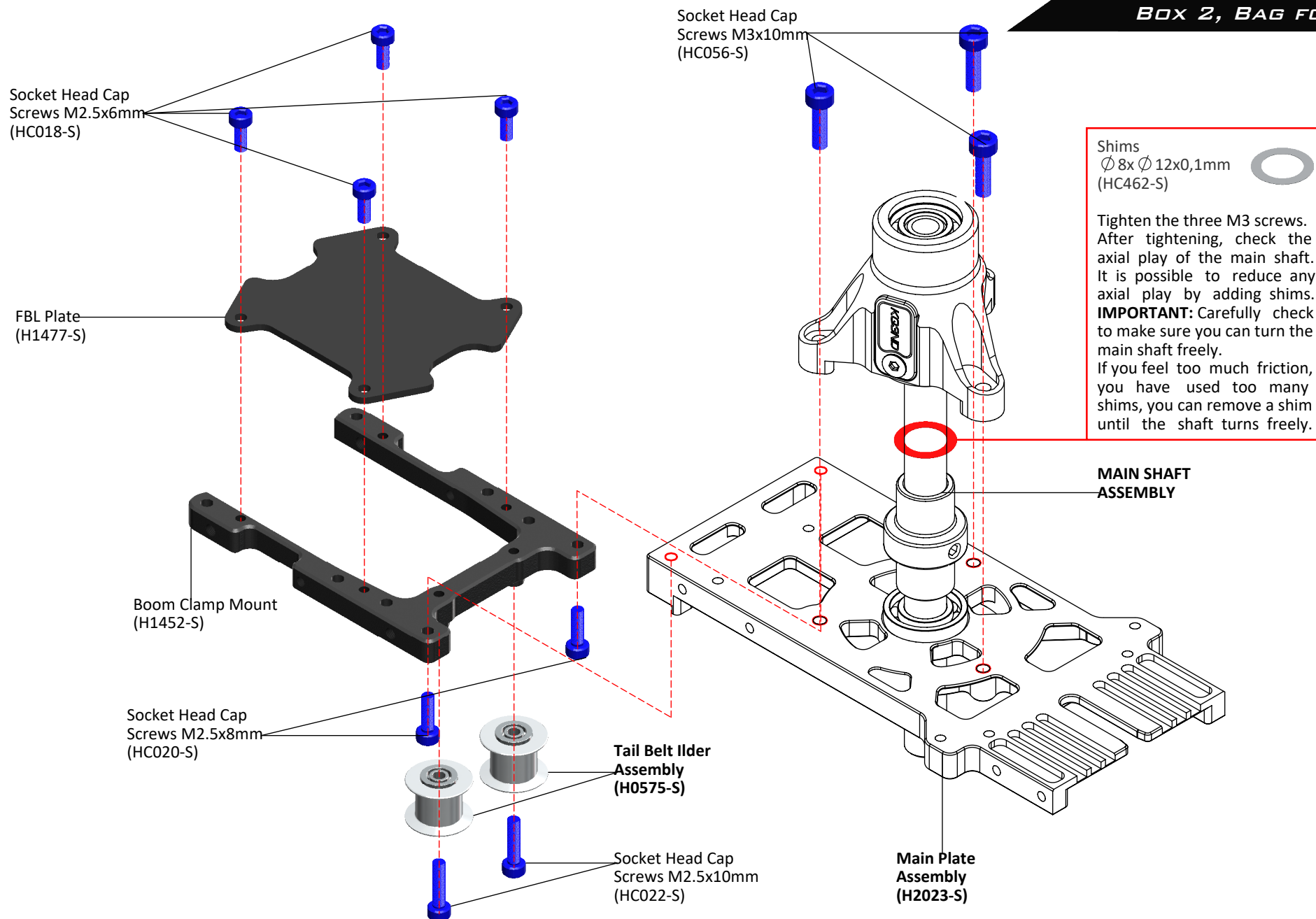
TRANSMISSION GROUP ASSEMBLY

BOX 2, BAG FOR PAGE 5

BEARING SUPPORT ASSEMBLY
(H1473-S)MAIN PLATE ASSEMBLY
(H2023-S)Already Assembled
With Loctite

MAIN SHAFT ASSEMBLY







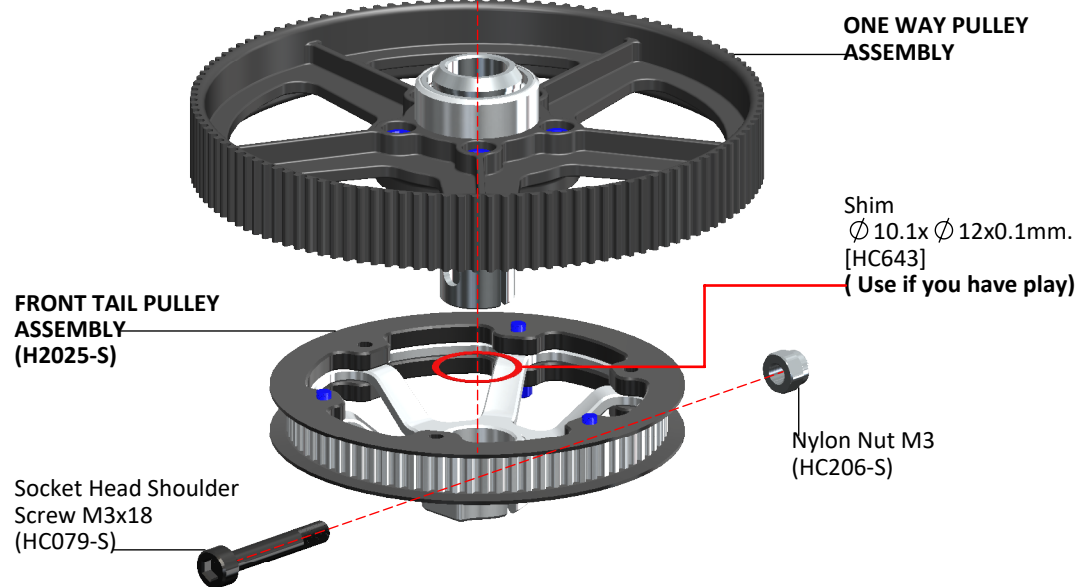
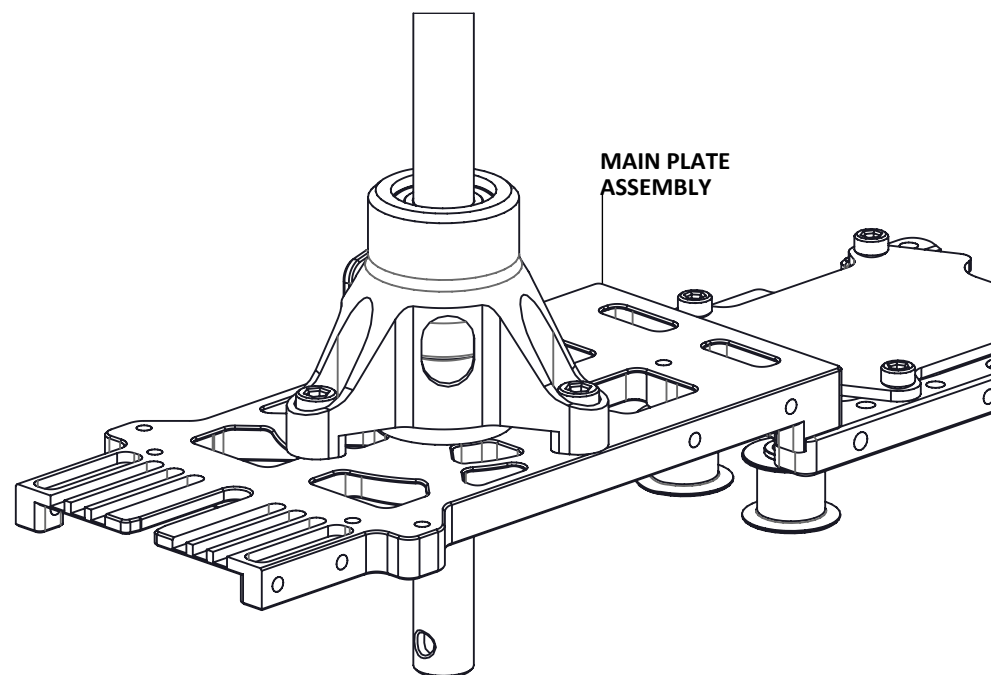
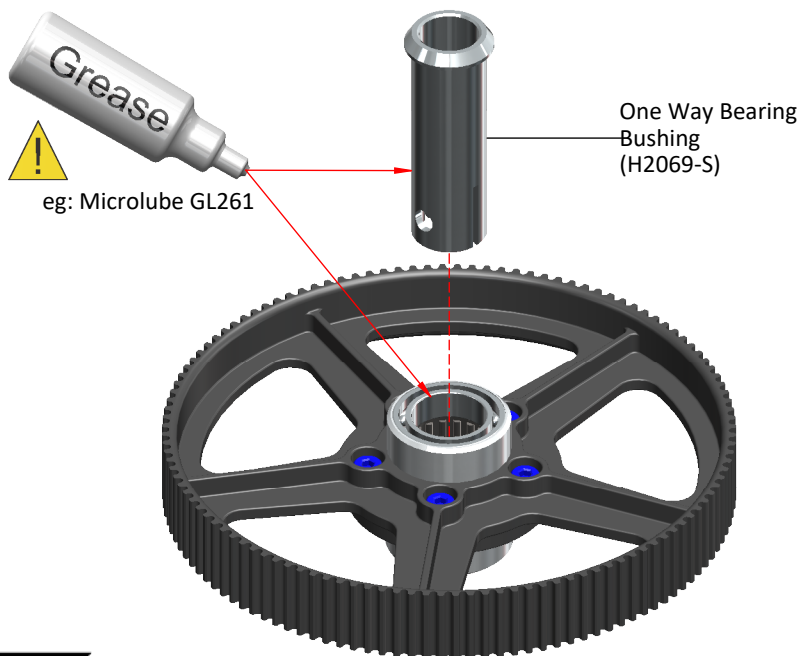
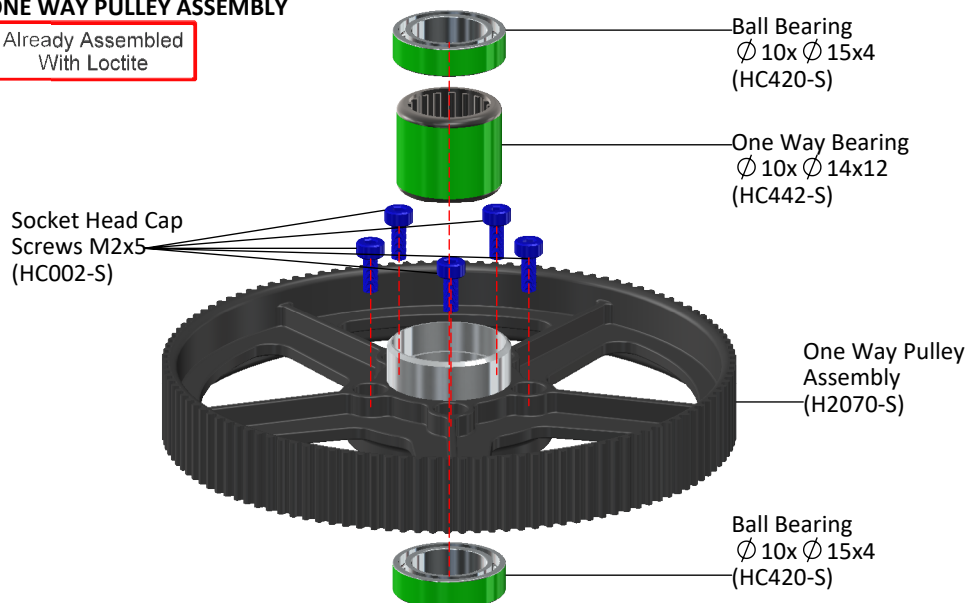
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TRANSMISSION GROUP ASSEMBLY

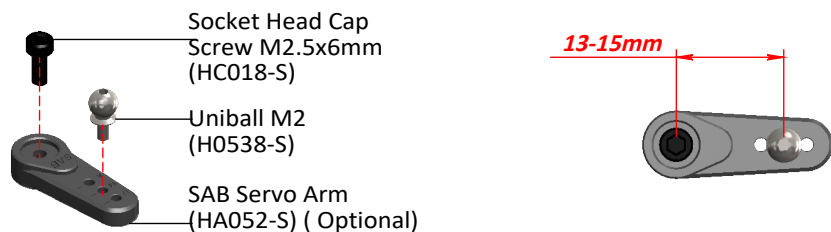
BOX 2, BAG FOR PAGE 7

ONE WAY PULLEY ASSEMBLY

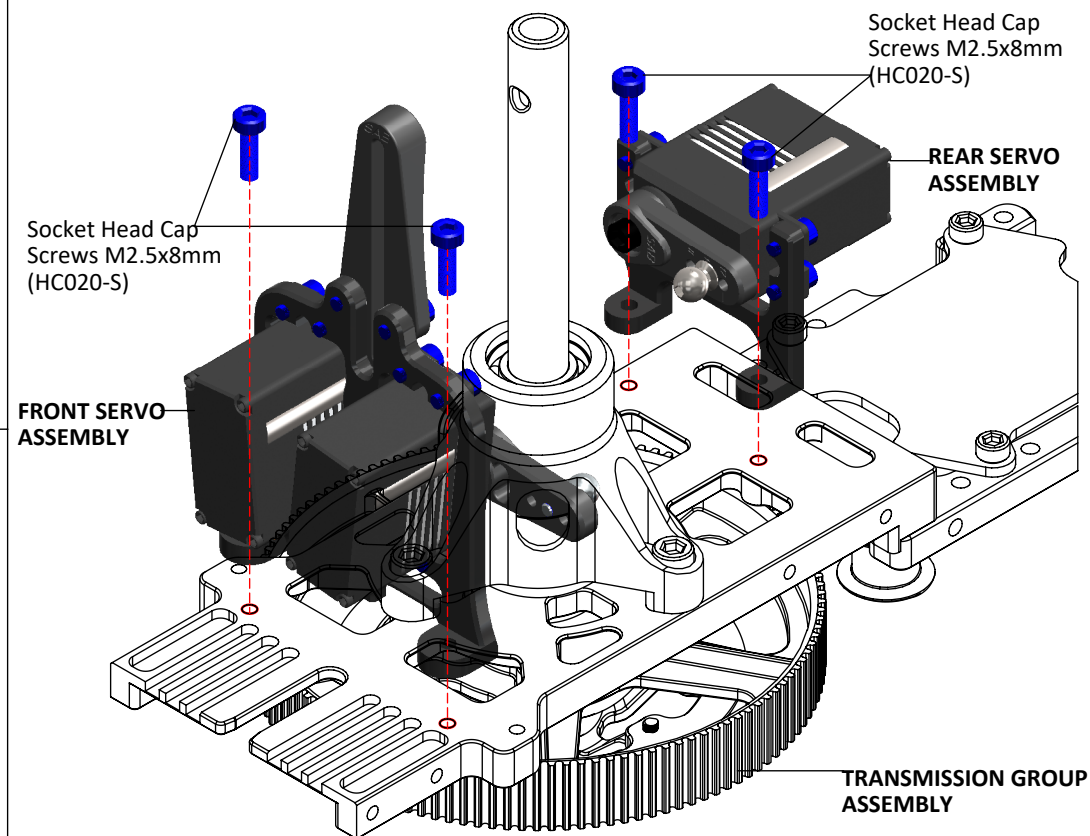
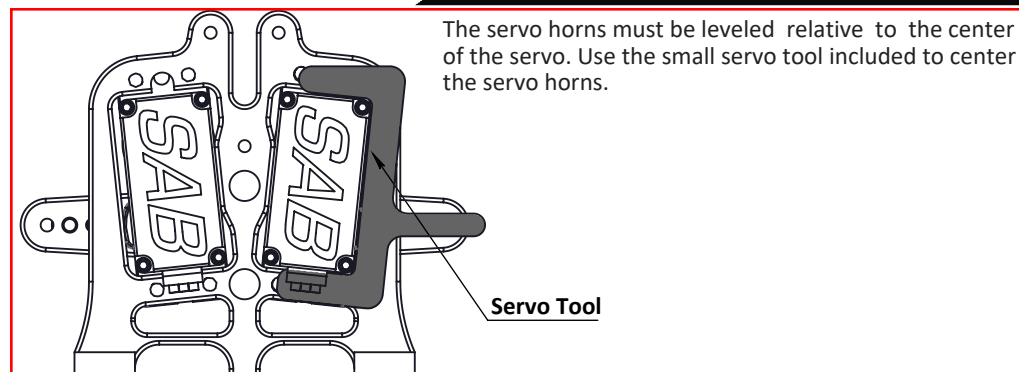
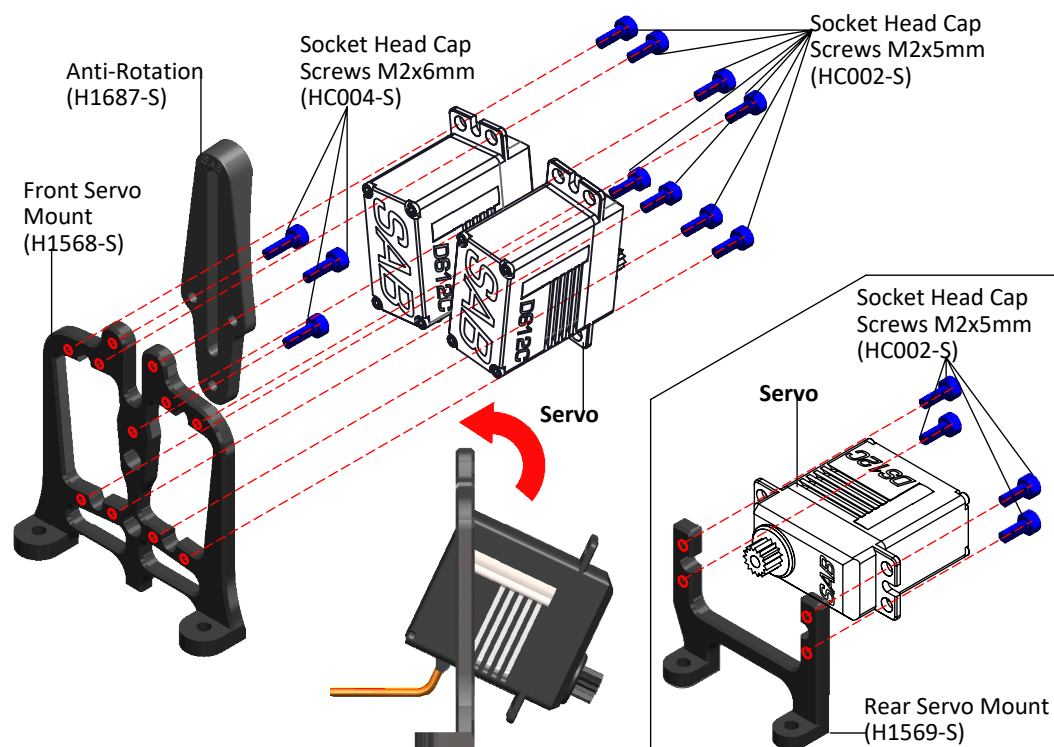
Already Assembled
With Loctite

SERVO ASSEMBLY

The linkage ball must be positioned 13-15mm out on the servo arm.
The recommended servo arm to use is: SAB p/n [HA052].
Ensure the alignment of the servo arms before installation of the servos in the model.
Proceed with installation following the instructions below.



Note: Do not over tighten the uniball, be careful not to strip the plastic





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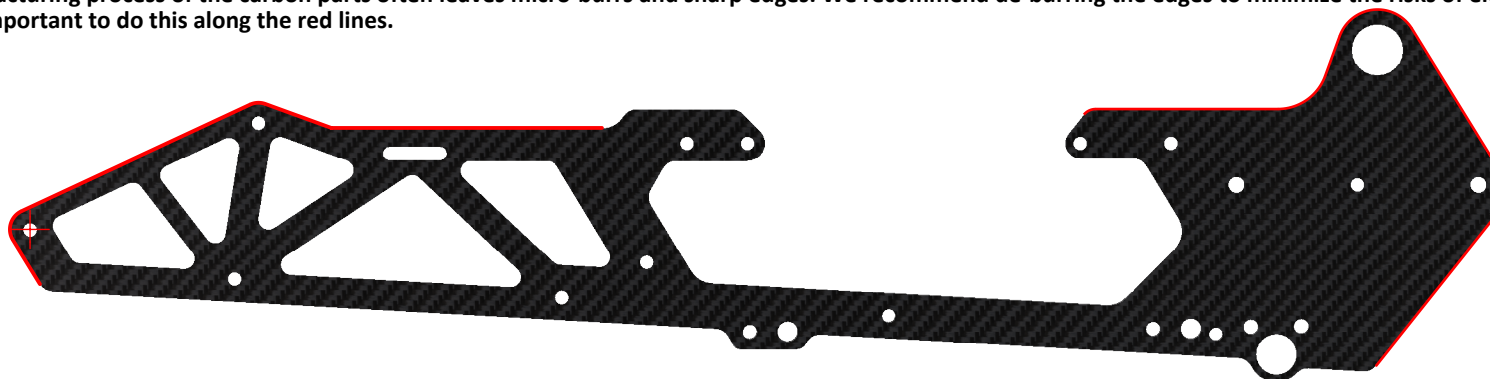
FRAME GROUP ASSEMBLY

BOX 2, BAG FOR PAGE 9

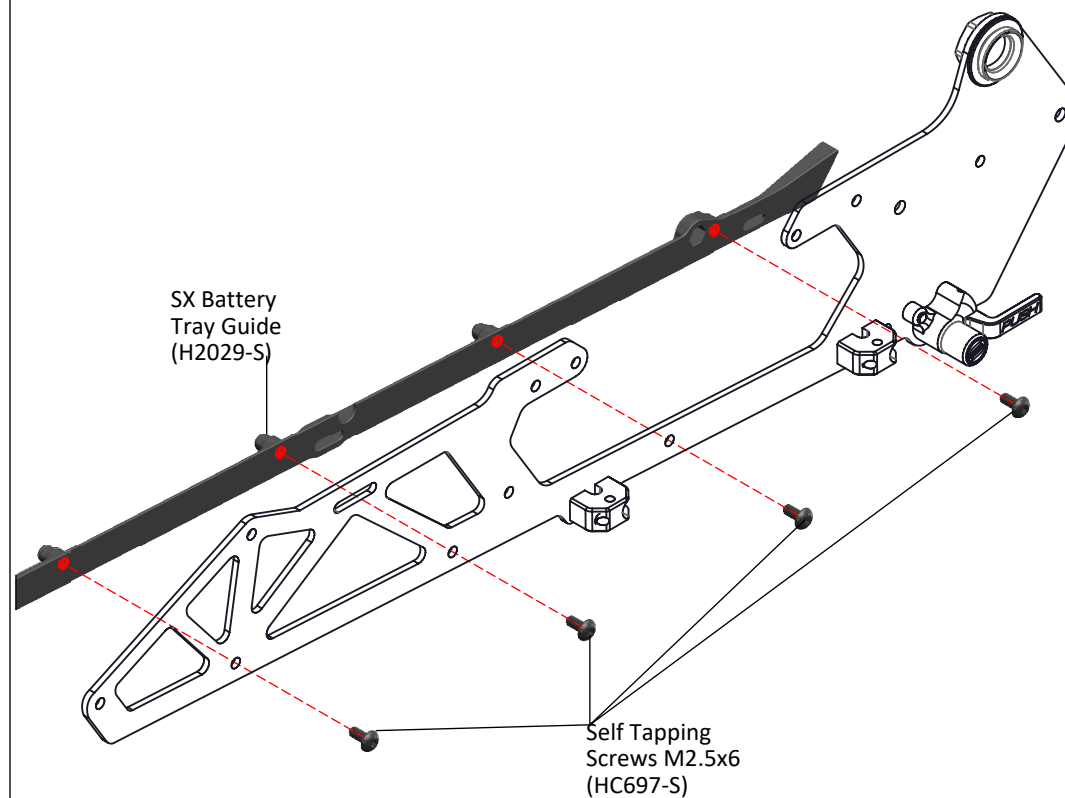
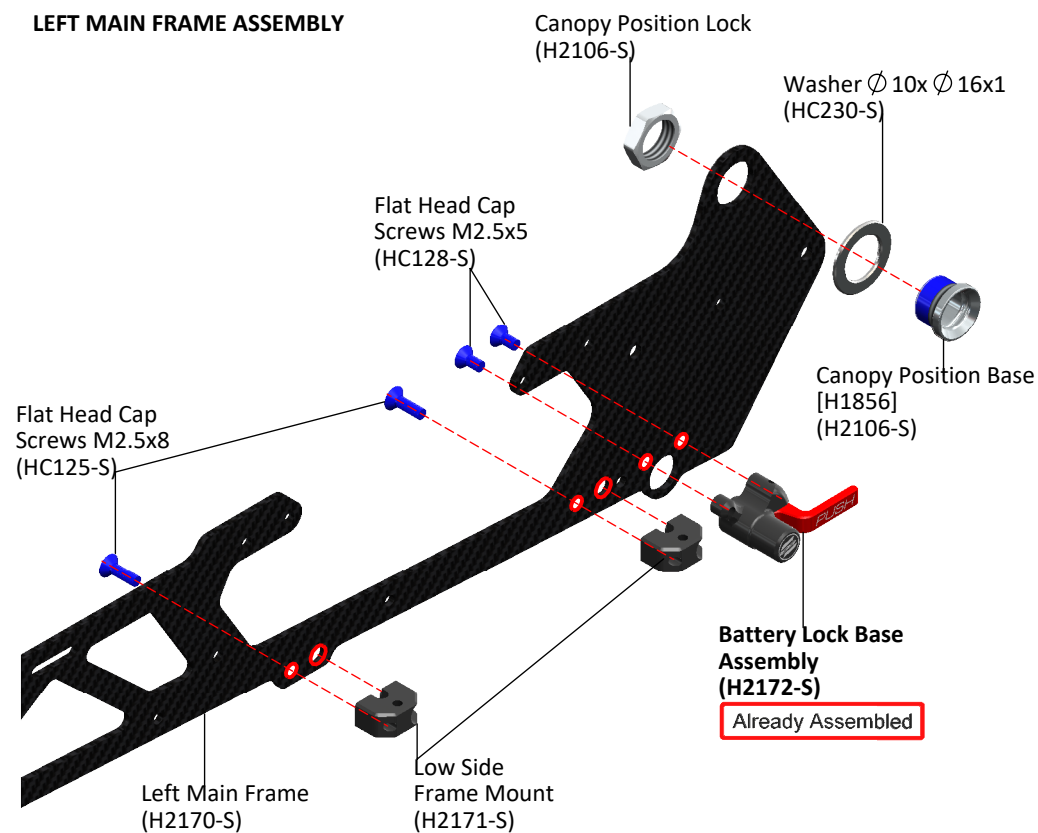
CARBON FRAME



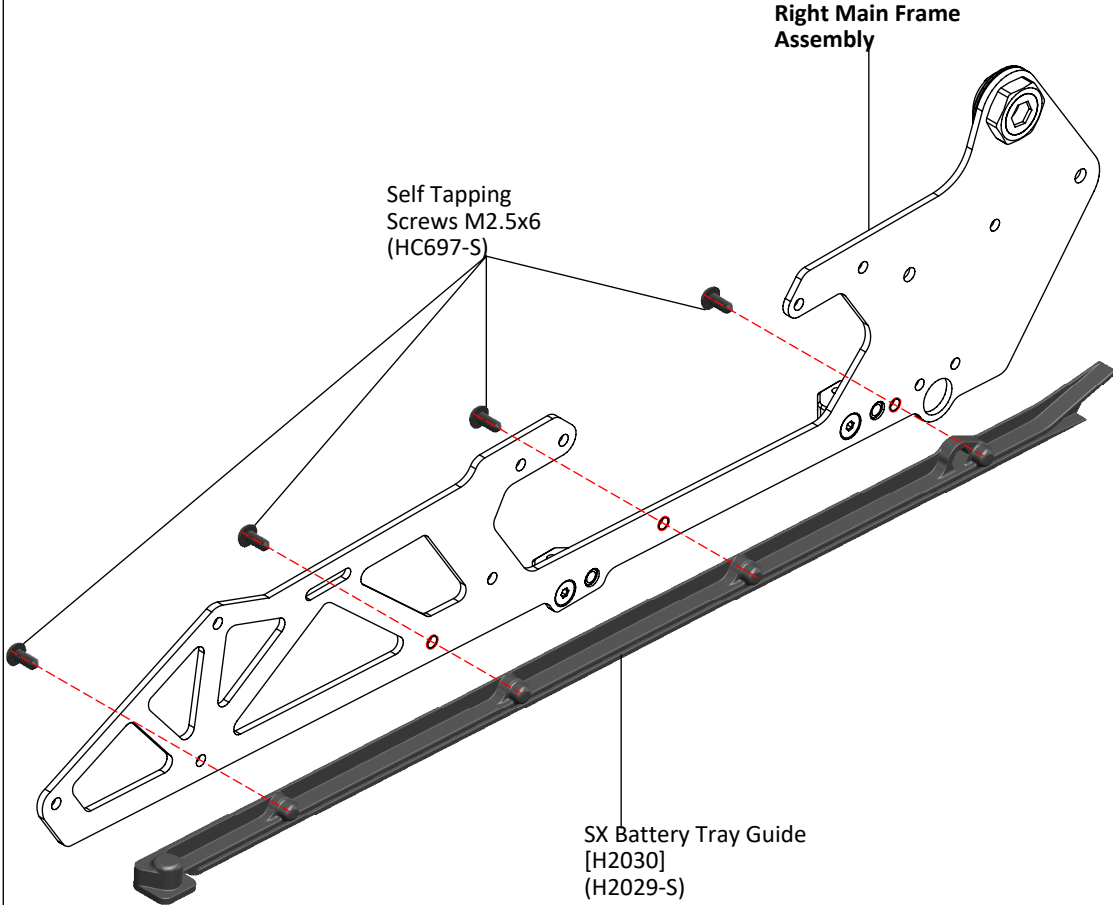
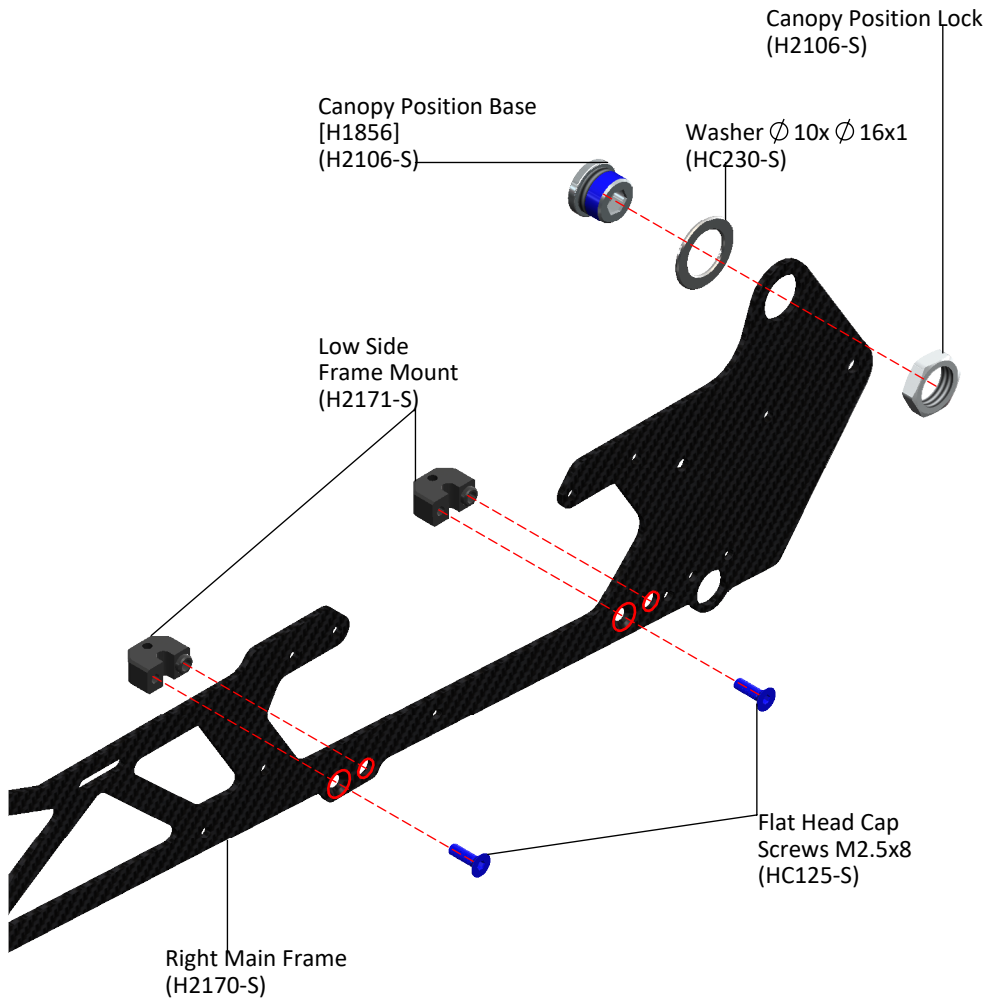
The manufacturing process of the carbon parts often leaves micro-burrs and sharp edges. We recommend de-burring the edges to minimize the risks of electrical wire cuts, etc. It is very important to do this along the red lines.



LEFT MAIN FRAME ASSEMBLY



RIGHT MAIN FRAME ASSEMBLY



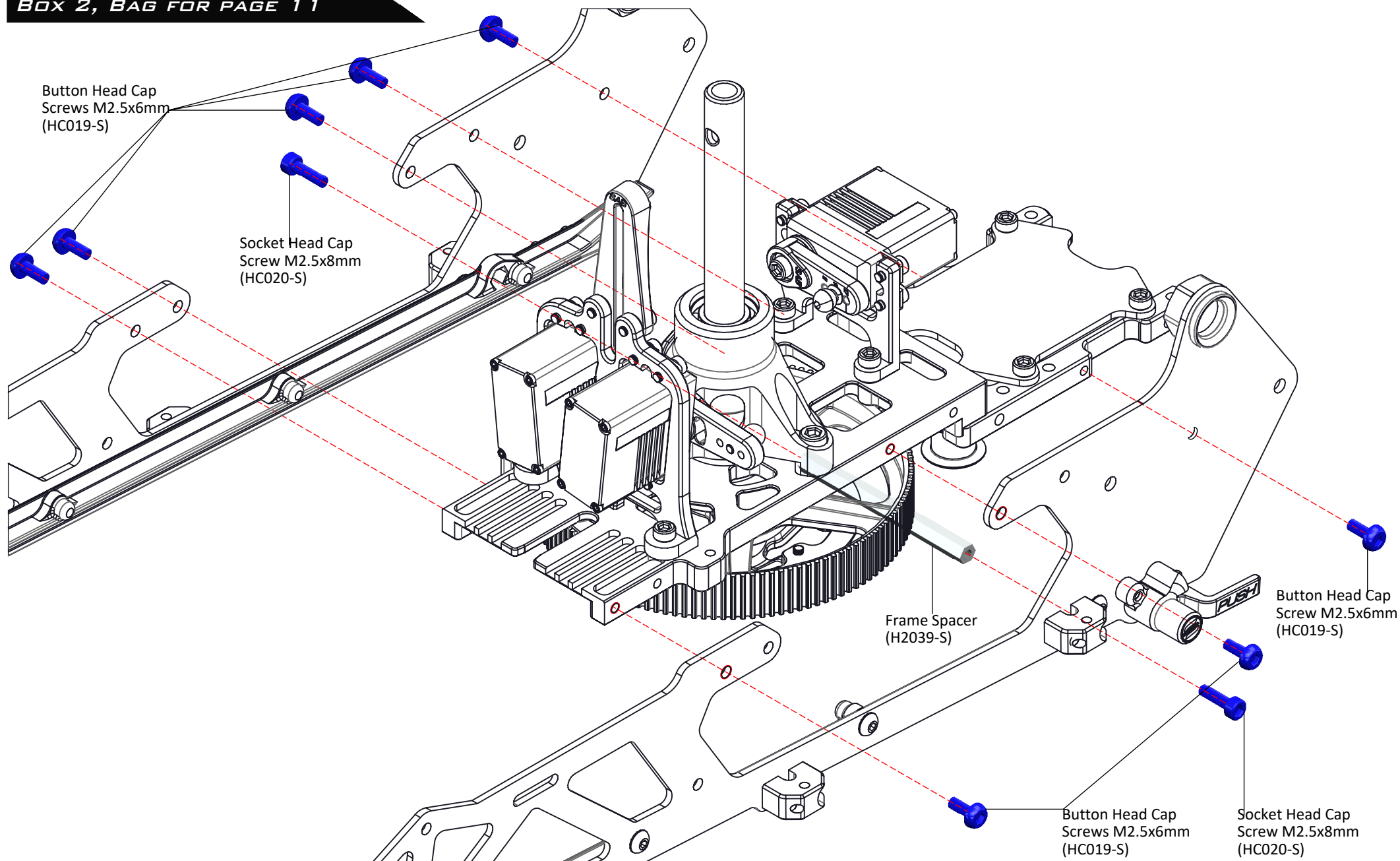


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FRAME GROUP ASSEMBLY

BOX 2, BAG FOR PAGE 11

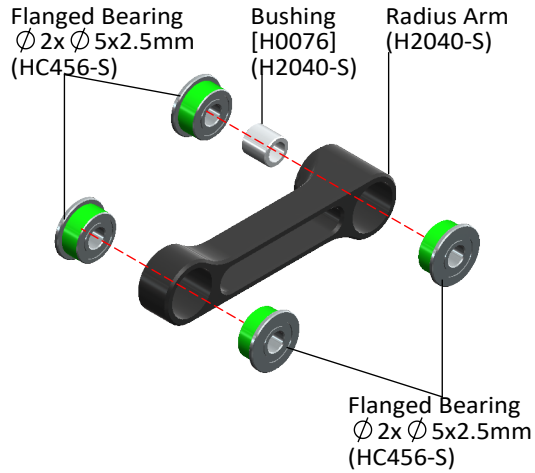




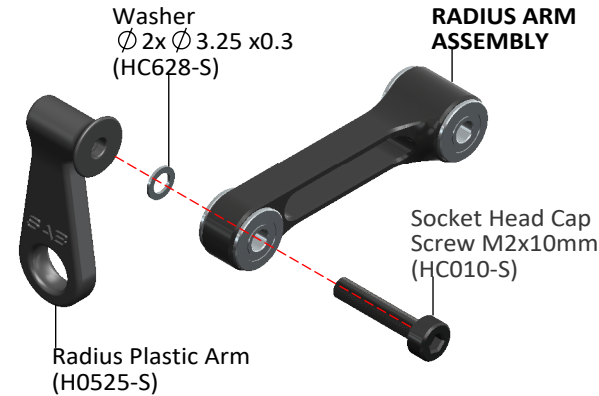
PLEASE USE GREEN THREAD LOCK to secure the bearings to the radius arms. Failure to secure the bearing will result in excessive slop/play.

BOX 2, BAG FOR PAGE 12

RADIUS ARM ASSEMBLY ... x2

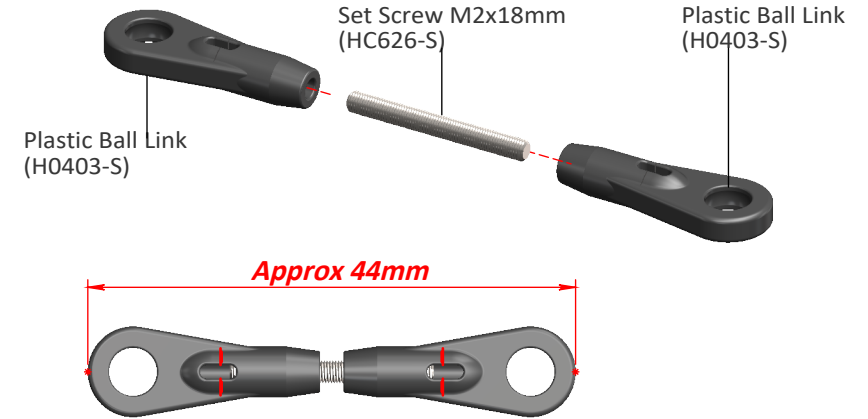


RADIUS PLASTIC ARM ASSEMBLY ... x2



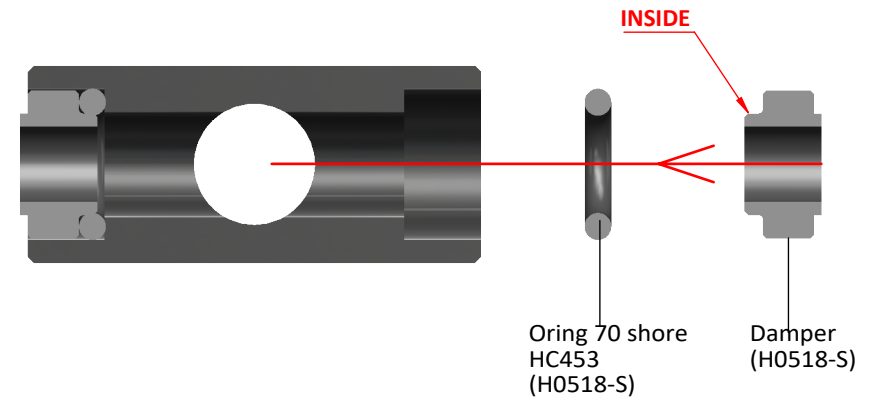
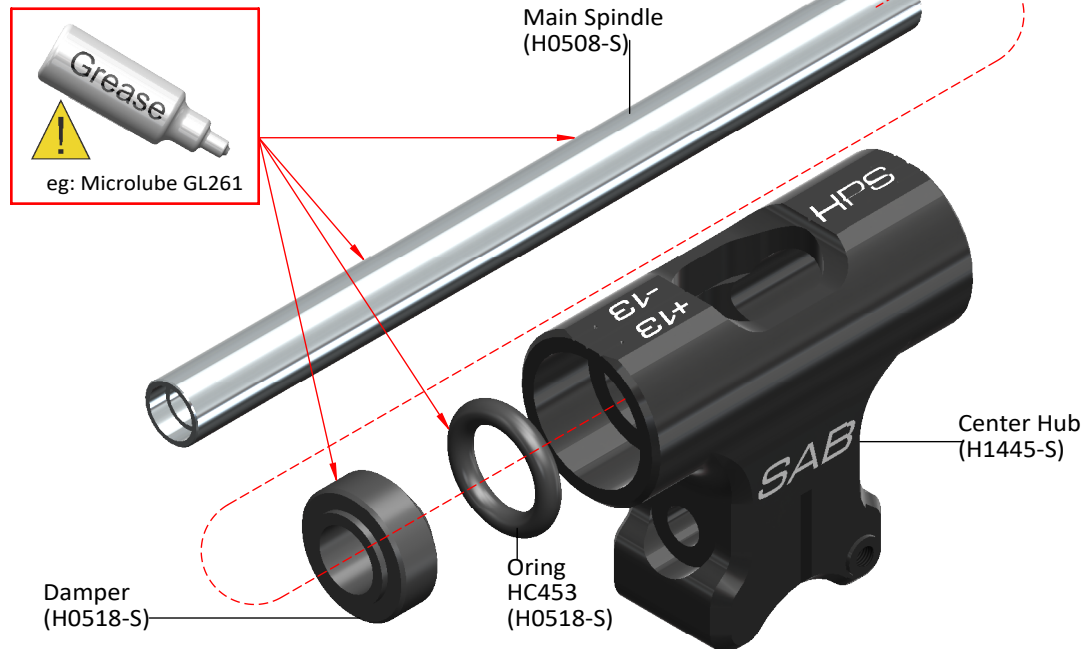
NOTE: Tighten with care, the arm must move freely.

LINKAGE ROD ASSEMBLYx2



(Initial length for the rods from the swashplate to the Blade Grip.)

CENTER HUB ASSEMBLY





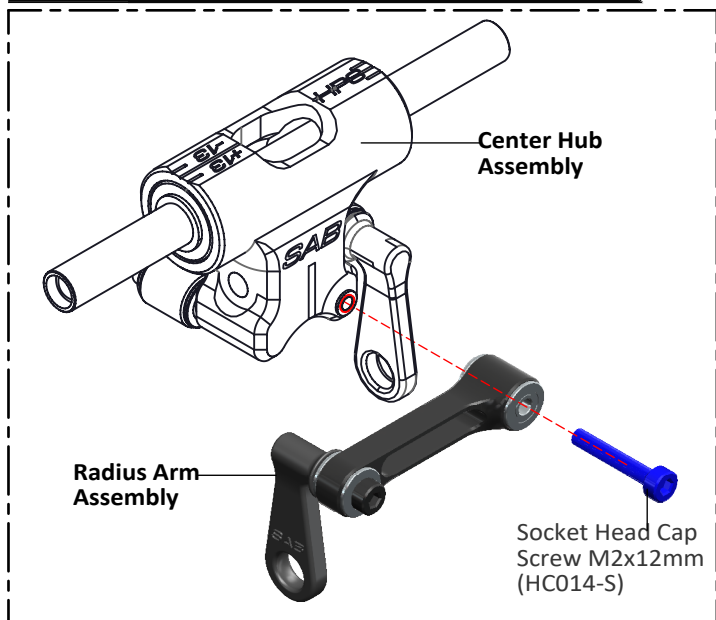
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HEAD ASSEMBLY

BOX 2, BAG FOR PAGE 13

NOTE: We recommend assembling without shims.
After approximately 20/30 flights, please manually check the head dampening, you can add one 0.1mm shim each side (HC450) if the dampening feels loose.



Washer
 $\varnothing 5 \times \varnothing 7 \times 0.1$
(HC450-S)

Main Blade Grip
(H1446-S)

Washer $\varnothing 7.5 \times \varnothing 10 \times 0.5$
H0349
(H1446-S)

Thrust Bearing
 $\varnothing 5 \times \varnothing 10 \times 4 \text{mm}$
(HC435-S)

Button Head Cap Screw M4x6mm
(HC096-S)

SMALLER ID

LARGER ID



Ball Bearing
 $\varnothing 5 \times \varnothing 10 \times 4 \text{mm}$
(HC411-S)

Already Assembled
With Loctite

Ball Bearing
 $\varnothing 5 \times \varnothing 10 \times 4 \text{mm}$
(HC411-S)

Already Assembled
With Loctite

Socket Head Cap Screw M3x6mm
(HC044-S)

**Main Blade Grip Arm
(H1701-S)**

The blade grip arms are made of carbon plastic, they provide high strength and rigidity, but are sacrificial in the event of the crash saving more expensive parts.

Do not over tighten the uniball and the screw.

Uniball M2
(H0538-S)



NOTE:
Put a very small drop of CA glue.

Linkage Rod Assembly

SWASHPLATE ASSEMBLY

Anti-Rotation Pin
H0790
(H1566-S)

Uniball M2
(H0538-S)

Uniball M2
(H0538-S)

Swashplate Assembly
(H1566-S)

Socket Head Shoulder
Screw M3x16mm
(HC074-S)

HEAD GROUP
ASSEMBLY

Nylon Nut M3
(HC206-S)



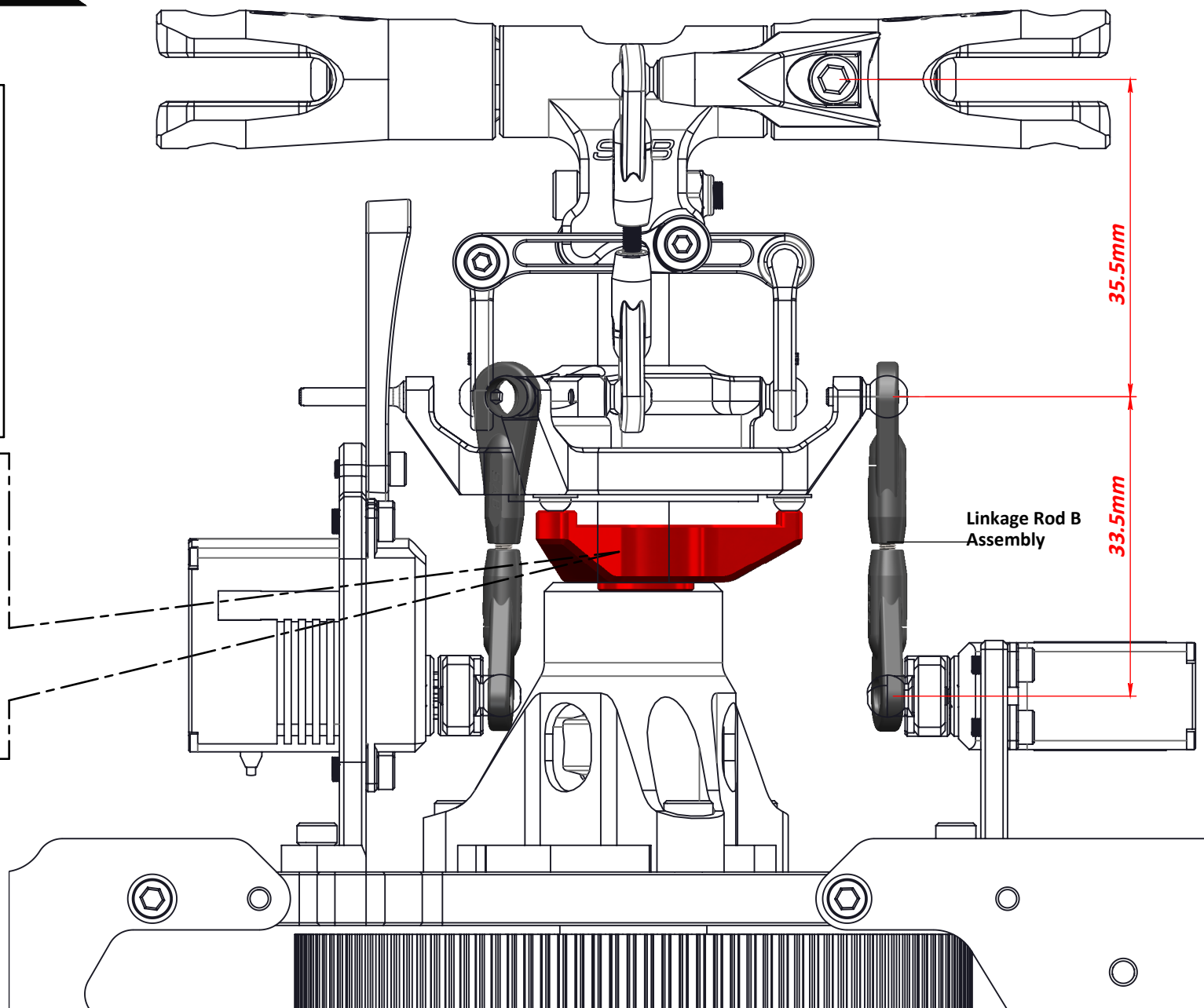
FRAME GROUP
ASSEMBLY



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ASSEMBLY OF THE MODULES

BOX 2, BAG FOR PAGE 15**LINKAGE ROD B ASSEMBLY ... X3**Plastic ball link
(H0403-S)Plastic ball link
(H0403-S)Set Screw M2x18mm
(HC626-S)*Approx 41-42mm*Initial length for the rods from the servos
to the swash plate.**SUGGESTED:**You can use the Swashplate Leveler H1686-S
(Not included KIT)

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 120 teeth for the main gear

BELOW IS A LIST OF AVAILABLE REDUCTION RATIOS:

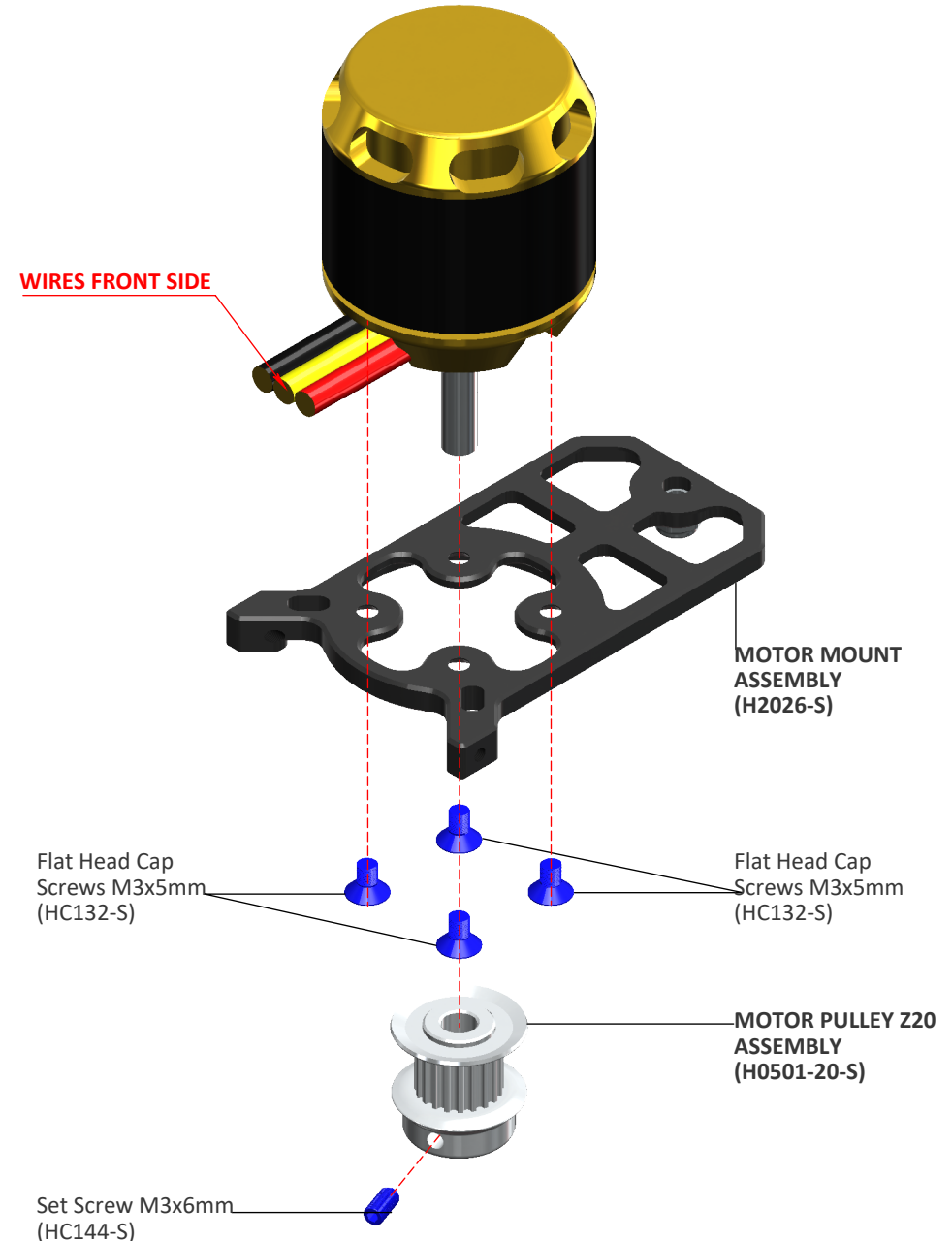
H0501-19-S - 19T Pinion = ratio	6.3 : 1	H0501-22-S - 22T Pinion = ratio	5.5 : 1
H0501-20-S - 20T Pinion = ratio	6.0 : 1	H0501-23-S - 23T Pinion = ratio	5.2 : 1
H0501-21-S - 21T Pinion = ratio	5.7 : 1	H0501-24-S - 24T Pinion = ratio	5.0 : 1

GOBLIN RAW 420 CONFIGURATIONS (BLADES 420mm)

MOTOR	ESC	Motor Pulley	RPM Max	Pitch
Scorpion HK5 3220-955	Scorpion Tribunus III 06-80A	19T - 20T	3100 - 3200	± 12.5
XNOVA 3220-950		20T - 21T	3100 - 3200	
TENGU 3220HS / 960KV		19T - 20T	3100 - 3200	
MINIPYRO 400-10	Platinum 80A V4	18T - 19T	3100 - 3200	
XNOVA 3215-945	KOLIBRI 90LV-I	19T - 20T	3000 - 3100	
XNOVA 2820-920		20T - 21T	3000 - 3100	
TENGU 3220HS / 900KV		20T - 21T	3000 - 3100	
	YGE 95LVT			



NOTE: For safety reason we recommend not exceeding 3200 RPM.



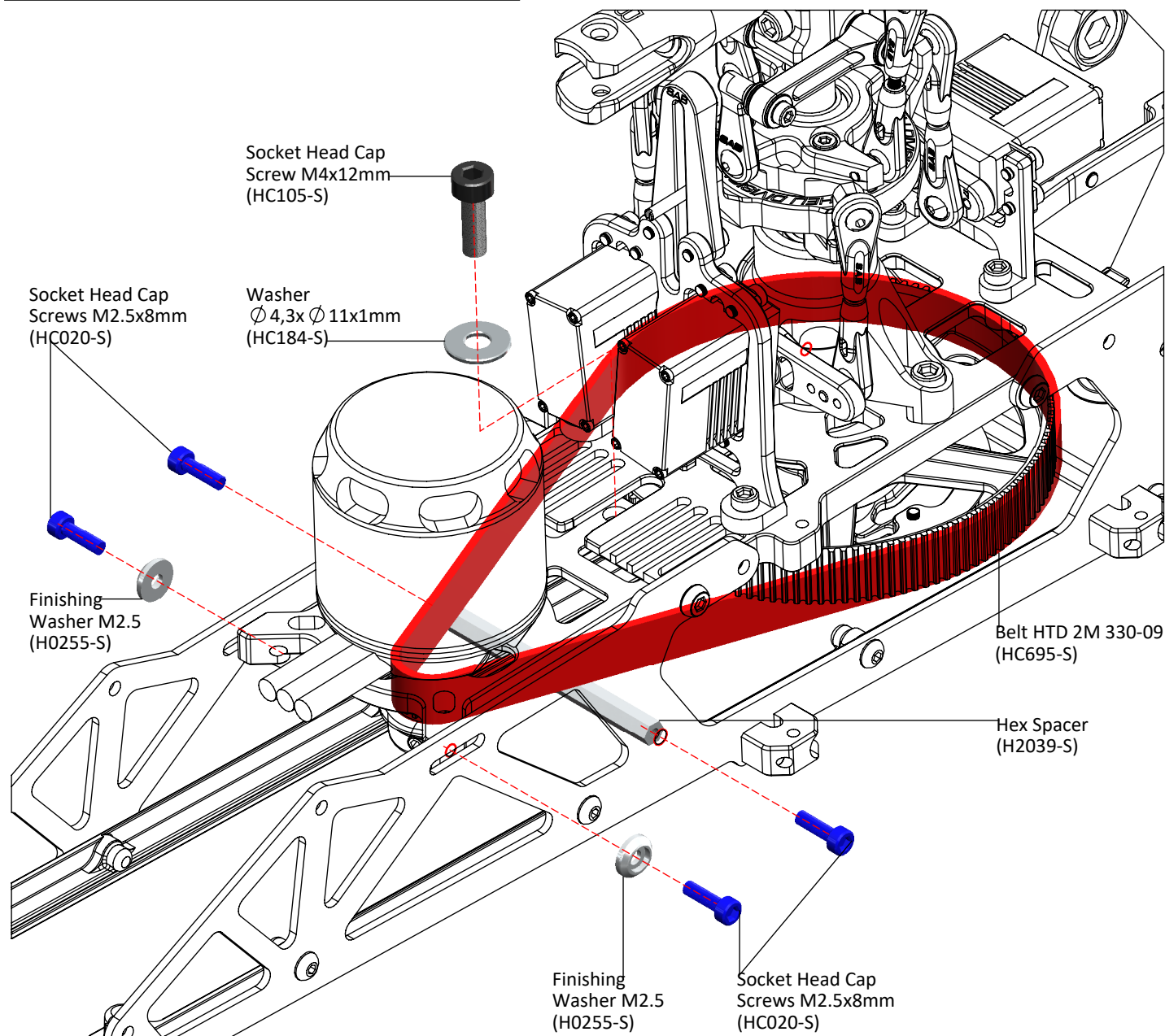


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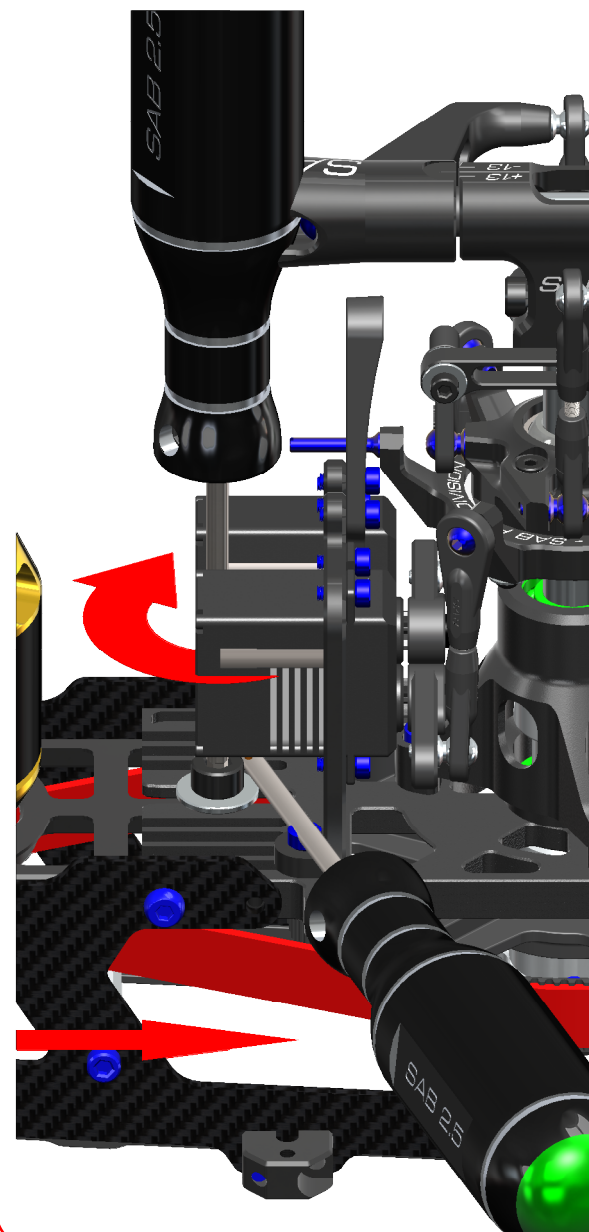
GENESIS

MOTOR GROUP ASSEMBLY

BOX 2, BAG FOR PAGE 17

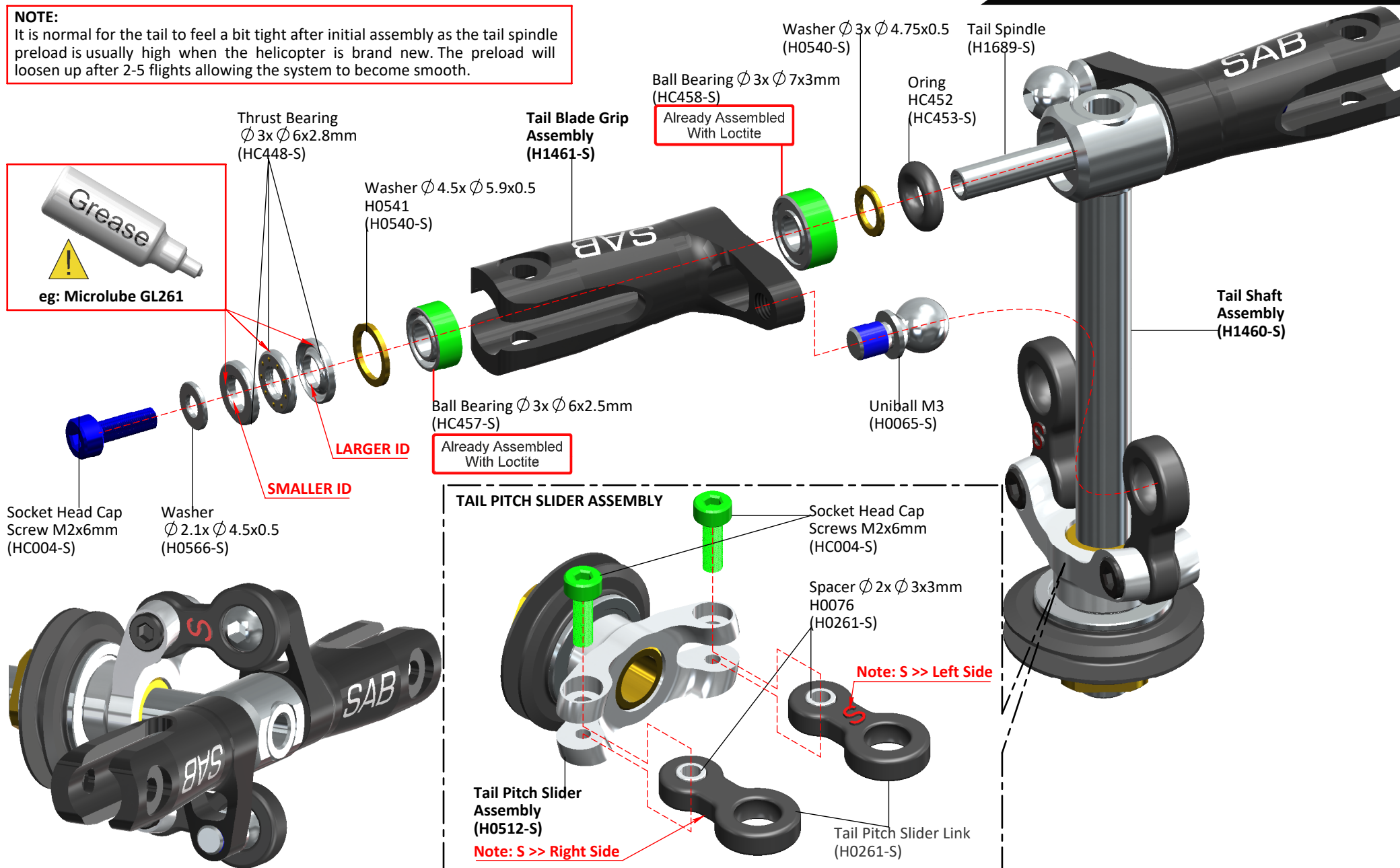


MOTOR BELT TENSION



NOTE:

It is 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.



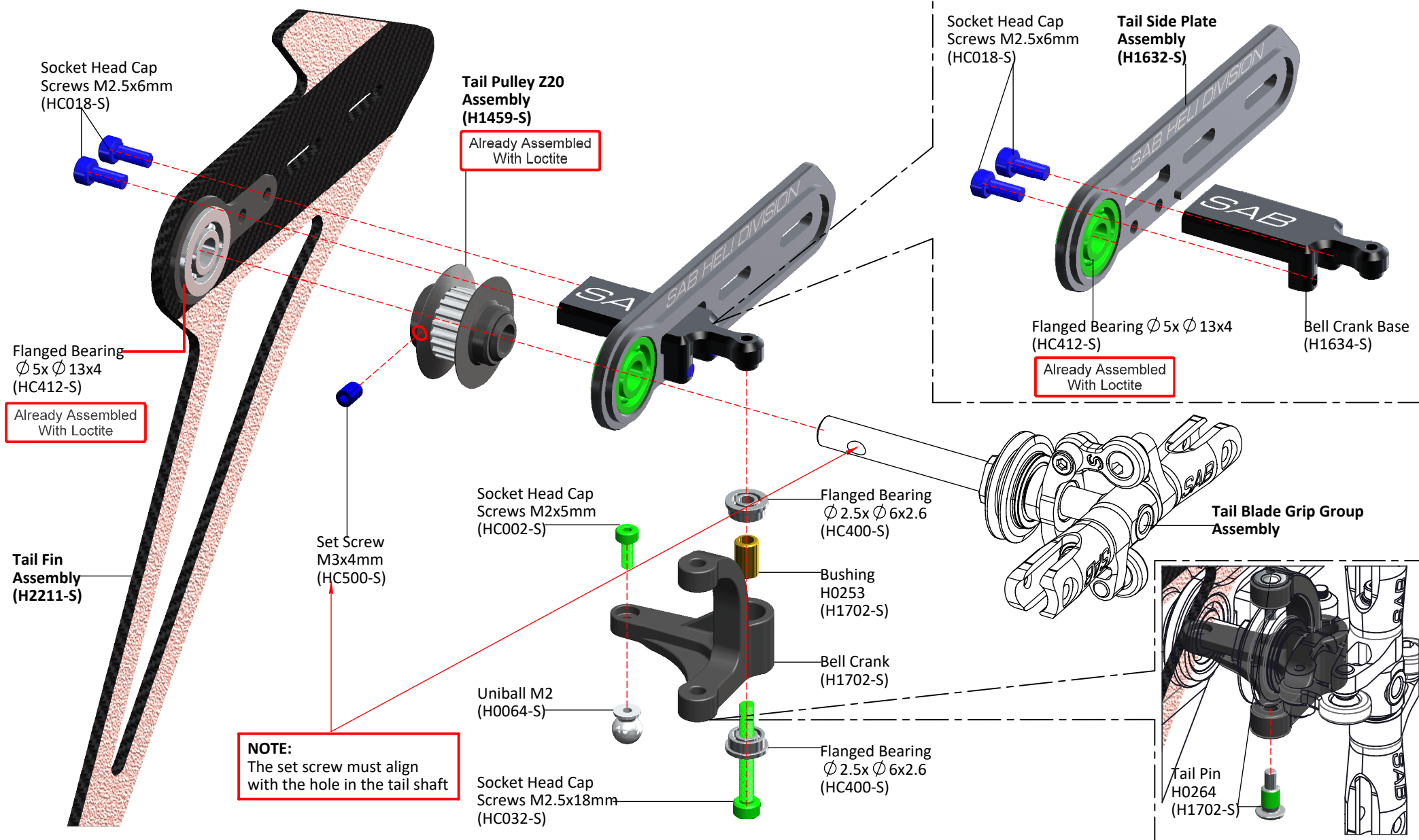


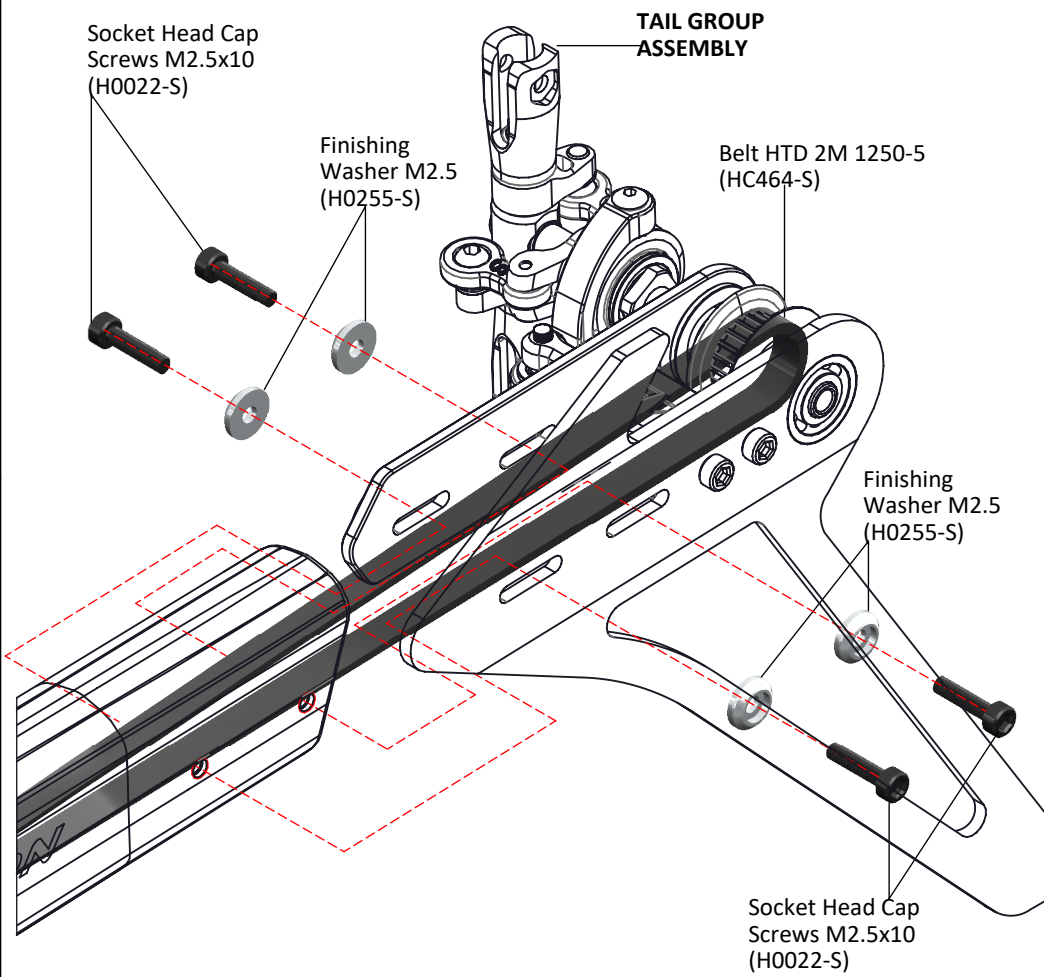
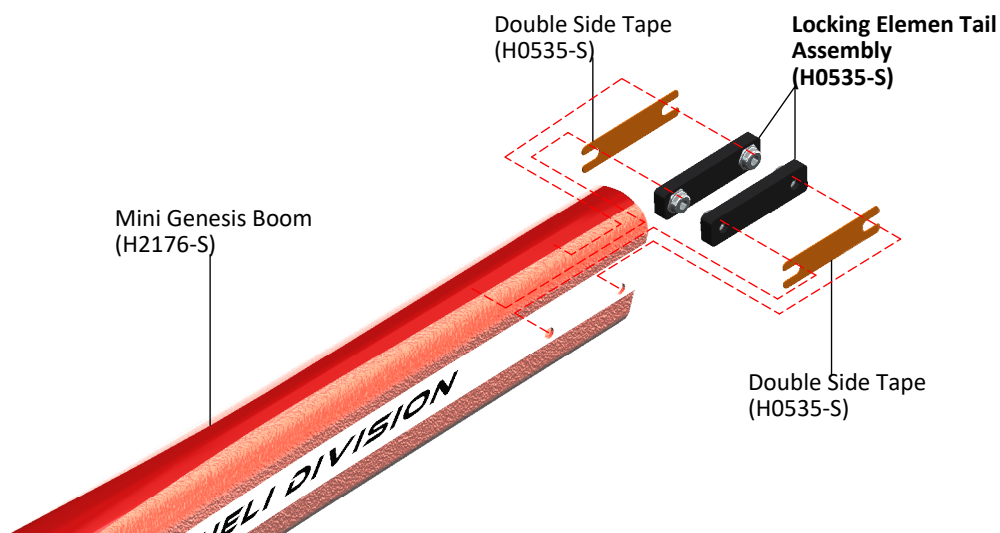
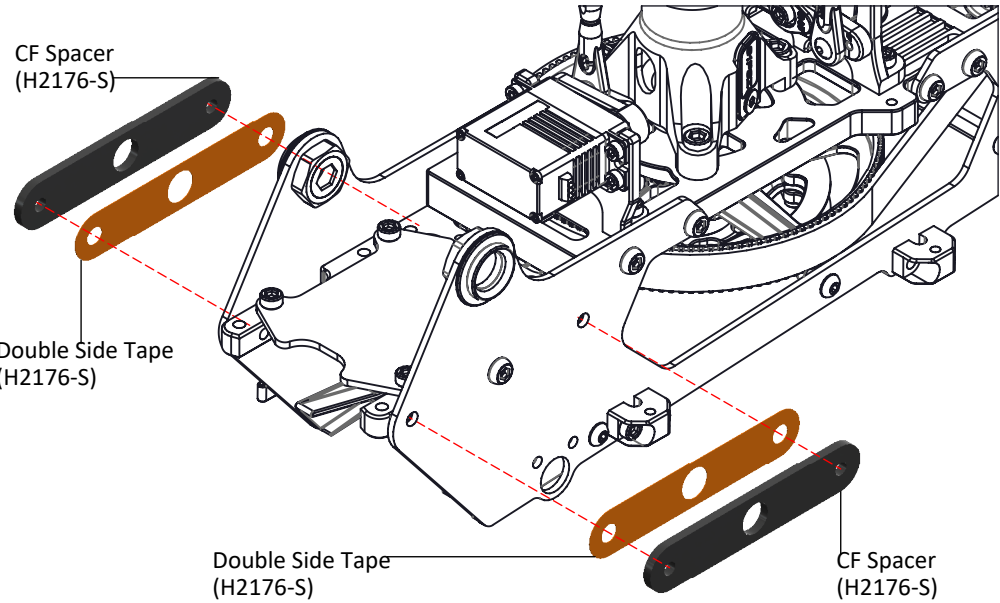
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TAIL GROUP ASSEMBLY

BOX 2, BAG FOR PAGE 19







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TAIL BOOM ASSEMBLY

BOX 2, BAG FOR PAGE 21

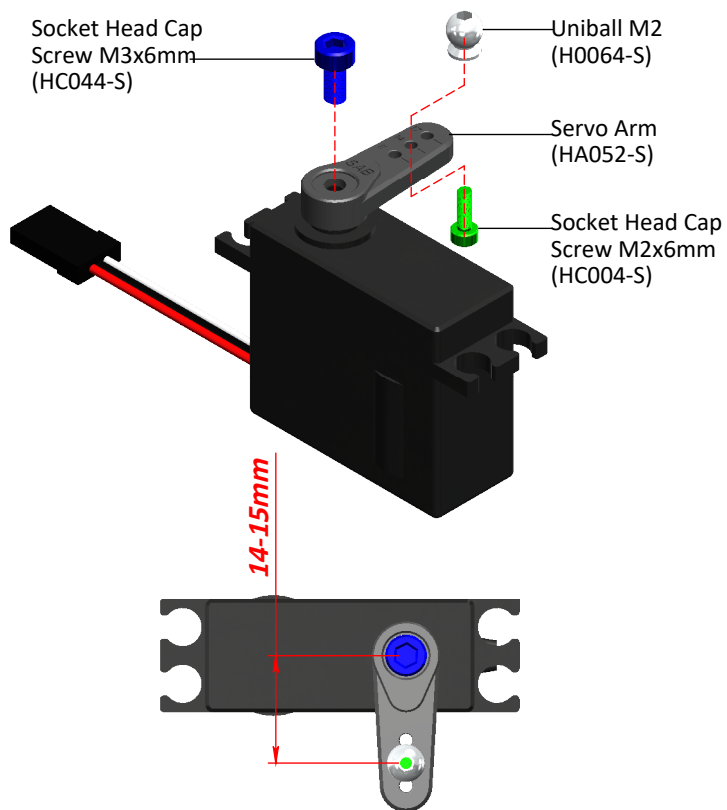
TAIL SERVO ASSEMBLY

Socket Head Cap
Screw M3x6mm
(HC044-S)

Uniball M2
(H0064-S)

Servo Arm
(HA052-S)

Socket Head Cap
Screw M2x6mm
(HC004-S)

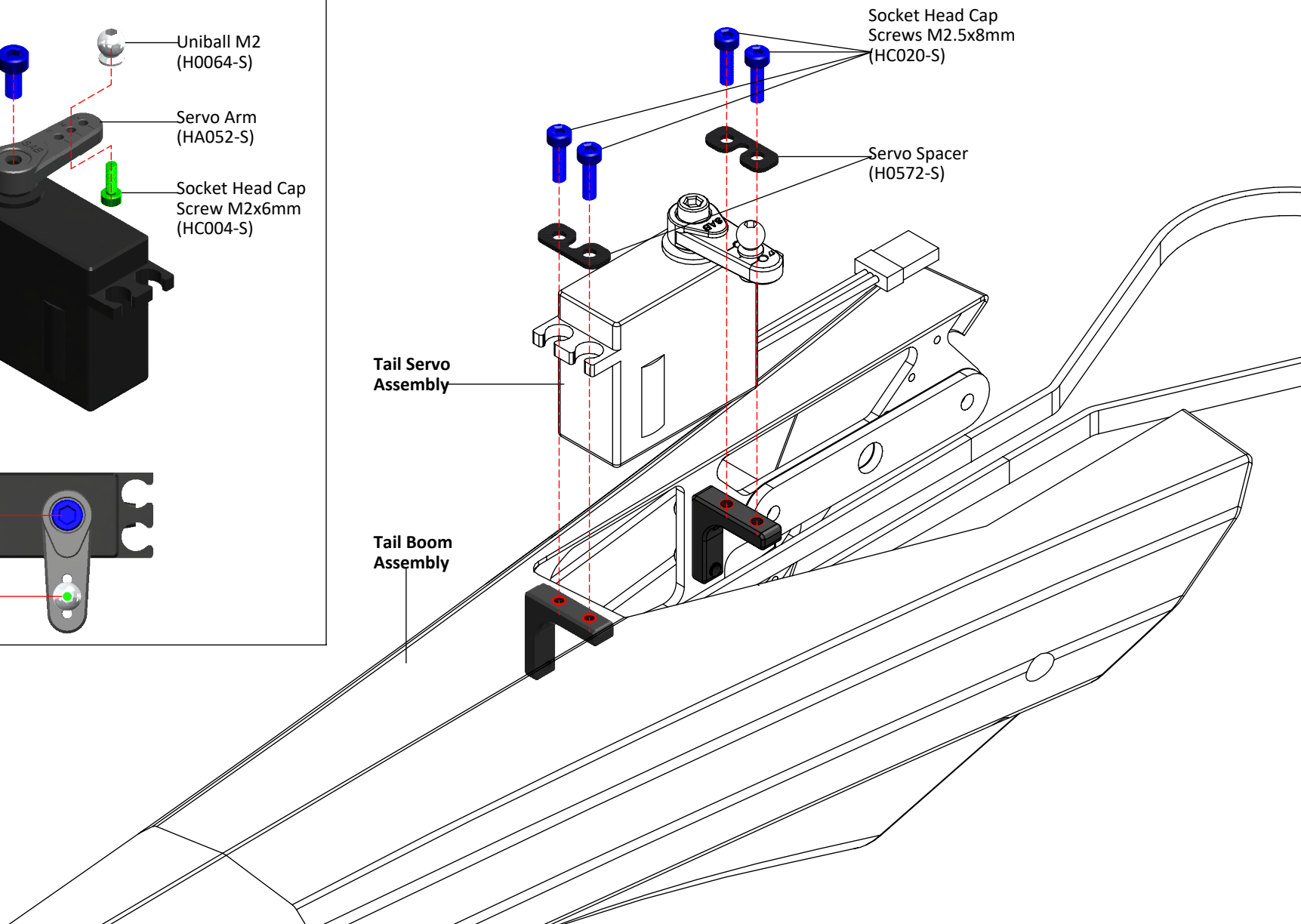


Socket Head Cap
Screws M2.5x8mm
(HC020-S)

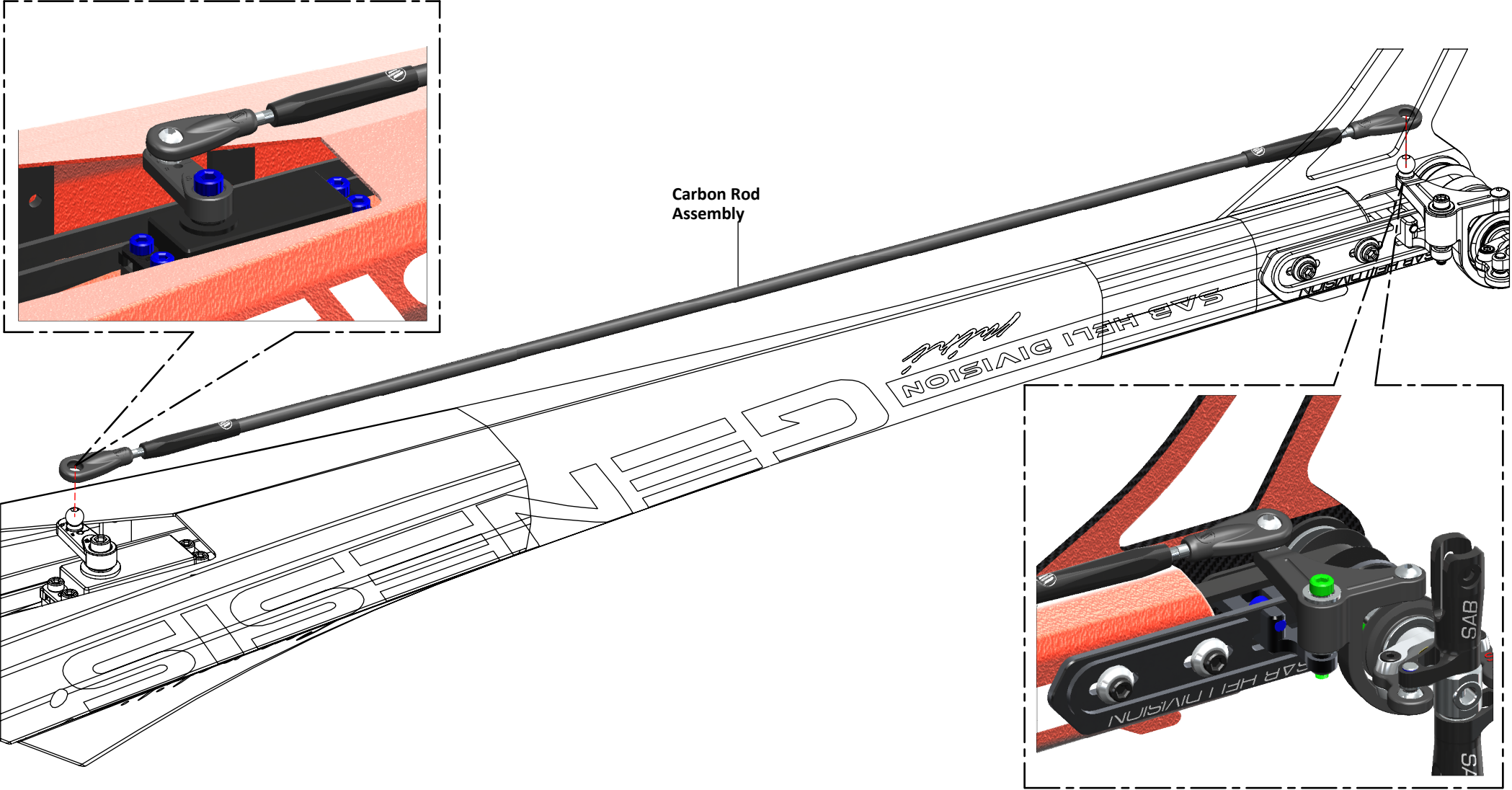
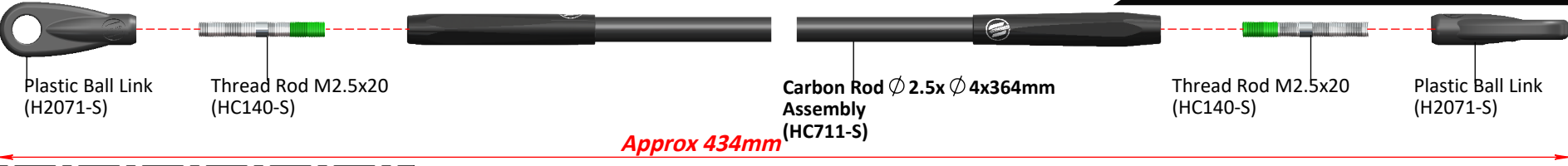
Servo Spacer
(H0572-S)

Tail Servo
Assembly

Tail Boom
Assembly



BOX 2, BAG FOR PAGE 22





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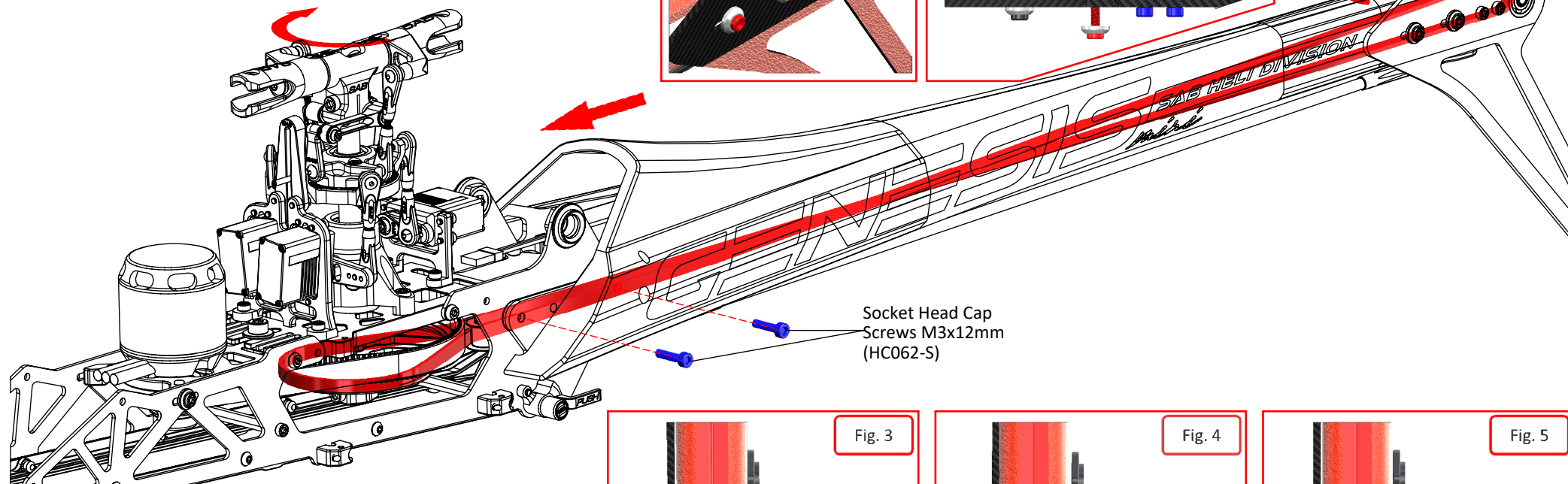
GENESIS

TAIL BOOM ASSEMBLY

BOX 2, BAG FOR PAGE 23

TAIL BOOM ASSEMBLY

- To fit the tail belt, loosen the tail case by loosening the 4 M2.5 screws (**Figure 1**).
 *Install the belt onto the tail front pulley, checking the direction of rotation.
 *Insert and tighten the 4 M3 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**).



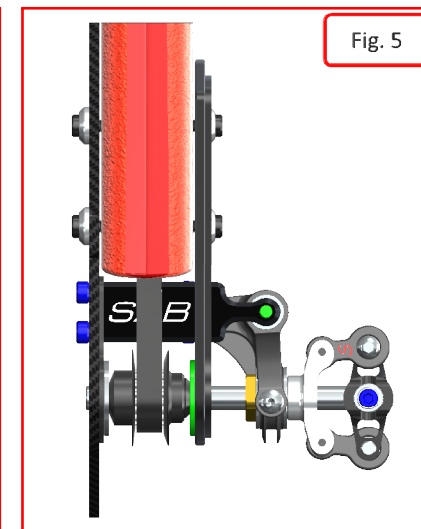
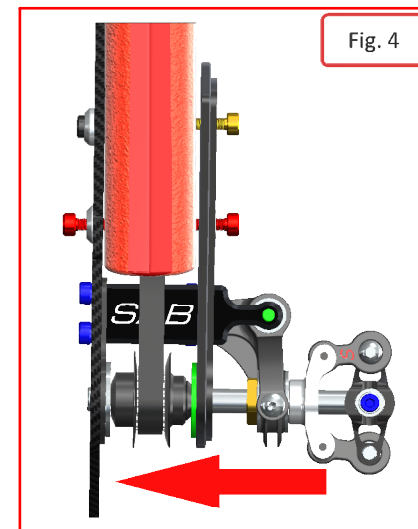
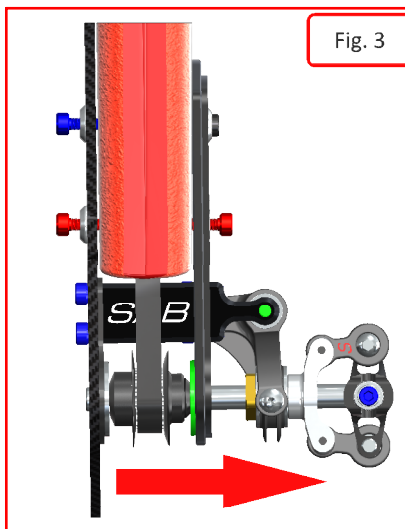
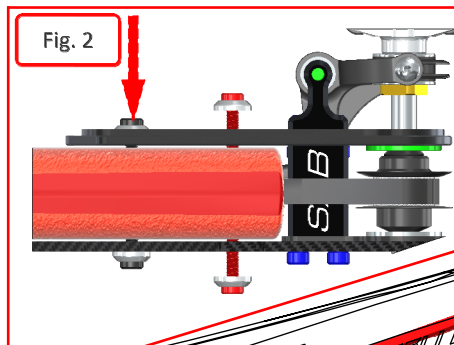
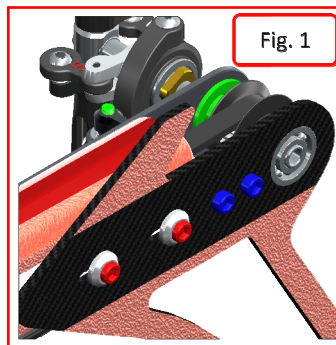
TAIL BELT TENSION

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

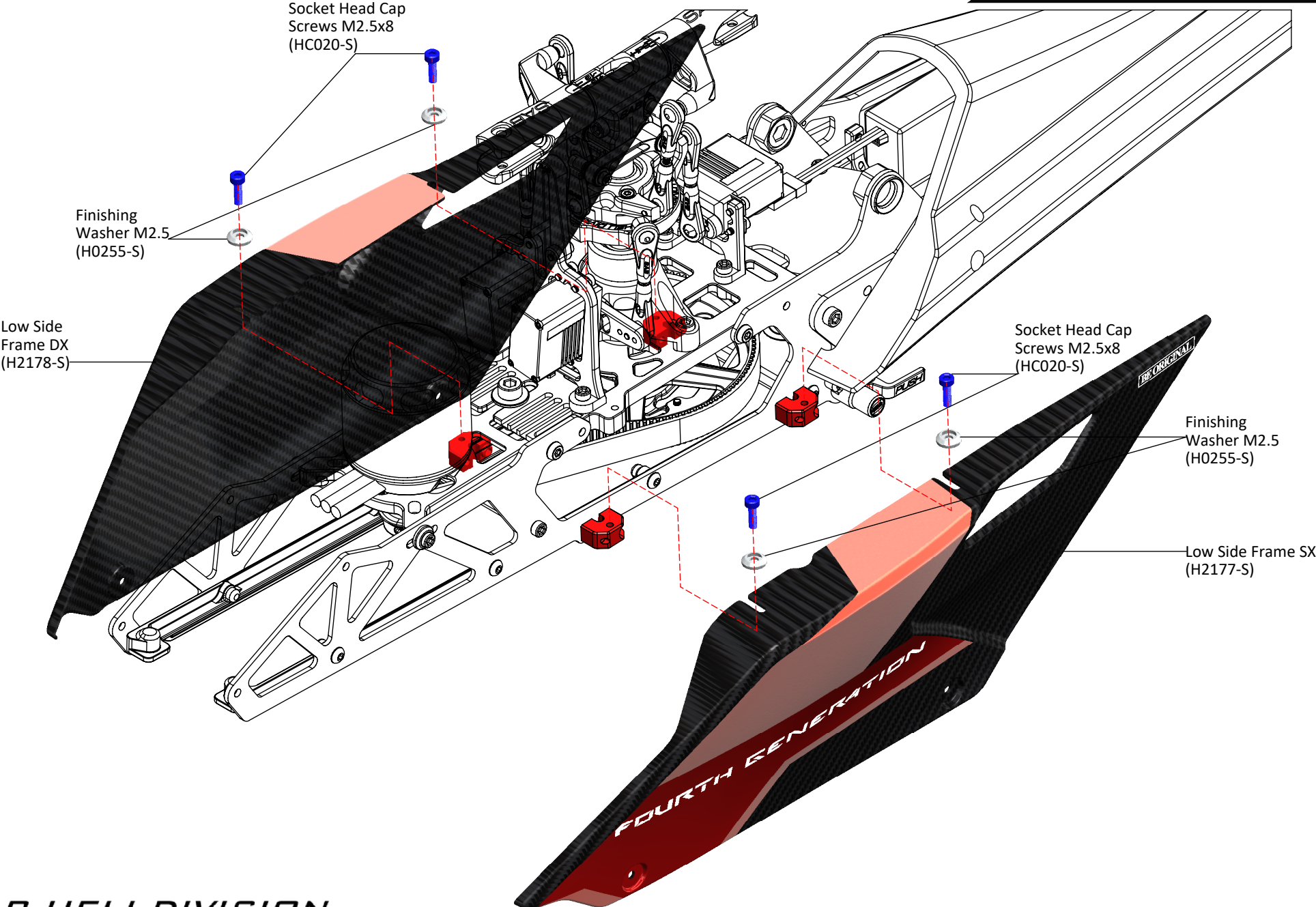
Figure 3, Loosen the 2 RED screws and the BLUE and push the tail side in according with red arrow. Tighten the BLUE screw while you are pushing.

Figure 4, Loosen the 2 RED screws and the YELLOW and push the tail side in according with red arrow. Tighten the YELLOW screw while you are pushing. You can proceed step by step until the tail belt is tight enough. Hard 3D style will require more tension; Sport flight style less. When you set your perfect tension, you can tighten all screws making sure the tail shaft is perfectly straight.

(**Figure 5**, tail output shaft have to be perpendicular to the boom mid line.)



BOX 2, BAG FOR PAGE 24



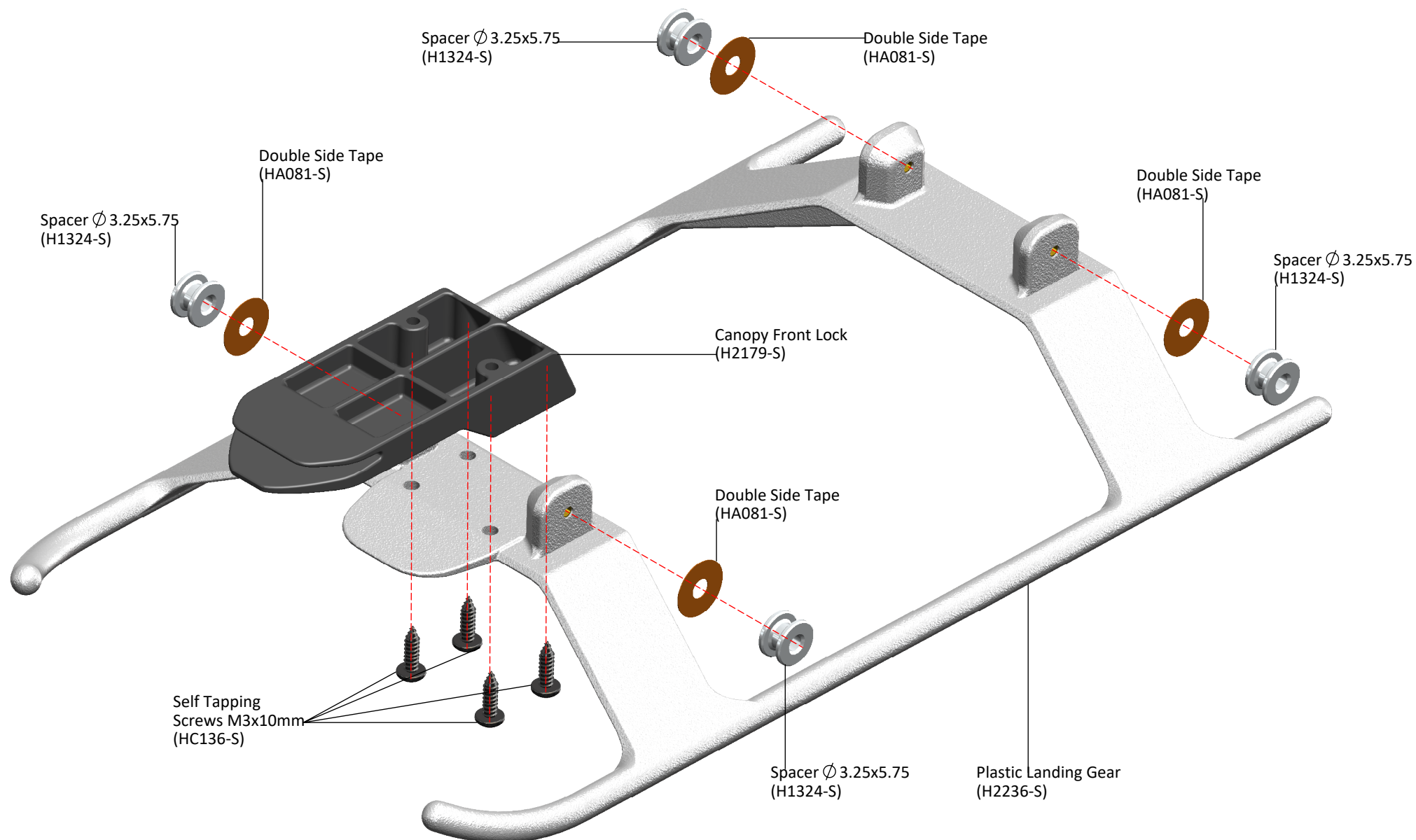


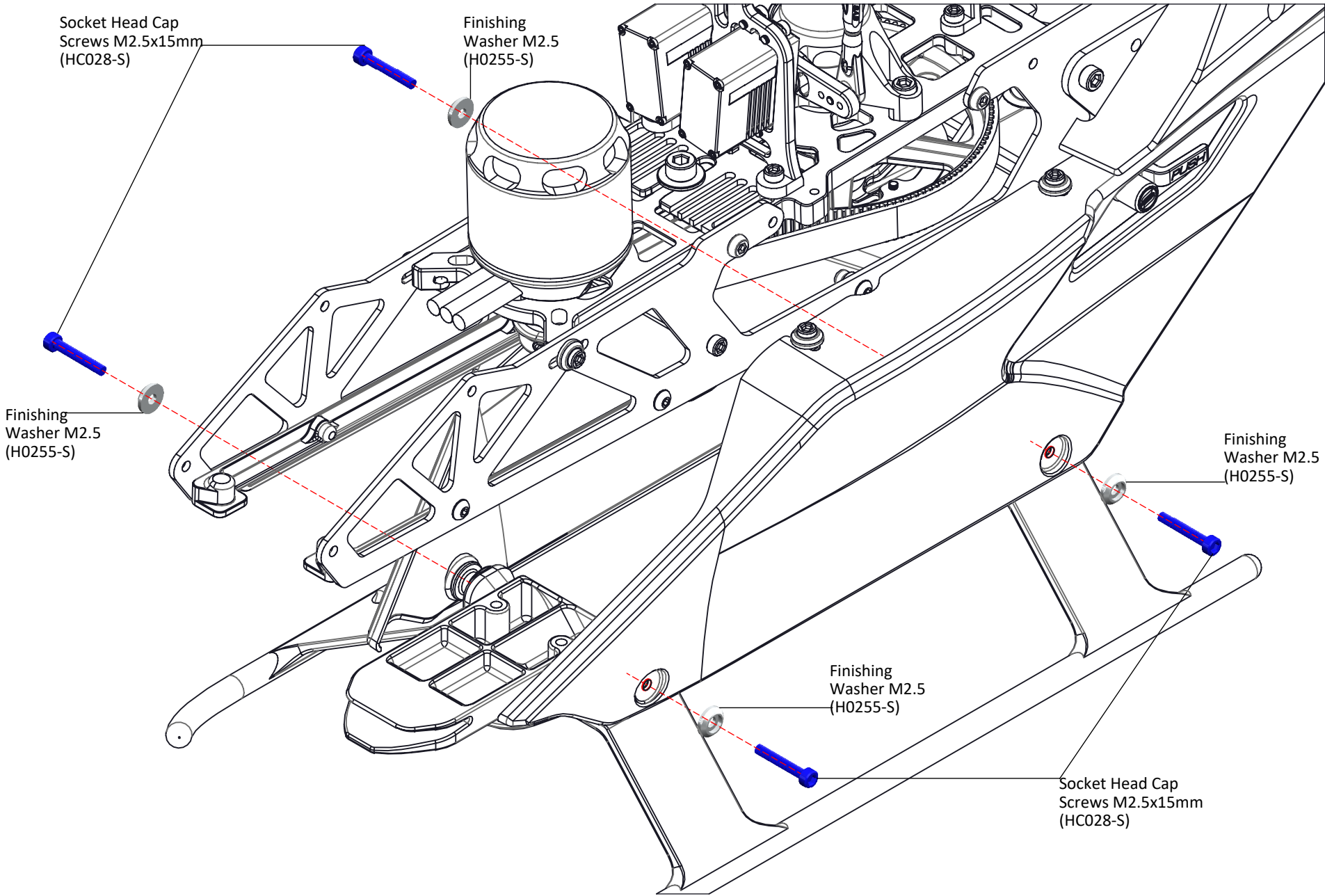
SE425

GENESIS

BOX 2, BAG FOR PAGE 25

LANDING GEAR INSTALLATION







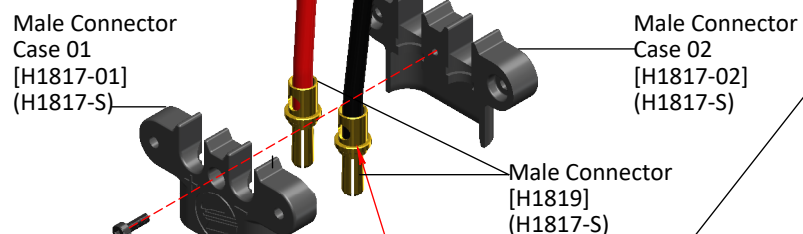
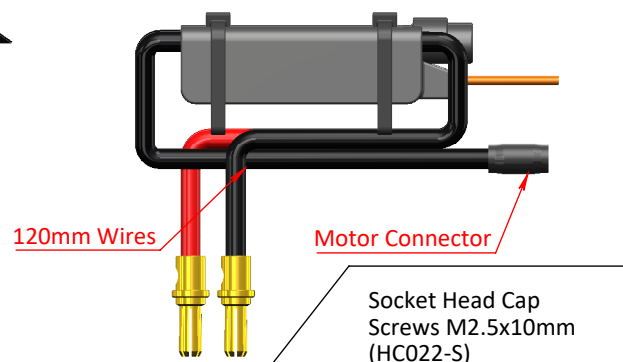
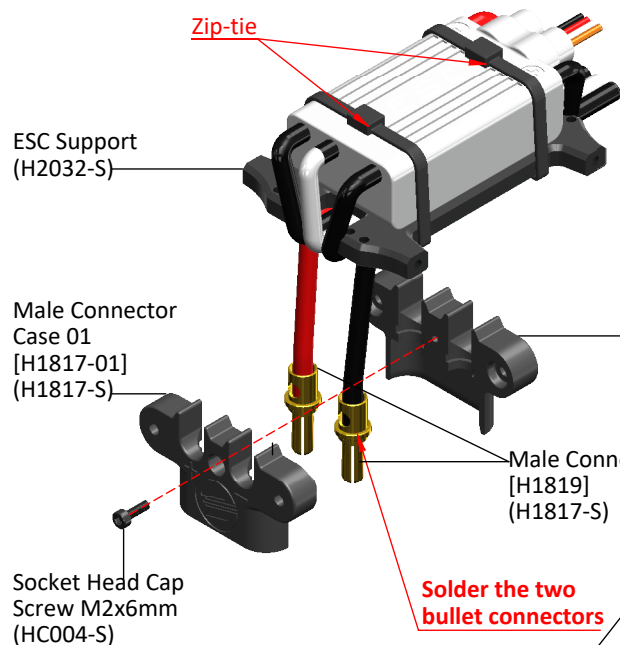
SG425

GENESIS

INSTALLATION OF THE ESC/FBL

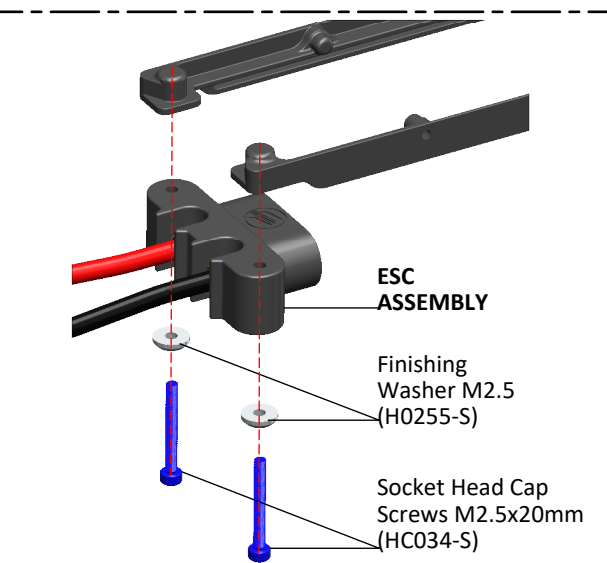
BOX 2, BAG FOR PAGE 27

ESC ASSEMBLY



Socket Head Cap Screw M2x6mm (HC004-S)

Solder the two bullet connectors



Socket Head Cap Screws M2.5x10mm (HC022-S)

Canopy Center (H2180-S)

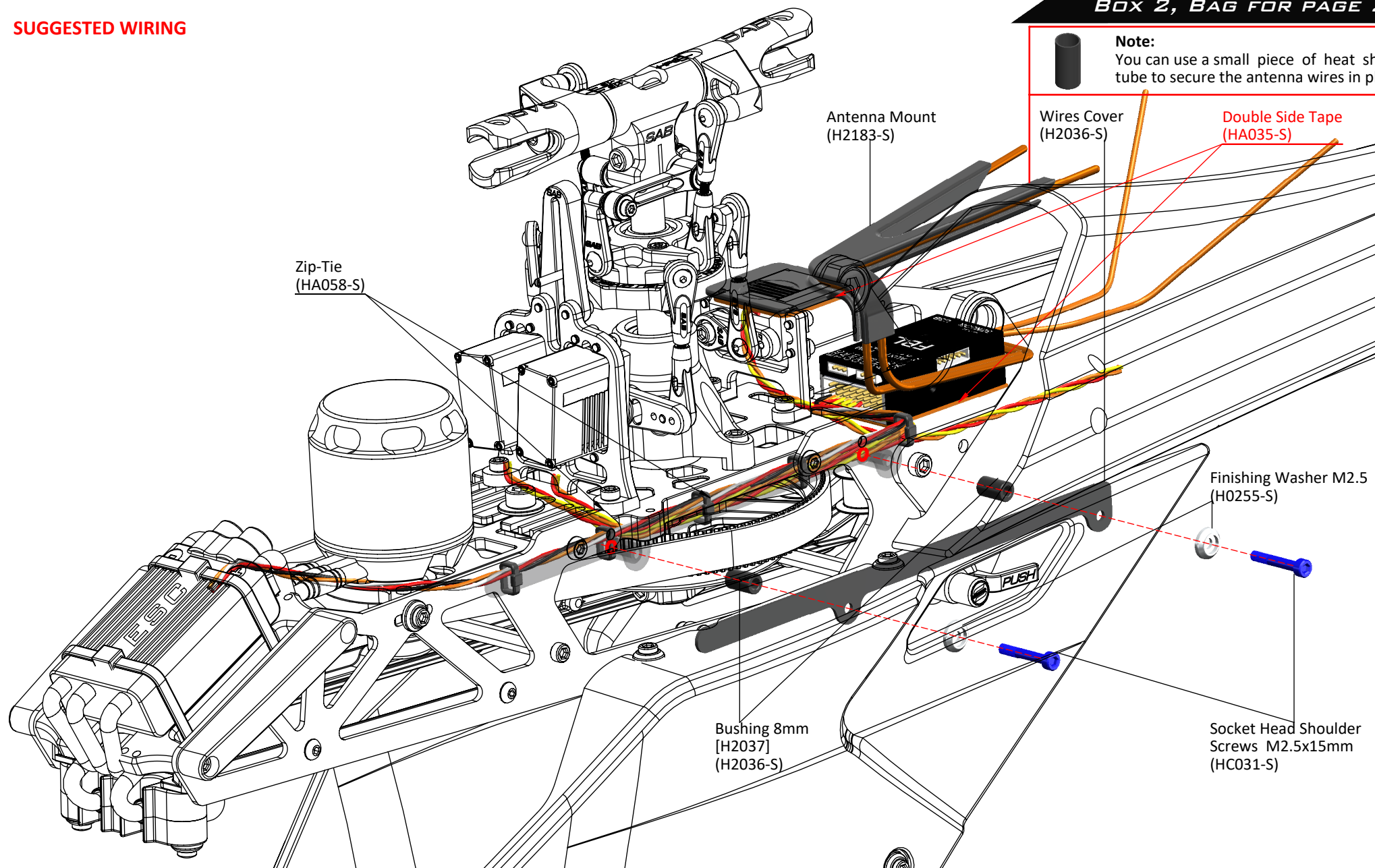
Canopy Center (H2180-S)

Socket Head Cap Screws M2.5x10 (HC022-S)

FRONT

SUGGESTED WIRING

BOX 2, BAG FOR PAGE 28





SB425

mini
GENESIS

INSTALLATION OF THE CANOPY

BOX 2, BAG FOR PAGE 29

CANOPY

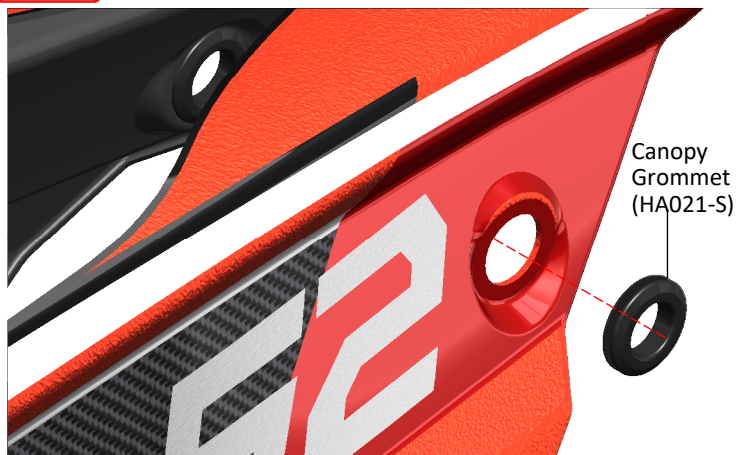
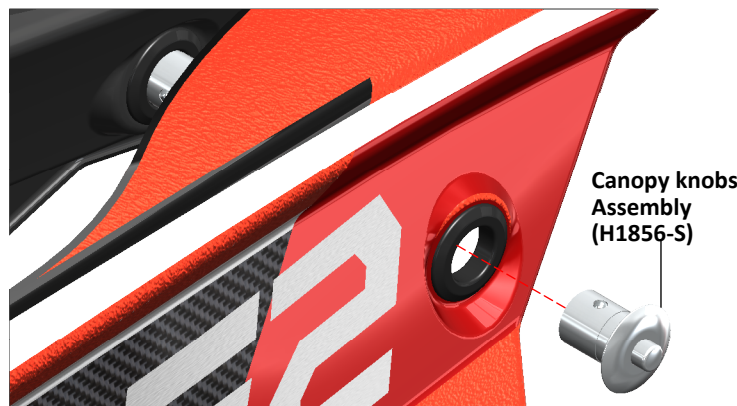
*Install Canopy grommets (Figure.1) and the two quick knobs (Figure.2).

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

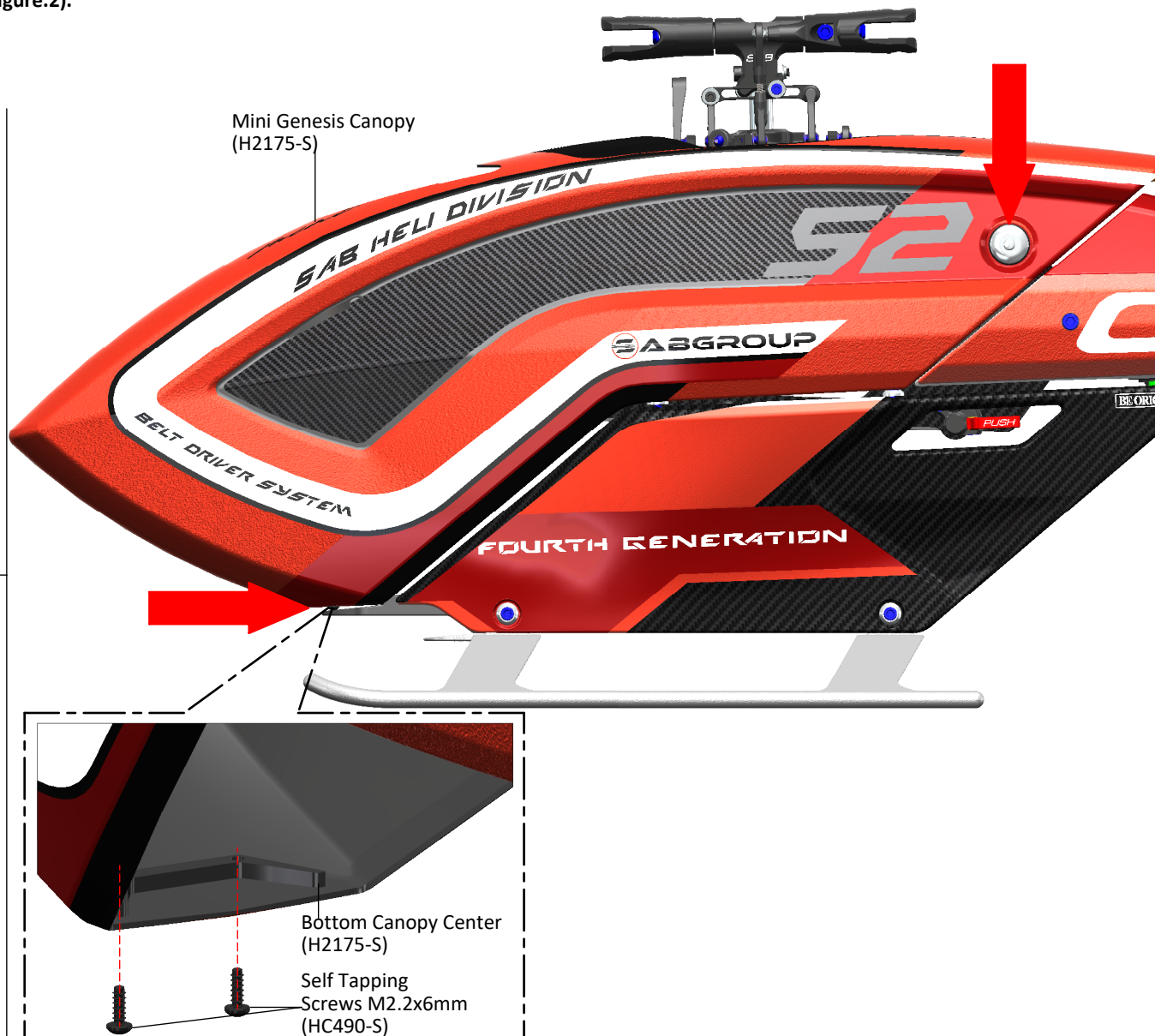


*Confirm the canopy is secure prior to each flight.

Fig. 1

Canopy
Grommet
(HA021-S)Canopy knobs
Assembly
(H1856-S)

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.

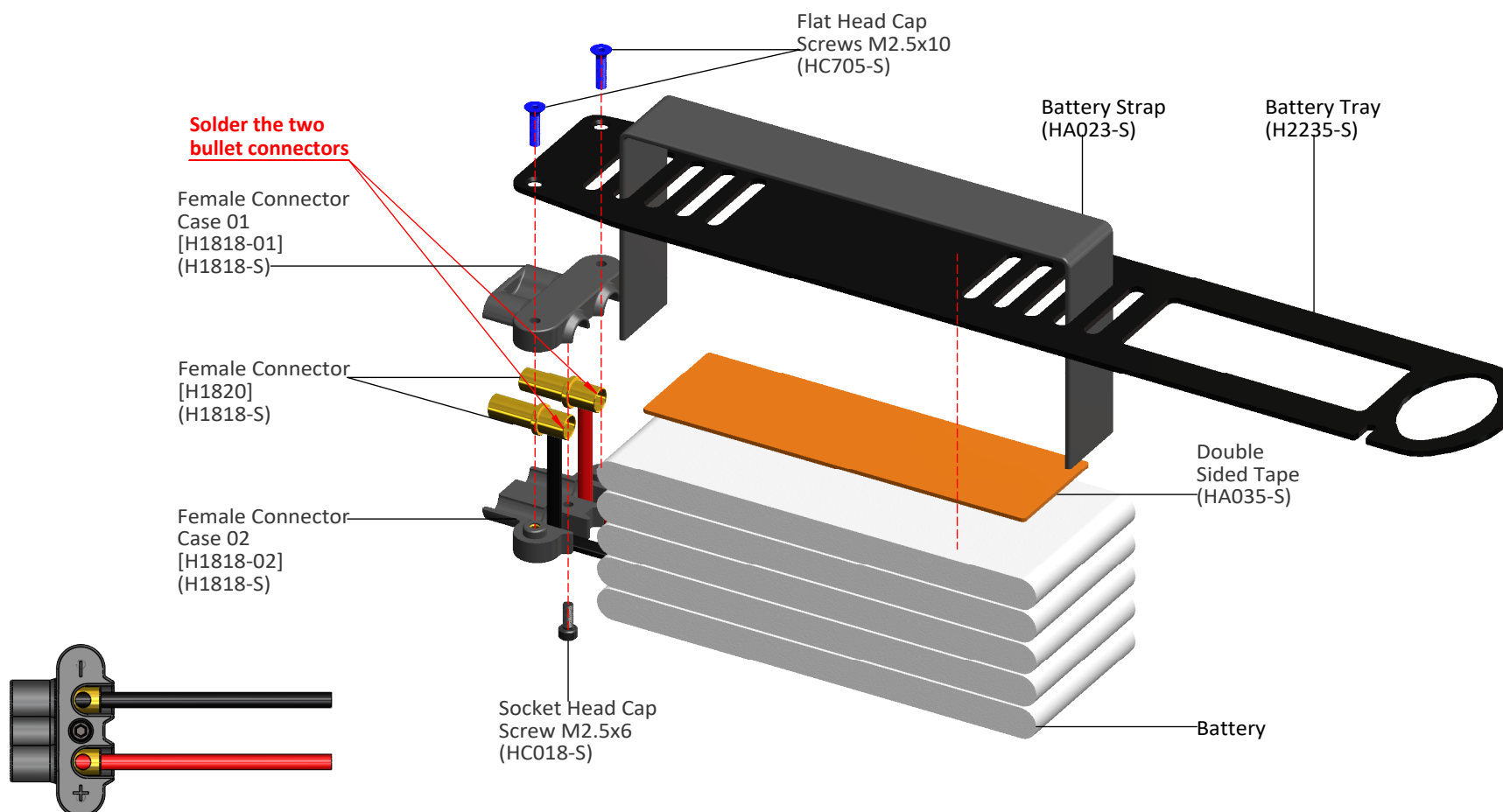
Mini Genesis Canopy
(H2175-S)Bottom Canopy Center
(H2175-S)
Self Tapping
Screws M2.2x6mm
(HC490-S)

BATTERY ASSEMBLY

Use the included double sided tape to secure the battery to the tray. Use the Velcro Strap [HA023-S].

CAUTION:

Please be extremely careful when soldering and installing the female connectors to the battery and installing them on the connector case. Lack of diligence and carefulness during this step could cause the connectors to make contact causing severe injury or death.





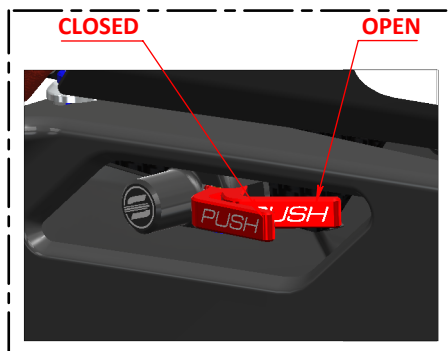
SG425

mini
GENESIS

INSTALLATION OF THE BATTERY



Before permanently mounting the battery on 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.

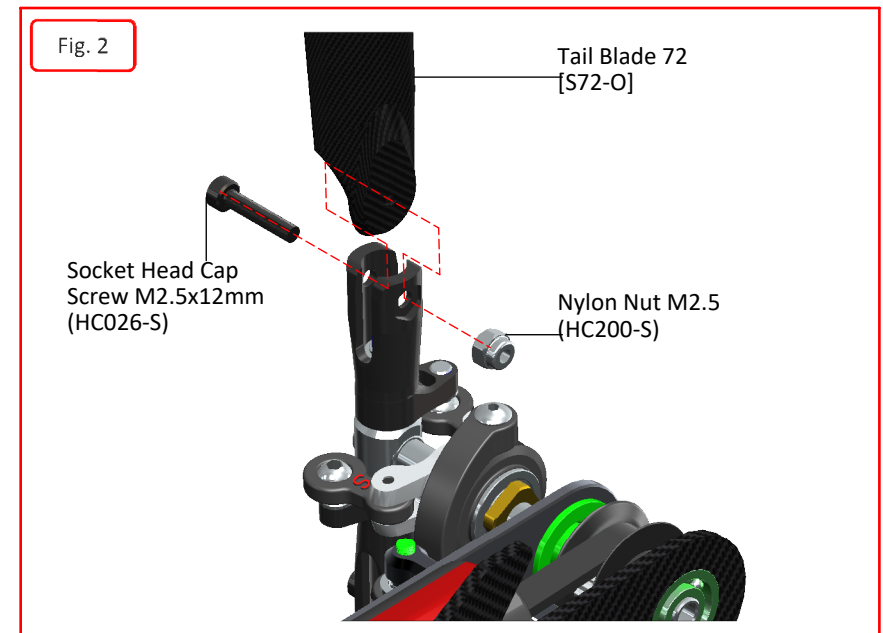
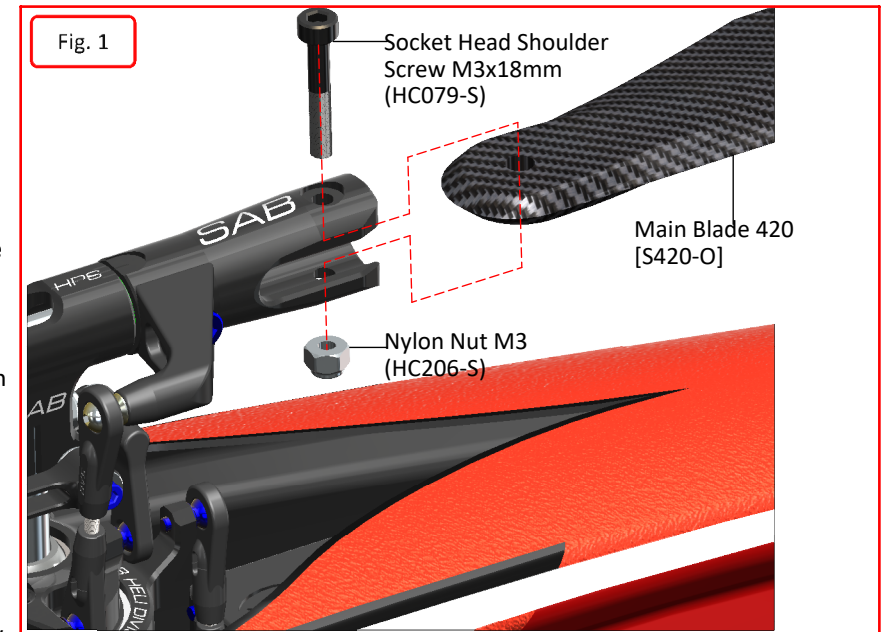
! Be sure of the gear ratio, verifying carefully the motor pulley in use. The forces acting on the mechanics increase enormously with increase of rpm. Although the Goblin can fly at high rpm, for safety reasons we suggest to not exceed 3200rpm.

- *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 3D flight, set about +/-13°.
- *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, 2200/2300 RPM.
After this first flight, do a general check of the helicopter. Verify that all screws are correctly tightened.

FIRST FLIGHT

- * Check that the connectors to the FBL / RX are all inserted correctly and secure.
- * We suggest initially using a tail gain setting in your FBL system between 40 to 50%.
- ! Check that the battery is securely locked and properly seated in the guides. The locking lever must always be oriented with the word closed facing upwards.**
- * Perform the first flight at a low head speed, not exceeding 2200 rpm. After this first flight, do a general check of the helicopter. Verify that all the screws and bolts are correctly tightened.
- * It's very important to check the model over before every flight, check all bolts, screws, belts, ball links, etc.
- * If the model is making any strange noises check the blades balance.
If you want to fly high RPM (over 3000 rpm) you can replace the tail pulley with H1742-S 21T.





SG425

mini
GENESIS

MAINTENANCE

Take a look at the red parts.

Check them frequently. All other parts are not particularly subject to wear.

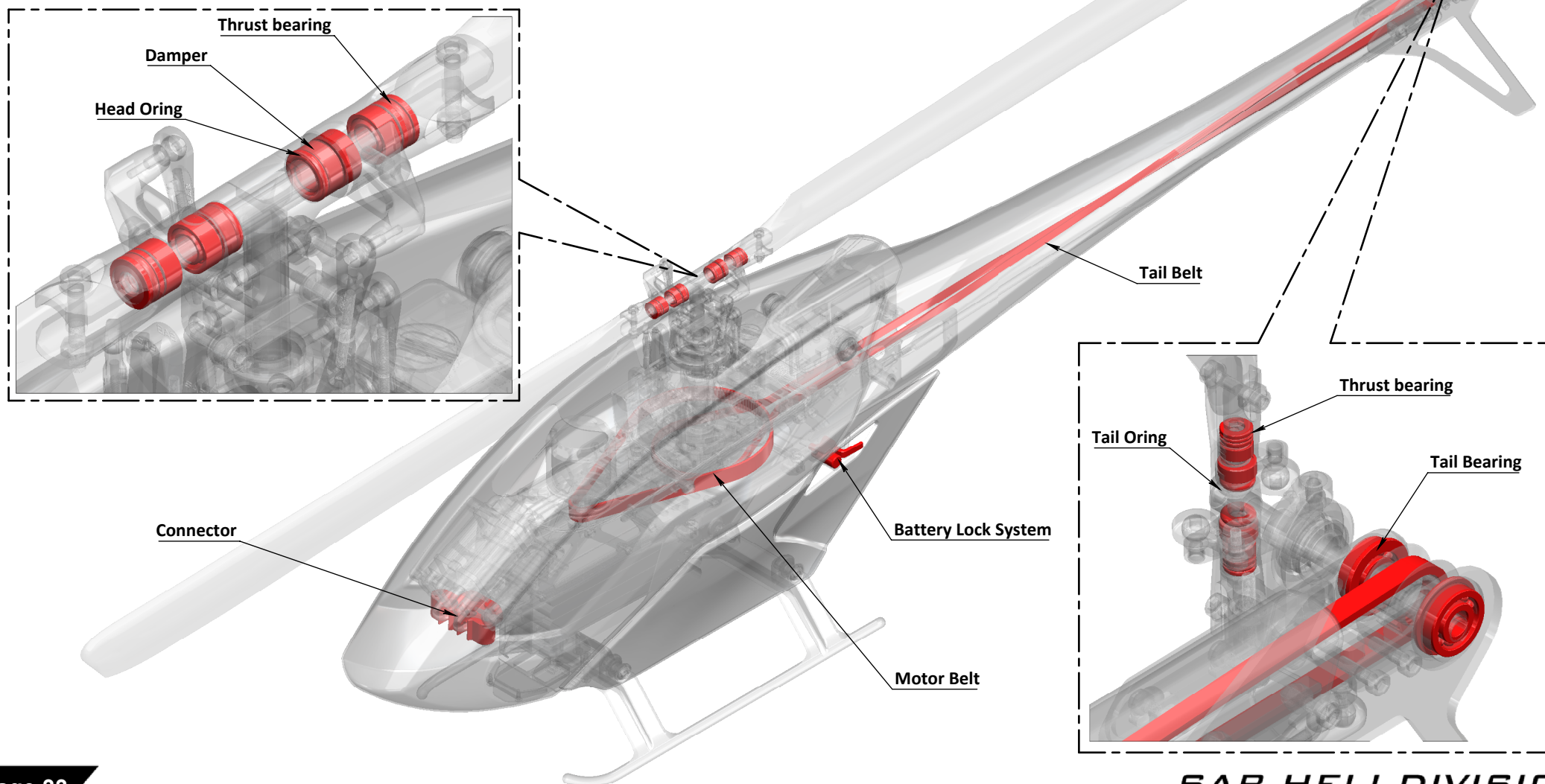
The lifespan of these components varies according to the type of flying.

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.

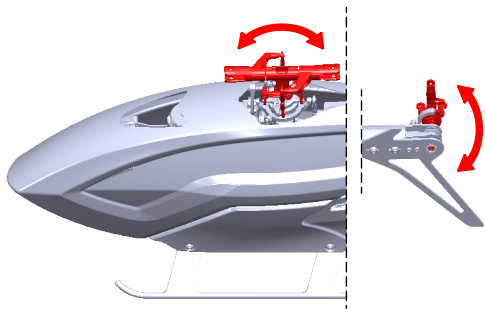
Periodically lubricate the tail slider movement and its linkages as well as the swash plate movement and its linkages.

To ensure safety you should do a general inspection of the helicopter after each flight. You should check:

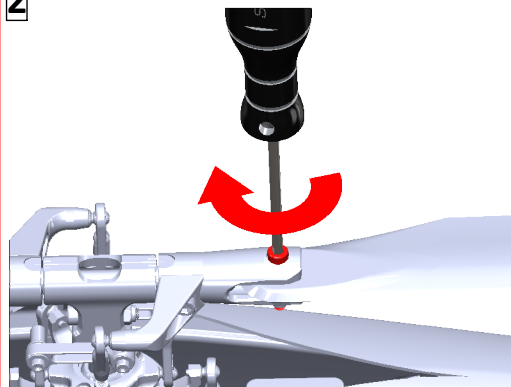
- Proper belt tension (engine belt and tail belt).
- Proper isolation of the wires from the carbon and aluminum parts.
- All screws and bolts remain tight.



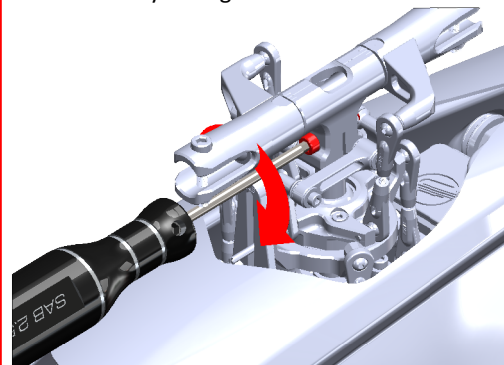
- 1** Check the dampening on the main and tail rotor to be the same as always.



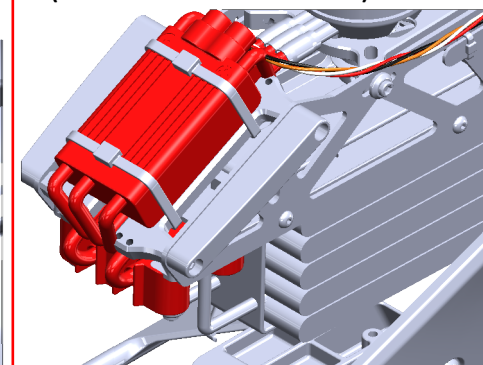
- 2** Tighten the main blades before flight.



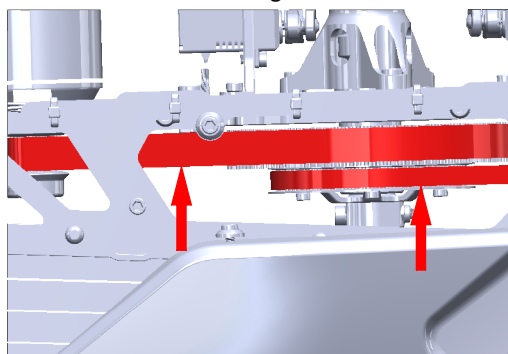
- 3** Check main hub screws M3
Ensure they are tight.



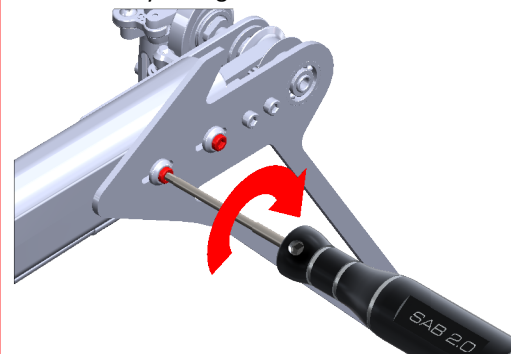
- 4** Check all power connectors
(Good mechanical connection).



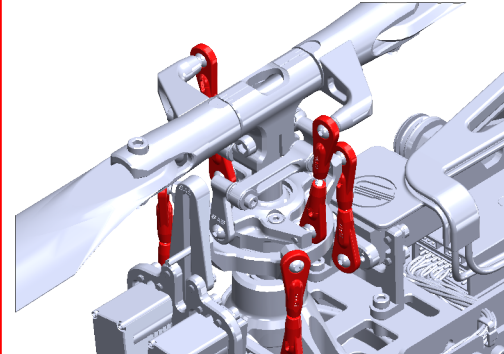
- 5** Check Tail belt tension.
The tension has to be tight.



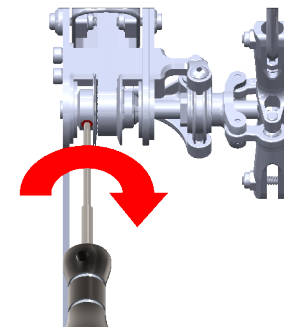
- 6** Check the 4 M2.5 Tail group screws.
Ensure they are tight.



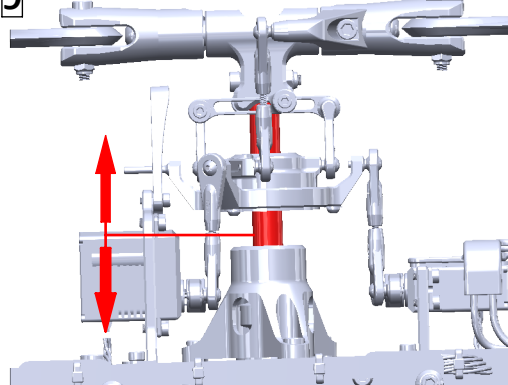
- 7** Check the Main Linkages & Servo Linkages



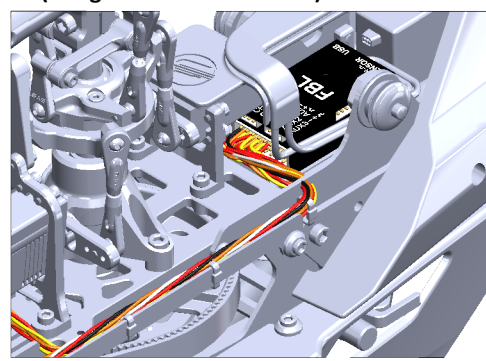
- 8** Check tail pulley set screw:
Ensure it is tight.
(It is suggested use a bit of Green Loctite.)



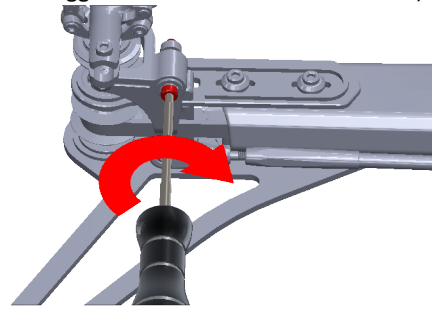
- 9** Check for vertical play of the main shaft.



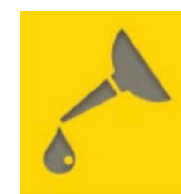
- 10** Check if the FBL-RX connectors are OK
(hot glue is recommended).



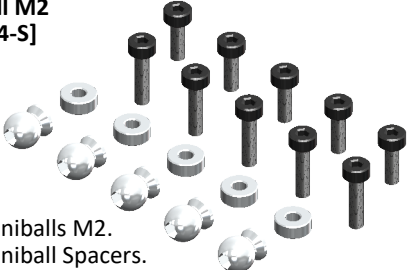
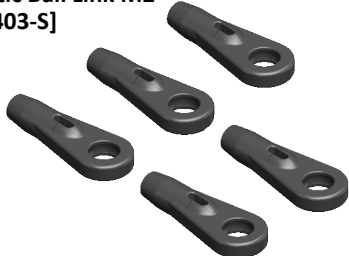
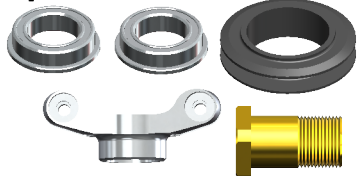
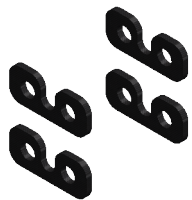
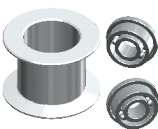
- 11** Check the M2.5 bell crank:
Bell crank movement must be smooth
and the screw locked.
(It is suggested use a bit of Green Loctite.)



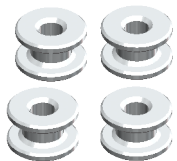
- 12** Be sure the following parts are properly lubricated
*Main shaft/swashplate
*Tail slider/tail shaft
*Carbon rod/carbon rod support
*All thrust bearings
*All plastic balls connections





Uniball M2 [H0064-S]  - 5 x Uniballs M2. - 5 x Uniball Spacers. - 5 x Socket Head Cap Screws M2x6mm. - 5 x Socket Head Cap Screws M2x8mm.	Uniball M3 [H0065-S]  - 5 x Uniball M3.	Finishing Washer M2.5 [H0255-S]  - 10 x Finishing Washer M2.5.	Plastic Linkage [H0261-S]  - 2 x Plastic Linkage. - 2 x Spacers. - 2 x Socket Head Cap Screws M2x6mm.
Plastic Ball Link M2 [H0403-S]  - 5 x Plastic Ball Link M2.	Motor Pulley 19T-24T [H0501-19-24-S]  - 1 x Motor Pulley Assembly 19T-24T. - 1 x Set Screw M3x6mm.	Main Spindle [H0508-S]  - 1 x Main Spindle. - 2 x Button Head Cap Screws M4x6mm.	Tail Spitch Slider [H0512-S]  - 1 x Tail Spitch Slider 01. - 1 x Tail Spitch Slider 02. - 1 x Tail Spitch Slider 03. - 2 x Flanged Bearing $\varnothing 7 \times \varnothing 11 \times 2.5$.
Damper Set [H0518-S]  - 2 x Damper. - 2 x Oring 106, 1.78 x 6.75. - 2 x Shims $\varnothing 5 \times \varnothing 7 \times 0.1 \text{mm}$. - 2 x Washer $\varnothing 7.5 \times \varnothing 10 \times 0.5$. - 2 x Button Head Cap Screws M4x6mm.	Radius Plastic Arm [H0525-S]  - 2 x Radius Plastic Arm. - 2 x Washer $\varnothing 2.2 \times \varnothing 5 \times 0.3 \text{mm}$.	Uniball M2 [H0538-S]  - 5 x Uniball M2.	Tail Spacers Set [H0540-S]  - 2 x Washer $\varnothing 3 \times \varnothing 4.75 \times 0.5$. - 2 x Washer $\varnothing 4.5 \times \varnothing 5.9 \times 0.5$. - 2 x Washer $\varnothing 2.1 \times \varnothing 4.5 \times 0.5$. - 2 x Socket Head Cap Screws M2x6mm. - 2 x Oring 2012, DI=2,9, S=1,78.
Washer $\varnothing 2.1 \times \varnothing 4.5 \times 0.5$ [H0566-S]  - 10 x Washer $\varnothing 2.1 \times \varnothing 4.5 \times 0.5$.	Servo Spacer [H0572-S]  - 4 x Servo Spacer.	Tail Belt Ilder [H0575-S]  - 1 x Tail Belt Ilder. - 2 x Flanged Bearing $\varnothing 2.5 \times \varnothing 6 \times 2.6$.	Serial Number [H1212-S]  - 1 x Serial Number. - 1 x Flat Head Cap Screw M2.5x5mm.

Spacer $\varnothing 3.25 \times 5.75$
[H1324-S]



- 4 x Spacer $\varnothing 3.25 \times 5.75$.

Center Hub
[H1445-S]



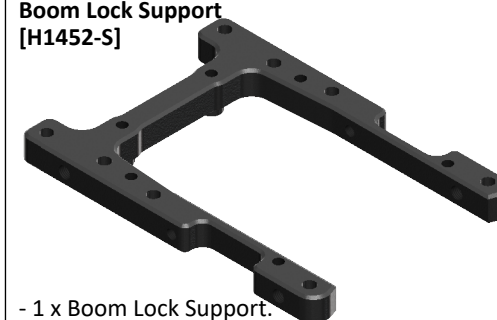
- 1 x Center Hub.
- 1 x Socket Head Shoulder Screw M3x16mm.
- 1 x Nylon Nut M3.

Main Blade Grip
[H1446-S]



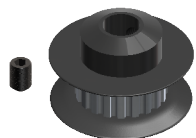
- 2 x Main Blade Grip.
- 4 x Bearing $\varnothing 5 \times \varnothing 10 \times 4$.
- 2 x Washer $\varnothing 7.5 \times \varnothing 10 \times 0.5$.
- 2 x Thrust Bearing $\varnothing 5 \times \varnothing 10 \times 4$.
- 2 x Button Head Cap Screws M4x6mm.

Boom Lock Support
[H1452-S]



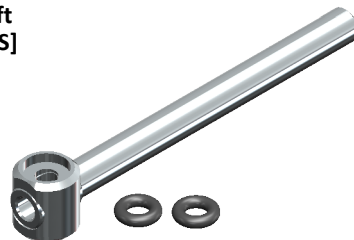
- 1 x Boom Lock Support.

Tail Pulley 20T
[H1459-S]



- 1 x Tail Pulley 20T.
- 1 x Set Screw M3x4mm.

Tail Shaft
[H1460-S]



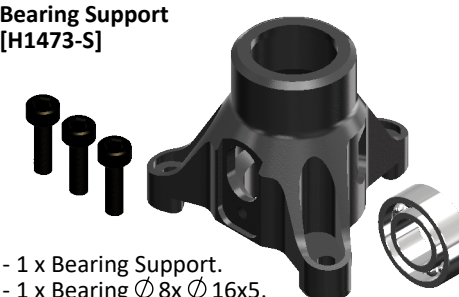
- 1 x Tail Shaft.
- 1 x Tail Hub.
- 2 x Tail Oring.

Tail Blade Grip
[H1461-S]



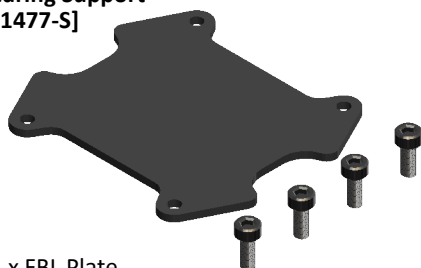
- 2 x Tail Blade Grip.
- 2 x Bearing $\varnothing 3 \times \varnothing 7 \times 3$.
- 2 x Bearing $\varnothing 3 \times \varnothing 6 \times 2.5$.
- 2 x Washer $\varnothing 4.5 \times \varnothing 5.9 \times 0.5$.
- 2 x Washer $\varnothing 2.1 \times \varnothing 4.5 \times 0.5$.
- 2 x Socket Head Cap Screws M2x6mm.
- 2 x Thrust Bearing $\varnothing 3 \times \varnothing 6 \times 2.8$.

Bearing Support
[H1473-S]



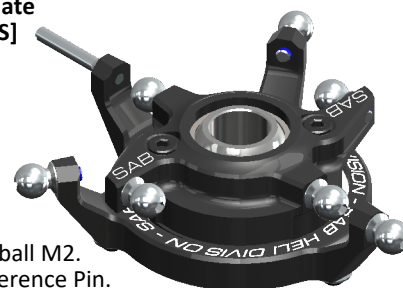
- 1 x Bearing Support.
- 1 x Bearing $\varnothing 8 \times \varnothing 16 \times 5$.
- 3 x Socket Head Cap Screws M3x10mm.

Bearing Support
[H1477-S]



- 1 x FBL Plate.
- 4 x Socket Head Cap Screws M2.5x6mm.

Swashplate
[H1566-S]



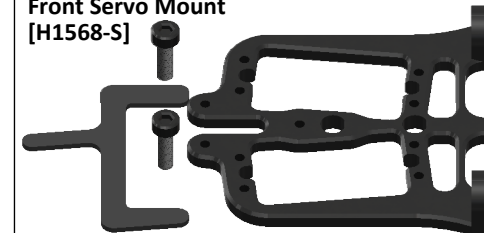
- 7 x Uniball M2.
- 1 x Reference Pin.
- 1 x Swashplate ASM.

Main Shaft Block
[H1567-S]



- 1 x Main Shaft Block.
- 2 x Set Screws M4x4mm.

Front Servo Mount
[H1568-S]



- 1 x Front Servo Mount.
- 1 x Micro Servo Tool.
- 2 x Socket Head Cap Screws M2.5x8mm.

Rear Servo Mount
[H1569-S]



- 1 x Rear Servo Mount.
- 2 x Socket Head Cap Screws M2.5x8mm.

Alu Tail Side Plate
[H1632-S]



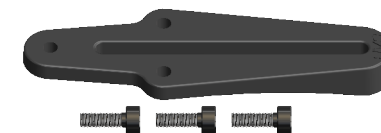
- 1 x Alu Tail Side Plate.
- 1 x Flanged Bearing $\varnothing 5 \times \varnothing 13 \times 4$.

Tail Case Spacer
[H1634-S]



- 1 x Tail Case Spacer.
- 2 x Socket Head Cap Screws M2.5x6mm.

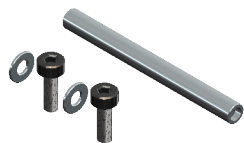
Anti-rotation
[H1687-S]



- 1 x Anti-Rotation.
- 3 x Socket Head Cap Screws M2x6mm.

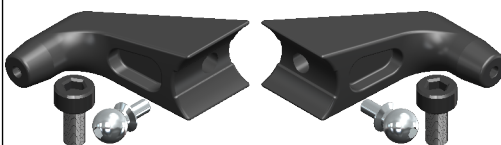


Tail Spindle
[H1689-S]



- 1 x Main Spindle.
- 2 x Socket Head Cap Screws M2x6mm.
- 2 x Washer $\varnothing 2.1 \times \varnothing 4.5 \times 0.5$.

Blade Grip Arm
[H1701-S]



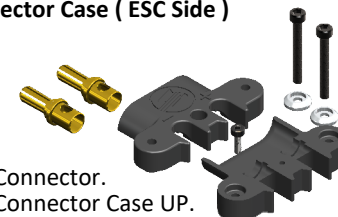
- 2 x Blade Grip Arm.
- 2 x Uniball M2.
- 2 x Socket Head Cap Screws M3x6mm.

Bell Crank Clever
[H1702-S]



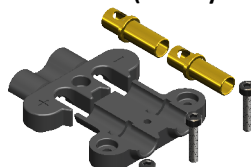
- 1 x Bushing.
- 2 x Tail Pin.
- 1 x Uniball M2.
- 1 x Bell Crank Clever.
- 1 x Socket Head Cap Screw M2x5mm.
- 2 x Flanged Bearing $\varnothing 2.6 \times \varnothing 6 \times 2.6$.
- 1 x Socket Head Cap Screw M2.5x18mm.

Male Connector Case (ESC Side)
[H1817-S]



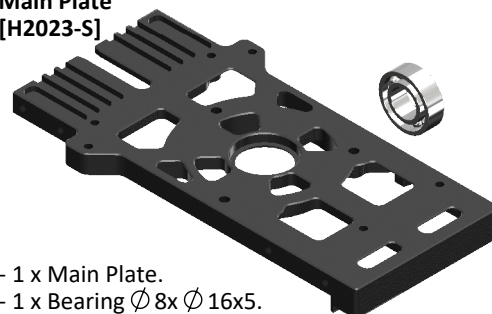
- 2 x Male Connector.
- 1 x Male Connector Case UP.
- 1 x Male Connector Case DOWN.
- 2 x Finishing Washer M2.5.
- 1 x Socket Head Cap Screw M2x6mm.
- 2 x Socket Head Cap Screws M2.5x20mm.

Female Connector Case (Battery Side)
[H1818-S]



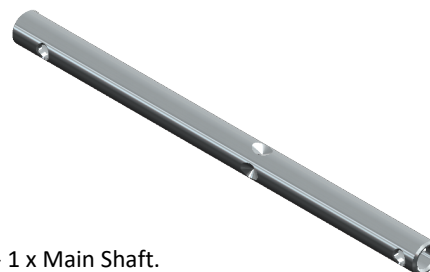
- 2 x Female Connector.
- 1 x Female Connector Case UP.
- 1 x Female Connector Case DOWN.
- 1 x Socket Head Cap Screw M2.5x6mm.
- 2 x Socket Head Cap Screws M2.5x12mm.

Main Plate
[H2023-S]



- 1 x Main Plate.
- 1 x Bearing $\varnothing 8 \times \varnothing 16 \times 5$.

Main Shaft
[H2024-S]



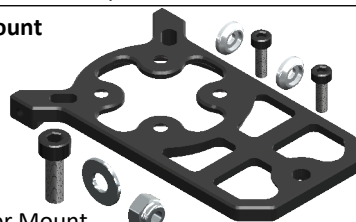
- 1 x Main Shaft.

Front Tail Pulley
[H2025-S]



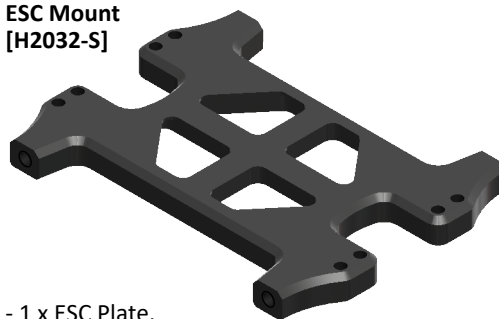
- 1 x Front Tail Pulley ASM.
- 1 x Socket Head Shoulder Screw M3x16mm.
- 1 x Nylon Nut M3.

Motor Mount
[H2026-S]



- 1 x Motor Mount.
- 2 x Finishing Washer M2.5.
- 2 x Socket Head Cap Screws M2.5x8mm.
- 1 x Socket Head Cap Screw M4x15mm.
- 1 x Washer $\varnothing 4.3 \times \varnothing 11 \times 1$.

ESC Mount
[H2032-S]



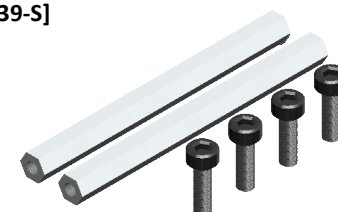
- 1 x ESC Plate.

Wire Cover
[H2036-S]



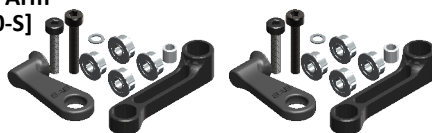
- 1 x Wire Cover.
- 2 x Bushing.

Hex Spacer M2.5x46
[H2039-S]



- 1 x Hex Spacer M2.5x46.
- 4 x Socket Head Cap Screws M2.5x8mm.

Radius Arm
[H2040-S]



- 2 x Radius Arm.
- 2 x Bushing.
- 2 x Radius Plastic Arm.
- 2 x Socket Head Cap Screws M2x10mm.
- 2 x Socket Head Cap Screws M2x12mm.
- 2 x Shims $\varnothing 2 \times \varnothing 3.5 \times 0.3$.
- 4 x Flanged Bearing $\varnothing 2 \times \varnothing 5 \times 2.5$.

One Way Bearing Bushing
[H2069-S]



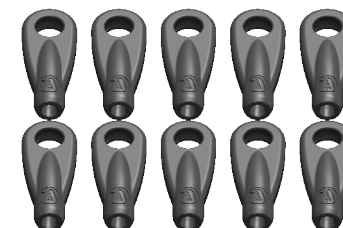
- 1 x One Way Bearing Bushing.

Main Pulley
[H2070-S]



- 1 x Main Pulley Assembly.
- 2 x Shims $\varnothing 10.1 \times \varnothing 12 \times 0.1$.

Plastic Ball Linkage M2.5
[H2071-S]



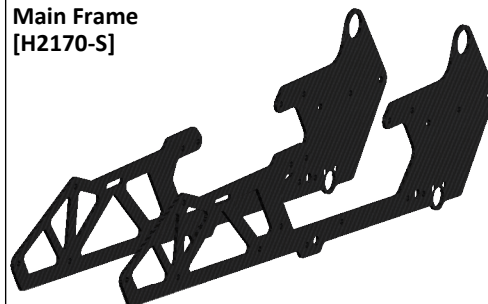
- 10 x Plastic Ball Linkage M2.5.

Quick Release Canopy
[H2106-S]



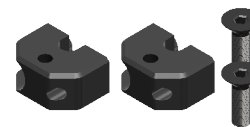
- 2 x Quick Release Canopy SET.

Main Frame
[H2170-S]



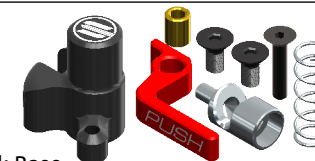
- 2 x Main Frame 420 URK.

Low Side Frame Mount
[H2171-S]



- 2 x Low Side Frame Mount.
- 2 x Flat Head Cap Screws M2.5x8mm.

Battery Lock
[H2172-S]



- 1 x Battery Lock Base.
- 1 x Battery Lock Push.
- 1 x Battery Lock Pin.
- 1 x Battery Lock Spring.
- 1 x Bushing.
- 2 x Flat Head Cap Screws M2.5x5mm.
- 1 x Flat Head Cap Screw M2x8mm.

Mini Genesis Canopy
[H2175-S]



- 1 x Mini Genesis Canopy.
- 2 x Canopy Grommet.

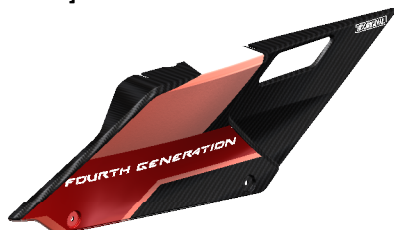
Mini Genesis Boom
[H2176-S]



- 1 x Mini Genesis Boom.
- 2 x G10 Plate Boom Spacer.
- 2 x G10 Plate Boom Spacer Tape.

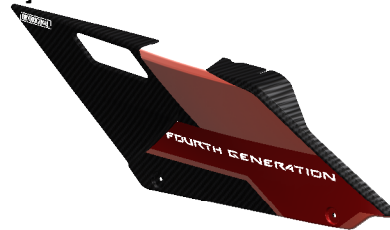
- 2 x Tail Element Locking 20.
- 4 x Nylon Nut M2.5.
- 2 x Double Side Tape.

Low Side Frame SX
[H2177-S]



- 1 x Low Side Frame SX.

Low Side Frame DX
[H2178-S]



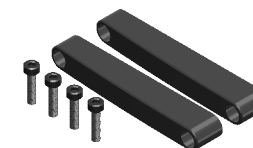
- 1 x Low Side Frame DX.

Canopy Front Lock
[H2179-S]



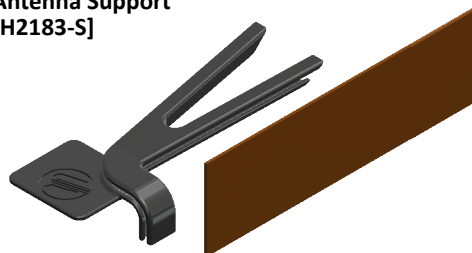
- 1 x Canopy Front Lock.
- 4 x Self Tapping Screws M3x10mm.

Canopy Centering
[H2180-S]



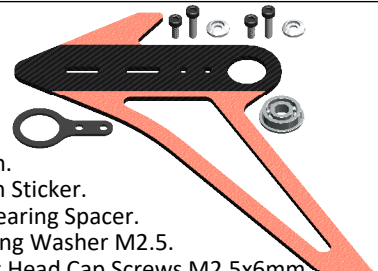
- 2 x Canopy Centering.
- 4 x Socket Head Cap Screws M2.5x10mm.

Antenna Support
[H2183-S]



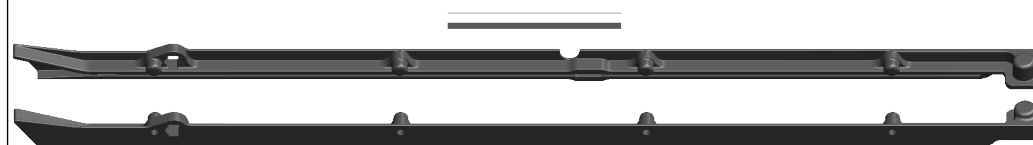
- 1 x Antenna Support.
- 1 x Double Side Tape.

Tail Fin
[H2211-S]



- 1 x Tail Fin.
- 2 x Tail Fin Sticker.
- 1 x G10 Bearing Spacer.
- 2 x Finishing Washer M2.5.
- 2 x Socket Head Cap Screws M2.5x6mm.
- 2 x Socket Head Cap Screws M2.5x10mm.
- 1 x Flanged Bearing $\phi 5x \phi 13x4mm$.

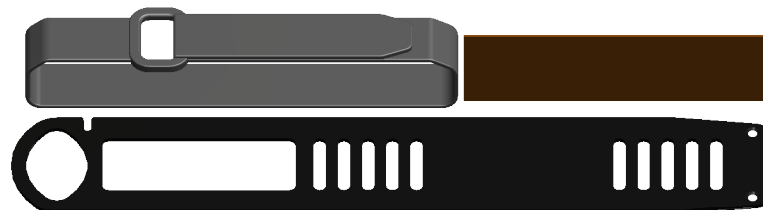
Battery Tray Guide
[H2234-S]



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

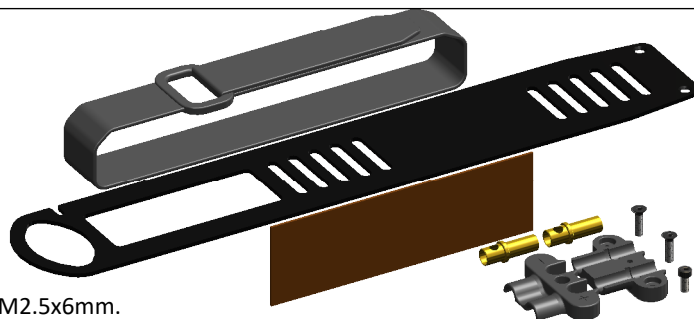


Battery Tray
[H2235-S]



- 1 x Battery Tray.
- 1 x Battery Strap.
- 1 x Double Side Tape.

Battery Tray Connector
[H2239-S]



- 1 x Battery Tray.
- 1 x Battery Strap.
- 1 x Double Side Tape.
- 1 x Female Case UP.
- 1 x Female Case DOWN.
- 2 x Female Connector.
- 1 x Socket Head Cap Screw M2.5x6mm.
- 2 x Flat Head Cap Screws M2.5x10mm.

Double Side Tape 1mm
[HA035-S]



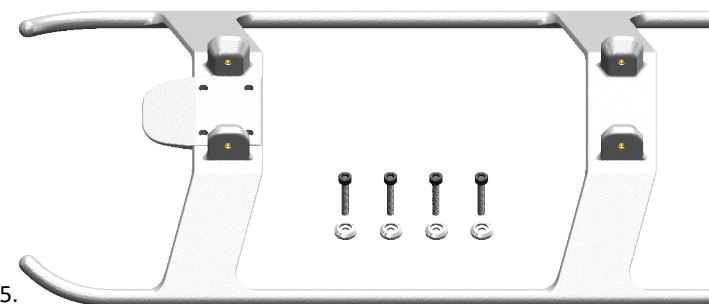
- 2 x Double Side Tape 1mm.

Orange Tail Blade 72
[S72-O]



- 2 x Orange Tail Blade 70mm.

Landing Gear
[H2236-S]



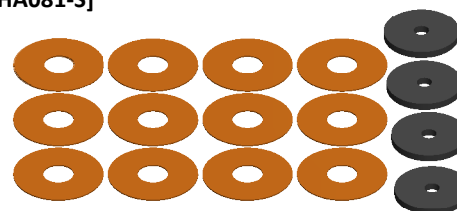
- 1 x White Landing Gear.
- 4 x Finishing Washer M2.5.
- 4 x Socket Head Cap Screws M2.5x15mm.

Canopy Grommet
[HA021-S]



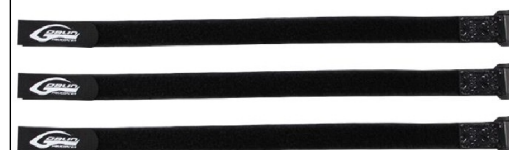
- 5 x Canopy Grommet

Double Side Tape
[HA081-S]



- 14 x Double Side Tape.
- 4 x Rubber Washer.

Battery Velcro Strap 440mm L20mm
[HA023-S]



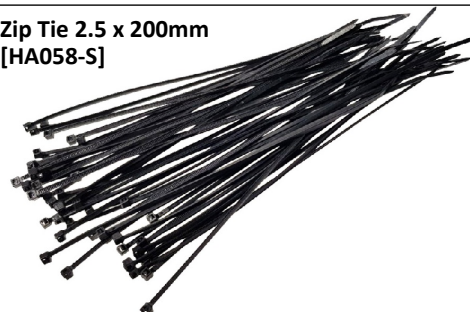
- 2 x Battery Velcro Strap 440mm L20mm.

Blade Holder
[HA119-S]



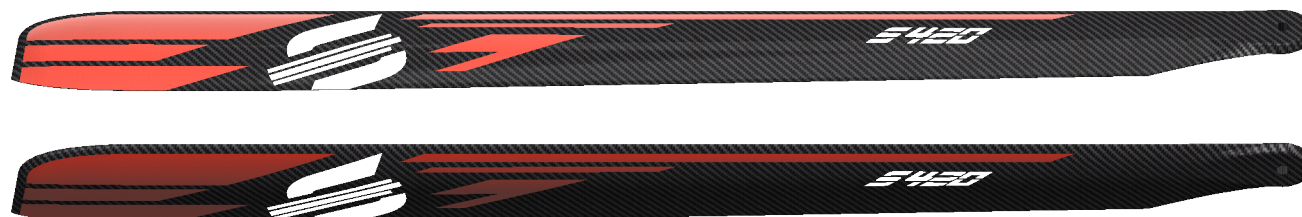
- 1 x Blade Holder.

Zip Tie 2.5 x 200mm
[HA058-S]

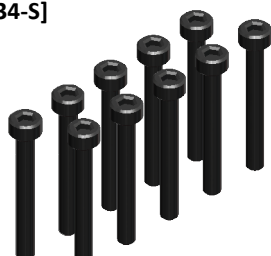


- 50 x Zip Tie 2.5 x 200mm.

Orange Main Blade 420mm
[S420-O]



- 2 x Orange Main Blade 420mm.

Socket Head Cap Screws M2x5mm [HC002-S]  - 10 x Head Cap Screws M2x5mm.	Socket Head Cap Screws M2x6mm [HC004-S]  - 10 x Head Cap Screws M2x6mm.	Socket Head Cap Screws M2x10mm [HC010-S]  - 10 x Head Cap Screws M2x10mm.	Socket Head Cap Screws M2x12mm [HC014-S]  - 10 x Head Cap Screws M2x12mm.	Socket Head Cap Screws M2.5x6mm [HC018-S]  - 10 x Head Cap Screws M2.5x6mm.
Button Head Cap Screws M2.5x6mm [HC019-S]  - 10 x Button Cap Screws M2.5x6mm.	Socket Head Cap Screws M2.5x8mm [HC020-S]  - 10 x Head Cap Screws M2.5x8mm.	Socket Head Cap Screws M2.5x10mm [HC022-S]  - 10 x Head Cap Screws M2.5x10mm.	Socket Head Cap Screws M2.5x12mm [HC026-S]  - 10 x Head Cap Screws M2.5x12mm.	Socket Head Cap Screws M2.5x15mm [HC028-S]  - 10 x Head Cap Screws M2.5x15mm.
Socket Head Shoulder Screws M2.5x15 [HC031-S]  - 10 x Head Shoulder Screws M2.5x15.	Socket Head Cap Screws M2.5x18mm [HC032-S]  - 10 x Head Cap Screws M2.5x18mm.	Socket Head Cap Screws M2.5x20mm [HC034-S]  - 10 x Head Cap Screws M2.5x20mm.	Socket Head Cap Screws M3x6mm [HC044-S]  - 10 x Head Cap Screws M3x6mm.	Socket Head Cap Screws M3x10mm [HC056-S]  - 10 x Head Cap Screws M3x10mm.
Socket Head Cap Screws M3x12mm [HC062-S]  - 10 x Head Cap Screws M3x12mm.	Socket Head Shoulder Screws M3x16 [HC074-S]  - 2 x Head Shoulder Screws M3x16. - 2 x Nylon Nut M3.	Socket Head Shoulder Screws M3x18 [HC079-S]  - 2 x Head Shoulder Screws M3x18. - 2 x Nylon Nut M3.	Button Head Cap Screws M4x6mm [HC096-S]  - 10 x Button Cap Screws M4x6mm.	Socket Head Cap Screws M4x12mm [HC105-S]  - 10 x Head Cap Screws M4x12mm.



SE425

GENESIS

SPARE PARTS

Flat Head Cap Screws M2.5x5mm
[HC128-S]



- 10 x Flat Cap Screws M2.5x5mm.

Flat Head Cap Screws M3x5mm
[HC132-S]



- 10 x Flat Cap Screws M3x5mm.

Self Tapping Screws M3x10mm
[HC136-S]



- 10 x Self Tapping Screws M3x10mm.

Thread Rod M2.5x20mm
[HC140-S]



- 10 x Thread Rod M2.5x10mm.

Set Screws M3x6mm
[HC144-S]



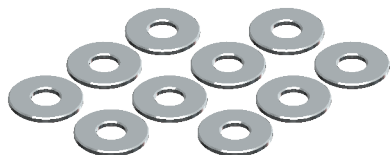
- 10 x Set Screws M3x6mm.

Set Screws M4x4mm
[HC152-S]



- 10 x Set Screws M4x4mm.

Washer ϕ 4,3x ϕ 11x1mm
[HC184-S]



- 10 x Washer ϕ 4,3x ϕ 11x1mm.

Metric Hex Nylon Nut M2.5
[HC200-S]



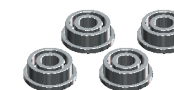
- 10 x Nylon Nut M2.5.

Metric Hex Nylon Nut M3
[HC206-S]



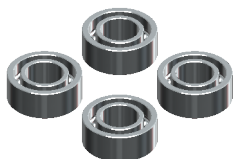
- 10 x Nylon Nut M3.

Flanged Bearing ϕ 2,5x ϕ 6x2,6mm
[HC400-S]



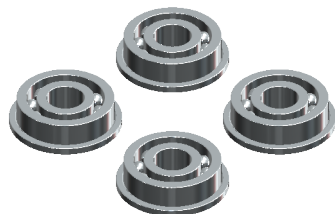
- 4 x Flanged Bearing ϕ 2.5x ϕ 6x2.6mm.

Ball Bearing ϕ 5x ϕ 10x4mm
[HC411-S]



- 4 x Ball Bearing ϕ 5x ϕ 10x4mm.

Flanged Bearing ϕ 5x ϕ 13x4mm
[HC412-S]



- 4 x Flanged Bearing ϕ 5x ϕ 13x4mm.

Ball Bearing ϕ 8x ϕ 16x5mm
[HC419-S]



- 2 x Ball Bearing ϕ 8x ϕ 16x5mm.

Ball Bearing ϕ 10x ϕ 15x4mm
[HC420-S]



- 2 x Ball Bearing ϕ 10x ϕ 15x4mm.

Thrust Bearing ϕ 5x ϕ 10x4mm
[HC435-S]



- 2 x Thrust Bearing ϕ 5x ϕ 10x4mm.

One Way Bearing ϕ 10x ϕ 14x12mm
[HC442-S]



- 1 x One Way Bearing ϕ 10x ϕ 14x12.

Thrust Bearing ϕ 3x ϕ 6x2.8mm
[HC448-S]



- 2 x Thrust Bearing ϕ 3x ϕ 6x2.8mm.

Shims ϕ 5x ϕ 7x0.1mm
[HC450-S]



- 10 x Shims ϕ 5x ϕ 10x0.1mm.

Oring CS1.78x6.75, Shore 70
[HC453-S]

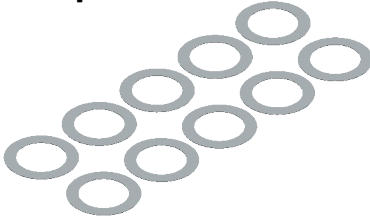
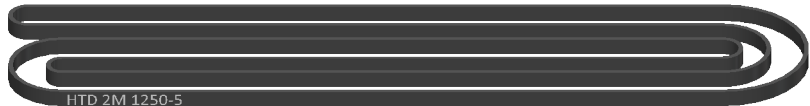
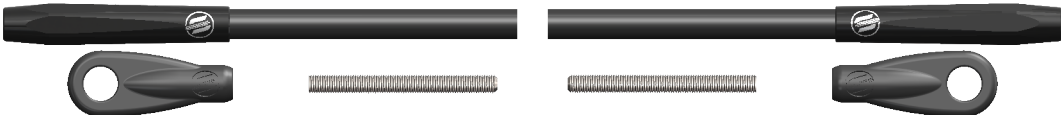


- 2 x Oring CS1.78x6.75, Shore 70.
- 2 x Oring CS1.78x2.9, Shore 70.

Flanged Bearing ϕ 2x ϕ 5x2.5mm
[HC456-S]



- 4 x Flanged Bearing ϕ 2x ϕ 5x2.5mm.

Ball Bearing $\phi 3 \times \phi 6 \times 2.5 \text{mm}$ [HC457-S]  - 4 x Ball Bearing $\phi 3 \times \phi 6 \times 2.5 \text{mm}$.	Ball Bearing $\phi 3 \times \phi 7 \times 3 \text{mm}$ [HC458-S]  - 4 x Ball Bearing $\phi 3 \times \phi 7 \times 3 \text{mm}$.	Shims $\phi 8 \times \phi 12 \times 0.1 \text{mm}$ [HC462-S]  - 10 x Shims $\phi 8 \times \phi 12 \times 0.1 \text{mm}$.	Belt HTD 2M 1250-5 [HC464-S]  - 1 x Belt HTD 2M 1250-5.	
Set Screws M3x4mm [HC500-S]  - 10 x Set Screws M3x4mm.	Set Screws M2x18mm [HC626-S]  - 10 x Set Screws M2x18mm.	Shims $\phi 2 \times \phi 3.5 \times 0.3 \text{mm}$ [HC628-S]  - 10 x Shims $\phi 2 \times \phi 3.5 \times 0.3 \text{mm}$.	Flat Head Cap Screws M2x8mm [HC685-S]  - 10 x Flat Cap Screws M2x8mm.	Belt HTD 2M 330-09 [HC695-S]  - 1 x Belt HTD 2M 330-09.
Self Tapping Screws M2.5x6mm [HC697-S]  - 10 x Self Tapping Screws M2.5x6mm.	Flat Head Cap Screws M2.5x10mm [HC705-S]  - 10 x Flat Cap Screws M2.5x10mm.	Carbon Rod $\phi 2.5 \times \phi 4 \times 364 \text{mm}$ [HC711-S]  - 1 x Carbon Rod 2.5x4x364mm Assembled. - 2 x Plastic Ball Linkage M2.5. - 2 x Thread Rod M2.5x20mm.		

The manual can be downloaded here



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MINI GENESIS SG425

Release 1.0 - November 2024

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