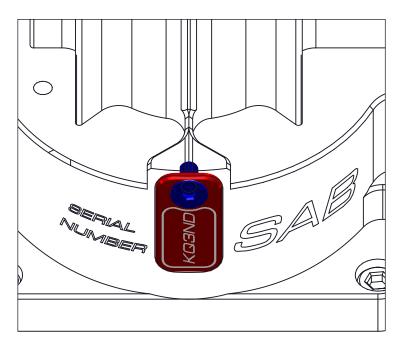






Please read this user manual carefully, it contains instructions for the correct assembly of the model. Please refer to the web site www.goblin-helicopter.com for updates and other important information.



#### **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 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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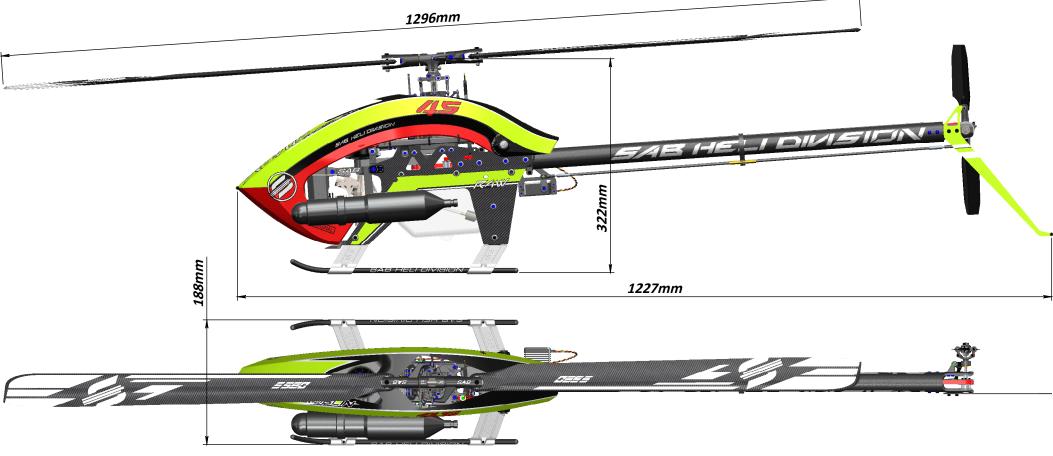
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- 2 IMPORTANT NOTES
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# GOBLIN RAW 580 NITRO TECHNICAL SPECIFICATIONS



- RTF Approx. Weight: 3080 g (RTF no fuel).
- Main blade length: 550mm to 600mm ( 580mm included ).
- Tail blade length: 95 to 105 mm (95mm included).
- Main rotor diameter: 1296 mm (with 580 mm blades).
- Tail rotor diameter: 260 mm (with 95 mm tail blades).
- Engine: .50 to .60 Nitro Heli Engine.

- Cyclic Servos: Mini size 35 mm (Standard size 40mm option ).
- Tail Servo: Standard size 40mm.
- Throttle Servo: Mini size 35 mm.
- Main Rotor Ratio: 8.6 to 7.4:1 (26T included: 8:1).
- Tail Rotor Ratio: 5.3-4.9:1 (23T included: 4.9:1).
- Tank Capacity: 440ml.
- RX Battery Size: 2S-1800 mAh.

#### **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. It is necessary to carefully follow all the instructions.
- \*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 dedicated to 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 NONIFRINGEMENT, 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.

# NOTE FOR ASSEMBLY

#### ADDITIONAL COMPONENTS REQUIRED

- \*Engine: .50 to .60 Nitro Heli Engine.
- \*Muffer suited for the engine being used.
- \*Batteries: 2S/1600-2500mAh.
- \*Governor unit.
- \*1 flybarless 3 axis control unit
- \*Radio power system.
- \*1 throttle servo (Mini Size).
- \*3 cyclic servos ( Mini Size ).
- \*1 tail rotor servo (Standard Size).
- \*6 channel radio control system on 2.4 GHz
- \*Fuel.

#### **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**



Indicates that for this assembly phase you need materials that are: BOX xxx, BAG xxx.

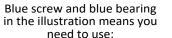












Thread Locker Medium Strength ( SAB HA116-S)

Use CA Glue







Green screw and Green bearing in the illustration means you need to use:

Use retaining compound

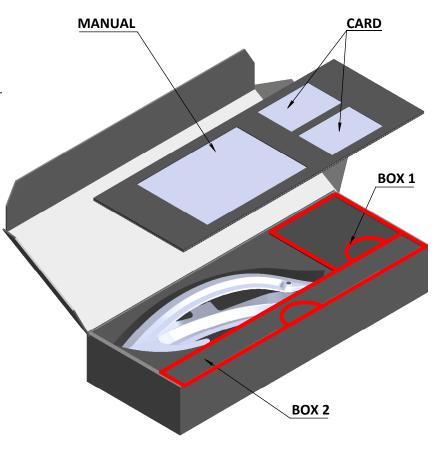
(SAB HA115-S)



Use Proper Lubricant



#### **INSIDE THE MAIN BOX THERE ARE:**

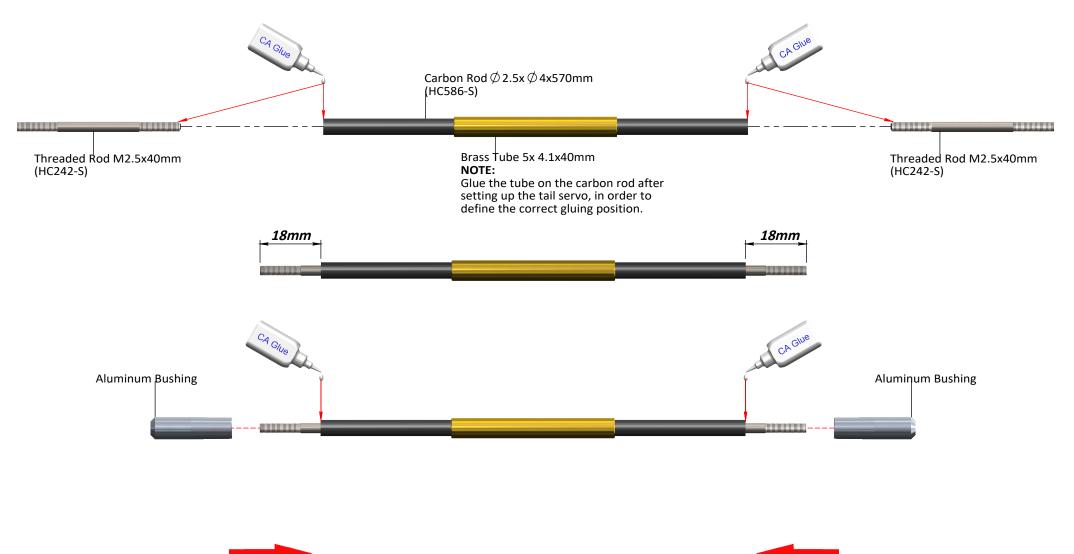


The assembly process is described in the following chapters. Each chapter provides you with the box, bag and/or foam numbers you will need for that chapter. The information is printed in a black box in the upper corner of the page.



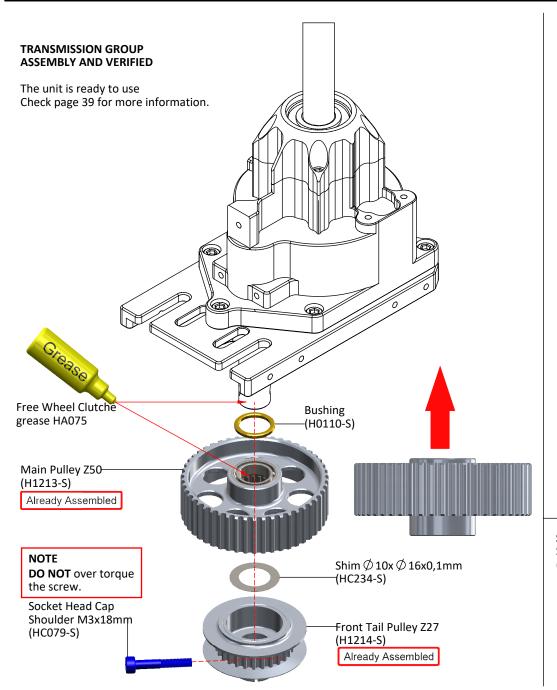
It is suggested to arrange all the bags on a table, ordering them in a row by page number. Doing this first will make it easier to find the bags during the assembly process.

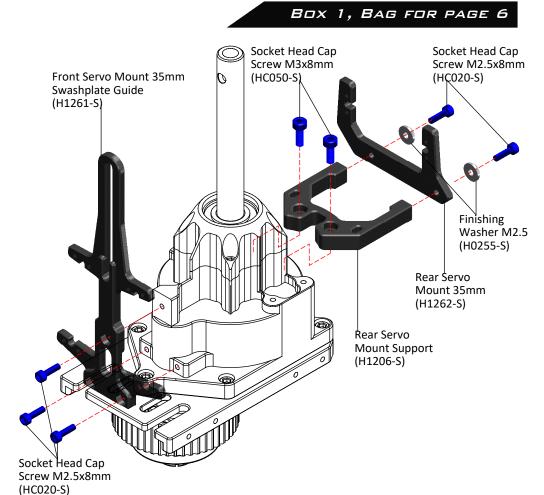




# TRANSMISSION GROUP ASSEMBLY







#### STANDARD SIZE SERVOS

Standard size servos can be used [p/n H1217-S & H1207-S] (not included in the KIT)



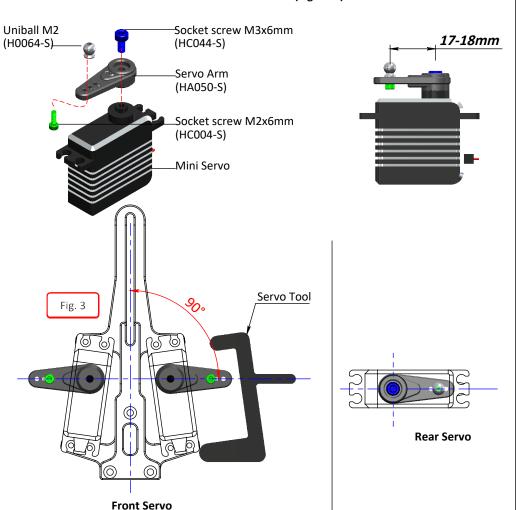


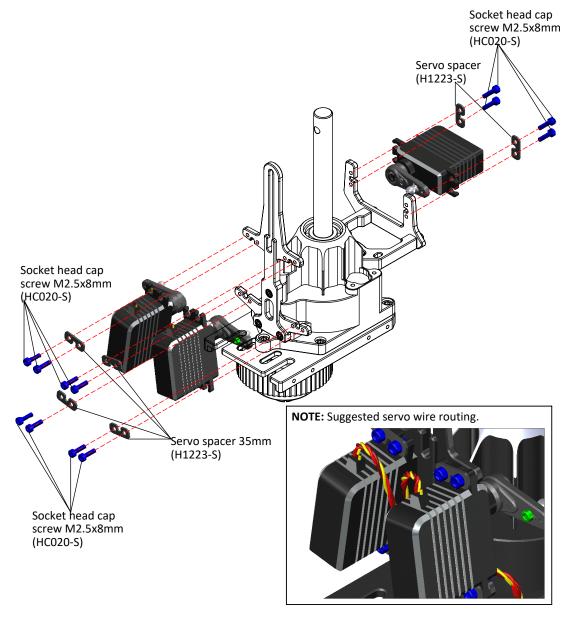
#### **SERVO ASSEMBLY**

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.

Proceed with installation following the instructions below. You can use the G10 servo tool to align the front servo arms with the theoretical horizontal line. (Figure 3)





# FRAME GROUP ASSEMBLY



BOX 2, BAG FOR PAGE 8

#### **CARBON FRAME**

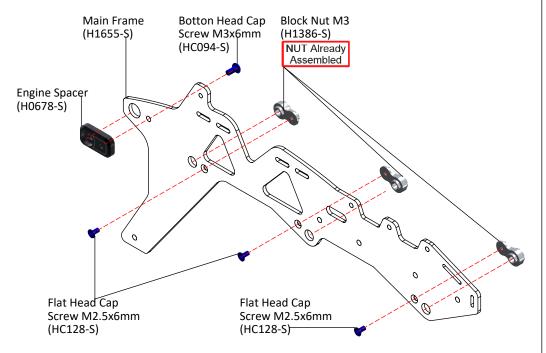
The r

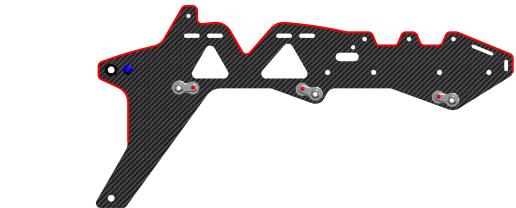
The manufacturing process of the carbon parts often leaves micro-burrs and sharp edges. We recommend de-burring the edges to minimize the risks of electrical wire cuts, etc.

It is very important to do this along the red lines.

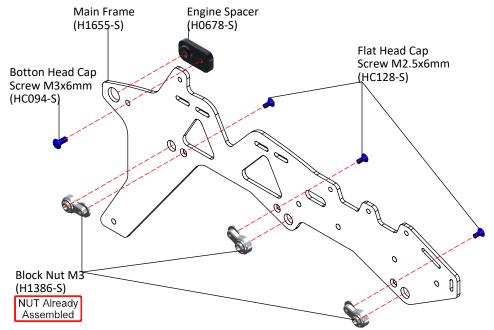


#### **LEFT UPPER FRAME ASSEMBLY**

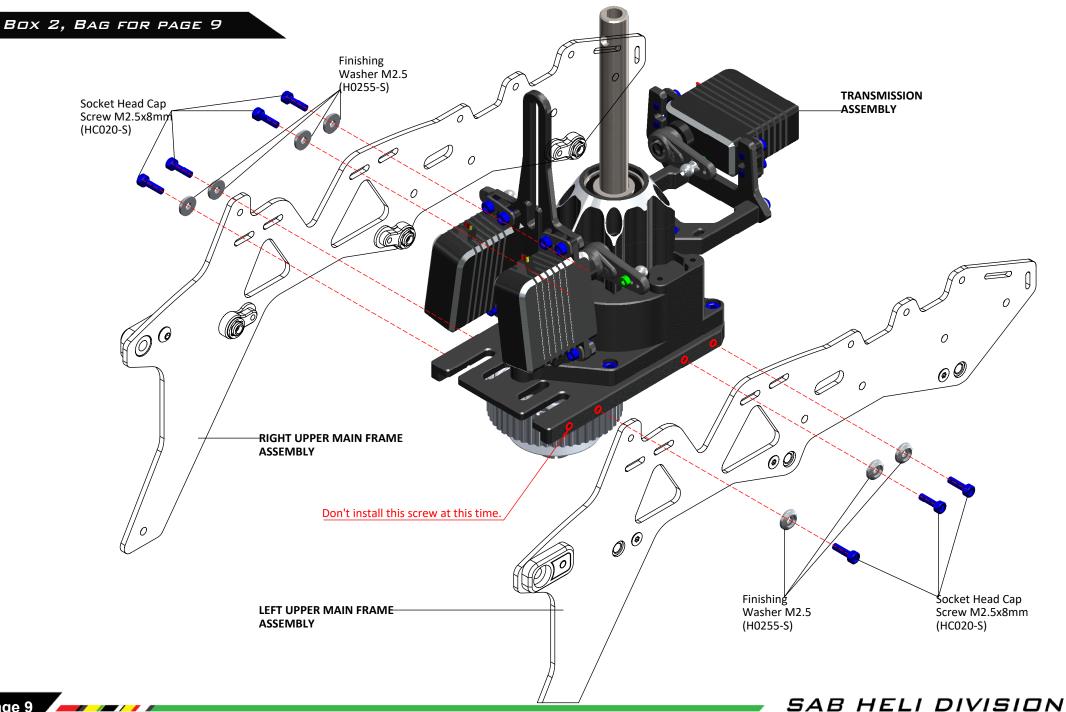




#### RIGHT UPPER FRAME ASSEMBLY





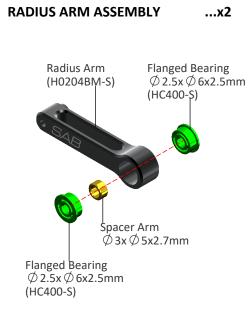


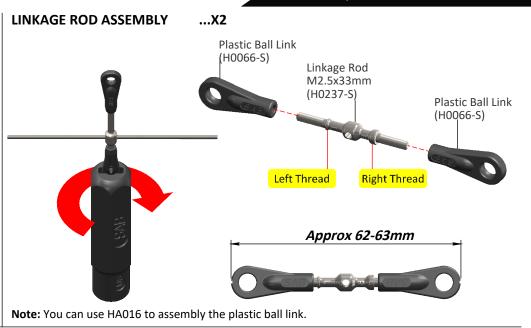
# HEAD ASSEMBLY

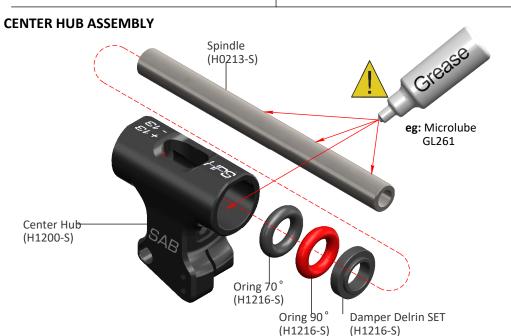


BOX 1, BAG FOR PAGE 10





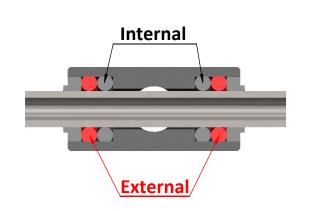


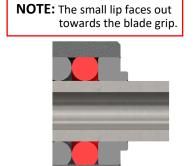


#### **O-RING SET UP**

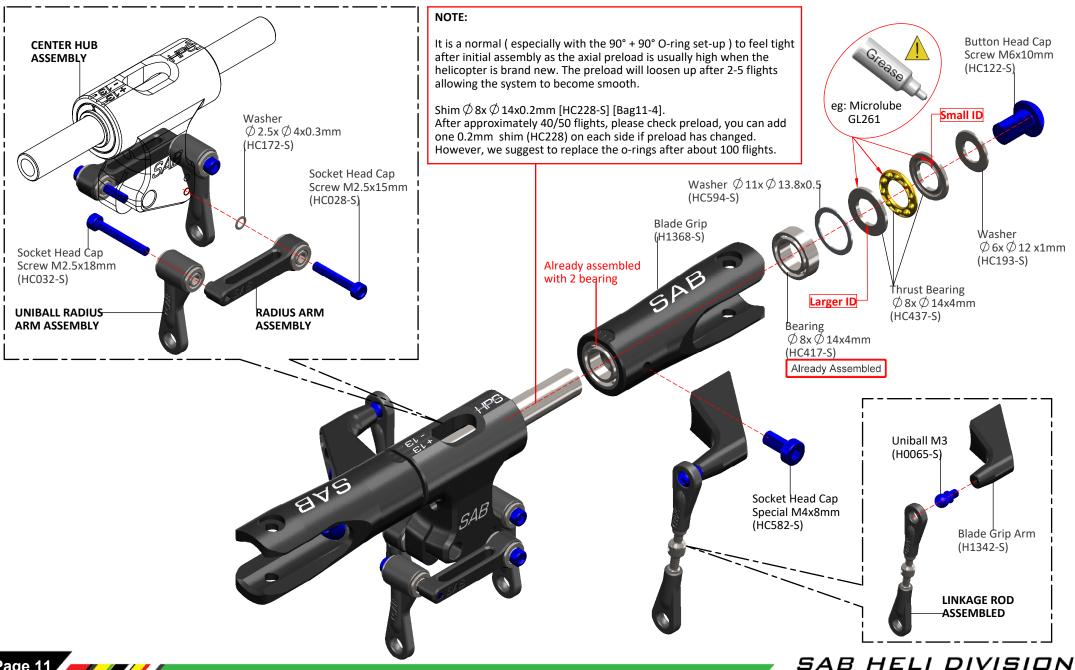
Internal =70°, External =90° Sport & 3D flight.

Internal =90°, External =90° Hard 3D.





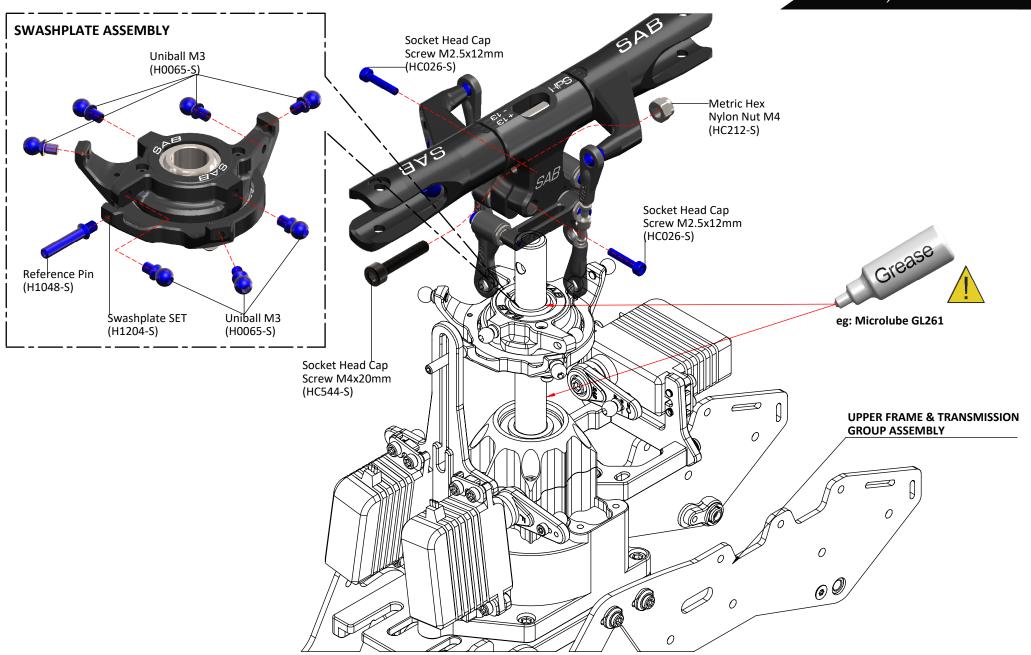




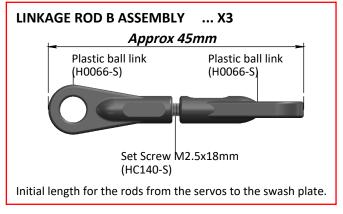
# ASSEMBLING OF THE MODULES

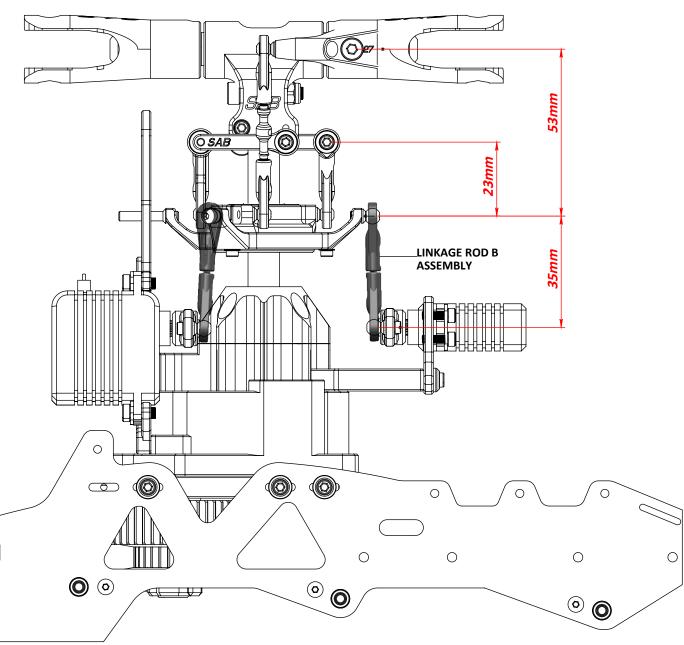


BOX 1, BAG FOR PAGE 12

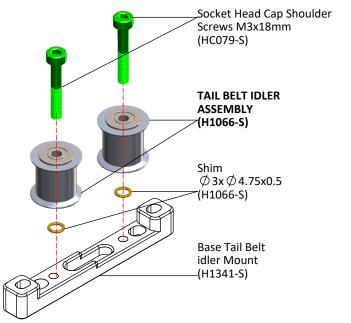






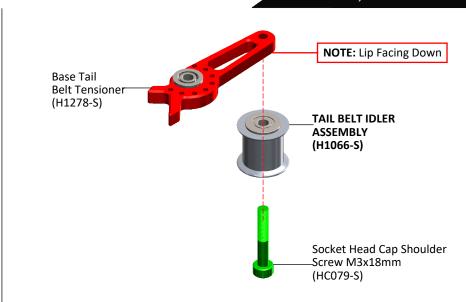




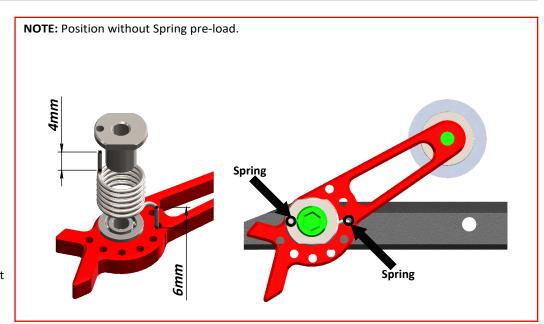


1

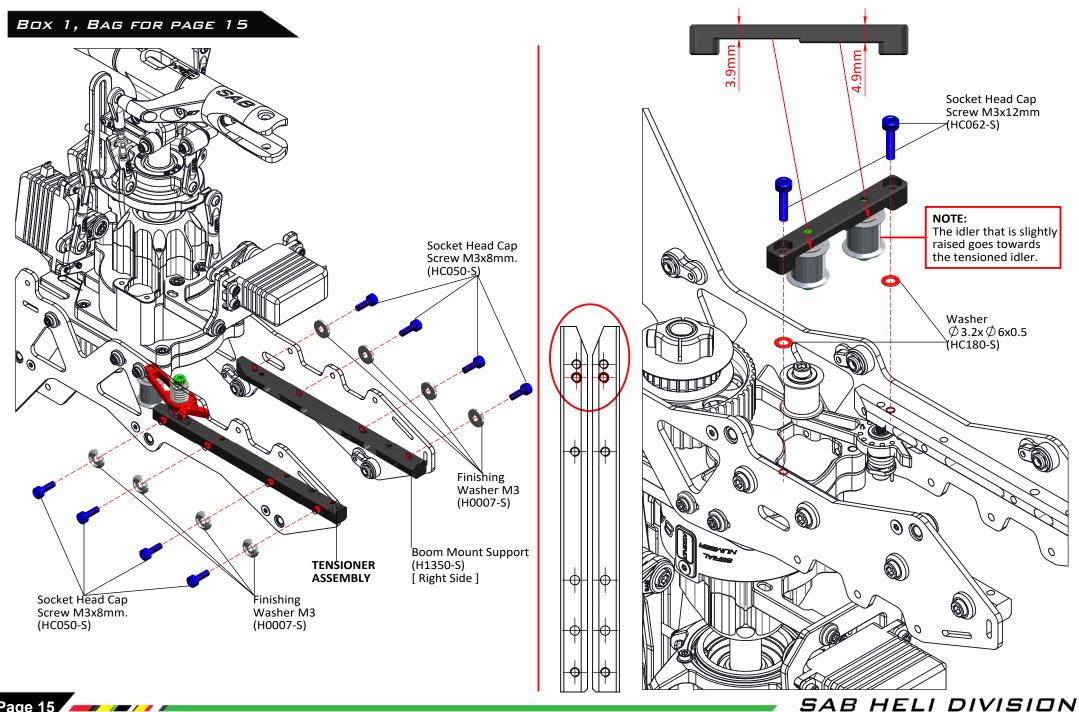
2



3 Socket Head Cap Screw M3x22mm (HC086-S) **Tensioner Column** (H1278-S) **Tensioner Spring** (H1278-S)[HC590]-**Tensioner Base** Assembly **Tensioner Bushing** (H1278-S)-**Boom Mount Support** -(H1350-S) 00 [ Left Side ]







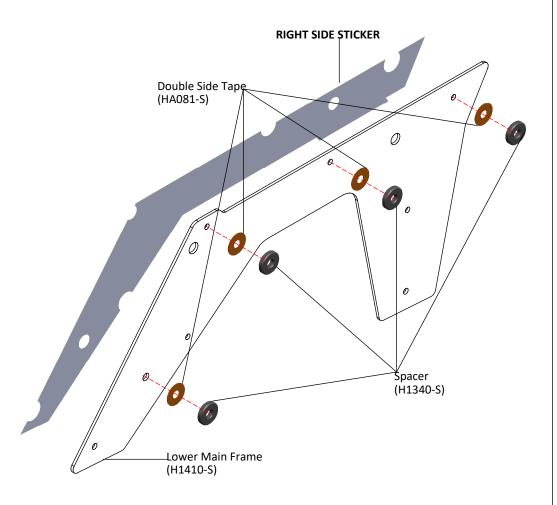
# LOWER SIDE FRAME INSTALLATION



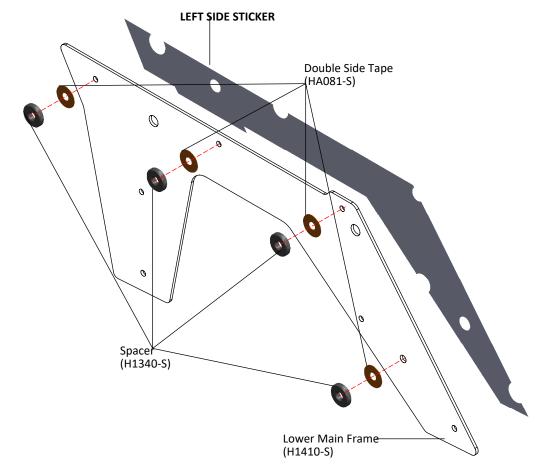
CANOPY FOAM, BAG FOR PAGE 16

LOWER SIDE FRAME ASSEMBLY

**LOWER RIGHT MAIN FRAME ASSEMBLY** 

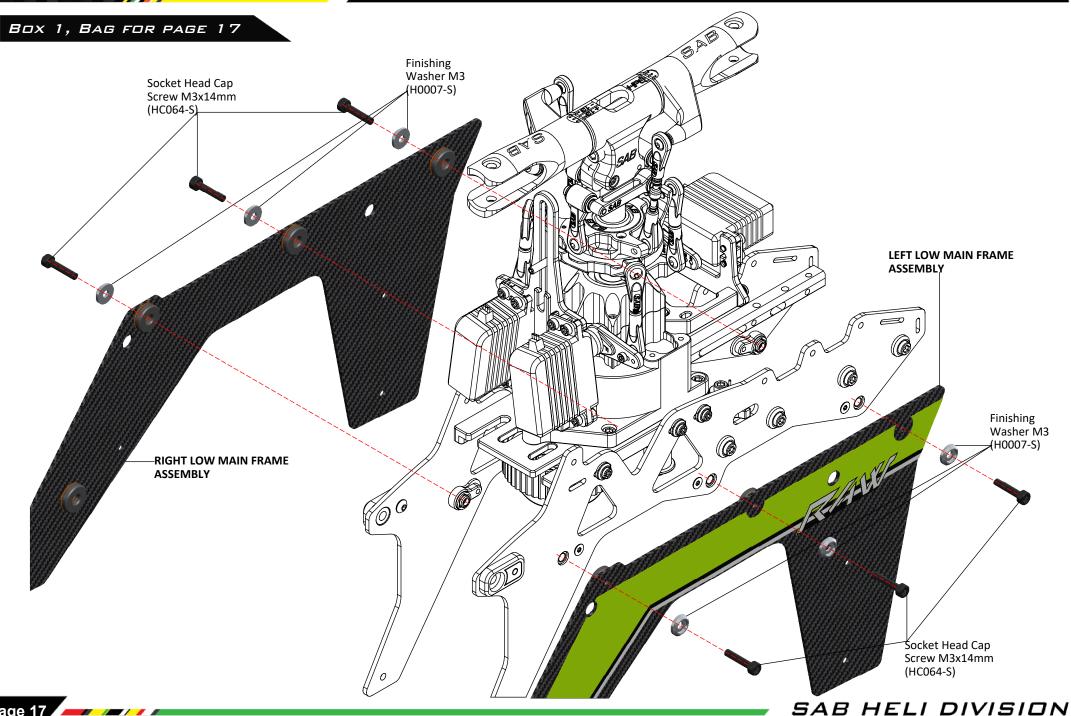


#### **LOWER LEFT MAIN FRAME ASSEMBLY**





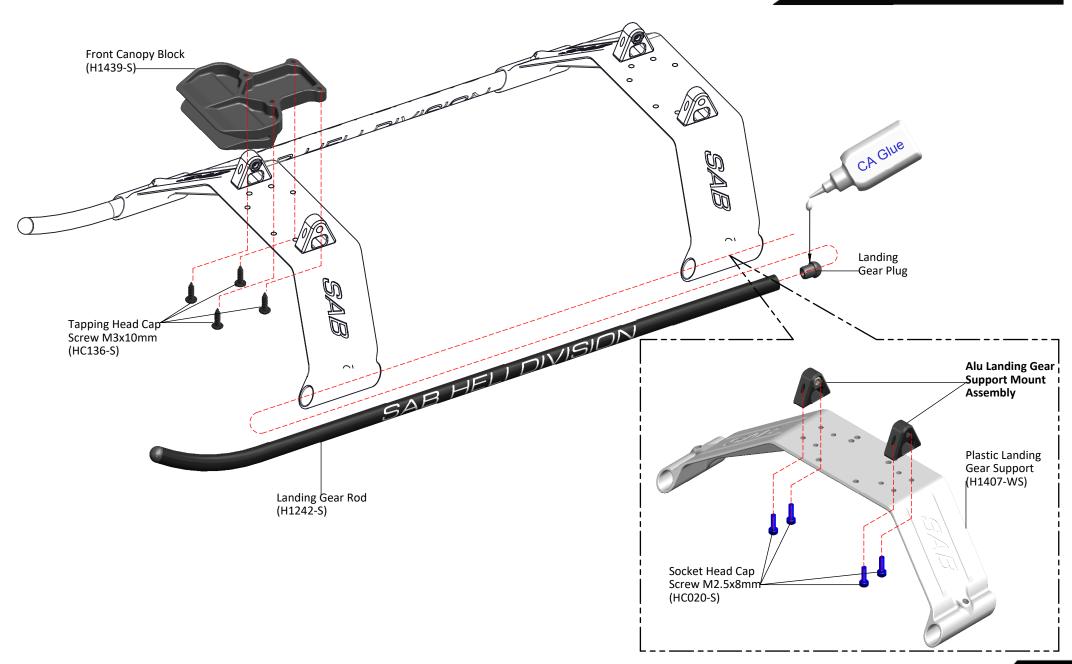
# LOWER SIDE FRAME INSTALLATION



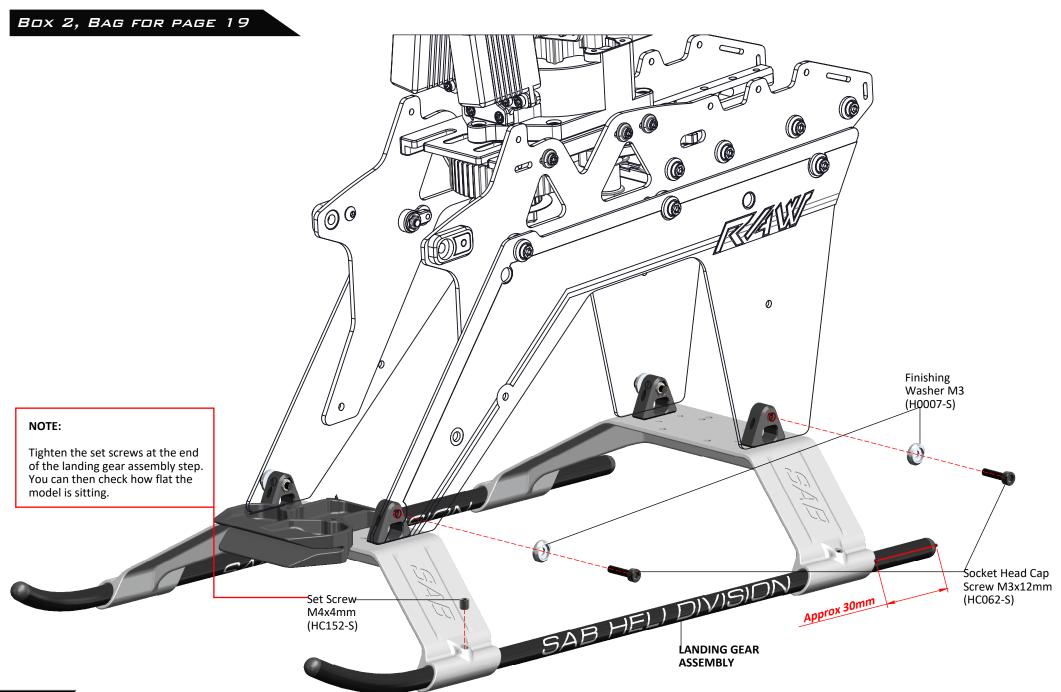
# LANDING GEAR INSTALLATION



BOX 2, BAG FOR PAGE 18

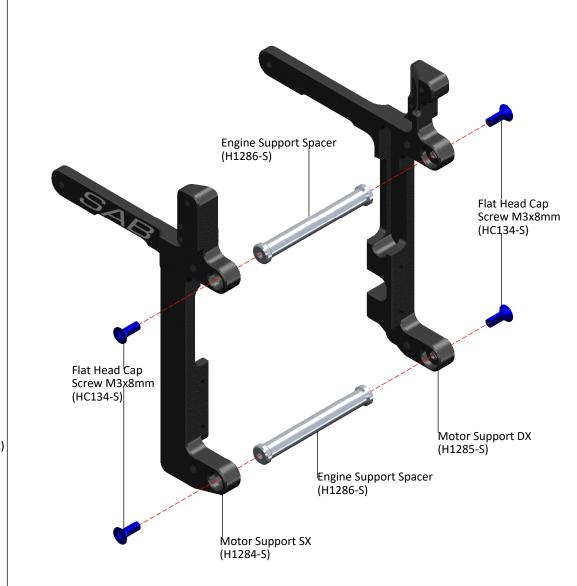


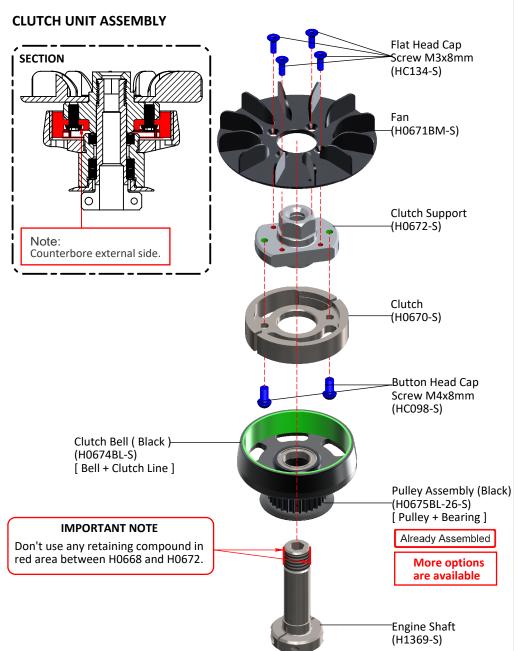




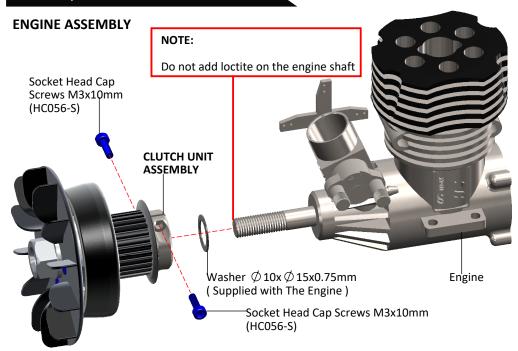


#### **ENGINE MOUNT ASSEMBLY**



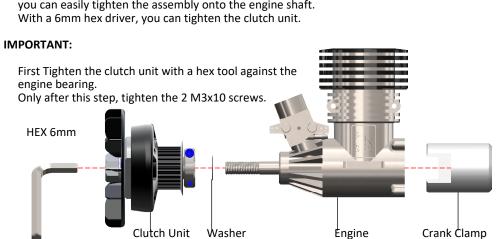






#### NOTE:

Using Crank Clamp (accessory not included in the kit) you can easily tighten the assembly onto the engine shaft.



#### **MAIN RATIO**

It is possible to have 5 ratios using the following Pulleys:

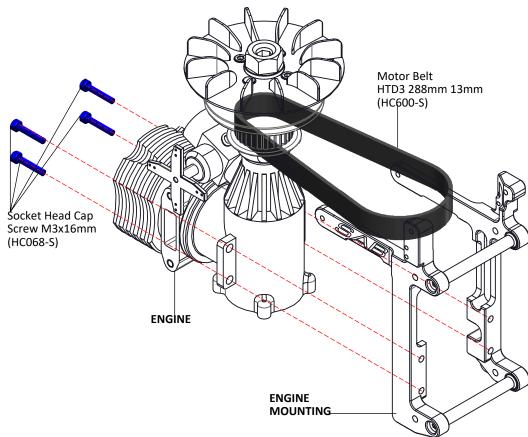
H0675BL-28-S	50/28	7.4
H0675BL-27-S	50/27	7.7
H0675BL-26-S	50/26	8.0
H1215-S: OWB Pulley 54T	54/27	7.3
H1215-S: OWB Pulley 54T	54/26	8.6

The KIT includes ratio: 50T-26T -> 8.0

Depending on the head speed you want, we suggest to use:

Ratio from 8 to 7.4 for 580mm Blade size. Ratio from 8.6 to 8 for 600mm Blade size.

#### **ENGINE MOUNT ASSEMBLY**



# ENGINE UNIT ASSEMBLY



BOX 1, BAG FOR PAGE 22

#### **INSTALLATION OF THE RPM SENSOR**

On the 580 nitro it is possible to use two different methods to install an RPM sensor. The first is a backplate sensor as demonstrated in the picture on the right.

*P.S:* Not all YS engines can support this method. Please seek further guidance from your engine manufacturer.





The second is to use two magnets on the fan. Please use the following methods for installation:

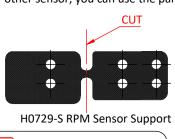
Install 2 magnets on the fan with epoxy glue (please ensure to clean the parts with degreaser before glueing together)

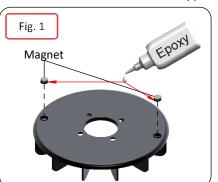
[ Fig. 1 ] ). To install the sensor, you can use the two pre-cut M2.5 holes.

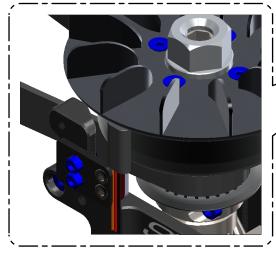
Not all sensors are the same, so you can adapt the position with the carbon support (H0729).

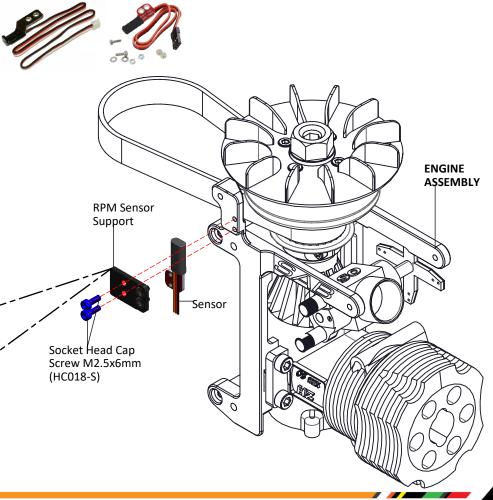
With Align and Spartan sensors, you can use the part of the support that already has holes in it.

With any other sensor, you can use the part without holes and adapt as required.



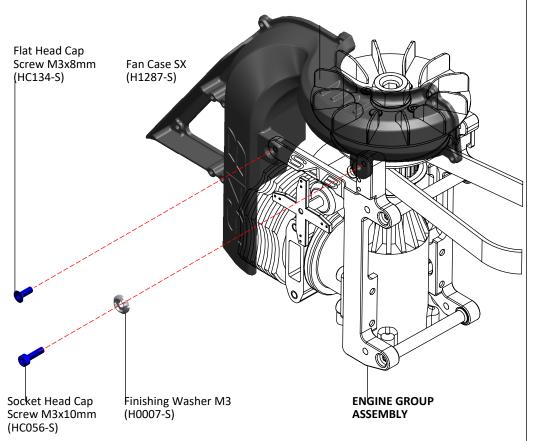








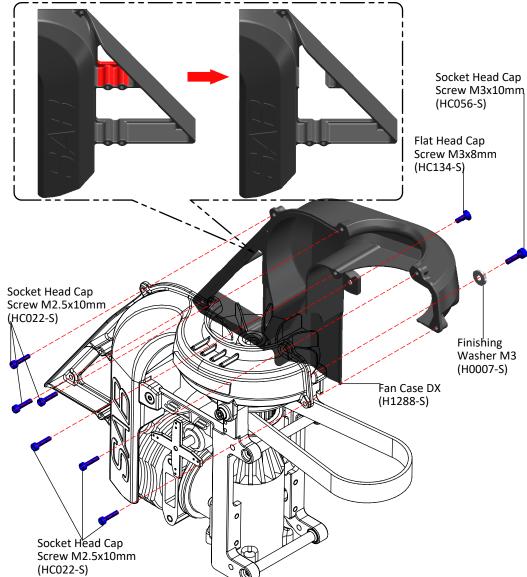
#### **FAN CASE SX ASSEMBLY**



#### **FAN CASE DX ASSEMBLY**

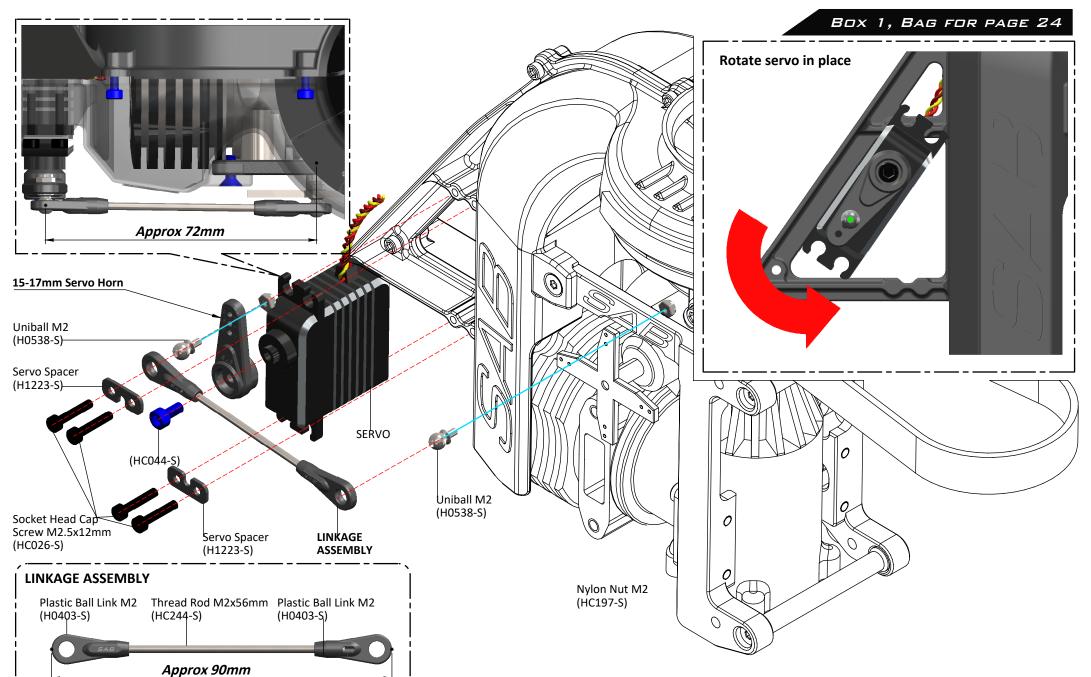
The fan case is designed symmetrically.

To install the servo it is necessary to cut a small part in the right case as show in the Figure.

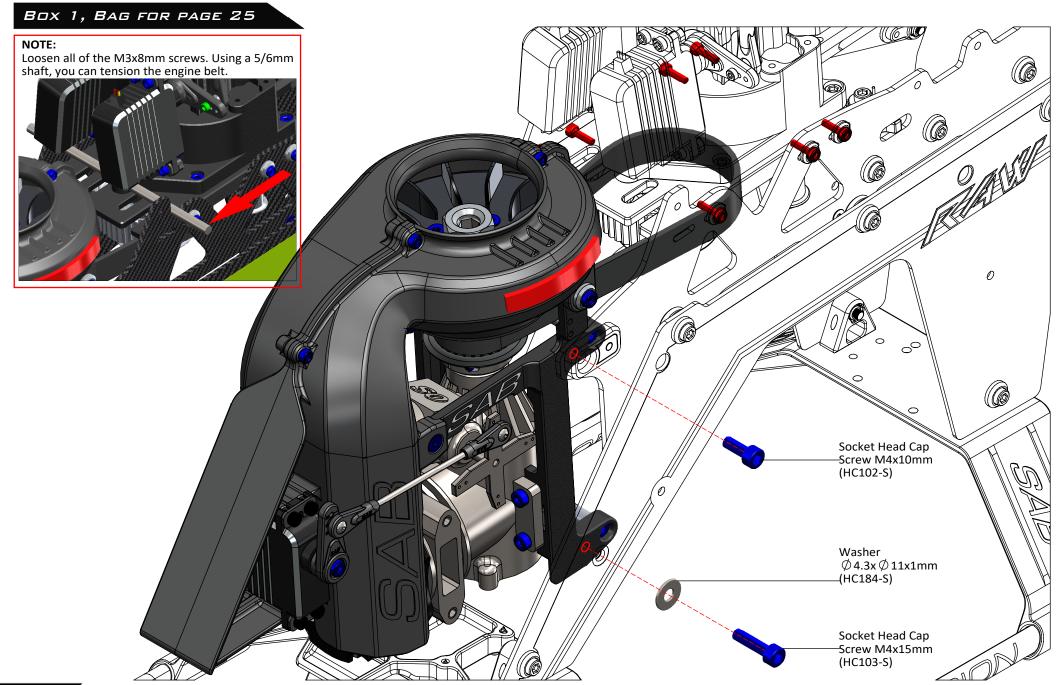


# ENGINE UNIT ASSEMBLY



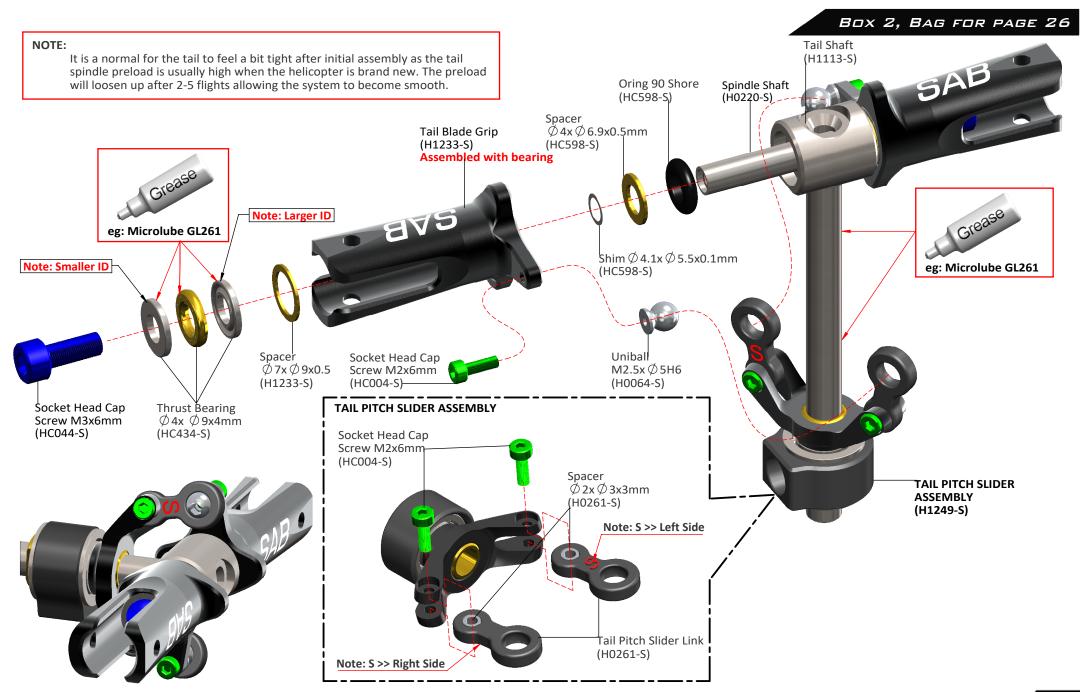




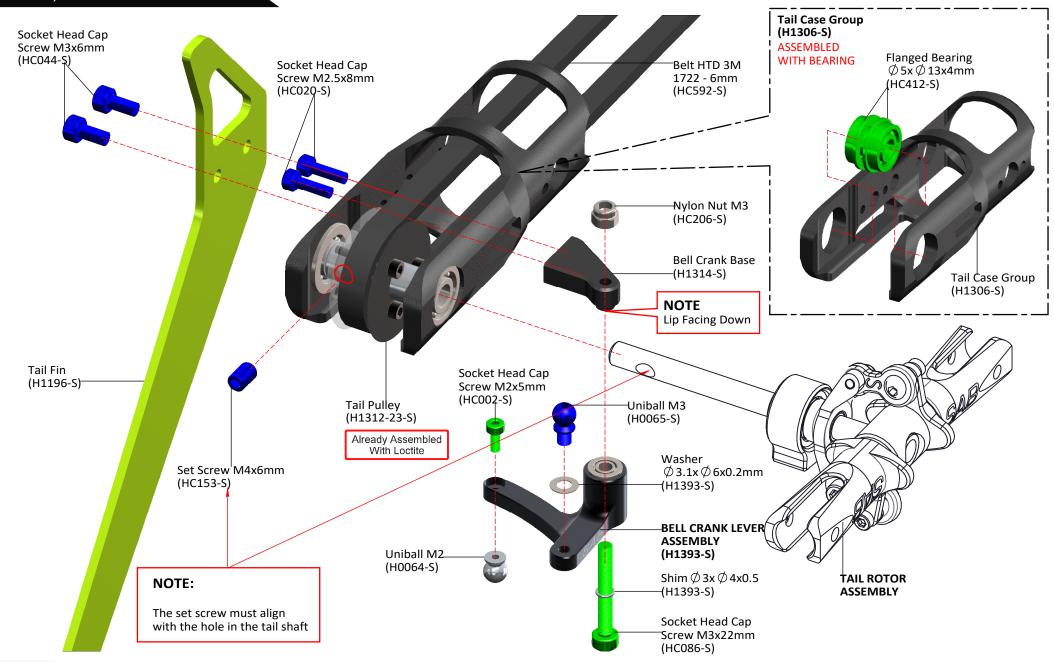


# TAIL GROUP ASSEMBLY

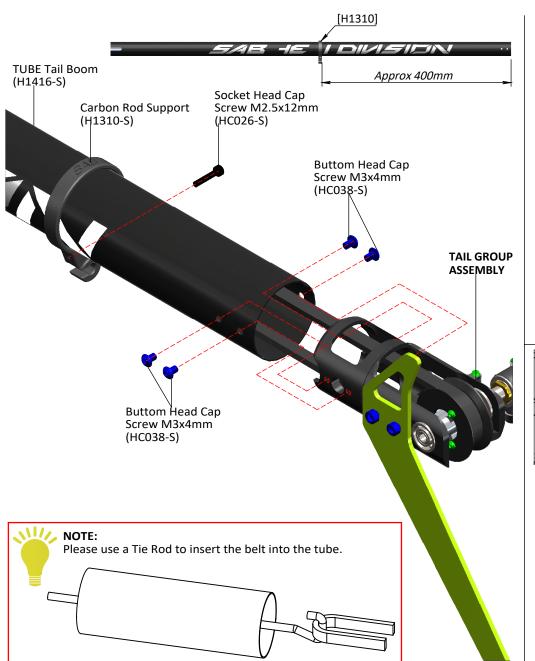


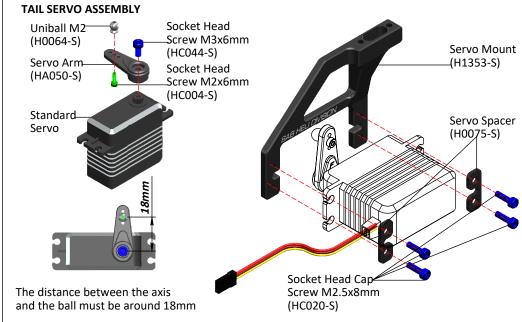


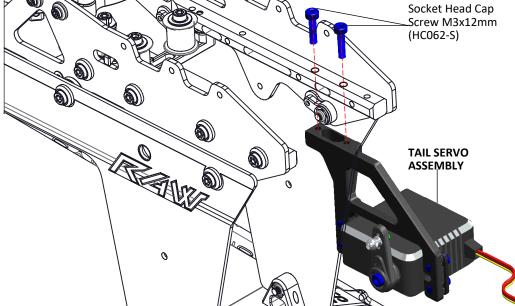




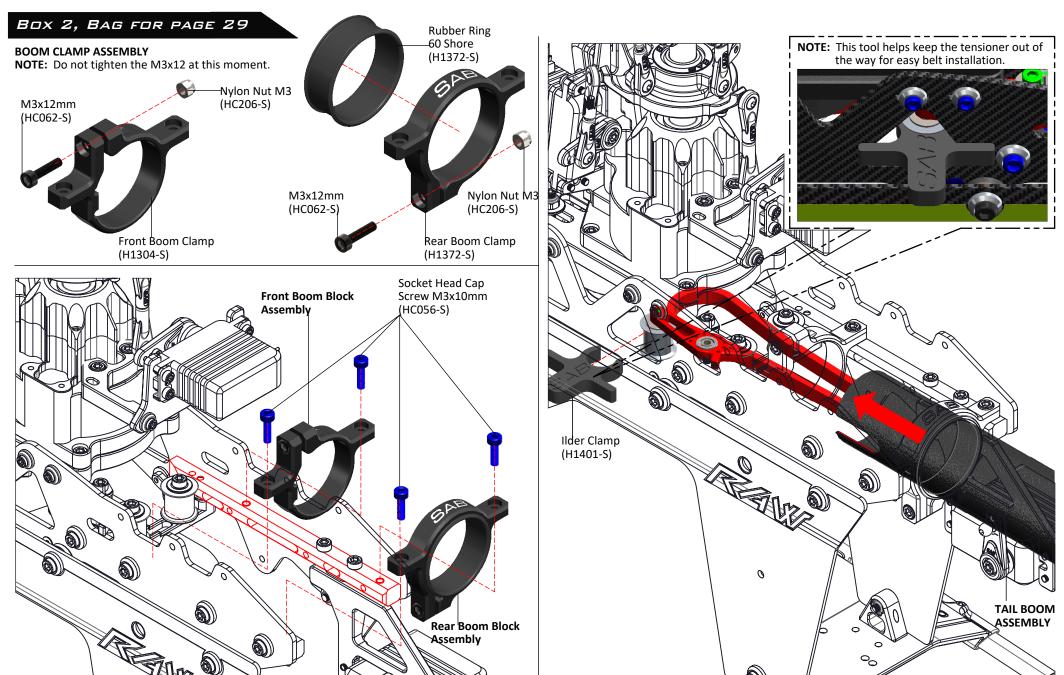












# TAIL BOOM ASSEMBLY



**TOOL KIT ASSEMBLY** 

BOX 2, BAG FOR PAGE 30

Set Screw M3x20

[HC150-S]

#### TAIL BOOM ASSEMBLY

To fit the tail belt, loosen the tail boom by loosening the 2 M3 screws (Fig.1).

- \*Install the belt onto the front tail pulley, checking the direction of rotation.
- \*Rotate the tail drive several times by hand.
- \*Tension the tail belt by using the tool kit to slide the boom backwards. Then slowly tighten the two red screws.

#### How to use the tail belt tension tool:

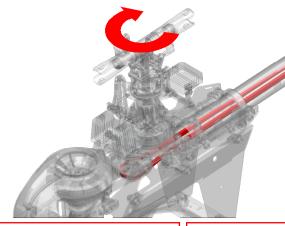
- 1. Push the plastic pad into its seat by unscrewing the orange M4x10 screw.
  - 2. Install the tool on the boom, it needs to touch the H1372 clamp.

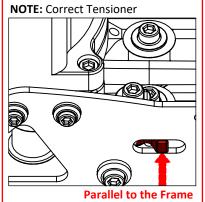
The yellow M3 set screw can be used to make sure the tool is parallel to the boom clamp.

- 3. Tighten the pink M4x10 screw to lock the tool onto the boom.
- 4. Turn the orange M4x10 screw to tension the tail belt.

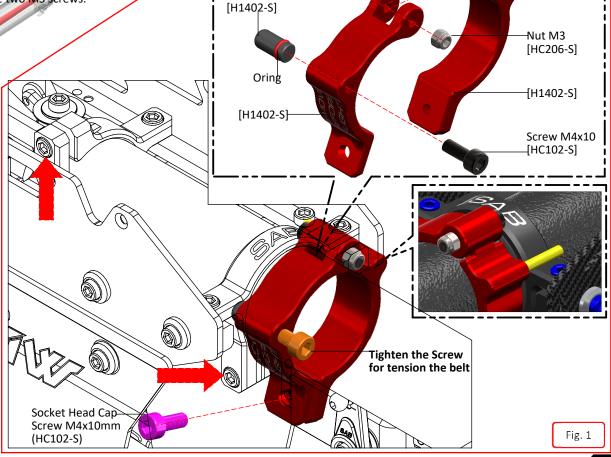
This will push the boom back, thus tightening the tail belt.

- 5. Once the correct tension is achieved, tighten the two boom clamps with the two M3 screws.
- 6. Remove the tool before flight.





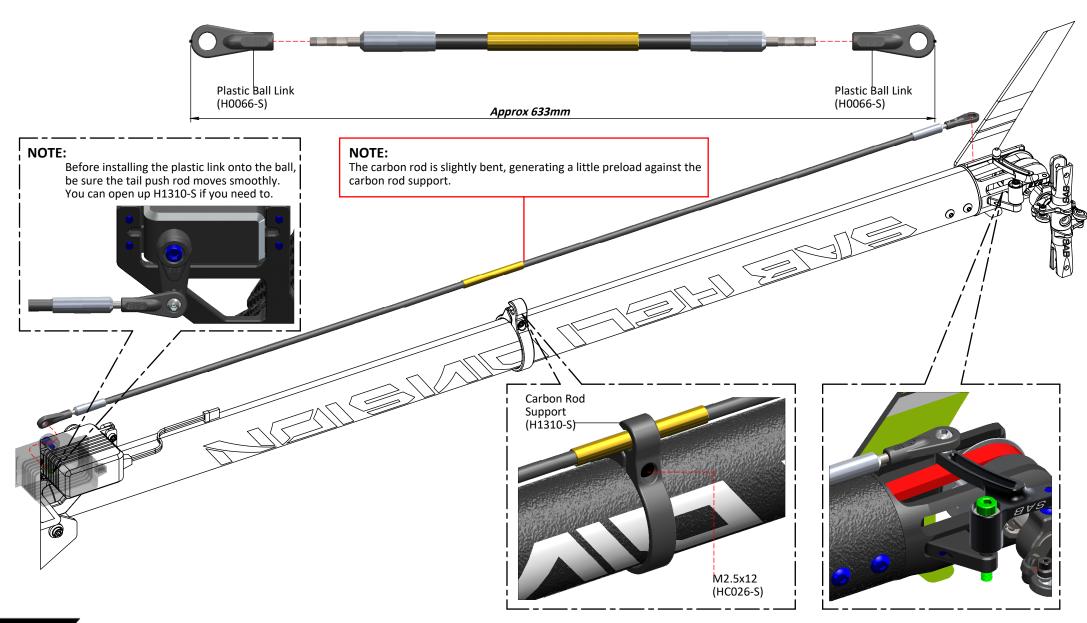




Screw M3x18 [HC079-S]



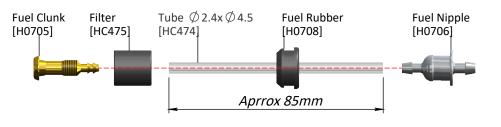
Before installing the plastic link on the threaded rod, be sure that you have waited at least 12 hours for the glue to fully cure.

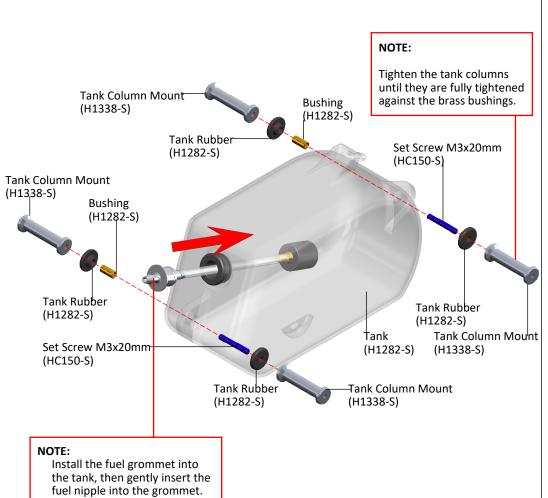


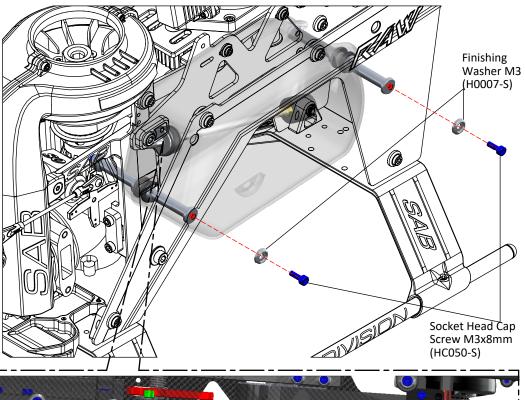
# RANG SAE

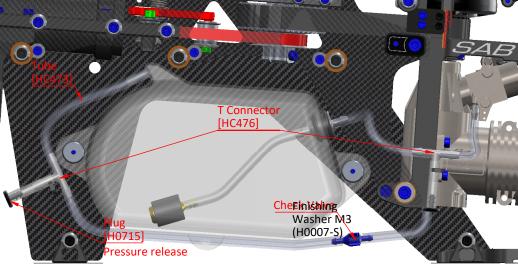
#### **TANK LINE ASSEMBLY**

# BOX 2, BAG FOR PAGE 32

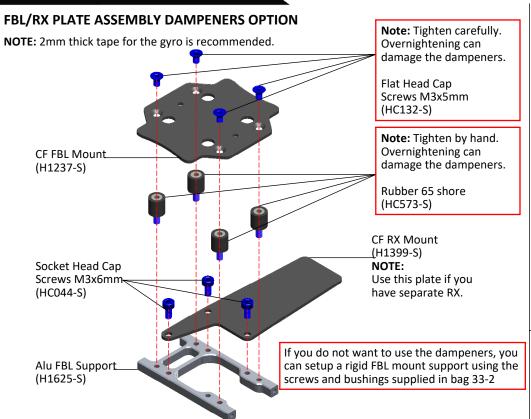




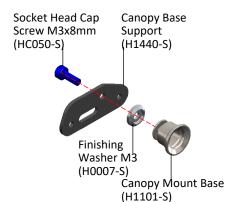




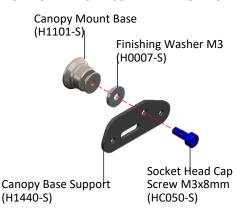


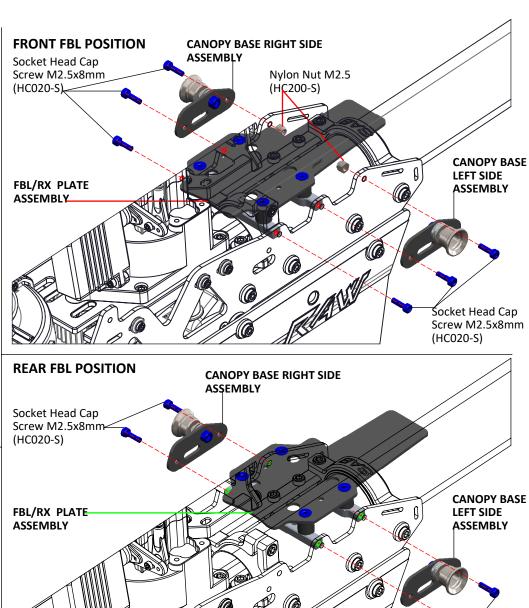


#### **CANOPY BASE ASSEMBLY LEFT SIDE**



#### **CANOPY BASE ASSEMBLY RIGHT SIDE**





Socket Head Cap

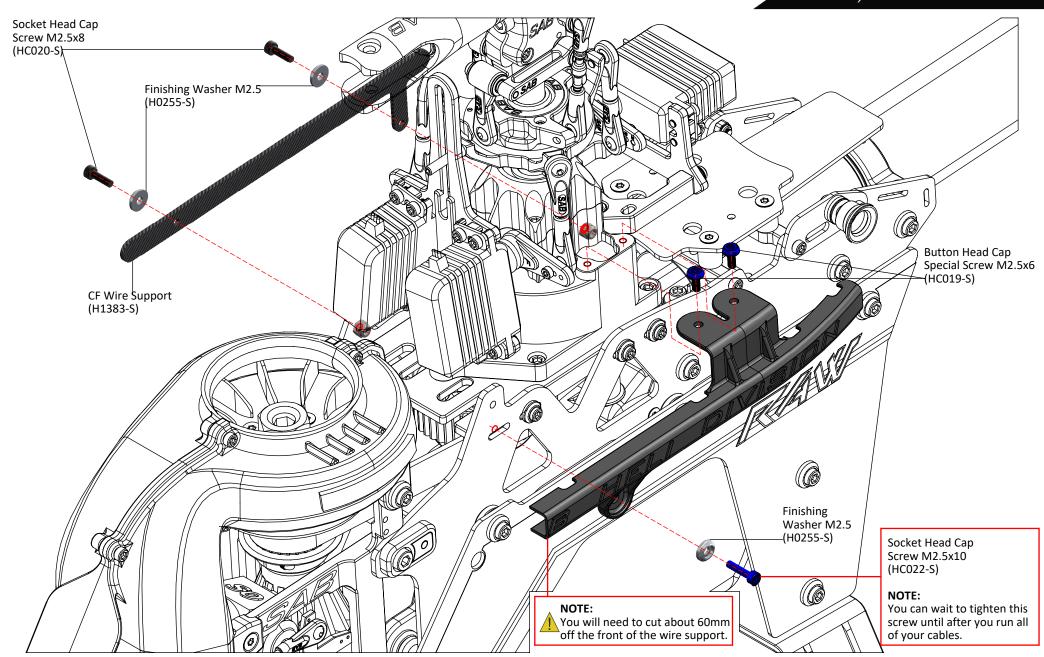
(HC020-S)

Screw M2.5x8mm

# INSTALLATION FBL/RX/BATTERY

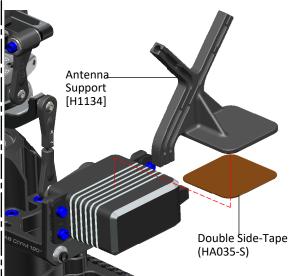


BOX 2, BAG FOR PAGE 34



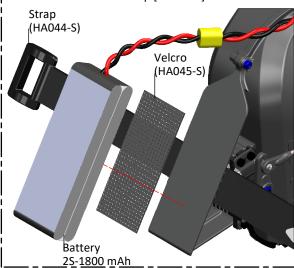


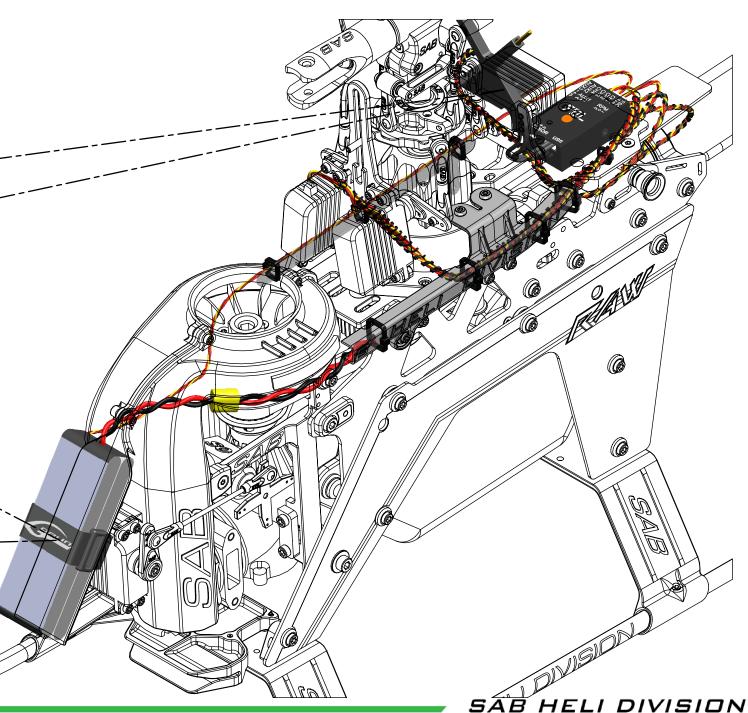
In bag 35-2, you can find a "3D Printed" antenna support.
Use it as desired with your RX system.



## **BATTERIES**

Use the included double side tape to secure the batteries to the tray. Use the Velcro Strap [HA044-S].





# INSTALLATION CANOPY



BOX 1, BAG FOR PAGE 36

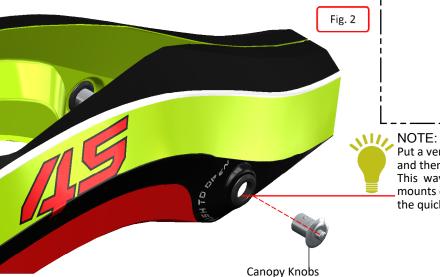
# **CANOPY**

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

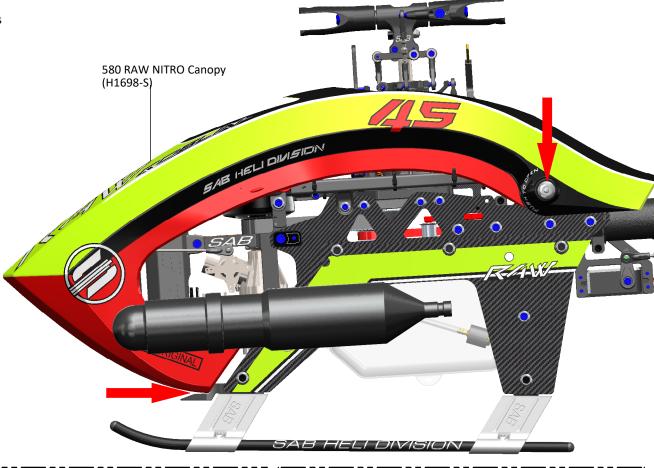
\*Fit the canopy in the red arrow zone, and insert the knobs.

\*Confirm the canopy is secure prior to each flight.





(H0321-S)



Put a very small drop of CA glue on the grommet i 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.

**NOTE:** To keep the canopy perfectly centered on the helicopter, you can add 2 strips of 4mm foam to the fan shroud.

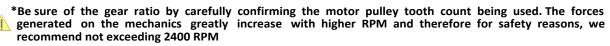




### Box 1, Bag for page 37

### **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.



\*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, 1800 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 ( Figure 3 ).

The dampers are composed of 2 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** 70 Shore: Soft for smooth response

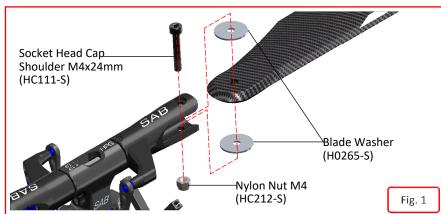
**Oring** 90 Shore: Firm for direct and precise response

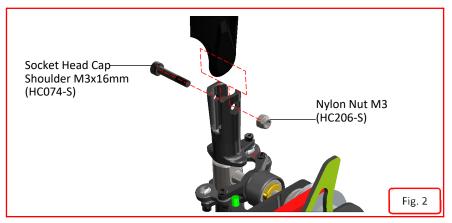
**Dampers** A = Max movement of the spindle, feeling more elastic.

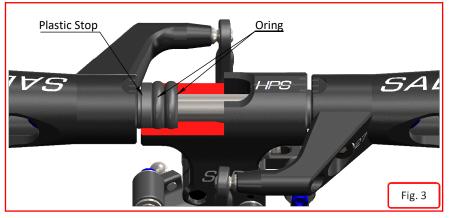
**Dampers** B = Medium.

**Dampers** C = Min movement of the spindle, feeling more direct.

In the kit, there is the damper is B (Spare parts H1216-S). [ All Setting >>p/n H1216-S ].







# MAINTENANCE

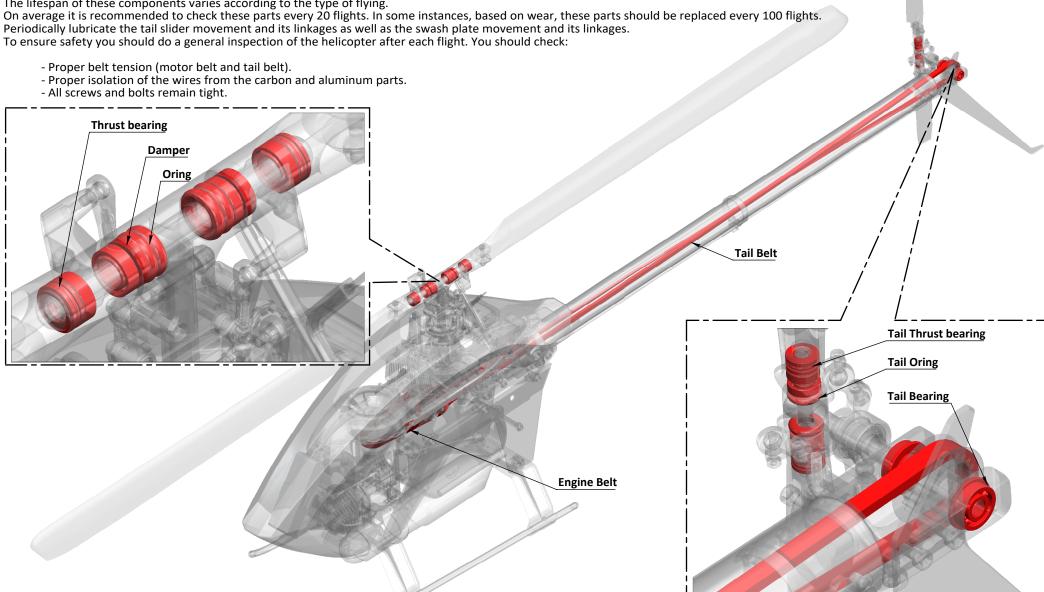


# **MAINTENANCE**

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.





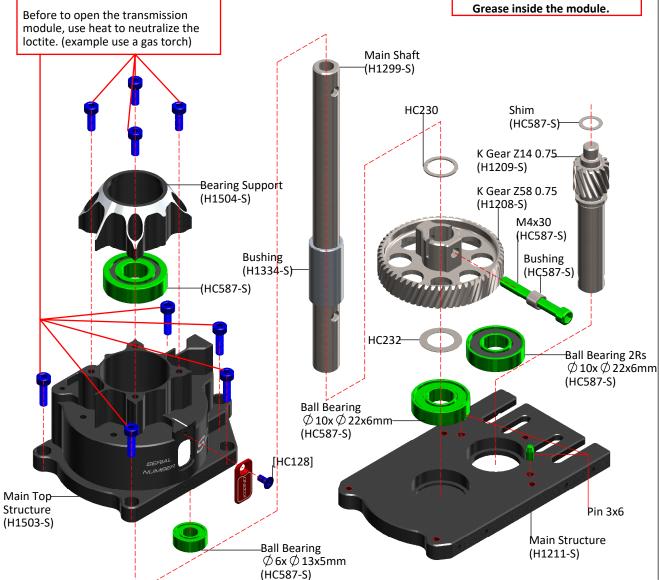
### TRANMISSION MODULE

The transmission module is supplied assembled and verified, ready to be used.

# **Explode and Spare Parts**

# NOTE:

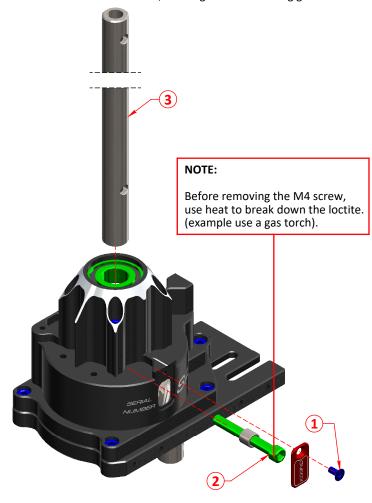
Before to open the transmission



### MAIN SHAFT REPLACEMENT

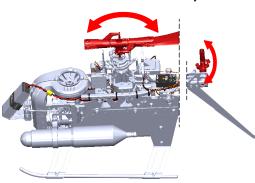
### For replacing the main shaft:

- \*Remove the serial number plate
- \*Remove the **M4** screw
- \*Remove and replace the main shaft
- \*Screw in the M4 screw, with high force and using green loctite

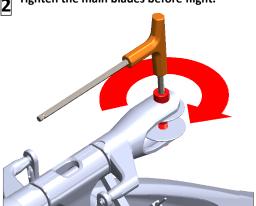




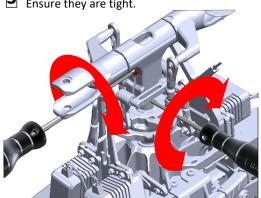
Check the dampening on the main a tail rotor to be the same as always. Check the dampening on the main and



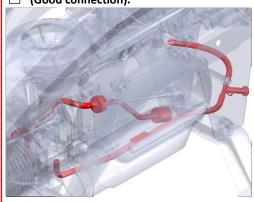
2 Tighten the main blades before flight.



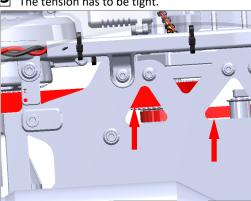
Check main hub screw Ensure they are tight. Check main hub screws(M4 and 2 M2.5)



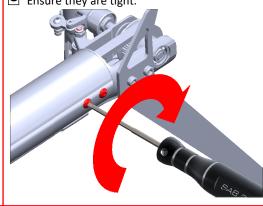
Check Fuel Line (Good connection).



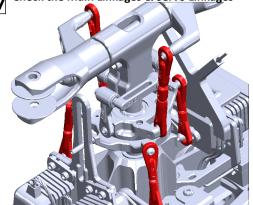
Check Tail & Motor belt tension. The tension has to be tight.



6 Check the 4 M3 Tail group screws. Ensure they are tight.

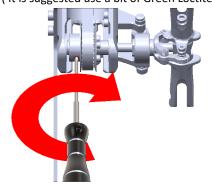


7 Check the Main Linkages & Servo Linkages

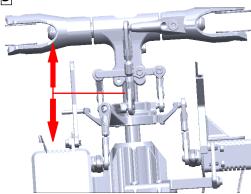


**8** Check tail pulley set screws: Ensure they are tight.

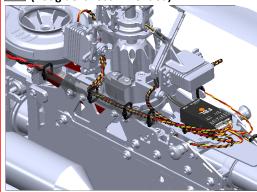
(It is suggested use a bit of Green Loctite.)



Check for vertical play of the main shaft.



Check if the FBL-RX connectors are OK 10 Check IT the FDE-IAL Commended).



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



12 Be sure .... Be sure the follow parts are properly

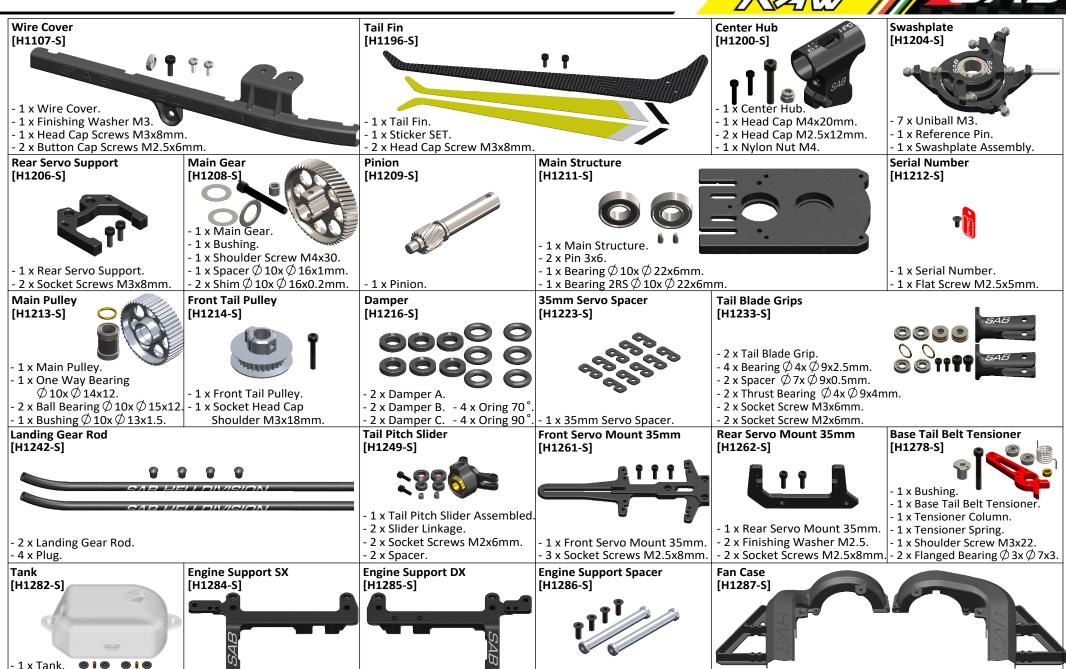
- \*Main shaft/swashplate
- \*Tail slider/tail shaft
- \*Carbon rod/carbon rod support
- \*All thrust bearings
- \*All plastic balls connections





#### Finishing Washer M3 Uniball M2 5H6 Uniball M3x4 5H3 **Plastic Ball Link** Servo Spacer One Way Bushing [H0110-S] [H0007-S] [H0064-S] [H0065-S] [H0066-S] [H0075-S] 666 0000 5 x Uniballs M2 **66** 5 x Uniball Spacers. 5 x Head Cap Screws M2x8. - 10 x Finishing Washers M3. 5 x Head Cap Screws M2x6. 5 x Uniballs M3x4 5H3.5. - 10 x Plastic Ball Link. 10 x Servo Spacers. 4 x One Way Bushing. Radius Arm HPS **Radius Plastic Arm** Main Spindle **Tail Spindle** Main Linkage [H0205-S] [H0213-S] [H0220-S] [H0204BM-S] [H0237-S] - 8 x Flanged Bearing $\emptyset$ 2.5x $\emptyset$ 6x2.5. - 2 x Radius Arm. - 2 x Washer 2.5x4x0.3mm. - 2 x Spacer Arm 2.5x4x6.3. 1 x Tail Spindle. - 2 x Button Screws M6x10mm. | - 1 x Tail Spindle. - 2 x Spacer Arm 2.5x4x3mm. - 2 x Head Cap Screw M2.5x15. 2 x Main Linkage. - 2 x Uniball Radius Arm. - 2 x Head Cap Screw M2.5x18. 2 x Washer. 2 x Head Cap Screws M3x6. 4 x Plastic Uniball. 2 x Radius Plastic Arm. Finishing Washer M2.5 **Plastic Tail Linkage Blades Washer** Plastic Ball Link M2 Steel Ball linkage M2 Steel Clutch [H0255-S] [H0261-S] [H0265-S] [H0403-S] [H0538-S] [H0670-S] :1188 888 2 x Plastic Tail Linkage. 2 x Grip Link Bushing. - 1 x Steel Clutch. - 10 x Finishing Washer M2.5. - 2 x Head Cap Screws M2x6. - 4 x Blade Washer. 5 x Plastic Ball Link M2. 5 x Steel Ball linkage M2. - 2 x Button Screws M4x8mm. Clutch Support Clutch Bell Pulley Z26-Z28 **Engine Frame Spacer** SAB Fuel Clunk Fan [H0671-S] [H0672-S] [H0674-S] [H0675-26-27-28-S] [H0678-S] [H0705-S] 1 x Pulley Z26-Z28 - 1 x SAB Fuel Clunk. $3 \times \text{Bearing} \oslash 12 \times \oslash 18 \times 4$ . 4 x Engine Frame Spacer - 1 x Fan. - 1 x Clutch Bell. 2 x SAB Fuel Clunk Filter. 4 x Buttom Screw M3x6mm. - 4 x Flat Head Screws M3x8mm. | - 1 x Clutch Support. 2 x Cluth Line. - 1 x Pulley Washer. 1 x Fuel Tube 2,5x4,5 - 8,5cm. **SAB Fuel Nipple SAB Fuel Stop** Reference Pin **Ilder Tensioner Canopy Mount** Antena Support [H0708-S] [H1134-S] [H0715-S] [H1048-S] [H1066-S] [H1101-S] - 1 x Ilder Tensioner. - 1 x Bushing. - 1 x SAB Fuel Nipple. 2 x SAB Fuel Stop. - 1 x Shim ∅ 3x ∅ 5x0.5mm. - 1 x Antena Support. - 2 x SAB Tank Grommet. 2 x SAB T connector. - 2 x Flanged Bearing3x8x3. - 1 x Double Side-Tape. 1 x Reference Pin. 2 x Canopy Mount SET.





2 x Engine support Spacer.

4 x Flat Screws M3x8mm.

- 1 x Fan Case SX.

- 1 x Fan Case DX.

1 x Engine support SX.

1 x Engine support DX.

- 4 x Tank Rubber.

2 x Bushing.

Tail Pulley 23T

- 1 x Tail Pulley 23T.

Tail Belt Ilder Mount

[H1341-S]

[H1312-23-S]



### **Main Shaft** [H1299-S]



- 1 x Main Shaft.
- 1 x Shoulder Screw M4x30.
- 1 x Bushing.
- 2 x Shim  $\emptyset$  10x  $\emptyset$  16x0.2mm.

**Tail Shaft** [H1313-S]



- 1 x Tail Shaft.

**Blade Grip Arm 27** 

- 1 x Tail Hub.
- 2 x Oring.

[H1342-S]

**Bell Crank Base** [H1314-S]



- 1 x Bell Crank Base.

**Boom Mount Support** 

- 1 x Socket Screw M2.5x8mm | - 1 x Washer  $\emptyset$  10x  $\emptyset$  16x1mm.

- 1 x Boom Mount Support.

4 x Socket Screws M3x10.

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Front Boom Block [H1304-S]



- 1 x Front Boom Block.
- 2 x Socket Screws M3x10.
- 1 x Socket Screw M3x12.
- 1 x Nylon Nut M3.

**Bushing Gear** [H1334-S]



- 1 x Bushing Gear.
- 2 x Shim  $\emptyset$  10x  $\emptyset$  16x0.2mm.

Tail Case Group [H1306-S]



- 1 x Tail Case Group.
- 4 x Button Screw M3x4mm.

Tank Column [H1338-S]



- 2 x Tank Column.

1 x Tail Servo Mount.

**CF Wire Support** 

[H1383-S]

- 2 x Socket Screw M3x12mm.

1010

**Tail Servo Mount** 

- 1 x Set Screw M3x20mm.

[H1353-S]

**Carbon Rod Support** [H1310-S]



- 1 x Carbon Rod Support.
- 1 x Socket Screw M2.5x12mm. 1 x Set Screw M3x6mm.

Frame Spacer [H1340-S]



- 8 x Frame Spacer.
- 8 x Double Side Tape.

Main Blade Grips [H1368-S]



1 x Tail Belt Ilder Mount.

- 2 x Socket Screw M3x12mm.

- 2 x Blade Grip.
- -4 x Bearing  $\emptyset$  8x  $\emptyset$  14x4mm.
- 2 x Thrust Bearing  $\emptyset$  8x  $\emptyset$  14x4mm.
- $\cdot$  2 x Washer  $\emptyset$  11x  $\emptyset$  13.5x0.5mm.
- 2 x Button Screws M4x10mm.

- 2 x Blade Grip Arm.
- 2 x Head Cap Screw M4x8mm. 4 x Finishing Washer M3.
- 2 x Uniball M3x4 Ø5 H3.5.

**Engine Shaft** [H1369-S]



- 1 x Engine Shaft.

Tail Bell Crank Lever

- 2 x Socket Screws M3x10.

**Boom Block** [H1372-S]

[H1350-S]



- 1 x Boom Block.
- 2 x Boom Block Rubber.
- 2 x Socket Screws M3x10.
- 1 x Socket Screw M3x12.
- 1 x Nylon Nut M3.

**Tail Boom Tension** 



- 1 x Uniball M2.
- 1 x Uniball M3.

[H1393-S]

- 1 x Bell Crank Lever Assembled. 1 x Nylon Nut M3.
- 1 x Socket Screws M3x22mm. 1 x Washer Ø 3.1x Ø 6x0.2mm. - 1 x Socket Screws M2x6mm.
- - 1 x Washer  $\emptyset$  3x  $\emptyset$  4.5x0.5mm.
- [H1402-S]



- 1 x Derlin.
- 1 x Oring.
- - 1 x Nylon Nut M3.
  - 1 x Set screws M3x20mm.

5 x Block NUT M3.

- 5 x Nylon NUT M3.

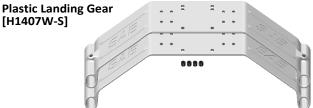
- 1 x Shoulder Screw M3x18mm.
- 2 x Socket Screws M4x10mm.

Block NUT M3 [H1386-S]



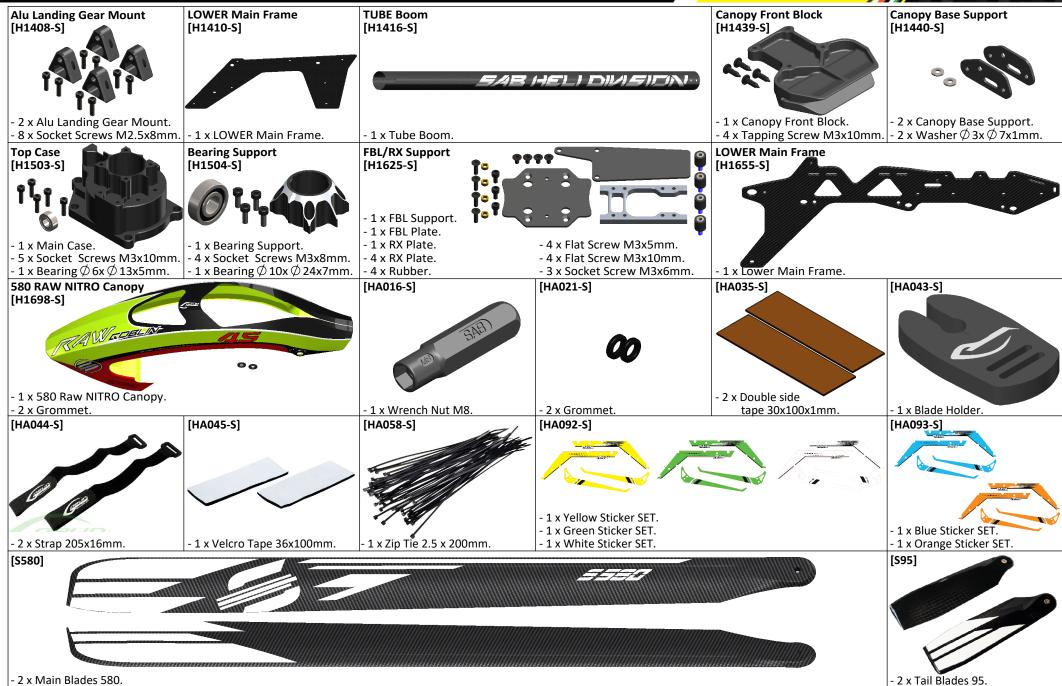
- 5 x Block NUT M3.

- 5 x Nylon NUT M3.

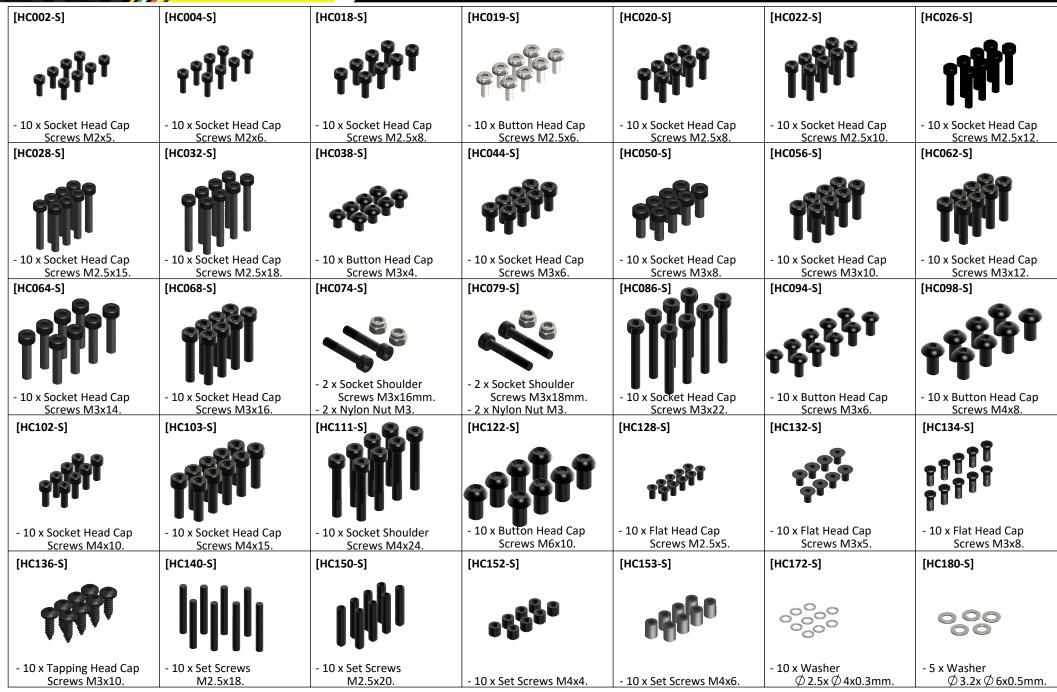


- 2 x Plastic Landing Gear.
- 4 x Set Screws M4x4mm.

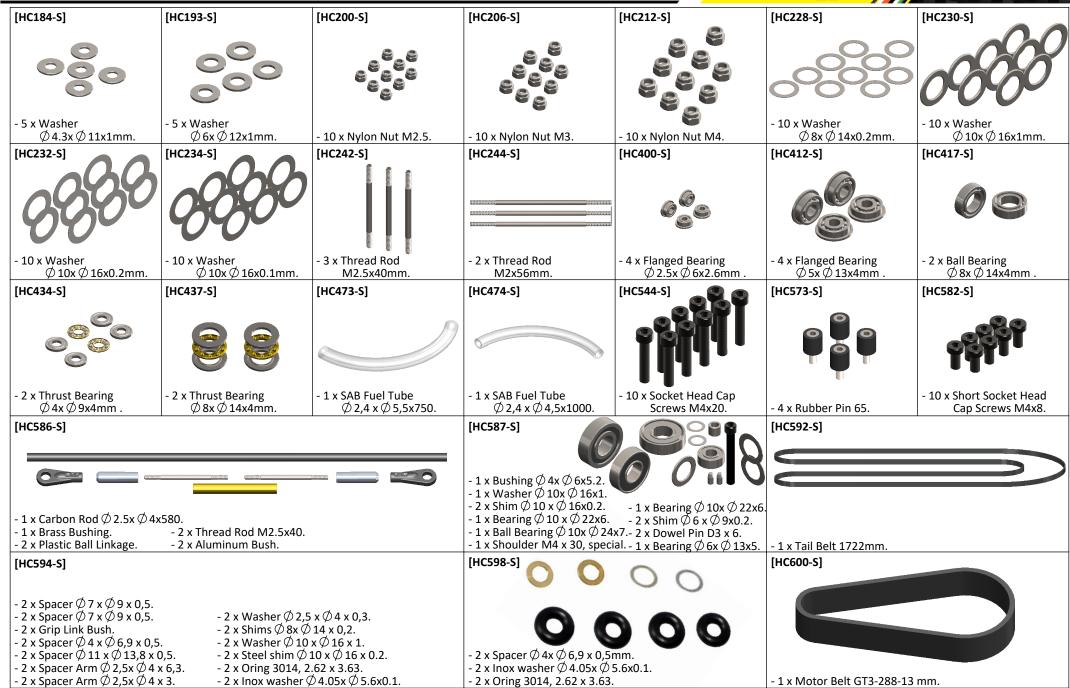














Carefully check your model before each flight to ensure it is airworthy.

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

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

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

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

Avoid maneuvers with trajectories towards a crowd.

Always maintain a safe distance from the model.



## GOBLIN RAW 580 NITRO

Release 1.0 - June 2022

### **WORLD DISTRIBUTION**

www.goblin-helicopter.com For sales inquiries, please email: sales@goblin-helicopter.com For info inquiries, please email: support@goblin-helicopter.com

Attention: If you are a customer and have questions or need of assistance, please contact in a first time the Goblin retailer where you made the purchase.

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