



# FURY 57

600 SIZE 3D HELI



## Manual

ASSEMBLY & MAINTENANCE

*X-cell*



## KIT INTRODUCTION

THANK YOU FOR PURCHASING THE X-CELL FURY 57 BY MINIATURE AIRCRAFT.

THIS MODEL IS THE CULMINATION OF YEARS OF DESIGNING AND MANUFACTURING R/C HELICOPTERS. IT IS DESIGNED WITH THE HIGHEST STANDARDS AND WILL PROVIDE YEARS OF ENJOYMENT. WHETHER THIS IS YOUR FIRST R/C MODEL HELICOPTER OR YOU ARE AN ADVANCED R/C HELICOPTER MODELER, THE X-CELL FURY 57 IS A FANTASTIC CHOICE FOR A "57 SIZE" MODEL.

## RC HELICOPTER SAFETY

A RADIO CONTROLLED MODEL HELICOPTER IS NOT A TOY, BUT RATHER A TECHNICALLY COMPLEX DEVICE THAT MUST BE BUILT AND OPERATED WITH CARE. IT IS ALSO A FASCINATING AND CHALLENGING PART OF THE R/C SPORT, THE MASTERY OF WHICH IS VERY REWARDING. A MODEL HELICOPTER MUST BE BUILT EXACTLY IN ACCORDANCE WITH THE BUILDING INSTRUCTIONS. THE KIT MANUFACTURER HAS SPENT MUCH TIME AND EFFORT REFINING HIS PRODUCT TO MAKE IT RELIABLE IN OPERATION AND EASY TO BUILD. THE ESSENTIALLY BOLT TOGETHER CONSTRUCTION CAN PROCEED QUITE RAPIDLY, GIVING THE BUILDER A STRONG SENSE OF ACCOMPLISHMENT THAT ENCOURAGES HASTY PROGRESS FROM ONE CONSTRUCTION PHASE TO THE NEXT, SO THAT THE COMPLETED MODEL CAN BE MORE QUICKLY SEEN AND ENJOYED. IT IS ESSENTIAL TO RECOGNIZE AND GUARD AGAINST THIS TENDENCY.

FOLLOW BUILDING INSTRUCTIONS EXACTLY.

VIBRATION AND STRESS LEVELS ARE HIGH AND ALL FASTENERS AND ATTACHMENTS MUST BE SECURE FOR SAFE OPERATION.

NOTE THAT THIS IS THE FIRST USE OF THE WORD SAFETY IN THESE COMMENTS. PREVIOUSLY THE KIT MANUFACTURER'S EFFORTS TO ENSURE RELIABLE OPERATION WERE MENTIONED. THAT IS ALL THAT HE CAN DO. SAFE OPERATION IS THE RESPONSIBILITY OF THE BUILDER/FLYER AND STARTS WITH CAREFUL CONSTRUCTION AND CONTINUES WITH SELECTION AND INSTALLATION OF RELIABLE RADIO EQUIPMENT AND ENGINE.

THE NEED FOR SAFETY IS NOWHERE GREATER THAN AT THE FLYING FIELD. A NUMBER OF GUIDELINES FOR SAFE FLIGHT HAVE BEEN DEVELOPED BY EXPERIENCED FLYERS AND ARE SET DOWN HERE. IT IS URGED THAT THEY BE READ, UNDERSTOOD AND FOLLOWED.

## WARNING! – RISK OF DEATH OR SERIOUS INJURY

REMOTE CONTROL ("R/C") HELICOPTERS CAN BE DANGEROUS. INEXPERIENCED PILOTS OF R/C HELICOPTERS SHOULD BE TRAINED AND SUPERVISED BY EXPERIENCED OPERATORS. ALL OPERATORS SHOULD USE SAFETY GLASSES AND OTHER APPROPRIATE SAFETY EQUIPMENT, AND EXERCISE NECESSARY PRECAUTIONS WHEN FUELING, REPAIRING, MAINTAINING, FLYING AND STORING R/C HELICOPTERS, AND WHEN USING OR STORING R/C HELICOPTER ACCESSORIES, EQUIPMENT, FUELS, AND RELATED MATERIALS. R/C HELICOPTERS SHOULD BE USED ONLY IN OPEN AREAS FREE OF OBSTACLES, AND FAR ENOUGH FROM PEOPLE TO MINIMIZE THE POSSIBILITY OF INJURY FROM THE HELICOPTER OR ANY OF ITS COMPONENTS FALLING OR FLYING IN UNEXPECTED DIRECTIONS.

THIS HELICOPTER IS NOT A TOY, BUT A COMPLEX FLYING MACHINE THAT MUST BE ASSEMBLED WITH CARE BY A RESPONSIBLE INDIVIDUAL. FAILURE TO EXERT CARE IN ASSEMBLY, OR RADIO OR ACCESSORY INSTALLATION, MAY RESULT IN A MODEL INCAPABLE OF SAFE FLIGHT OR GROUND OPERATION. ROTATING COMPONENTS ARE AN EVER PRESENT DANGER AND SOURCE OF INJURY TO OPERATORS AND SPECTATORS. SINCE THE MANUFACTURER AND HIS AGENTS HAVE NO CONTROL OVER THE PROPER ASSEMBLY AND OPERATION OF HIS PRODUCTS, NO RESPONSIBILITY OR LIABILITY CAN BE ASSUMED FOR THEIR USE.

## GENERAL GUIDELINES FOR SAFE RC HELICOPTER FLIGHT

- FLY ONLY AT APPROVED FLYING FIELDS AND OBEY FIELD REGULATIONS.
- FOLLOW FREQUENCY CONTROL PROCEDURES. INTERFERENCE CAN BE DANGEROUS TO ALL.
- KNOW YOUR RADIO. CHECK ALL TRANSMITTER FUNCTIONS BEFORE EACH FLIGHT.
- BE AWARE THAT ROTATING BLADES ARE VERY DANGEROUS AND CAN CAUSE SERIOUS INJURY.
- NEVER FLY NEAR OR ABOVE SPECTATORS OR OTHER MODELERS.
- IF YOU'RE A BEGINNER, GET HELP TRIMMING THE MODEL FIRST AND FLIGHT TRAINING LATER.
- DON'T "TRACK" THE MAIN BLADES BY HOLDING THE TAIL BOOM. THIS IS A TEMPTATION TO BUILDERS WHO CANNOT HOVER YET AND IS VERY DANGEROUS.
- FOLLOW ALL RECOMMENDED MAINTENANCE PROCEDURES FOR MODEL, RADIO AND ENGINE.

# INFORMATION



## ACADEMY OF MODEL AERONAUTICS

MINIATURE AIRCRAFT HIGHLY RECOMMENDS JOINING THE ACADEMY OF MODEL AERONAUTICS (AMA).

- AMA IS THE ACADEMY OF MODEL AERONAUTICS.
- AMA IS THE WORLD'S LARGEST MODEL AVIATION ASSOCIATION, REPRESENTING A MEMBERSHIP OF MORE THAN 150,000 FROM EVERY WALK OF LIFE, INCOME LEVEL AND AGE GROUP.
- AMA IS A SELF-SUPPORTING, NON-PROFIT ORGANIZATION WHOSE PURPOSE IS TO PROMOTE DEVELOPMENT OF MODEL AVIATION AS A RECOGNIZED SPORT AND WORTHWHILE RECREATION ACTIVITY.
- AMA IS AN ORGANIZATION OPEN TO ANYONE INTERESTED IN MODEL AVIATION.
- AMA IS THE OFFICIAL NATIONAL BODY FOR MODEL AVIATION IN THE UNITED STATES. AMA SANCTIONS MORE THAN A THOUSAND MODEL COMPETITIONS THROUGHOUT THE COUNTRY EACH YEAR, AND CERTIFIES OFFICIAL MODEL FLYING RECORDS ON A NATIONAL AND INTERNATIONAL LEVEL.
- AMA IS THE ORGANIZER OF THE ANNUAL NATIONAL AEROMODELING CHAMPIONSHIPS, THE WORLD'S LARGEST MODEL AIRPLANE COMPETITION.
- AMA IS THE CHARTERING ORGANIZATION FOR MORE THAN 2,500 MODEL AIRPLANE CLUBS ACROSS THE COUNTRY. AMA OFFERS ITS CHARTERED CLUBS OFFICIAL CONTEST SANCTION, INSURANCE, AND ASSISTANCE IN GETTING AND KEEPING FLYING SITES.
- AMA IS THE VOICE OF ITS MEMBERSHIP, PROVIDING LIAISON WITH THE FEDERAL AVIATION ADMINISTRATION, THE FEDERAL COMMUNICATIONS COMMISSION, AND OTHER GOVERNMENT AGENCIES THROUGH OUR NATIONAL HEADQUARTERS IN MUNCIE, INDIANA. AMA ALSO WORKS WITH LOCAL GOVERNMENTS, ZONING BOARDS, AND PARKS DEPARTMENTS TO PROMOTE THE INTERESTS OF LOCAL CHARTERED CLUBS.
- AMA IS AN ASSOCIATE MEMBER OF THE NATIONAL AERONAUTIC ASSOCIATION. THROUGH NAA, AMA IS RECOGNIZED BY THE FÉDÉRATION AÉRONAUTIQUE INTERNATIONALE (FAI), THE WORLD GOVERNING BODY OF ALL AVIATION ACTIVITY, AS THE ONLY ORGANIZATION WHICH MAY DIRECT U.S. PARTICIPATION IN INTERNATIONAL AEROMODELING ACTIVITIES.

FOR MORE DETAILED INFORMATION, CONTACT THE ACADEMY OF MODEL AERONAUTICS  
5161 E. MEMORIAL DRIVE, MUNCIE, INDIANA, 47302  
OR TELEPHONE (800) 435-9262.

YOU MAY ALSO VISIT THE AMA WEBSITE AT [WWW.MODELAIRCRAFT.ORG](http://WWW.MODELAIRCRAFT.ORG)

## KIT ASSEMBLY

YOUR FURY 57 KIT WILL REQUIRE A NUMBER OF DIFFERENT SUPPLIES AND TOOLS TO ENSURE THE BEST FINAL RESULT. THEY ARE AS FOLLOWS:

### REQUIRED LUBRICANTS AND COMPOUNDS:

- MEDIUM STRENGTH THREAD LOCKING COMPOUND - LOCTITE 243
- SYNTHETIC OIL (MA3200-12)
- SYNTHETIC GREASE (MA3200-11)

### REQUIRED TOOLS:

- M4 NUT DRIVER
- M5 NUT DRIVER
- M5.5 NUT DRIVER
- M7 NUT DRIVER
- 1.5MM ALLEN DRIVER
- 2.0MM ALLEN DRIVER
- 2.5MM ALLEN DRIVER
- 3.0MM ALLEN DRIVER
- NEEDLE NOSE PLIERS
- PHILLIPS SCREWDRIVER #1
- FLAT SCREWDRIVER 2.5MM
- RAZOR KNIFE (X-ACTO)
- SNAP RING PLIERS

### OPTIONAL TOOLS:

- SWASHPLATE LEVELING TOOL (MA3000-10)
- PITCH GAUGE
- CRANKSHAFT LOCKING TOOL (MA3000-34)

# INFORMATION





## OTHER REQUIRED COMPONENTS:

THE X-CELL FURY 57 IS AN AIRFRAME KIT. TO COMPLETE THE MODEL, SEVERAL OTHER ITEMS ARE REQUIRED BUT ARE NOT INCLUDED WITH THE KIT. THERE ARE MANY CHOICES FOR THESE OTHER REQUIRED COMPONENTS, AND ANY COMPETENT HOBBY RETAILER WITH RC HELICOPTER EXPERIENCE WILL BE HAPPY TO MAKE SUGGESTIONS. YOU WILL NEED:

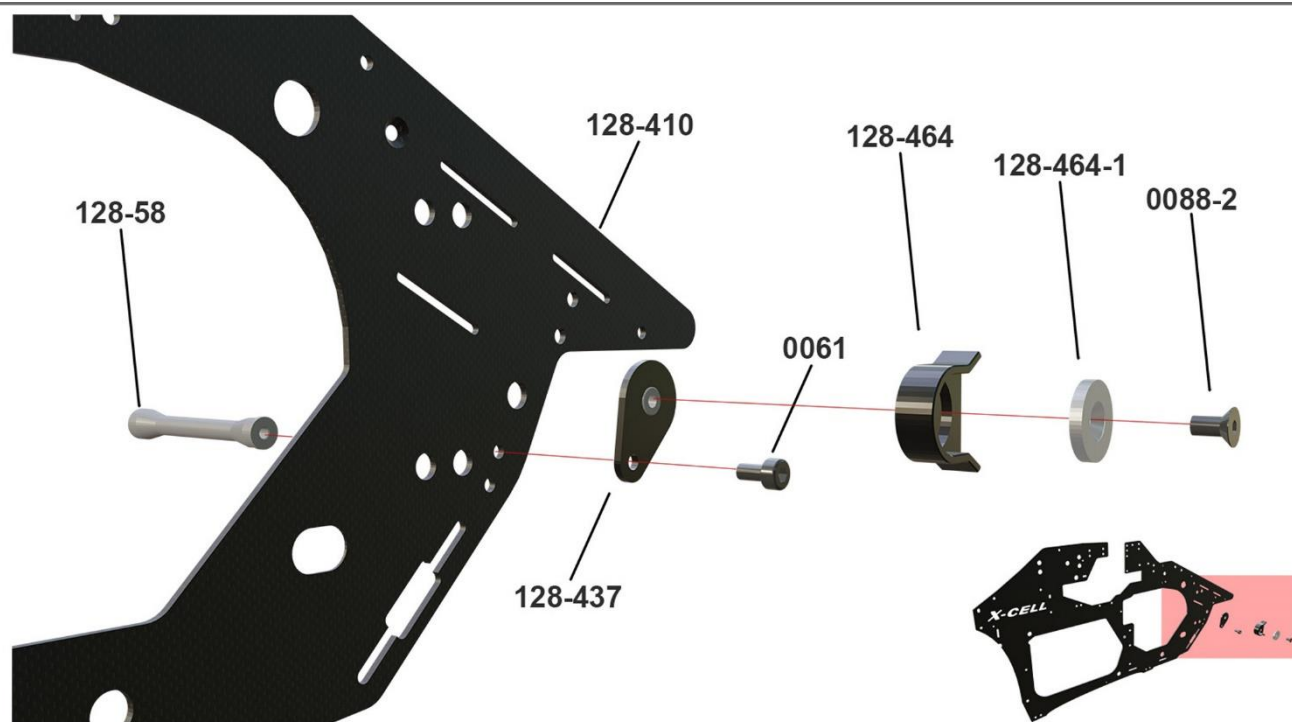
- ENGINE, "50" TO "60" SIZE. THERE ARE VARIOUS SIZES AVAILABLE THAT ARE CONSIDERED "50", "55", "57" OR "60" SIZE, ALL WILL WORK IN THE FURY 57 ("60" ONLY IF IT HAS A MOUNTING PATTERN LIKE A 55).
- HELICOPTER STYLE MUFFLER SUITED TO THE ENGINE YOU CHOOSE.
- CYCLIC SERVOS (MINIATURE AIRCRAFT RECOMMENDS HIGH QUALITY CYCLIC SERVOS).
- TAIL SERVO (MINIATURE AIRCRAFT RECOMMENDS HIGH QUALITY TAIL SERVO)
- THROTTLE SERVO (MINIATURE AIRCRAFT RECOMMENDS A HIGH QUALITY BALL BEARING SERVO)
- MAIN ROTOR BLADES OF 570-620MM IN LENGTH.
- R/C HELICOPTER TRANSMITTER WITH AT LEAST 7 CHANNELS.
- R/C HELICOPTER FBL GYRO
- R/C HELICOPTER STARTING AND FUELING EQUIPMENT.
- R/C HELICOPTER ENGINE GOVERNOR WITH MAGNETIC SENSOR (RECOMMENDED).
- TAIL BLADES 95 TO 97MM IN LENGTH

## IMPORTANT ASSEMBLY TIPS PLEASE READ

- FOLLOW THE INSTRUCTIONS. THE METHODS OF CONSTRUCTION DOCUMENTED IN THIS MANUAL HAVE BEEN PROVEN TO WORK.
- DO NOT RUSH THE BUILD OF YOUR MODEL! YOU HAVE PURCHASED A WORLD CLASS MODEL HELICOPTER KIT, TAKE YOUR TIME AND REALIZE THAT THE FINAL RESULT IS NOW UP TO YOU. TAKE THE TIME TO FULLY UNDERSTAND EACH STEP, IF YOU ARE UNSURE PLEASE CONTACT MINIATURE AIRCRAFT.
- FOLLOW THE ORDER OF ASSEMBLY. THE INSTRUCTIONS HAVE BEEN ORGANIZED INTO MAJOR SECTIONS AND HAVE BEEN WRITTEN IN SUCH A WAY THAT EACH STEP BUILDS UPON THE WORK DONE IN THE PREVIOUS STEP. CHANGING THE ORDER OF ASSEMBLY MAY RESULT IN UNNECESSARY STEPS.
- CLEAN ALL METAL PARTS: ALL OF THE STEEL PARTS IN THIS KIT ARE COATED WITH A LUBRICANT TO PREVENT THEM FROM RUSTING. THIS COATING CAN INTERFERE WITH THE ADHESIVES AND THREAD LOCKS NEEDED FOR ASSEMBLY. USE A SOLVENT SUCH AS ALCOHOL TO CLEAN THE VARIOUS METAL PARTS, ESPECIALLY THREADS.
- USE THREAD LOCK AS INDICATED. GENERALLY, ANY BOLT OR SCREW THAT THREADS INTO A METAL PART REQUIRES THREAD LOCK. MODEL HELICOPTERS ARE SUBJECT TO VIBRATION AND FAILING TO USE THREAD LOCK ON ANY NON-LOCKING ASSEMBLY MAY RESULT IN A PART BECOMING LOOSE OR FALLING OFF.

# INFORMATION





ASSEMBLY TIP: ALIGN THE OPENING OF PART 128-464 TO THE FRONT OF THE HELICOPTER.

0061 x 1



M3 x 8mm

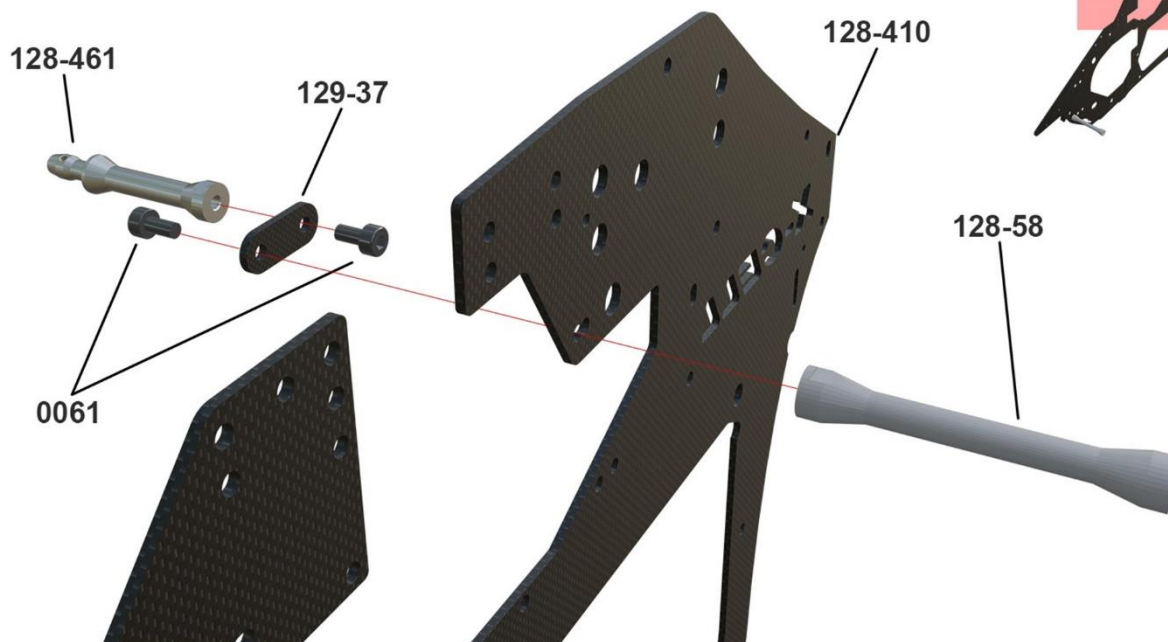
0088-2 x 1



M3 x 6mm



Apply a small amount of medium thread lock when threading into metal parts.



ASSEMBLY TIP: TAKE CARE ABOUT THE ORIENTATION OF THE CANOPY MOUNT 128-461 THAT THE SMALL BORE FOR THE SPLINT IS CORRECTLY POSITIONED THAT YOU CAN INSERT THE SPLINT THE WAY YOU LIKE IT.

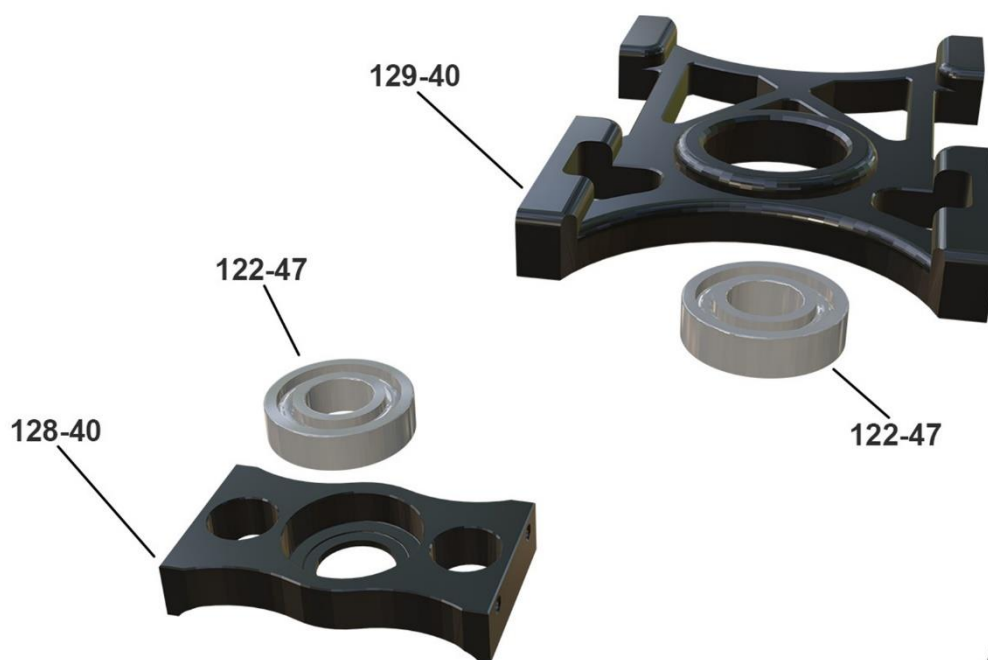
0061 x 2



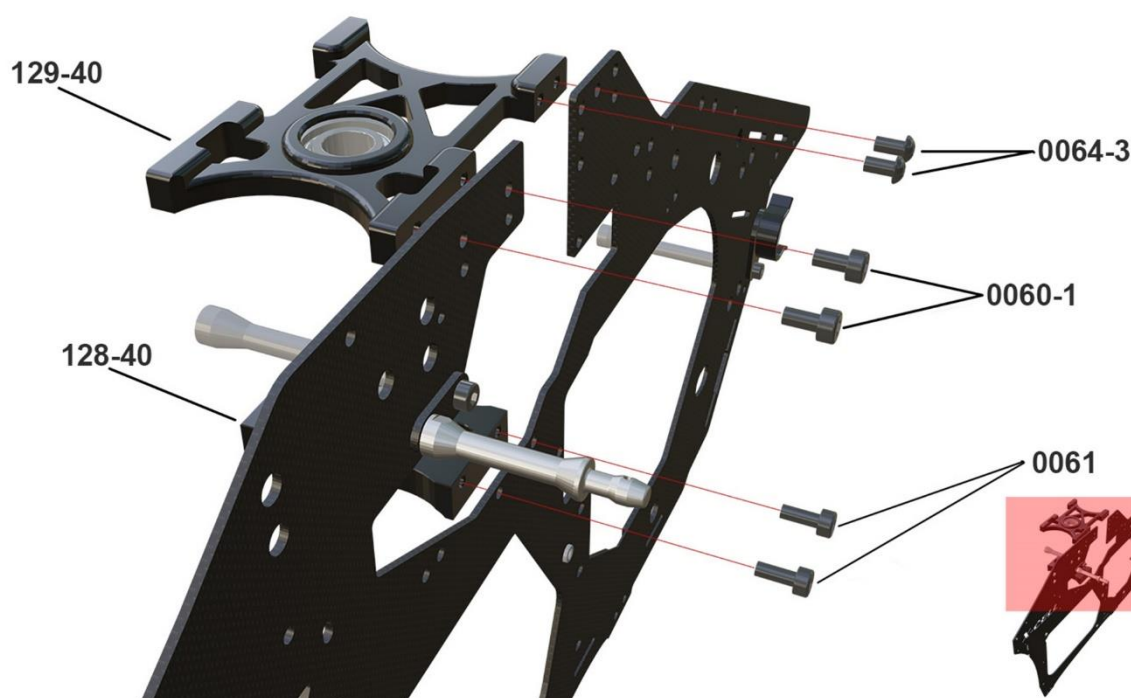
M3 x 8mm



Apply a small amount of medium thread lock when threading into metal parts.



**Factory  
Assembled**



**0061** x 2



M3 x 8mm

**0064-3** x 2



M3 x 6mm

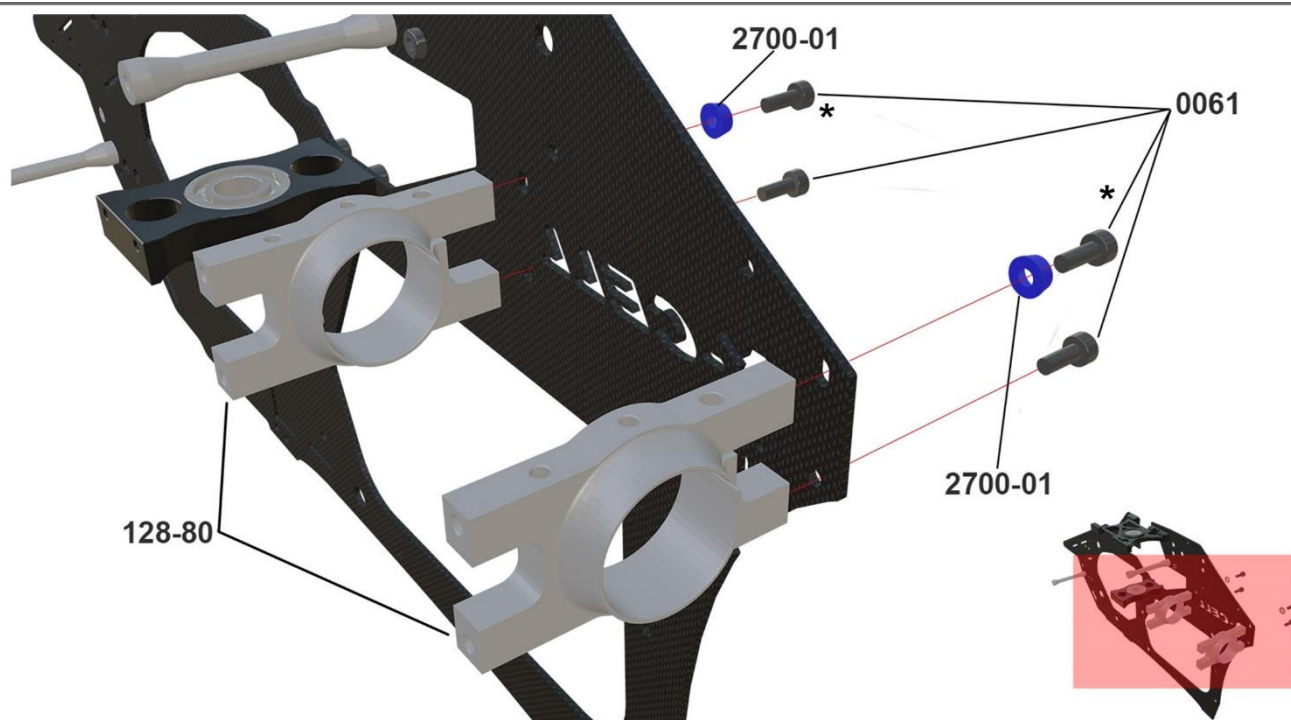
**0060-1** x 2



M3 x 6mm



Apply a small amount  
of medium thread lock  
when threading into  
metal parts.



0061 x 4



M3 x 8mm

2700-01 x 2

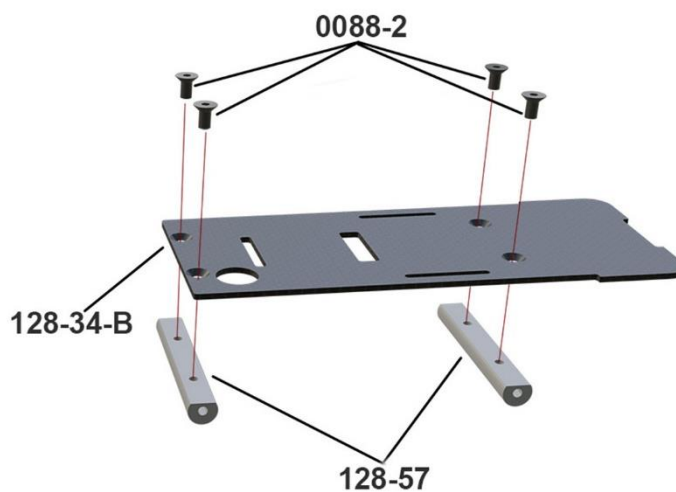
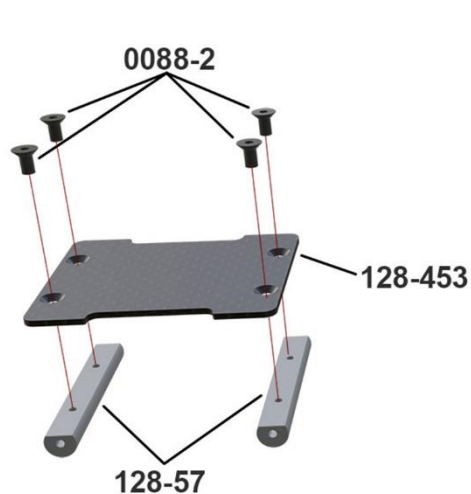


M3 (blue)



Apply a small amount of medium thread lock when threading into metal parts.

\* NOTE: THE TWO UPPER BOLTS ARE NOT TIGHT AT THIS TIME



0088-2 x 8

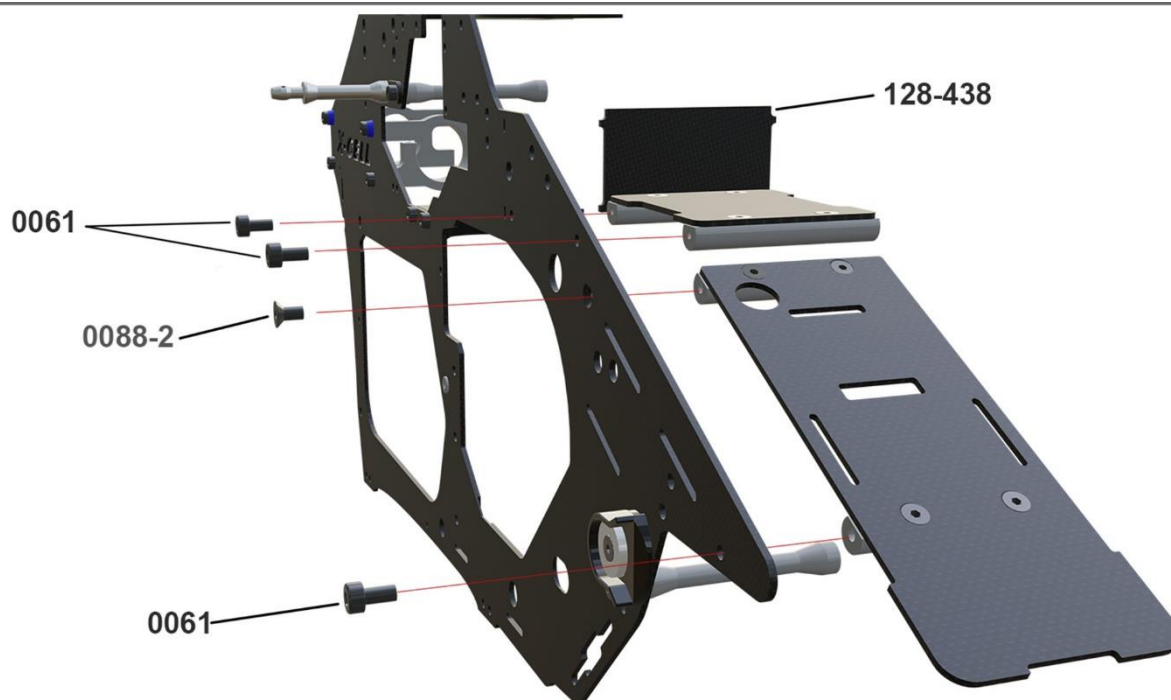


M3 x 6mm



Apply a small amount of medium thread lock when threading into metal parts.





0061 x 3



M3 x 8mm

0088-2 x 1

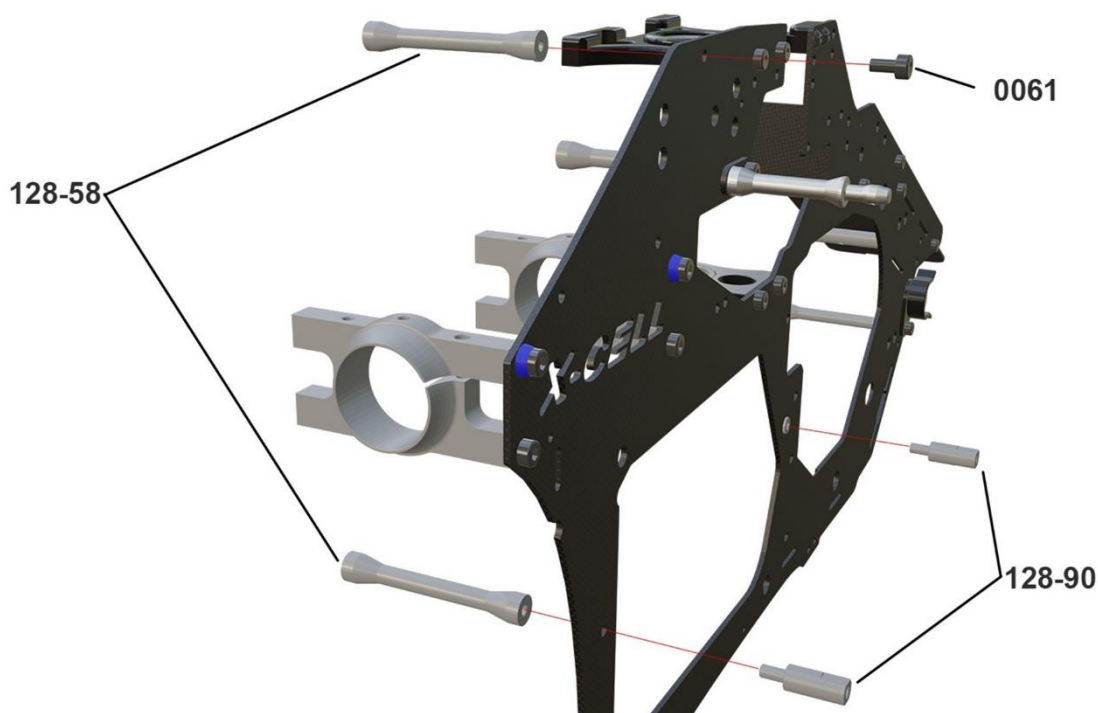


M3 x 6mm

ASSEMBLY TIP: THE PROTECTIVE PLATE 128-438 CAN BE INSTALLED LATER WHEN LEFT MAIN FRAME WILL BE ASSEMBLED. USE SOME SMALL AMOUNT OF SILICONE TO FIX THE PLATE AT THE BORES OF THE MAIN FRAMES.



Apply a small amount of medium thread lock when threading into metal parts.



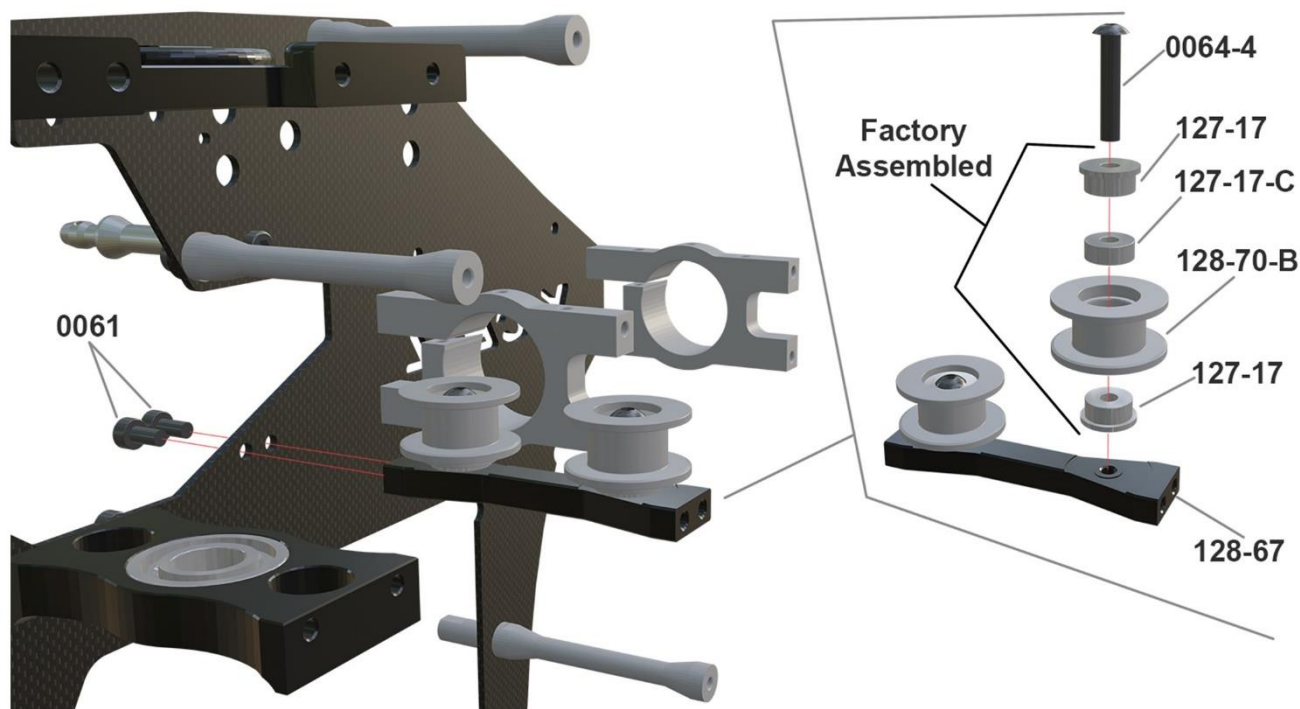
0061 x 1



M3 x 8mm



Apply a small amount of medium thread lock when threading into metal parts.



**0061** x 2



M3 x 8mm

**0064-4** x 2

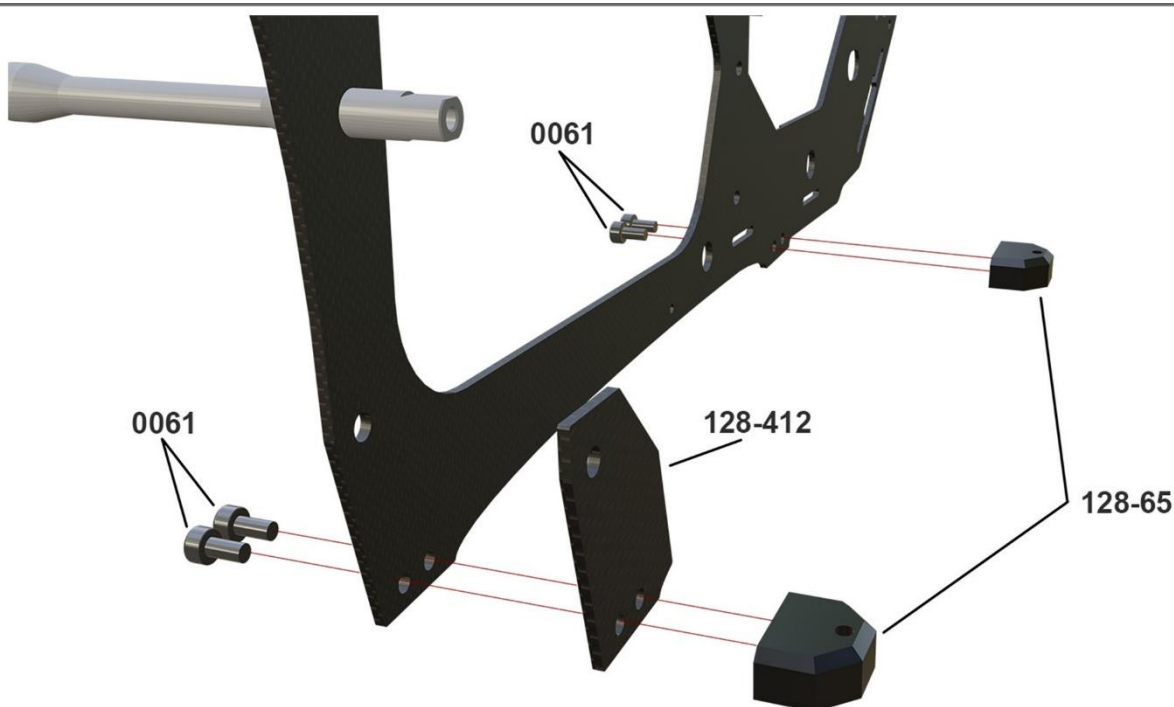


M3 x 16mm

ASSEMBLY TIP: ALIGN THE THE BELT IDLER MOUNT THAT THE BELT IDLERS ARE PARALLEL TO THE MAIN SHAFT.



Apply a small amount of medium thread lock when threading into metal parts.



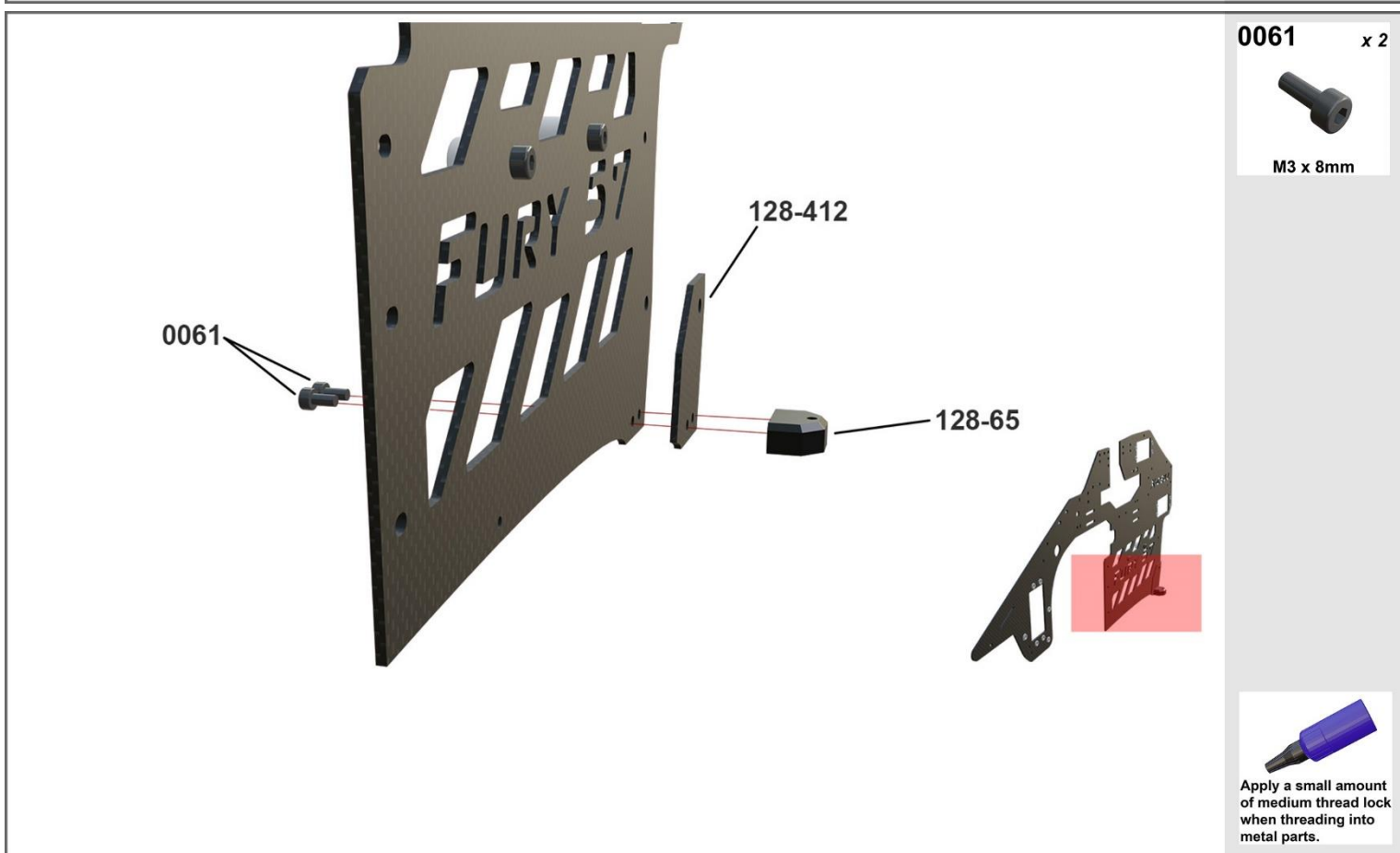
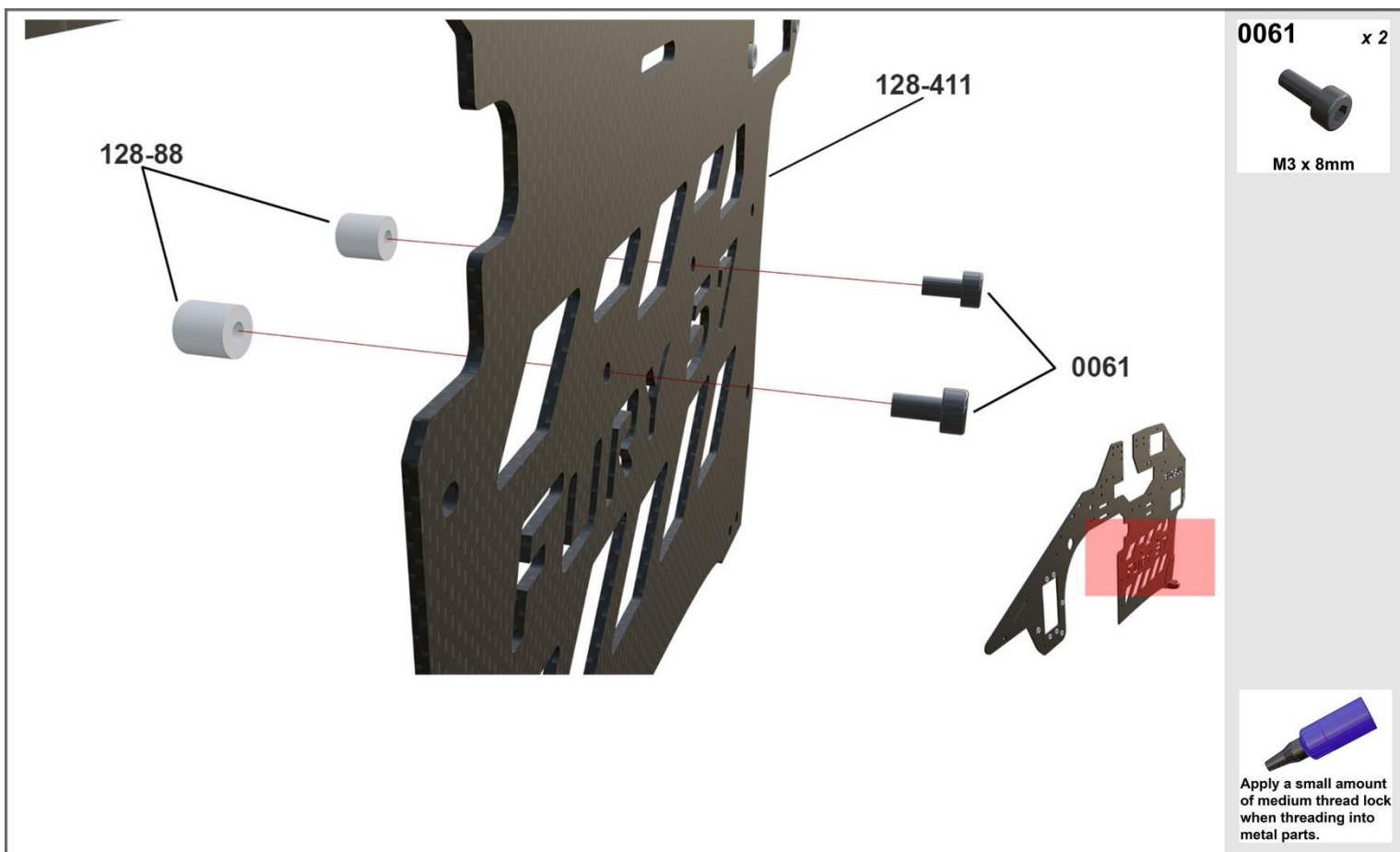
**0061** x 4



M3 x 8mm



Apply a small amount of medium thread lock when threading into metal parts.



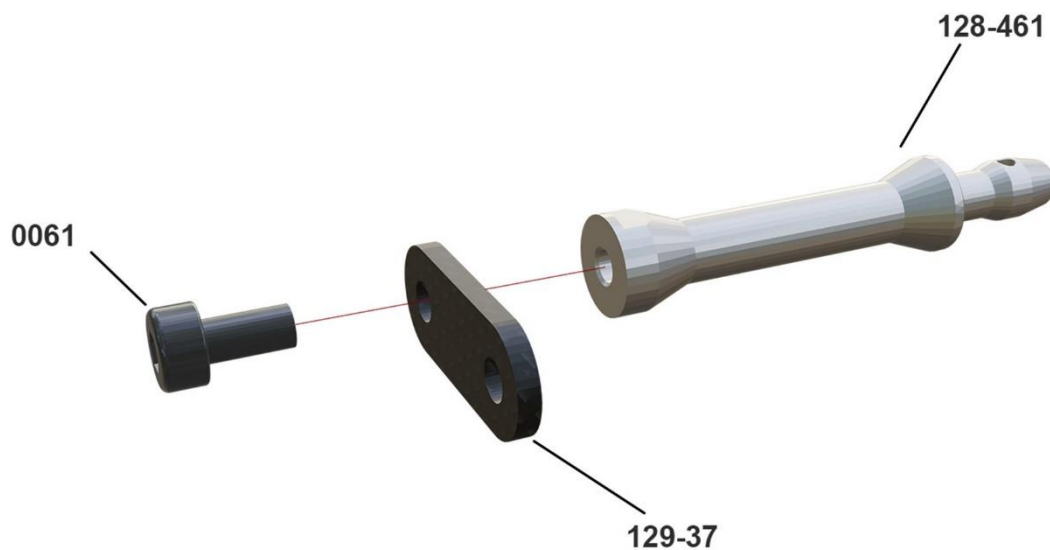




0061 x 1



M3 x 8mm



ASSEMBLY TIP: TAKE CARE ABOUT THE ORIENTATION OF THE CANOPY MOUNT 128-461 THAT THE SMALL BORE FOR THE SPLINT IS CORRECTLY POSITIONED THAT YOU CAN INSERT THE SPLINT THE WAY YOU LIKE IT.



Apply a small amount of medium thread lock when threading into metal parts.

0061 x 14



M3 x 8mm

0064-3 x 2

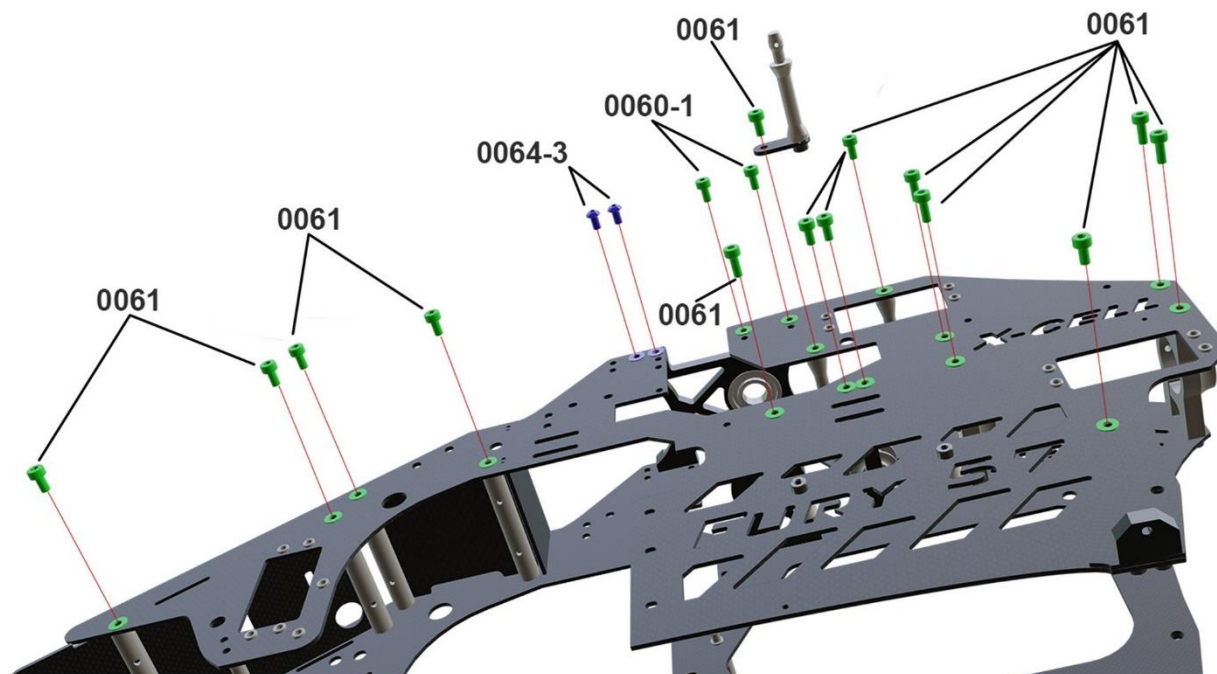


M3 x 6mm

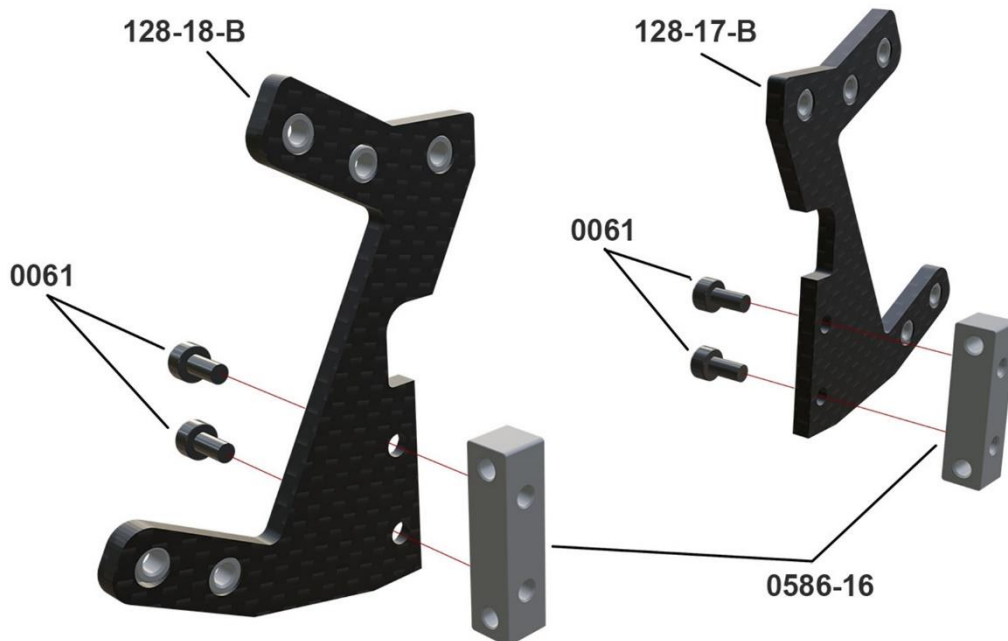
0060-1 x 2



M3 x 6mm



Apply a small amount of medium thread lock when threading into metal parts.



0061 x 4

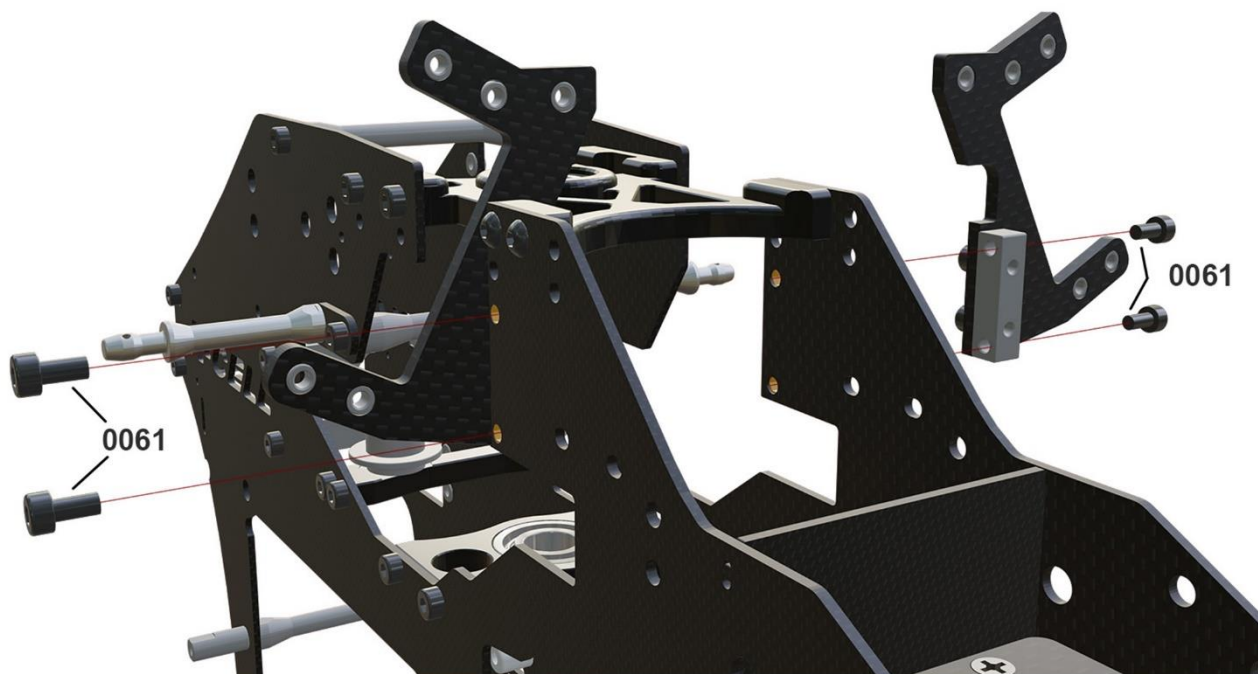


M3 x 8mm

ASSEMBLY TIP: DO NOT TIGHTEN BOLTS 0061 COMPLETELY AT THIS STEP. AFTER INSTALLING PART 128-316 CHECK ALIGNMENT OF ALL PARTS AND THEN TIGHTEN ALL BOLTS.



Apply a small amount of medium thread lock when threading into metal parts.



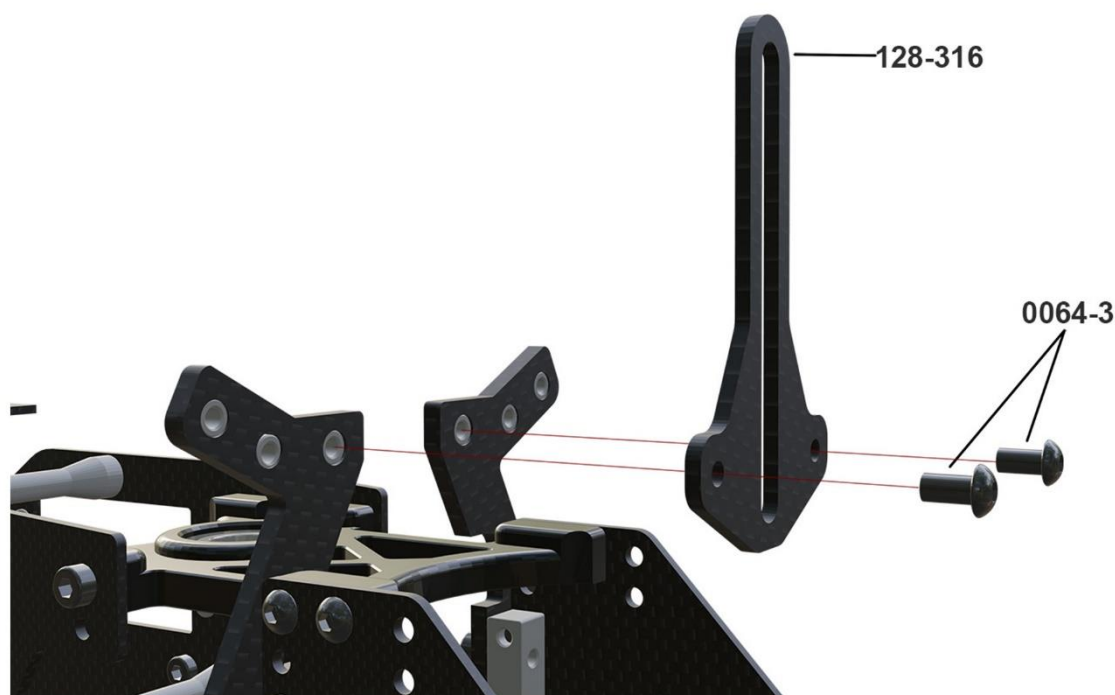
0061 x 4



M3 x 8mm



Apply a small amount of medium thread lock when threading into metal parts.



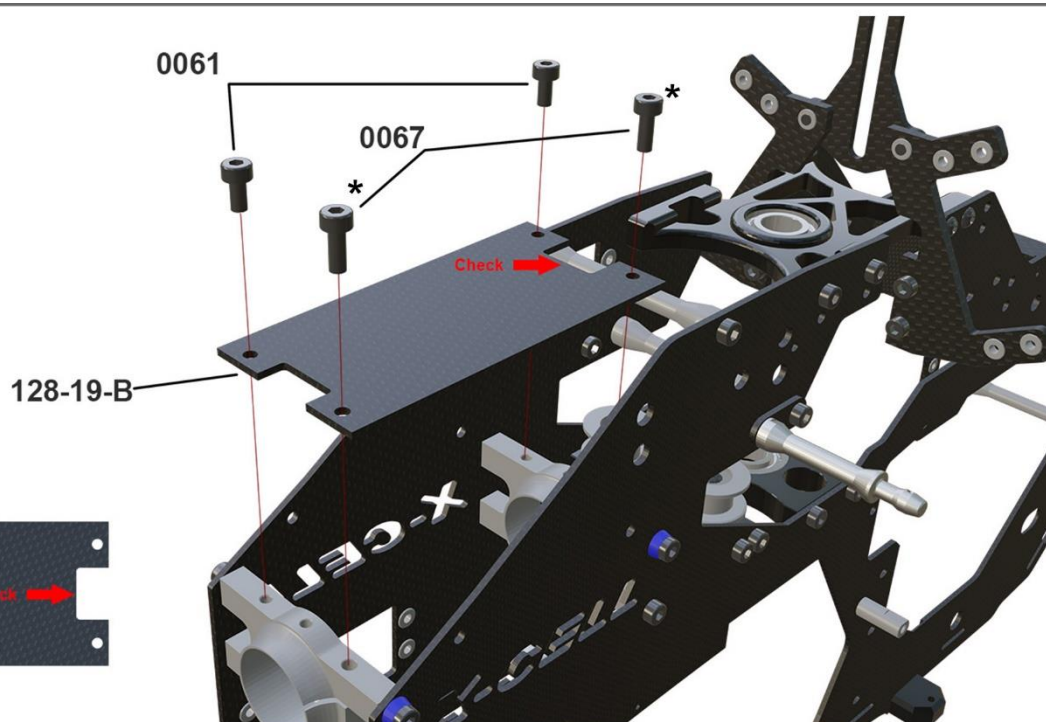
0064-3 x 2



M3 x 6mm



Apply a small amount of medium thread lock when threading into metal parts.



0061 x 2



M3 x 8mm

0067 x 2



M3 x 14mm



\* NOTE: 0067 BOLTS ARE NOT TIGHT AT THIS TIME



Apply a small amount of medium thread lock when threading into metal parts.

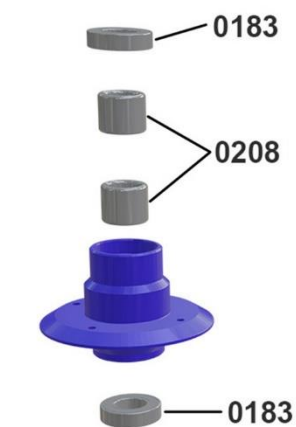




128-46

128-47

ASSEMBLY TIP: M5 THREADS OF PULLEY FACE TO THE BOTTOM OF THE HELICOPTER.



**Factory  
Assembled**

128-450

129-455

0088

0088

**0088**

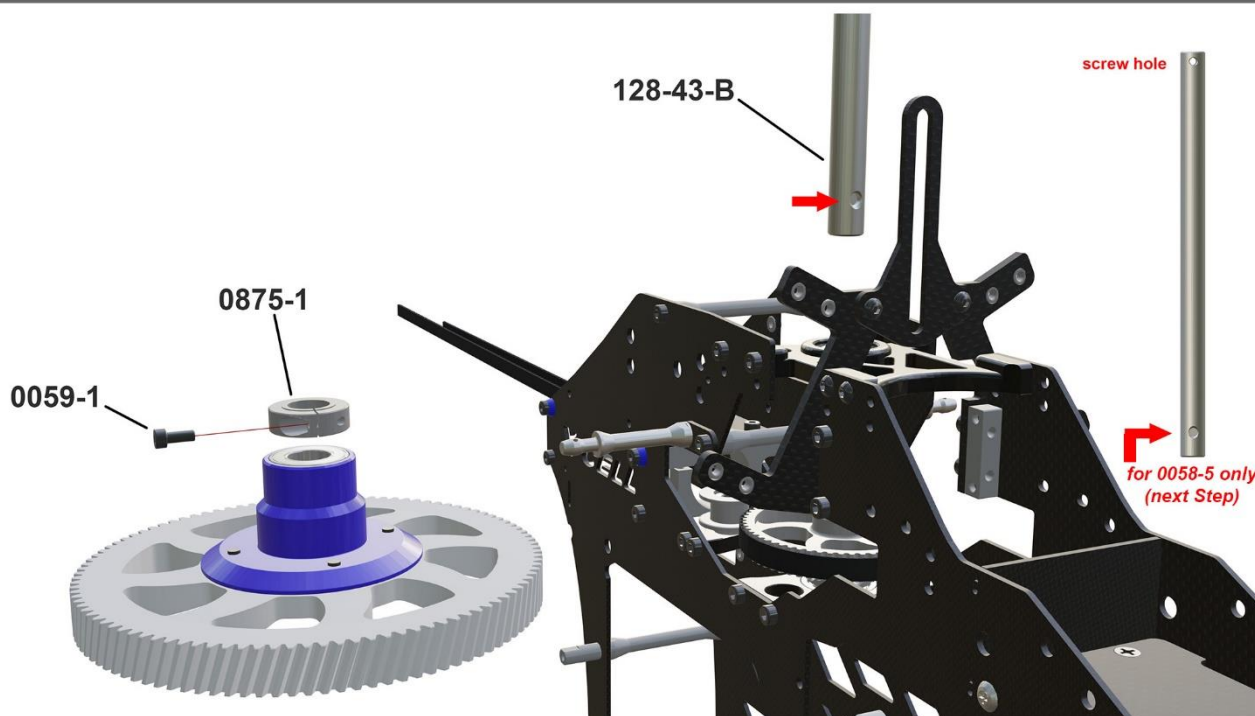
x 4



M3 x 8mm



Apply a small amount  
of medium thread lock  
when threading into  
metal parts.



0059-1 x 1



M2.5 x 6mm

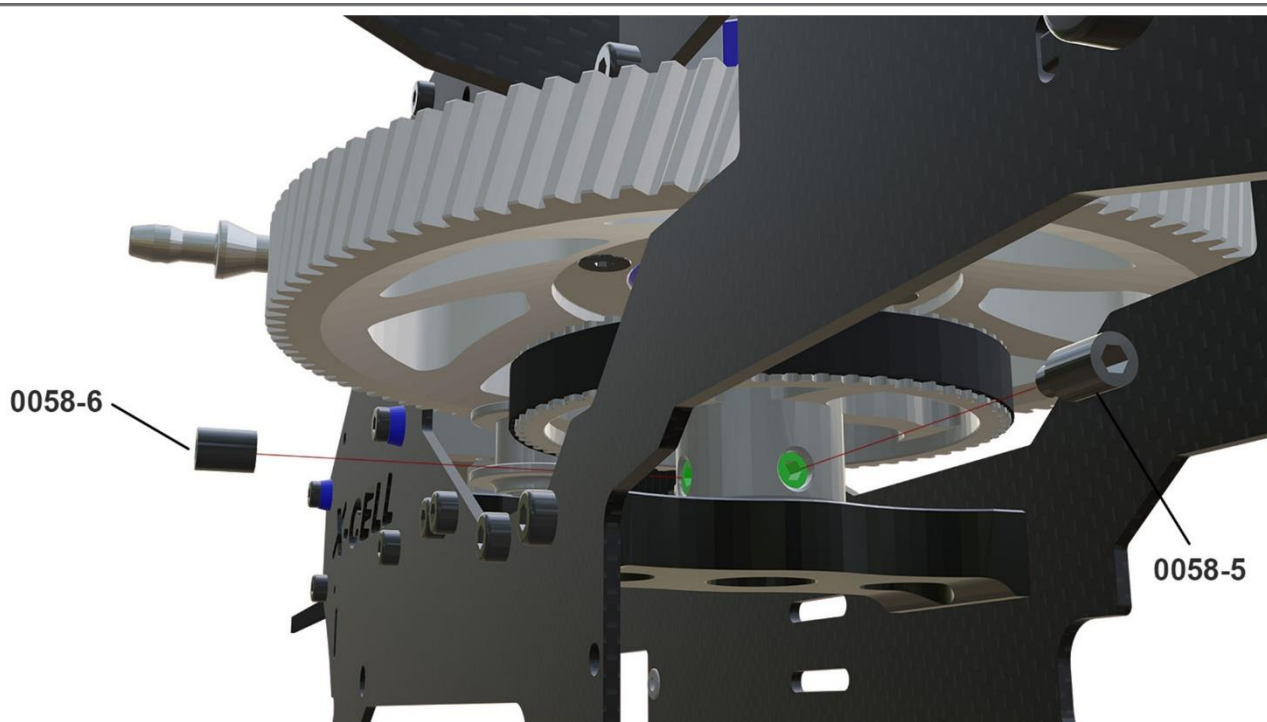
screw hole

for 0058-5 only  
(next Step)

ASSEMBLY TIP: PUT A SMALL AMOUNT OF SYNTHETIC GREASE INTO THE ONE WAY BEARINGS OF PART 128-450 BEFORE INSTALLING THE MAIN SHAFT. TAKE CARE ABOUT THE ORIENTATION OF THE MAIN SHAFT. THE THROUGH HOLE FACES TO THE TOP OF THE HELICOPTER.



Apply a small amount of medium thread lock when threading into metal parts.



0058-5 x 1



M5 x 6mm

0058-6 x 1



M5 x 5mm

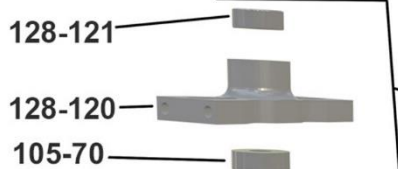
ASSEMBLY TIP: TAKE CARE THAT THE DOG POINT SOCKET SET SCREW 0058-5 WILL SETTLE AT THE DIMPLE OF THE MAIN SHAFT. TIGHTEN THIS SCREW FIRST.



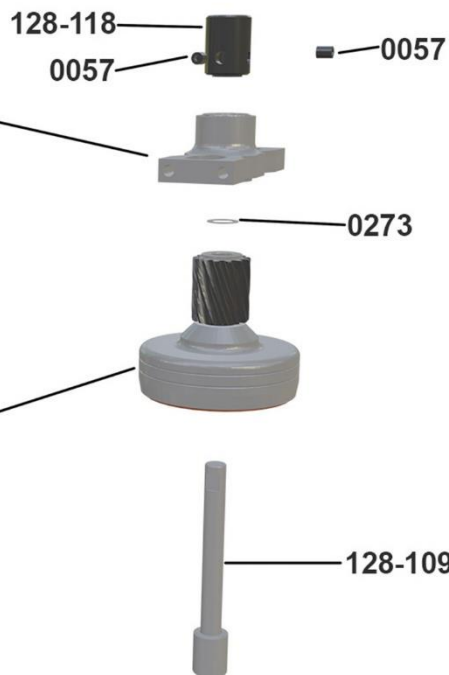
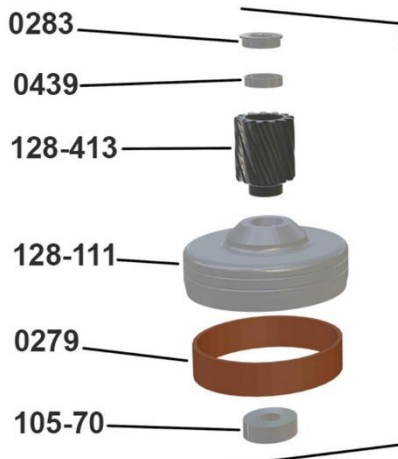
Apply a small amount of medium thread lock when threading into metal parts.



## Factory Assembled



## Factory Assembled



0057 x 1



M4 x 4mm

0273 x 1

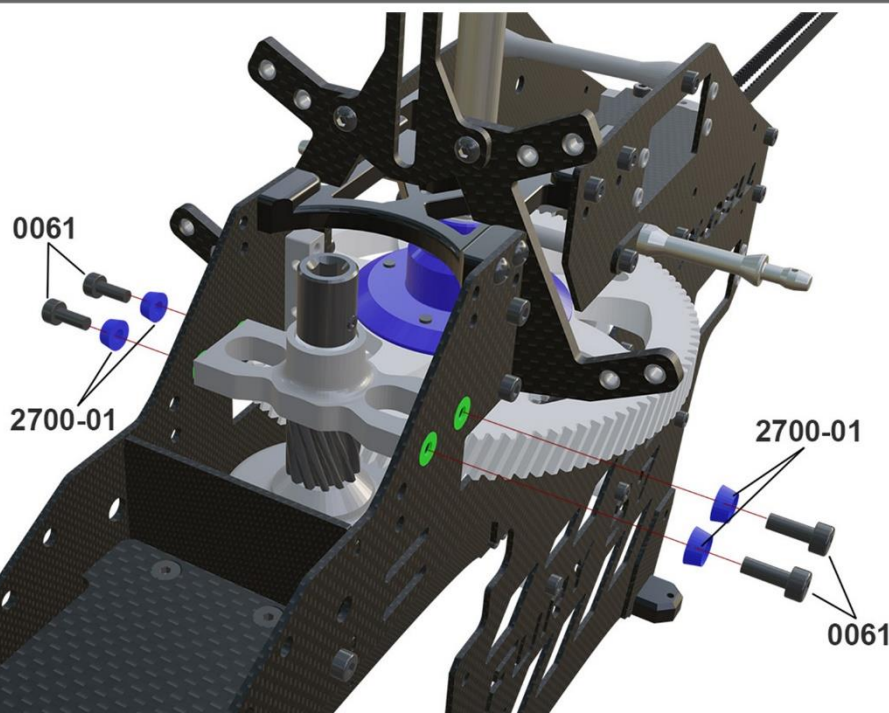


M6 x 10 x .28mm

ASSEMBLY TIP: TAKE CARE THAT ONE OF THE SOCKET SCREWS 0057 WILL SETTLE AT THE FLAT SPOT OF THE 128-109 START SHAFT. TIGHTEN THIS SCREW FIRST. TAKE CARE THAT THERE IS NO VERTICAL PLAY OF THE SHAFT / CLUTCH BELL.



Apply a small amount of medium thread lock when threading into metal parts.



0061 x 4



M3 x 8mm

2700-01 x 4



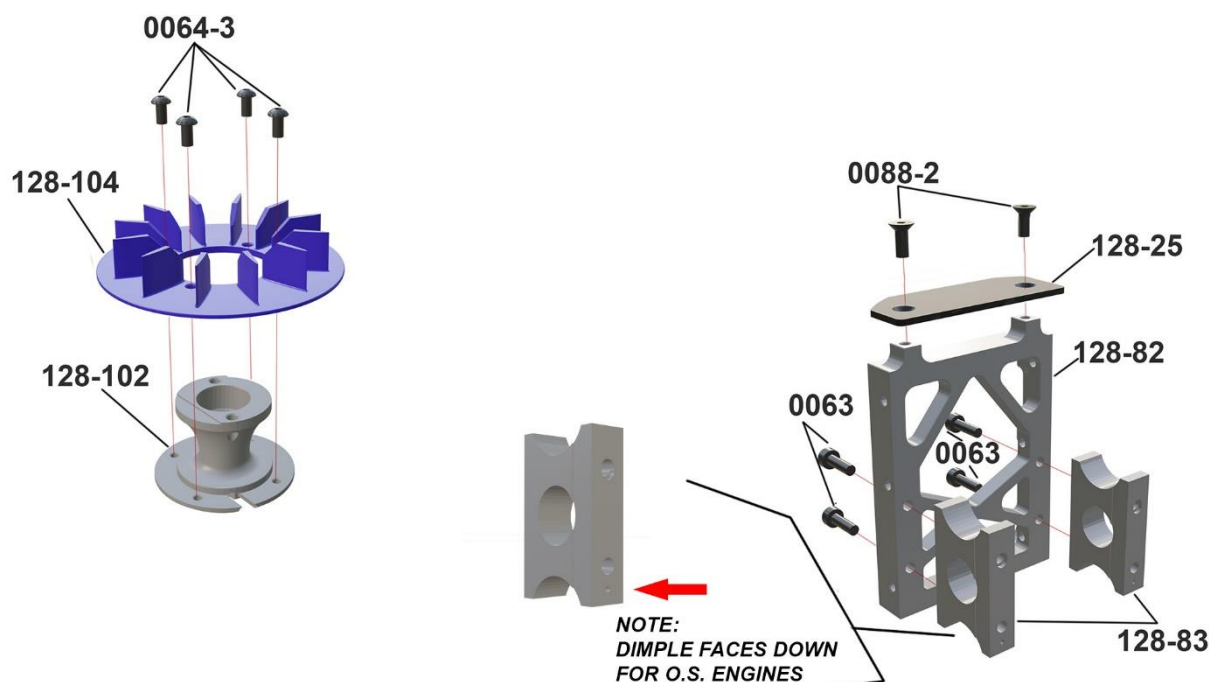
M3 (blue)

ASSEMBLY TIP: TAKE CARE TO SET THE CORRECT GEAR MESH BY MOVING THE CLUTCH ASSEMBLY STACK FORWARD / BACKWARDS. THE MAIN GEAR MAY EXPAND DURING FLIGHT SO IT IS VERY IMPORTANT THAT THE DRIVE TRAIN HAS A CORRECT SET GEAR MESH. YOU CAN USE A SMALL PIECE OF STANDARD PRINTER PAPER AND PUT IT BETWEEN THE TWO GEARS. THEN PRESS THE PINION AGAINST THE MAIN GEAR AND TIGHTEN THE SCREWS 0061. TAKE CARE THAT THE START SHAFT IS PARALLEL TO THE MAIN SHAFT. REMOVE THE PAPER. THEN YOU SHOULD FIND THE GEAR MESH SET CORRECTLY.



Apply a small amount of medium thread lock when threading into metal parts.





ASSEMBLY TIP: TAKE CARE OF THE ORIENTATION OF THE MOTOR MOUNT BLOCKS 128-83. AT ONE SIDE THEY HAVE A SMALL DIMPLE. THE DIMPLE SHALL BE FACING TO THE ENGINE. FOR O.S. ENGINES THE DIMPLES SHOULD BE FACING 'DOWN'.

**0064-3** x 4



M3 x 6mm

**0063** x 4



M3 x 10mm

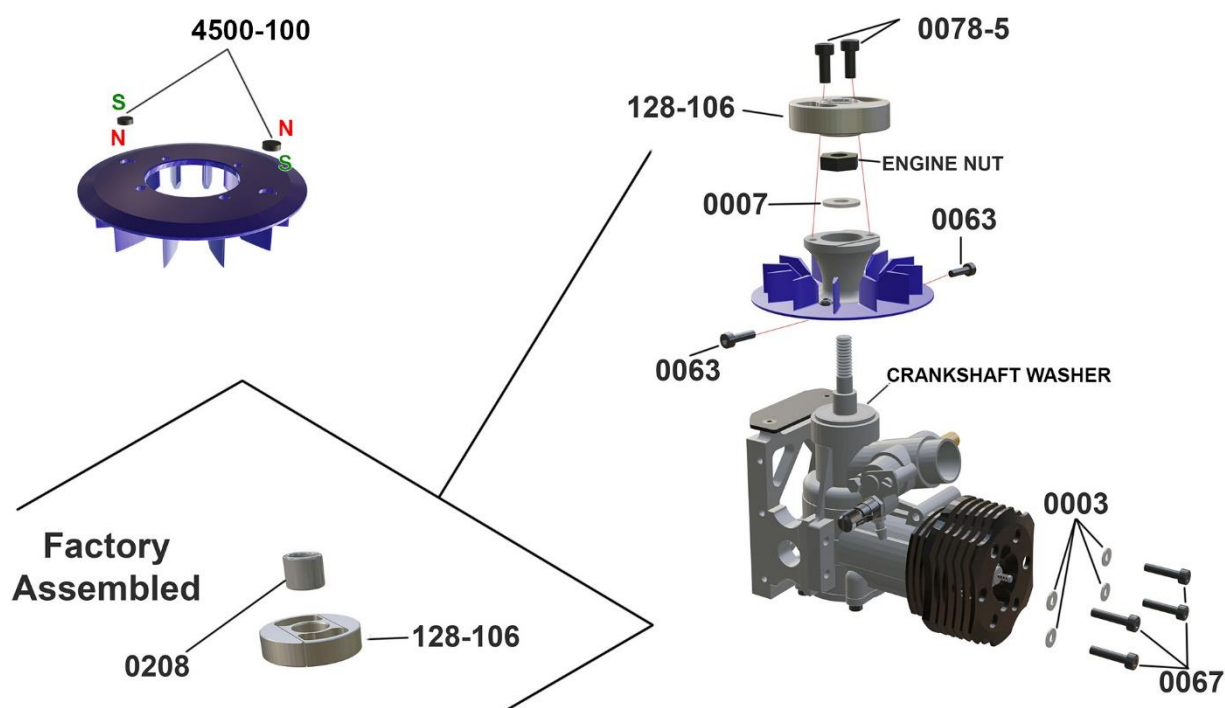
**0088-2** x 2



M3 x 6mm



Apply a small amount of medium thread lock when threading into metal parts.



ASSEMBLY TIP: IF USING A GOVERNOR INSTALL THE MAGNETS AT THE FAN. TAKE CARE OF THE ORIENTATION. ON SHALL BE FACING UP "NORTH" THE OTHER SHALL BE FACING UP "SOUTH". USE SOME HIGH QUALITY TWO-COMPONENT EPOXY LIKE UHU 300 AND LET IT HARDENING. THE MAGNETS ARE INCLUDED IN THE FURY 57 KIT.

**0067** x 4



M3 x 14mm

**0003** x 4



M3

**0063** x 2



M3 x 10mm

**0007** x 1



M6

**0078-5** x 2



M4 x 10mm

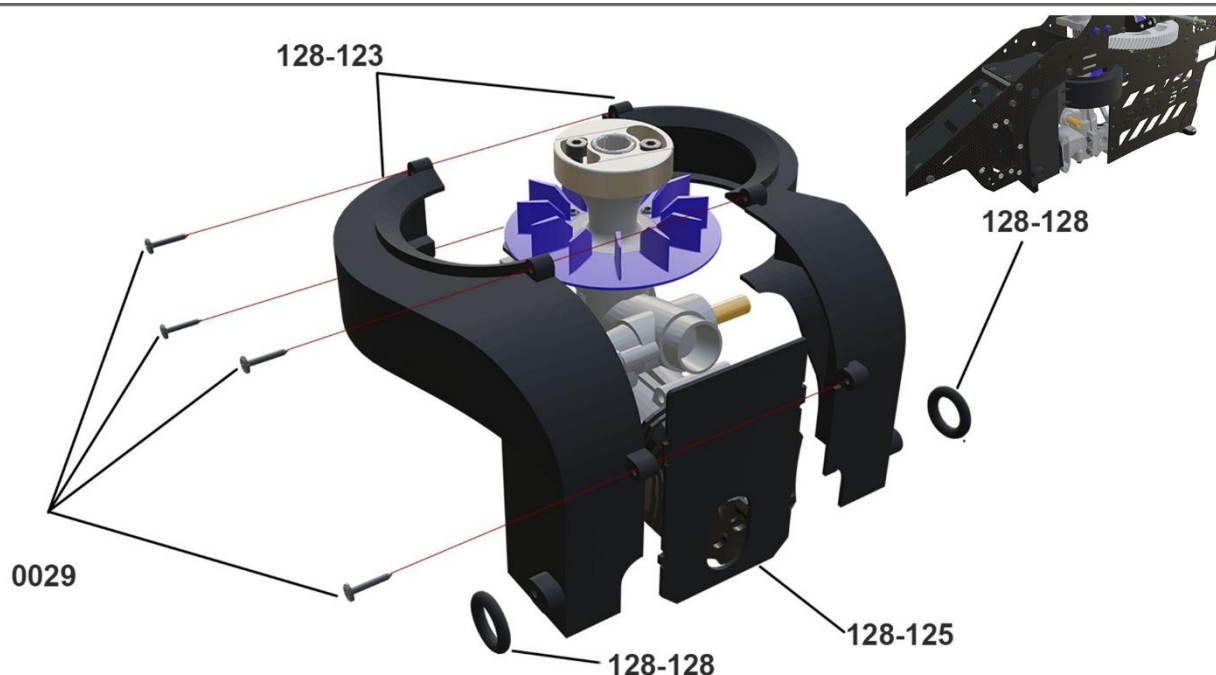
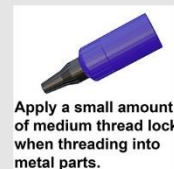


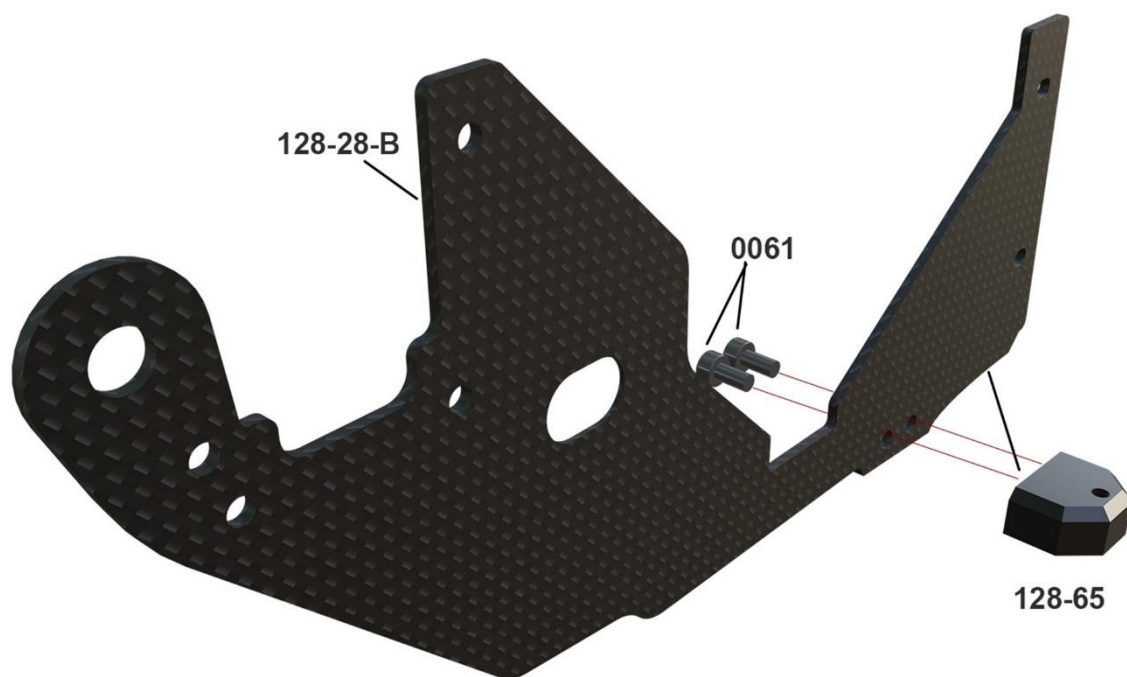
Apply a small amount of medium thread lock when threading into metal parts.



INSTALLING THE PREPARED FAN HUB: TO INSTALL THE FAN HUB YOU SHOULD USE A CRANKSHAFT LOCKING TOOL. TO USE IT YOU HAVE TO REMOVE THE BACK PLATE OF THE ENGINE. TAKE CARE ABOUT THE ORIENTATION AND CORRECT USE OF THE TOOL (SEE ENGINE MANUAL). OTHERWISE YOU CAN DAMAGE THE PISTON / ENGINE. DO NOT USE A PISTON STOPPER WHICH IS INSTALLED AT THE GLOW PLUG BORE. DON'T FORGET TO INSTALL THE WASHER BETWEEN THE HUB AND THE ENGINE WHICH IS INCLUDED WITH THE ENGINE. PUT A VERY SMALL AMOUNT OF THREAD LOCK ON THE ENGINE NUT AND TIGHTEN IT SLIGHTLY. TAKE CARE THAT THE CRANKSHAFT HAS NO AXIAL PLAY - THIS IS VERY IMPORTANT. THEN TIGHTEN THE SCREWS 0063 ALTERNATELY AND CHECK RUNOUT OF THE HUB BY USING A DIAL GAUGE TOUCHING THE INNER DIAMETER OF THE FAN HUB. THE TOTAL RUNOUT SHALL BE LESS THAN 0.025MM OR 0.001". YOU CAN ADJUST THE RUNOUT BY ALTERNATELY TIGHTENING / RELEASING THE SCREWS 0063. IF THE RUNOUT IS OKAY THEN TIGHTEN THE ENGINE NUT CAREFULLY.

BEFORE INSTALLING THE CLUTCH PUT A VERY SMALL AMOUNT OF SYNTHETIC GREASE INTO THE ONE WAY BEARING. MOUNT THE ENGINE AT THE MOTOR MOUNT BUT DO NOT TIGHTEN THE SCREWS AT THIS POINT COMPLETELY. IT SHOULD BE POSSIBLE TO MOVE THE ENGINE WITHIN THE MOUNTING BORES.





0061 x 2

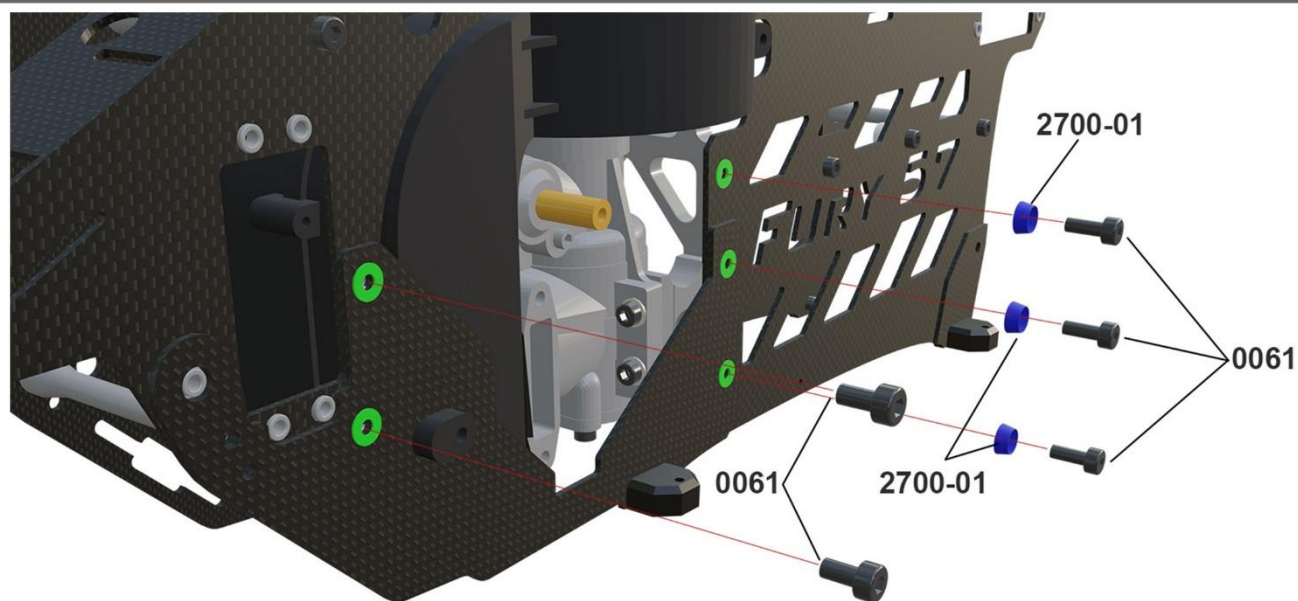


M3 x 8mm

128-65



Apply a small amount of medium thread lock when threading into metal parts.



0061 x 5



M3 x 8mm

2700-01 x 3



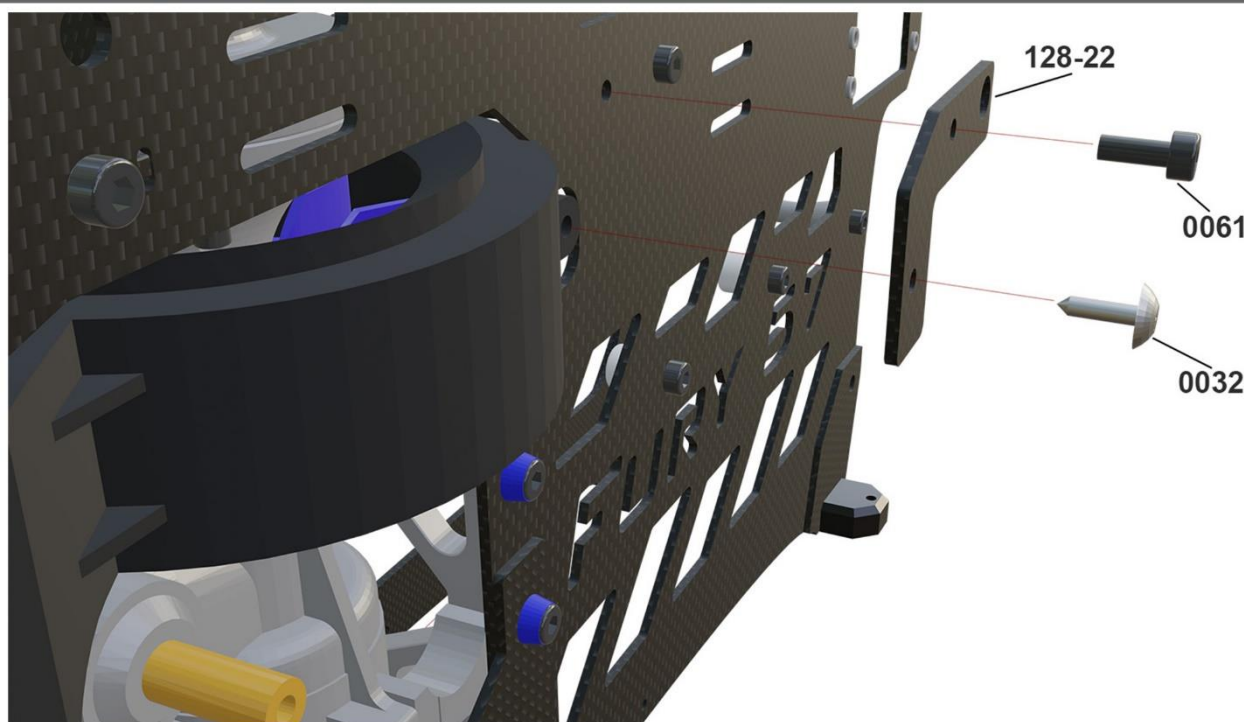
M3 (blue)

ASSEMBLY TIP: DO NOT TIGHTEN THE THREE SCREWS WHICH HOLD THE MOTOR MOUNT AT THIS POINT.



Apply a small amount of medium thread lock when threading into metal parts.





0061 x 1



M3 x 8mm

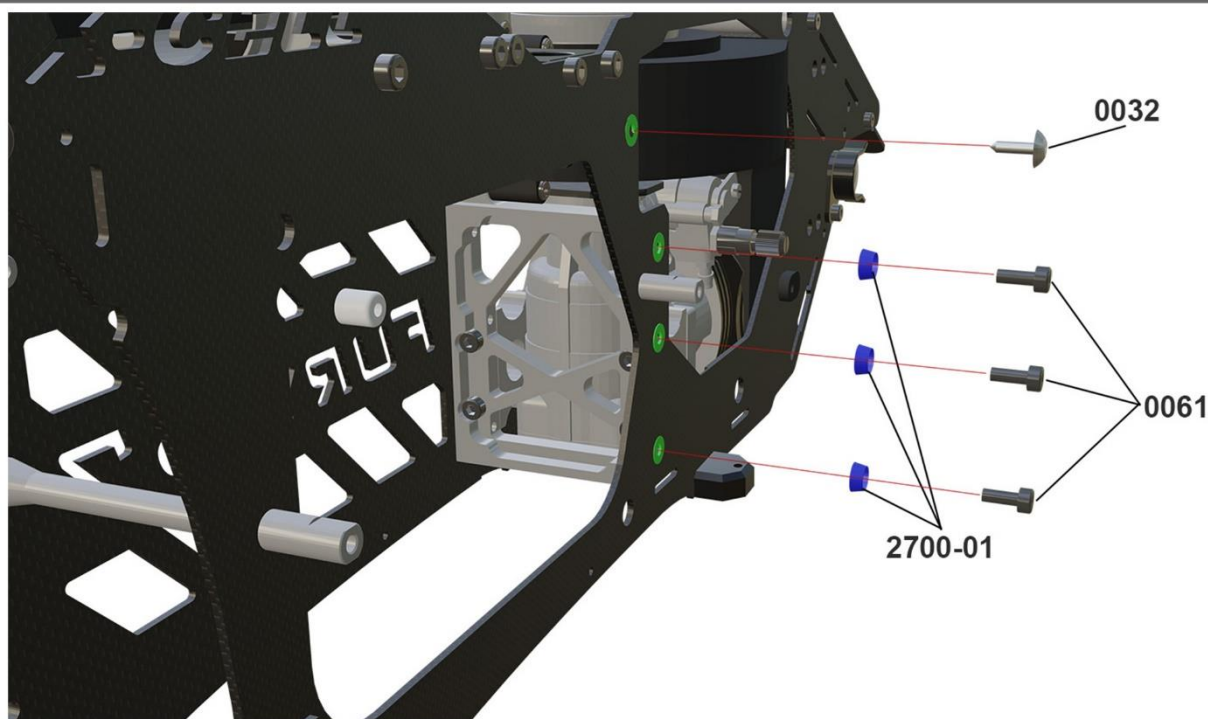
0032 x 1



M2.9 x 9.5mm



Apply a small amount of medium thread lock when threading into metal parts.



0061 x 3



M3 x 8mm

0032 x 1



M2.9 x 9.5mm

2700-01 x 3

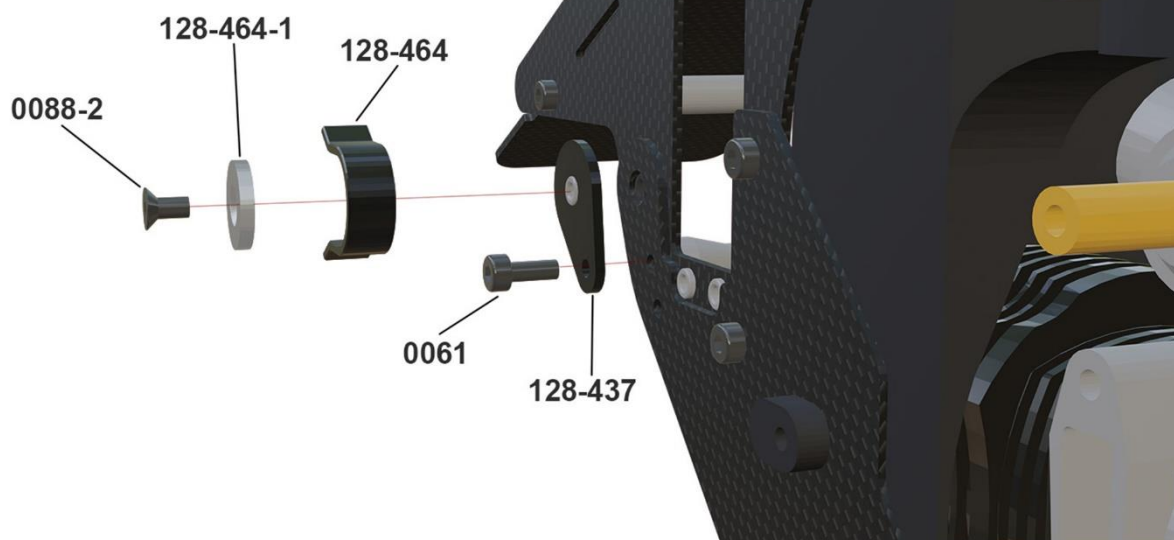


M3 (blue)



Apply a small amount of medium thread lock when threading into metal parts.

ASSEMBLY TIP: BEFORE TIGHTENING THE SCREWS WHICH HOLD THE MOTOR MOUNT PLEASE CHECK THE ALIGNMENT OF THE ENGINE BY ROTATING THE START SHAFT CLOCK WISE. MOVE THE COMPLETE ENGINE FORWARD / BACKWARD TO FIND A POSITION WHERE THE START SHAFT CAN BE ROTATED EASILY. THEN TIGHTEN THE ENGINE SCREWS AND THE SCREWS WHICH HOLD THE MOTOR MOUNT. CHECK THE START SHAFT AGAIN AND REPEAT THIS PROCEDURE IF THE START SHAFT CANNOT BE ROTATED CLOCKWISE FREELY.



**0061** x 1



M3 x 8mm

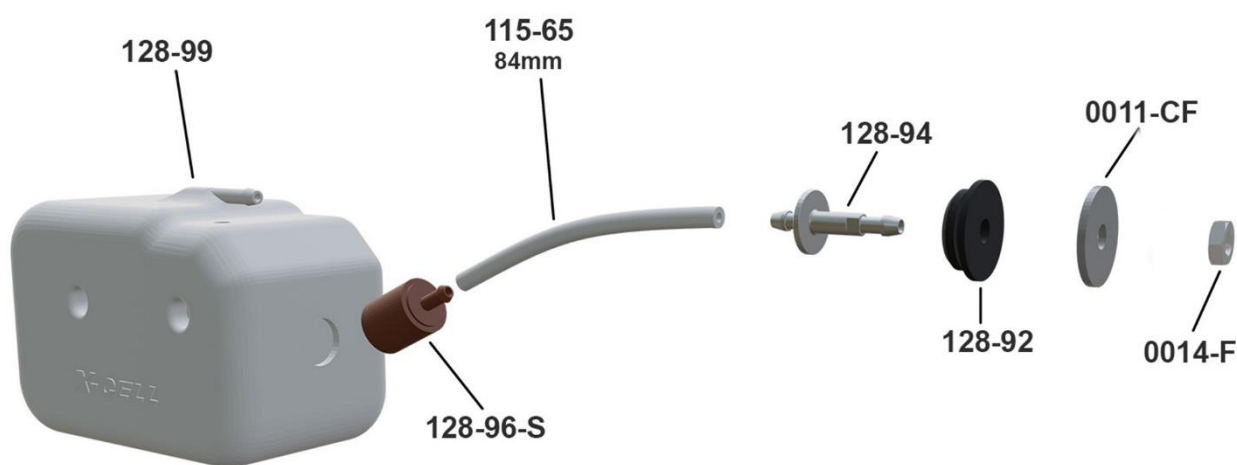
**0088-2** x 1



M3 x 6mm



Apply a small amount of medium thread lock when threading into metal parts.



**0014-F** x 1



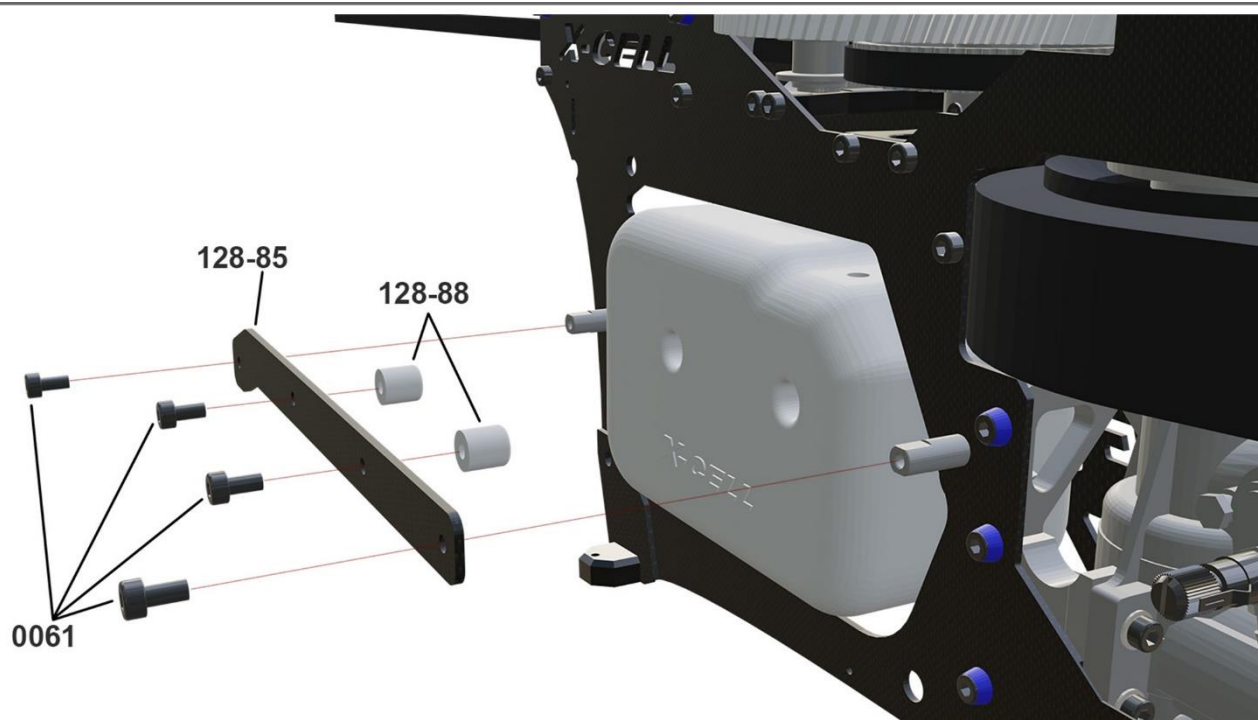
M5 (fine)

**0011-CF** x 1



M5 CF

ASSEMBLY TIP: DO NOT APPLY THREAD LOCK TO THE NUT 0014-F. DO NOT OVERTIGHTEN. IF THE TANK STARTS LEAKING AT THIS OPENING JUST TIGHTEN THE NUT ABOUT 1/2 OR 1 TURN.



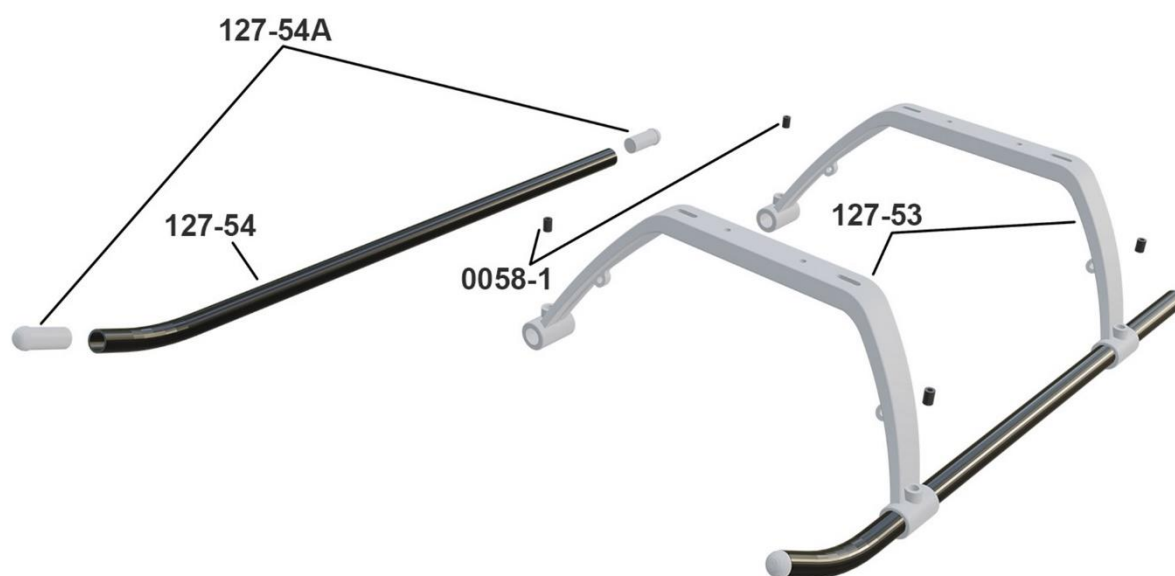
0061 x 4



M3 x 8mm



Apply a small amount of medium thread lock when threading into metal parts.

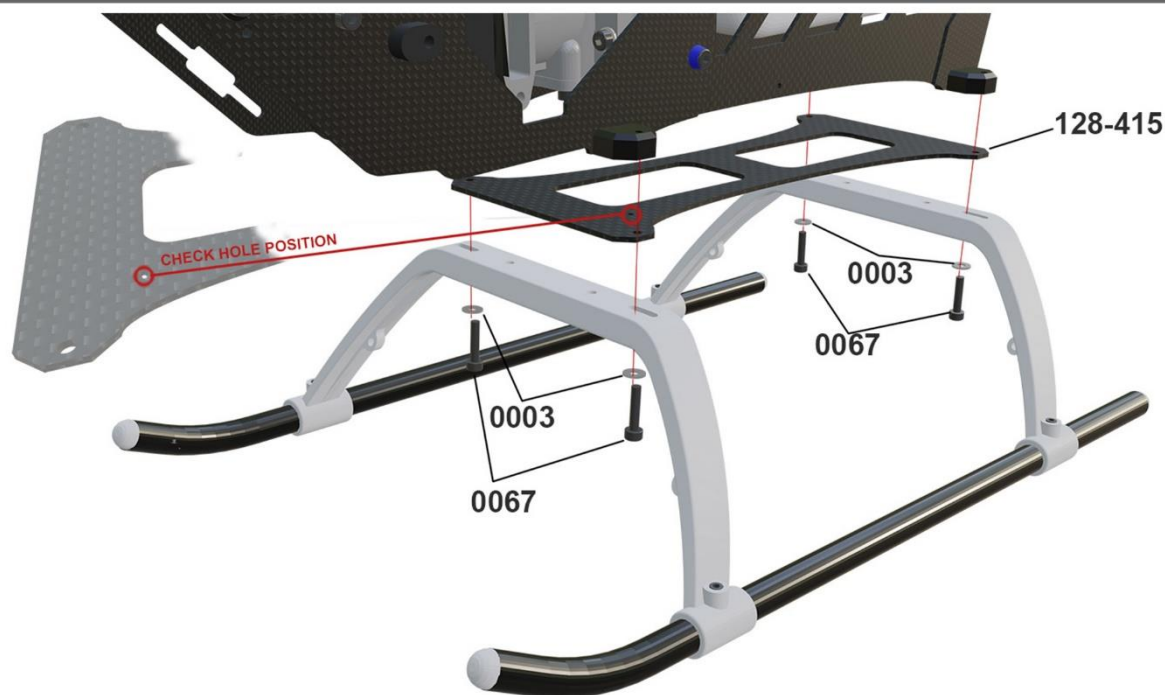


0058-1 x 4



M4 x 6mm





0067 x 4



M3 x 14mm

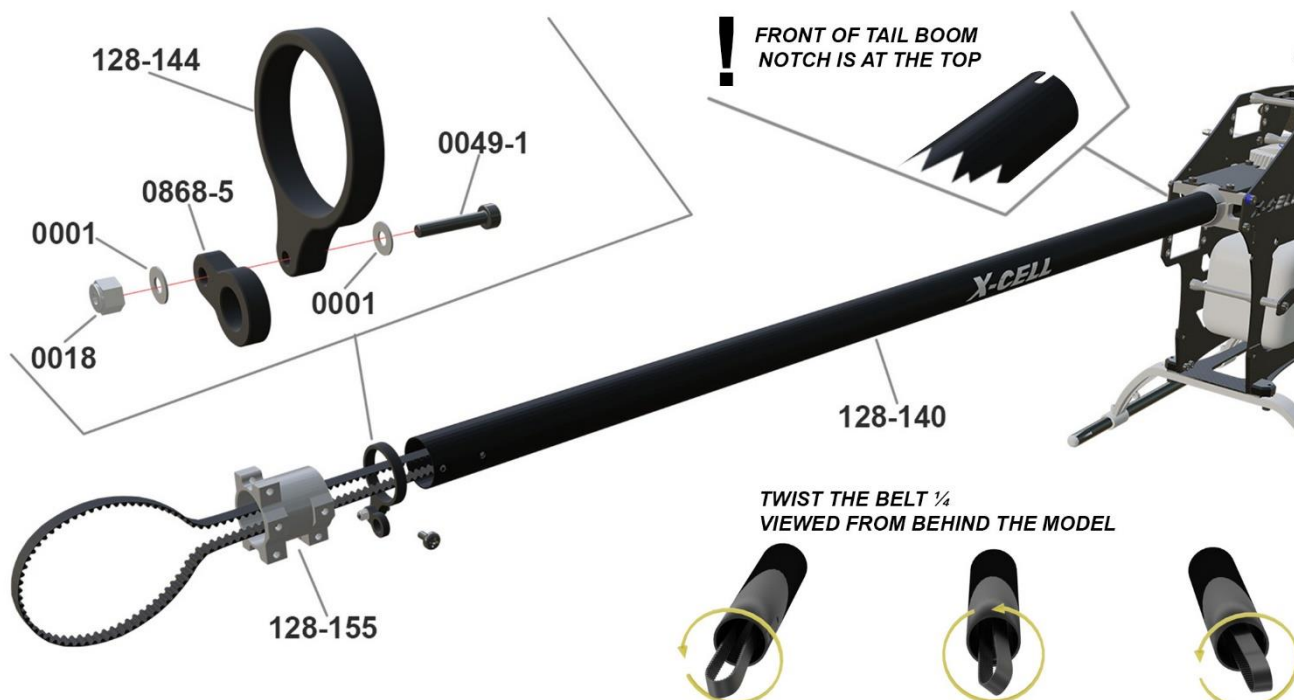
0003 x 4



M3



Apply a small amount of medium thread lock when threading into metal parts.



0049-1 x 1



M2 x 12mm

0001 x 2



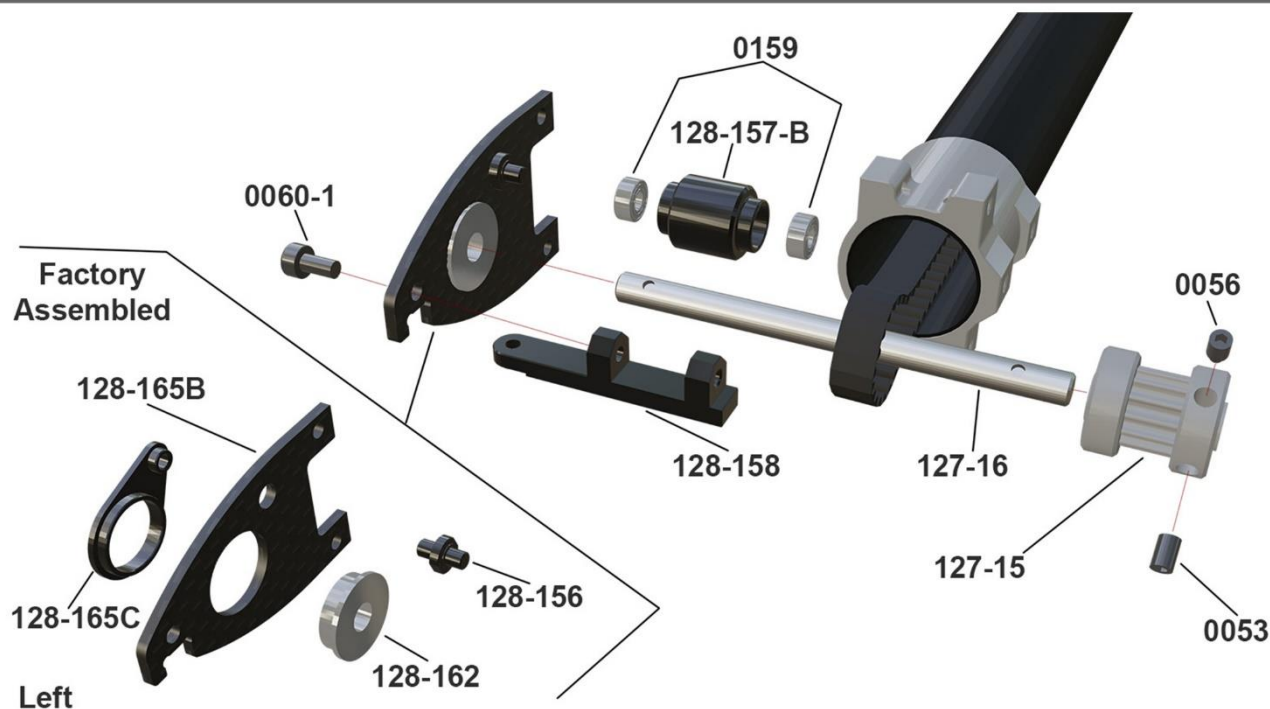
M2

0018 x 1



M2

ASSEMBLY TIP: DO NOT ASSEMBLE PART 0868-5 AT PART 128-144 AT THIS STEP. PART 0868-5 FIRST HAS TO BE INSTALLED AT THE CARBON FIBER TAIL PUSH ROD BEFORE ASSEMBLING THE END CAPS OF THE PUSH ROD! DO NOT TIGHTEN THE SCREWS OF THE FRONT BOOM CLAMPS WHICH CLAMP THE BOOM AT THIS POINT. USE SOM FILAMENT TO DRAW THE BELT THROUGH THE BOOM. TAKE CARE TO ONLY TWIST THE BELT BY 1/4 ROTATION. OTHERWISE THE BELT WOULD BE ACROSS AND WOULD BE DESTROYED WITHIN THE FIRST FLIGHT.



ASSEMBLY TIP: TAKE CARE THAT THE DOG POINT SOCKET SET SCREW 0056 WILL SETTLE AT THE DIMPLE OF THE TAIL SHAFT. TIGHTEN THIS SCREW FIRST.

**0060-1** x 1



M3 x 6mm

**0053** x 1



M3 x 5mm

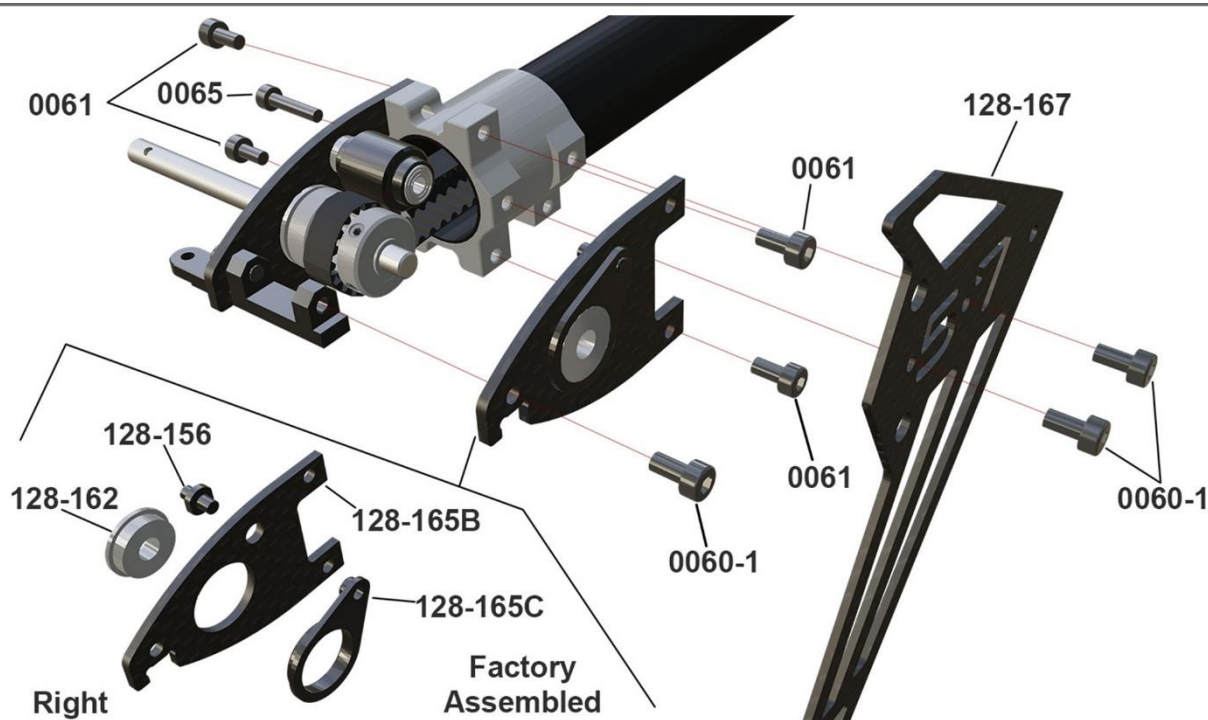
**0056** x 1



M3 x 5mm



Apply a small amount of medium thread lock when threading into metal parts.



**0060-1** x 3



M3 x 6mm

**0065** x 1



M3 x 12mm

**0061** x 4

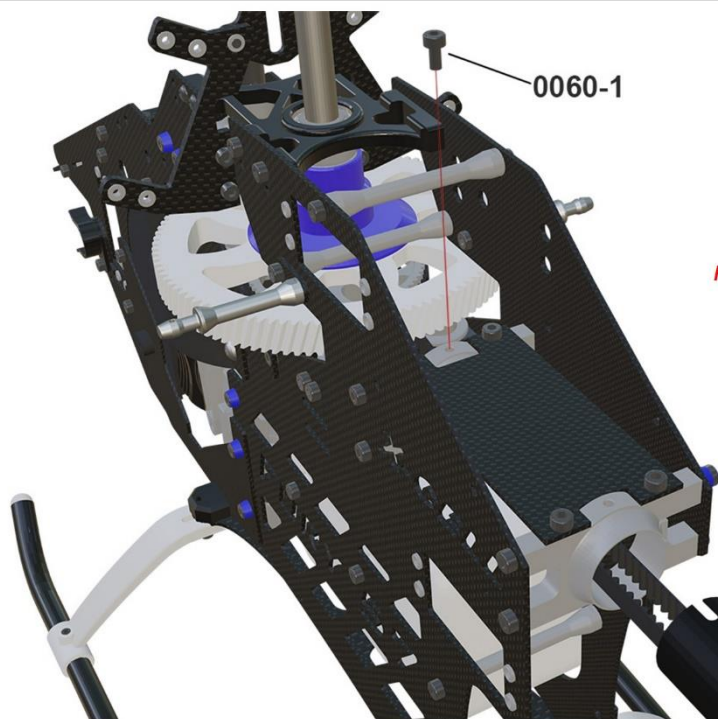


M3 x 8mm



Apply a small amount of medium thread lock when threading into metal parts.





FIRST TIGHTEN TWO 0067

THAN THIS BOTH

0060-1 x 1

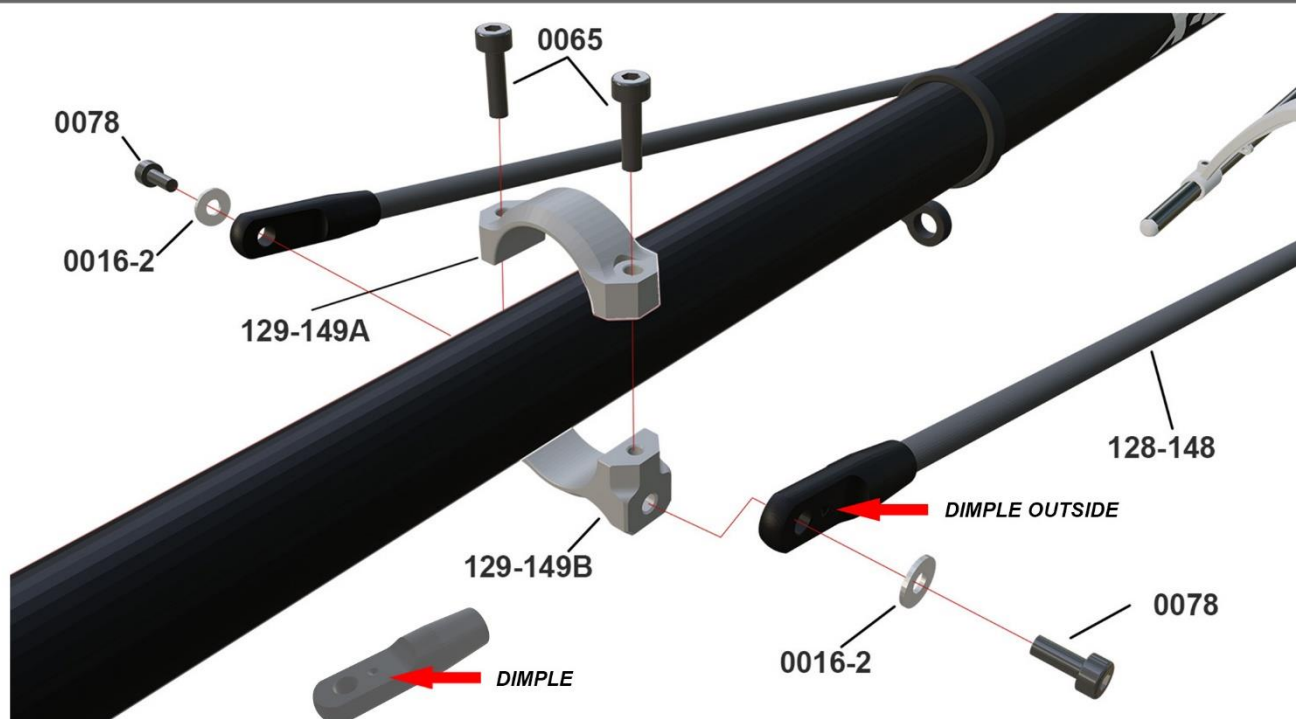


M3 x 6mm

ASSEMBLY TIP: AFTER ASSEMBLING THE TAIL CASE NEXT STEP IS TO SPAN THE BELT. TO DO THIS FIRST PULL THE BOOM BACKWARDS AND INSTALL THE 0060-1 BOLT AT THE MIDDLE THREAD OF THE BOOM CLAMP FACING TO THE FRONT. THEN PULL THE TAIL BOOM BACKWARDS AT A FORCE OF ABOUT 3 LB / 1.5KG / 15N. TAKE CARE THAT THE TAIL OUTPUT SHAFT IS RECTANGULAR TO THE MAINSHAFT AND TIGHTEN THE TWO 0067 SCREWS AT THE FRONT BOOM CLAMPS. DON'T FORGET TO ALSO TIGHTEN THE TWO BOLTS ON THE RIGHT UPPER SIDE OF THE FRAME WHICH HOLD THE FRONT BOOM CLAMPS.



Apply a small amount of medium thread lock when threading into metal parts.



0078 x 2



M4 x 12mm

0065 x 2



M3 x 12mm

0016-2 x 2



M4

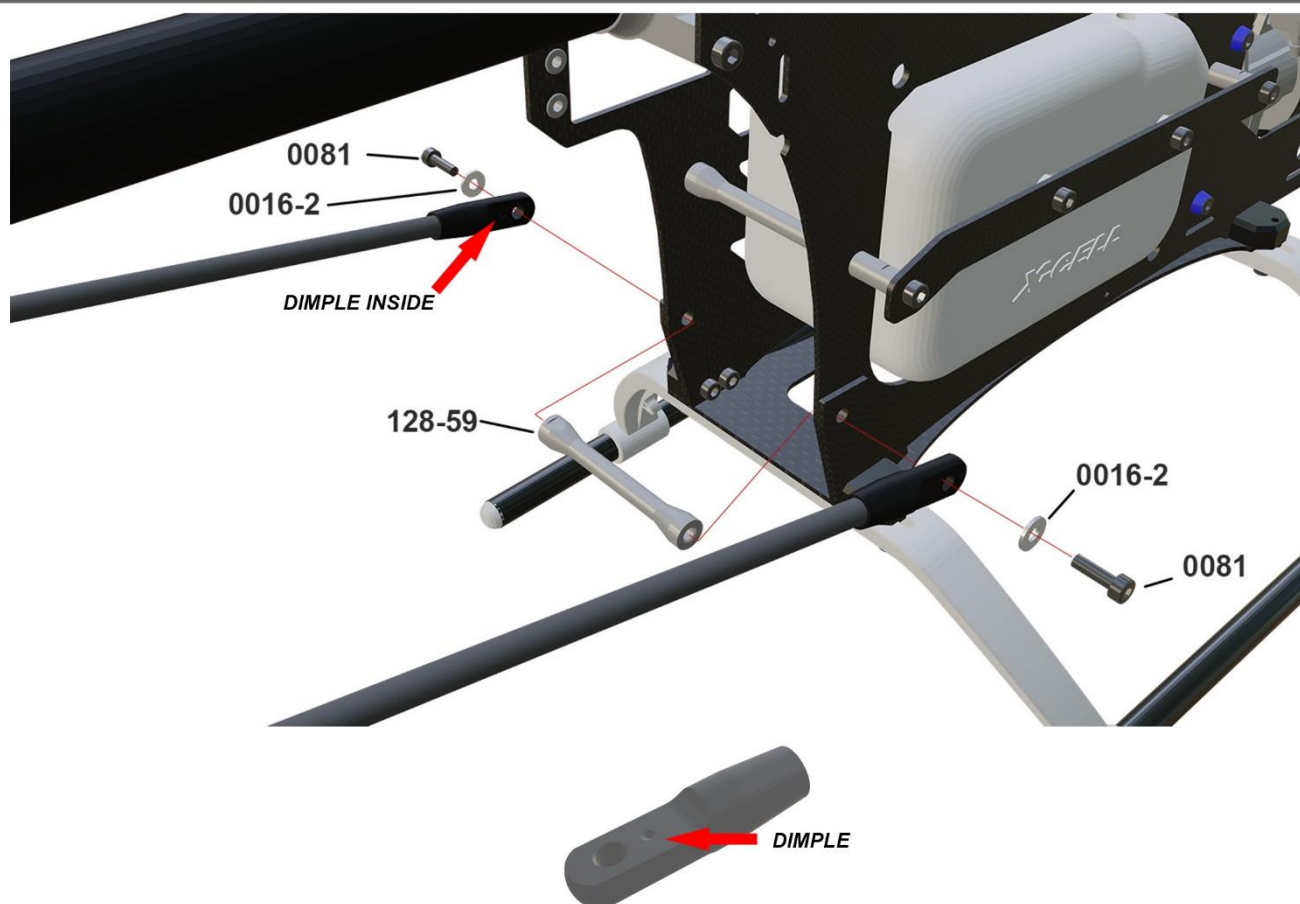


Apply a small amount of medium thread lock when threading into metal parts.

ASSEMBLY TIP: THE ALUMINUM BOOM SUPPORT ENDS HAVE A DIMPLE ON ONE SIDE. THE DIMPLE INDICATES A SLIGHT ANGLE BUILT IN TO THIS PART. ON THE BOOM SUPPORT ASSEMBLY SIDE THAT ATTACHES TO THE MAIN FRAME, THE DIMPLE WILL BE FACING "IN". DO NOT FORGET TO USE THREAD LOCK AND THE LOCKING WASHERS 0016-2 WHEN INSTALLING THE BOOM SUPPORTS.

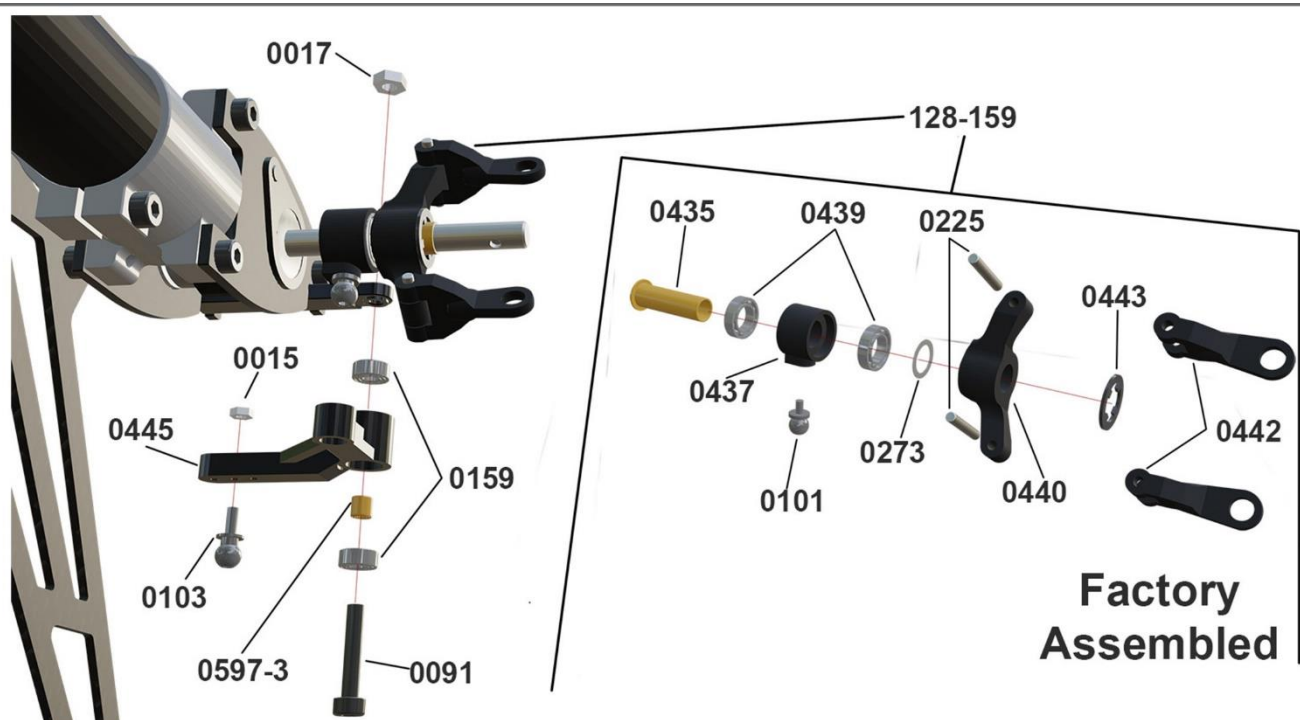
DO NOT OVERTIGHTEN THE BOLTS 0065. THIS WOULD DESTROY THE ALUMINUM BOOM. TIGHTEN THEM ALTERNATELY.





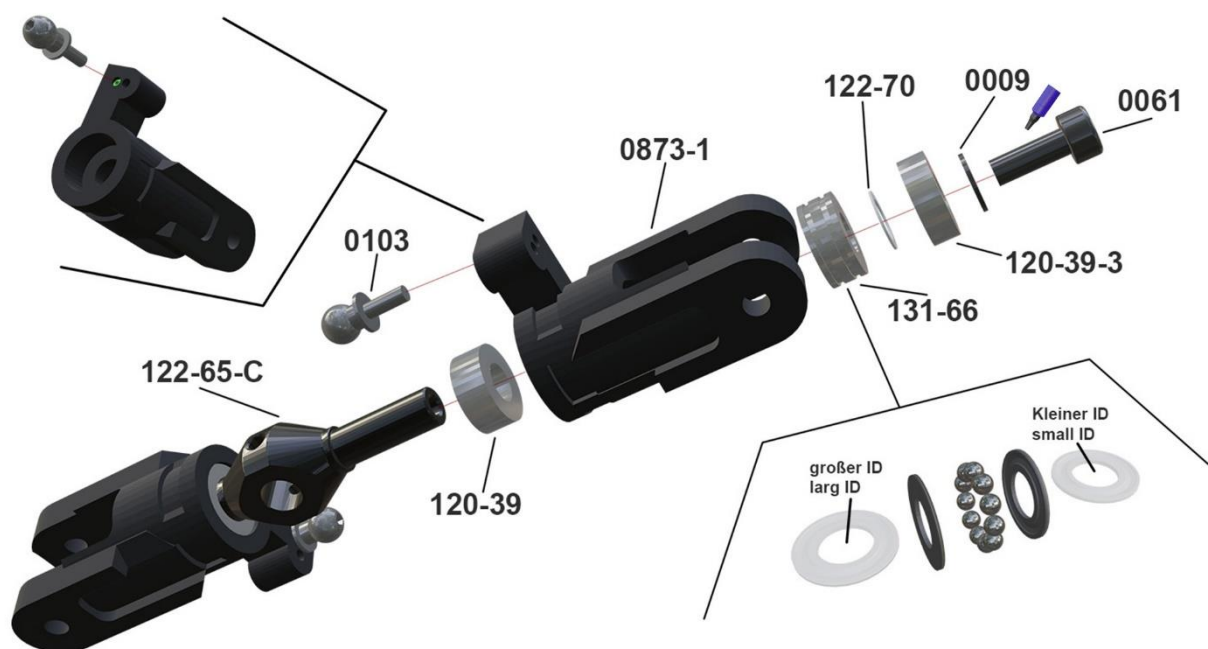
- 0081** x 2
- M4 x 16mm
- 0016-2** x 2
- M4

Apply a small amount of medium thread lock when threading into metal parts.



- 0091** x 1
- M3 x 16mm
- 0017** x 1
- M3
- 0015** x 1
- M2
- 0103** x 1
- M2 x 5.3

Apply a small amount of medium thread lock when threading into metal parts.



**0061** x 2



M3 x 8mm

**0009** x 2



M3 (small)

**122-70** x 2



M5 x .25mm

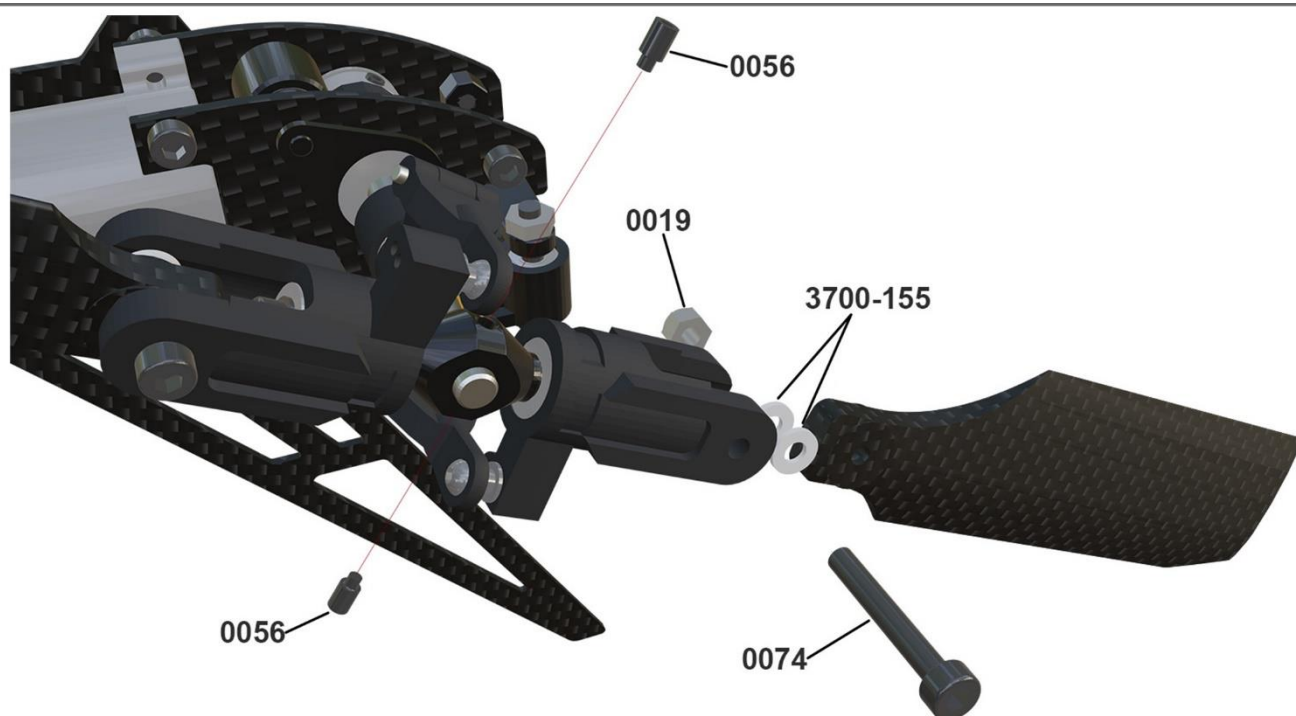
**0103** x 2



M2 x 5.3



Apply a small amount of medium thread lock when threading into metal parts.



**0074** x 2



M3 x 22mm

**0019** x 2



M3

**0056** x 2

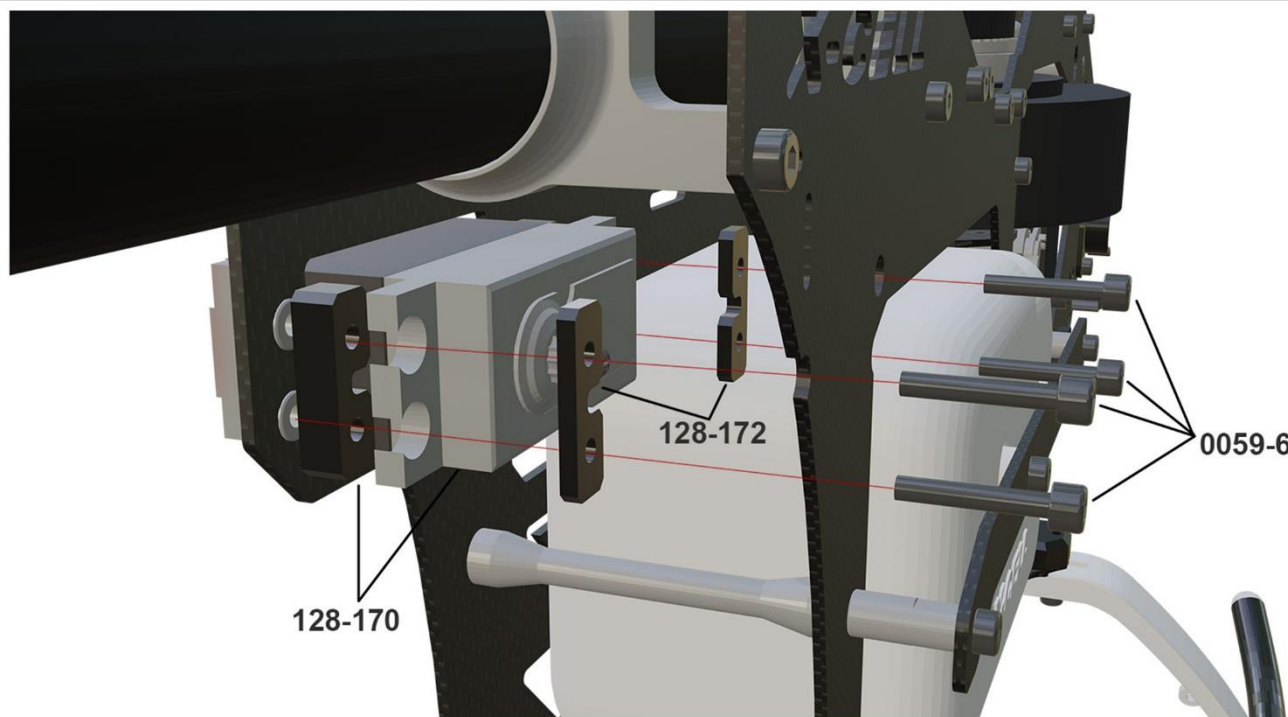


M3 x 5mm



Apply a small amount of medium thread lock when threading into metal parts.

ASSEMBLY TIP: TAKE CARE THAT THE DOG POINT SOCKET SET SCREWS 0056 WILL SETTLE AT THE DIMPLES OF THE TAIL SHAFT. FIRST INSTALL THE SCREWS THAT THEY SETTLE CORRECTLY AT THE DIMPLES BUT DO NOT TIGHTEN THEM. THEN TIGHTEN ONE OF BOLTS FIRMLY AND THEN THE OTHER ONE SLIGHTLY LESS.



0059-6 x 4



M2.5 x 16mm

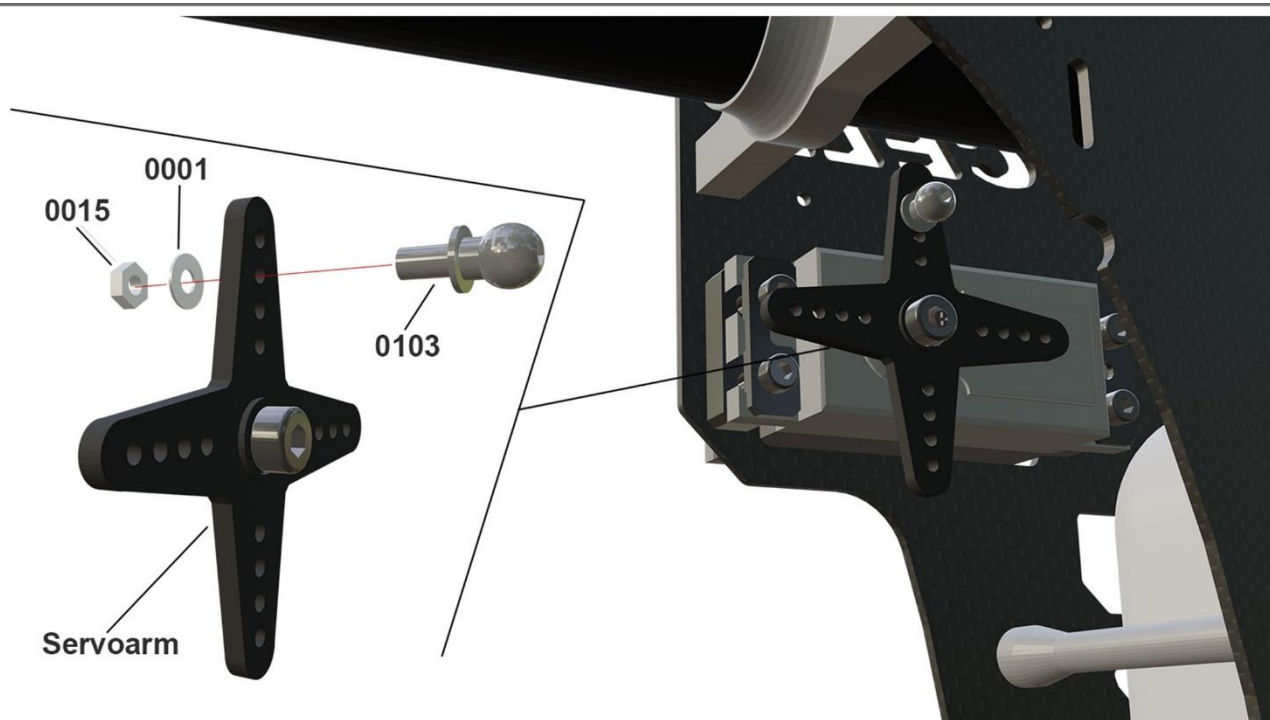
0059-6

128-172

128-170



Apply a small amount of medium thread lock when threading into metal parts.



0001 x 1



M2

0015 x 1



M2

0103 x 1



M2 x 5.3

Servoarm

TAIL SERVO ARM: MOUNT THE THREADED CONTROL BALL INTO THE SERVO HORN 14-17MM FROM THE CENTER OF THE HORN.



Apply a small amount of medium thread lock when threading into metal parts.





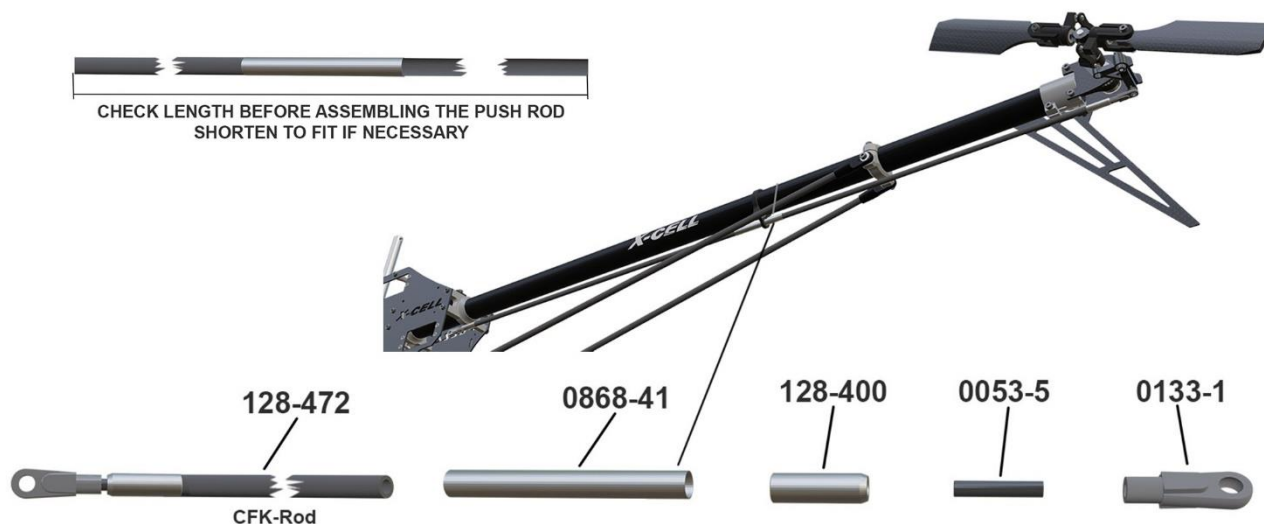
0053-5 x 2



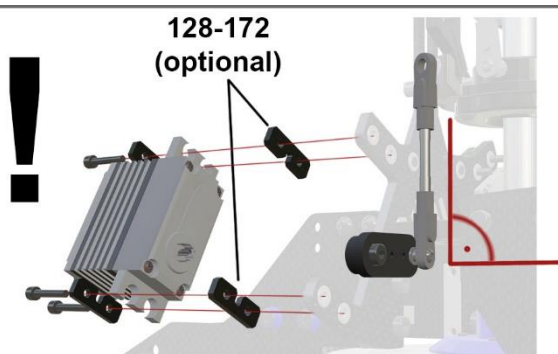
M3 x 16mm



CHECK LENGTH BEFORE ASSEMBLING THE PUSH ROD  
SHORTEN TO FIT IF NECESSARY



ASSEMBLY TIP: INSTALL THE 0053-5 SET SCREWS INTO THE PUSH ROD ENDS USING THREAD LOCK. INSTALL 0868-41 AND 0868-5 BEFORE INSTALLING THE PUSH ROD ENDS. PUT ALL PARTS TOGETHER AND CHECK LENGTH OF THE PUSH ROD. SHORTEN CARBON TUBE IS NECESSARY. USE SOME HIGH QUALITY TWO-COMPONENT EPOXY TO GLUE THE PUSH ROD ENDS AND PART 0868-41 TO THE CARBON TUBE. PUT EPOXY AT THE INSIDE AND THE OUTSIDE OF THE CARBON TUBE TO GLUE THE PUSH ROD ENDS AT IT.

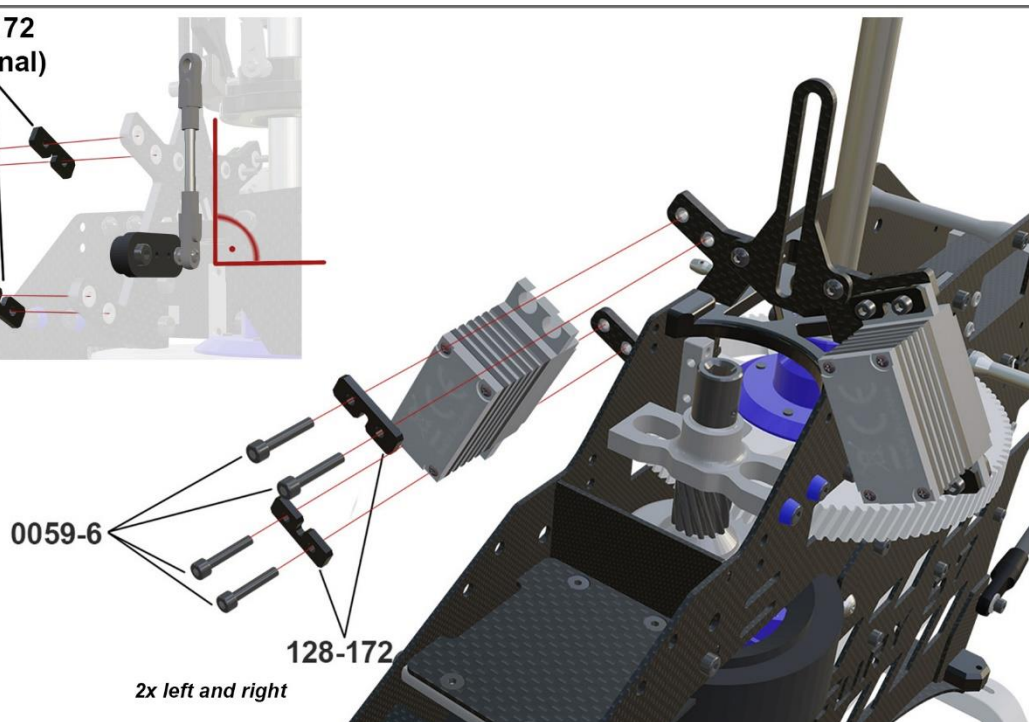


128-172  
(optional)

0059-6 x 8



M2.5 x 16mm



Apply a small amount  
of medium thread lock  
when threading into  
metal parts.



128-170

128-172

0059-6

0059-6 x 4



M2.5 x 16mm



Apply a small amount of medium thread lock when threading into metal parts.

0059-3

128-172

0059-3 x 4

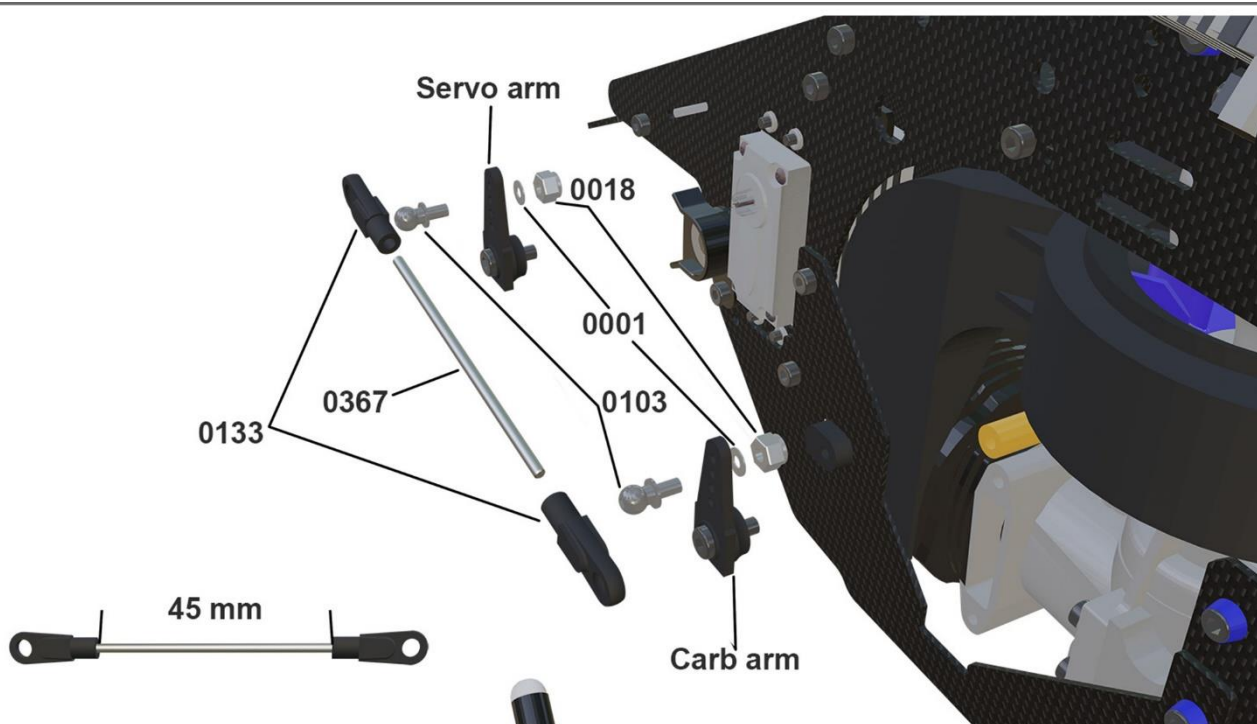


M2.5 x 10mm

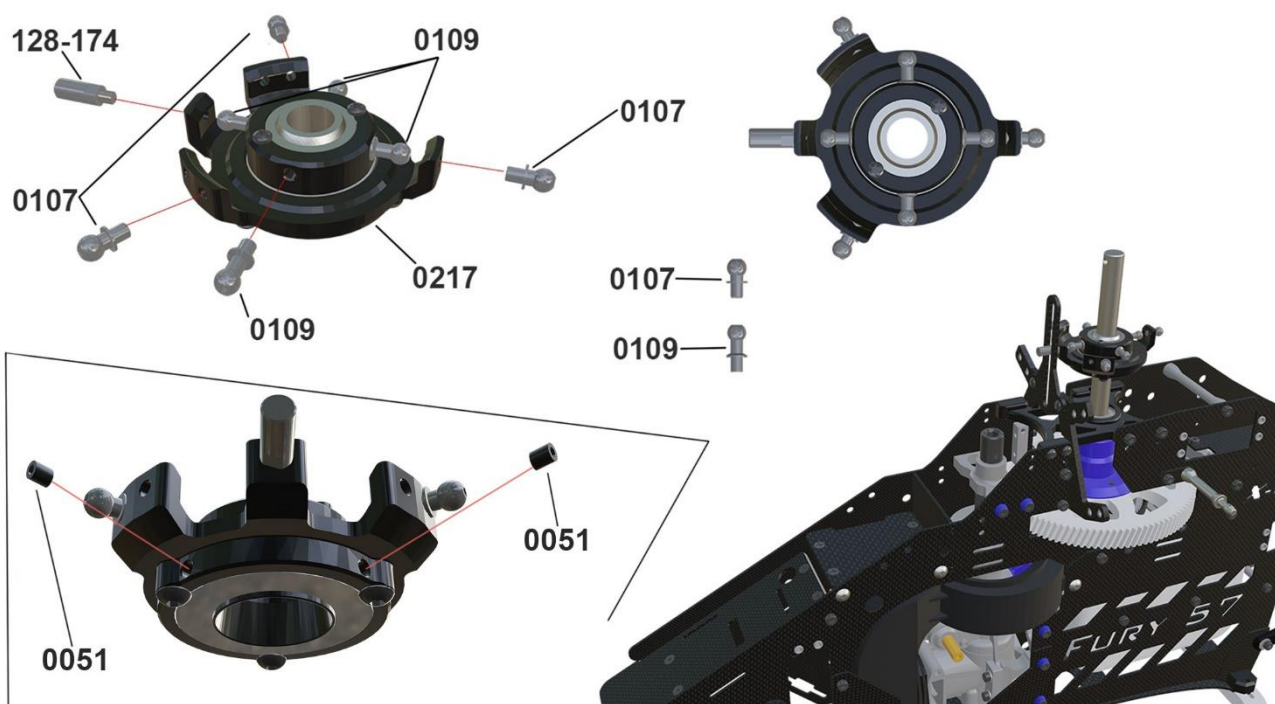


Apply a small amount of medium thread lock when threading into metal parts.





0001	x 2
M2	
0018	x 2
M2	
0103	x 2
M2 x 5.3	



0107	x 3
M3 x 6mm	
0109	x 4
M3 x 8mm	
0051	x 2
M3 x 3mm	

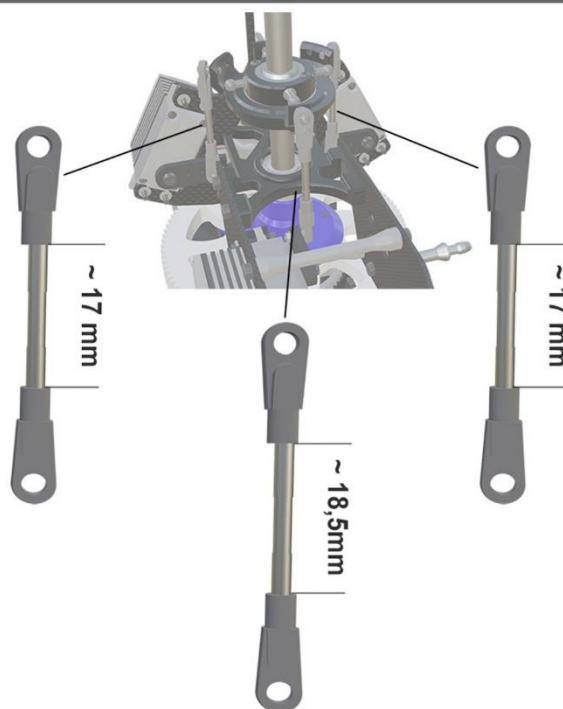
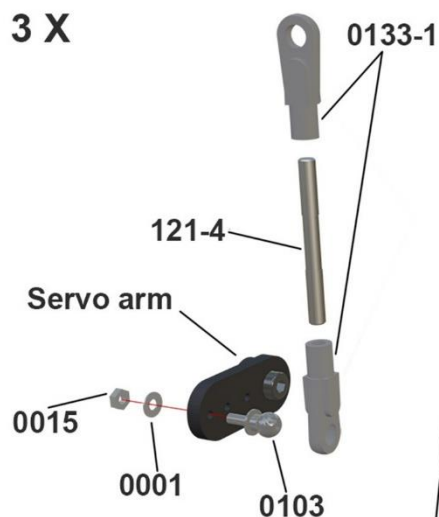
THREAD IN THE MA0051 M3x3 SOCKET SET SCREWS INTO THE BASE OF THE SWASHPLATE ONLY UNTIL THEY BOTTOM OUT AGAINST THE LOWER BEARING. THEY ARE ONLY USED TO APPLY SLIGHT PRESSURE ON THE BEARING TO REMOVE ANY PLAY ASSOCIATED WITH BEARING WEAR. IF TOO MUCH PRESSURE IS APPLIED WITH THE MA0051 M3x3 SOCKET SET SCREWS, THE BEARING WILL FEEL "NOTCHY" AND THE SET SCREWS NEED TO BE LOOSENEED SLIGHTLY.







3 X



0001 x 3



M2

0015 x 3



M2

0103 x 3



M2 x 5.3



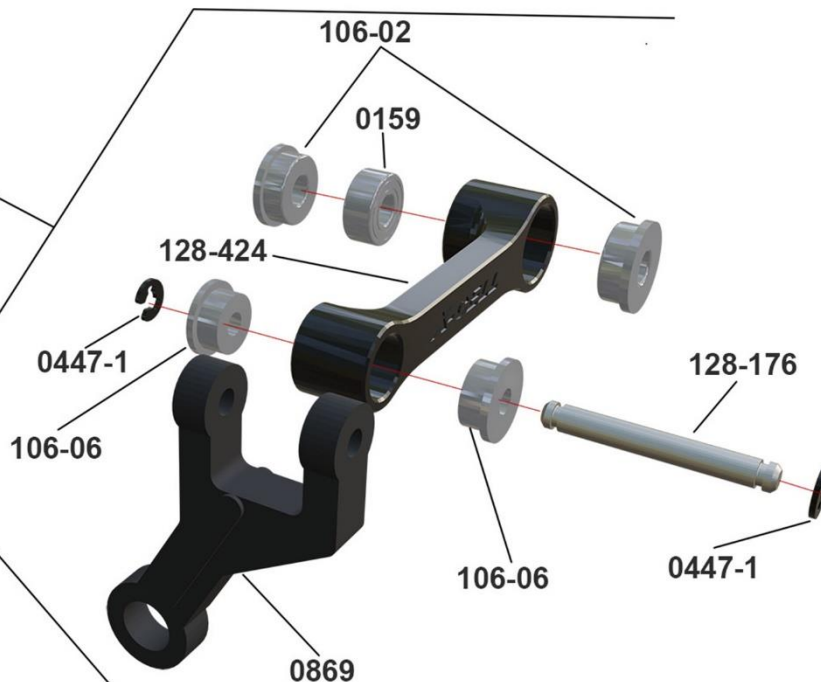
Apply a small amount of medium thread lock when threading into metal parts.

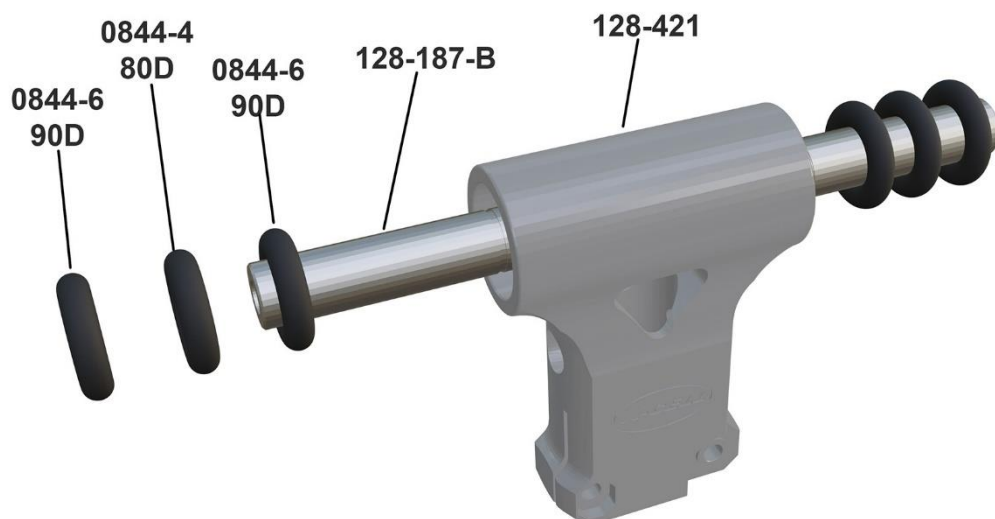
CYCLIC SERVO ARMS: ON THE FURY 57 IT IS VERY IMPORTANT TO MOUNT THE THREADED CONTROL BALL 19-20MM FROM THE CENTER OF THE SERVO SPLINE.

2 X

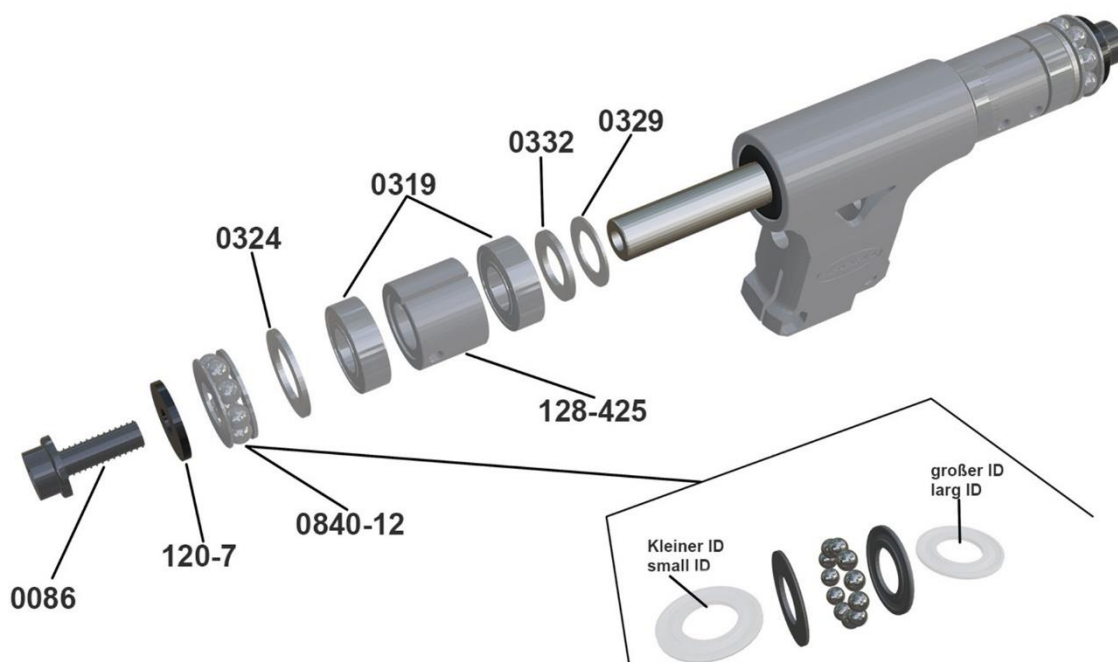


Factory Assembled





ASSEMBLY TIP: APPLY SOME GREASE, VASELINE OR TALLOW TO THE O-RINGS AND TO THE SPINDLE SHAFT.

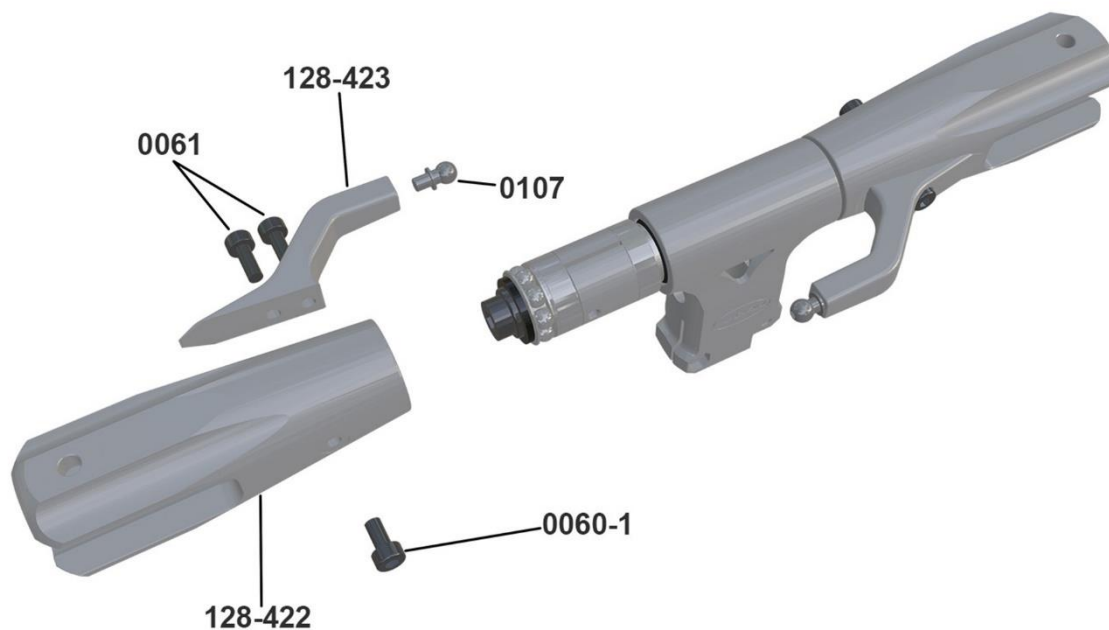


ASSEMBLY TIP: TAKE CARE ABOUT THE ORIENTATION OF PART 128-425. COMPARE ITS ORIENTATION TO FIT PART 128-422.  
APPLY SOME SYNTHETIC GREASE TO BEARING 0840-12.



Apply a small amount of medium thread lock when threading into metal parts.

<b>0086</b>	x 2
	M5 x 12mm
<b>120-7</b>	x 2
	M5 x 15mm CF
<b>0324</b>	x 2
	10.75 x 16mm
<b>0332</b>	x 2
	8 x 13 x 1mm
<b>0329</b>	x 2
	8 x 13 x 0.25mm



**0060-1** x 2



M3 x 6mm

**0061** x 4



M3 x 8mm

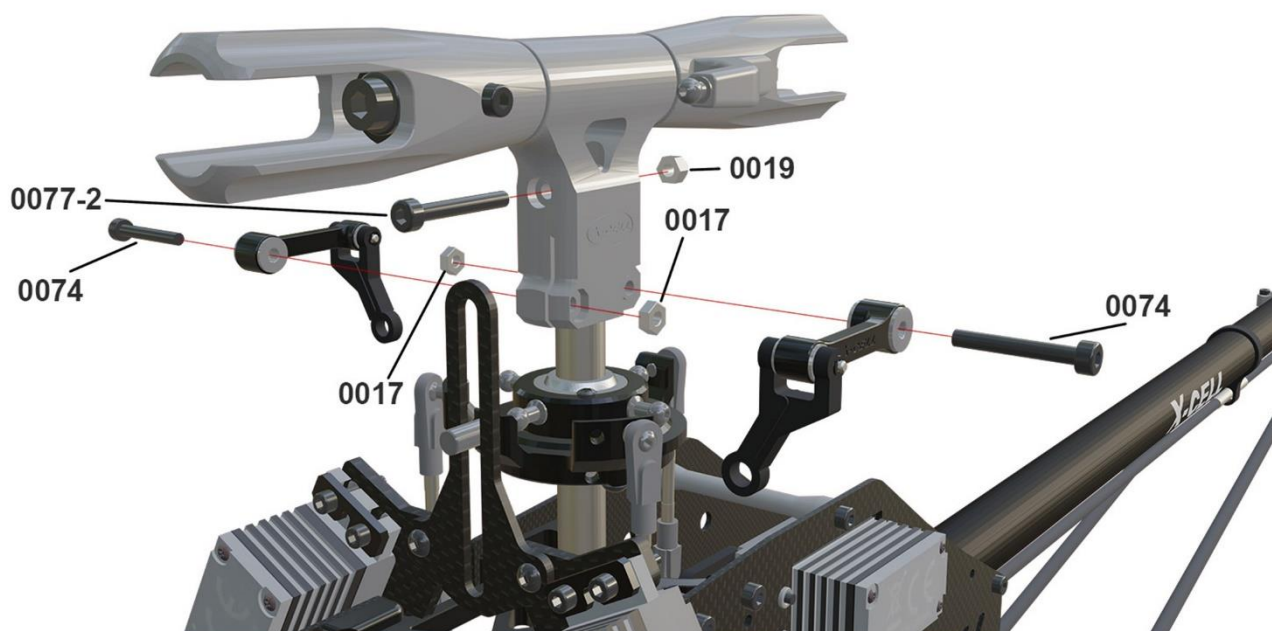
**0107** x 2



M3 x 6mm



Apply a small amount of medium thread lock when threading into metal parts.



**0074** x 2



M3 x 22mm

**0077-2** x 1



M3 x 23mm

**0019** x 2



M3

**0017** x 2

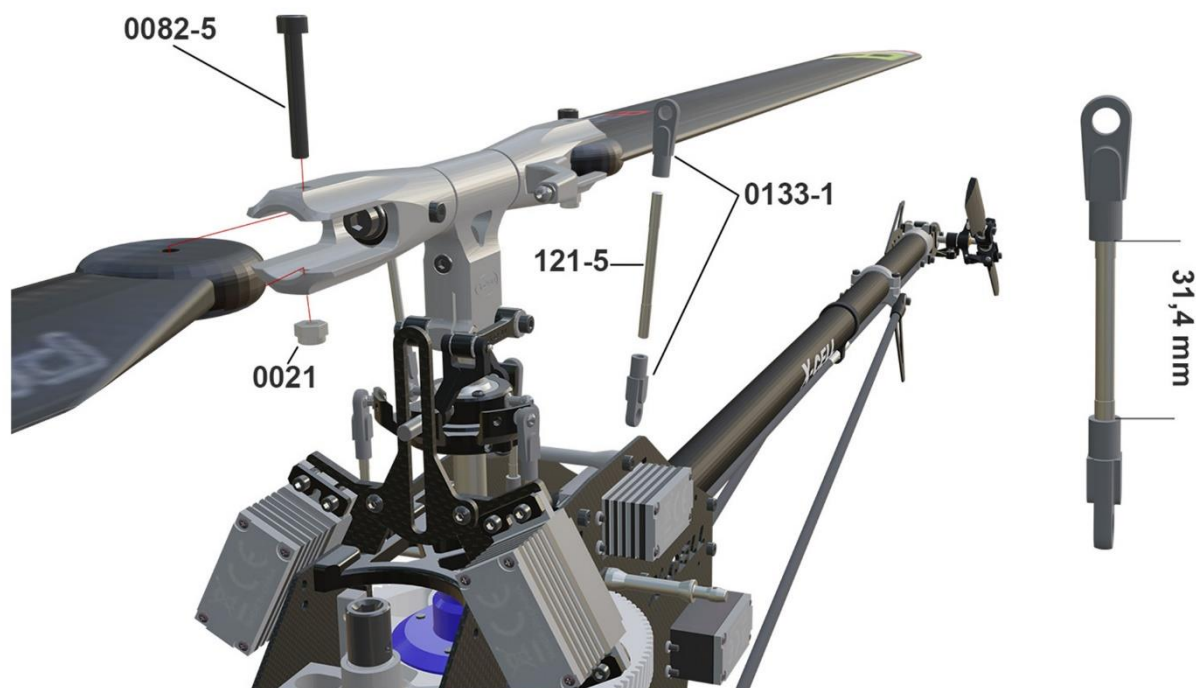


M3



Apply a small amount of medium thread lock when threading into metal parts.





0082-5 x 2



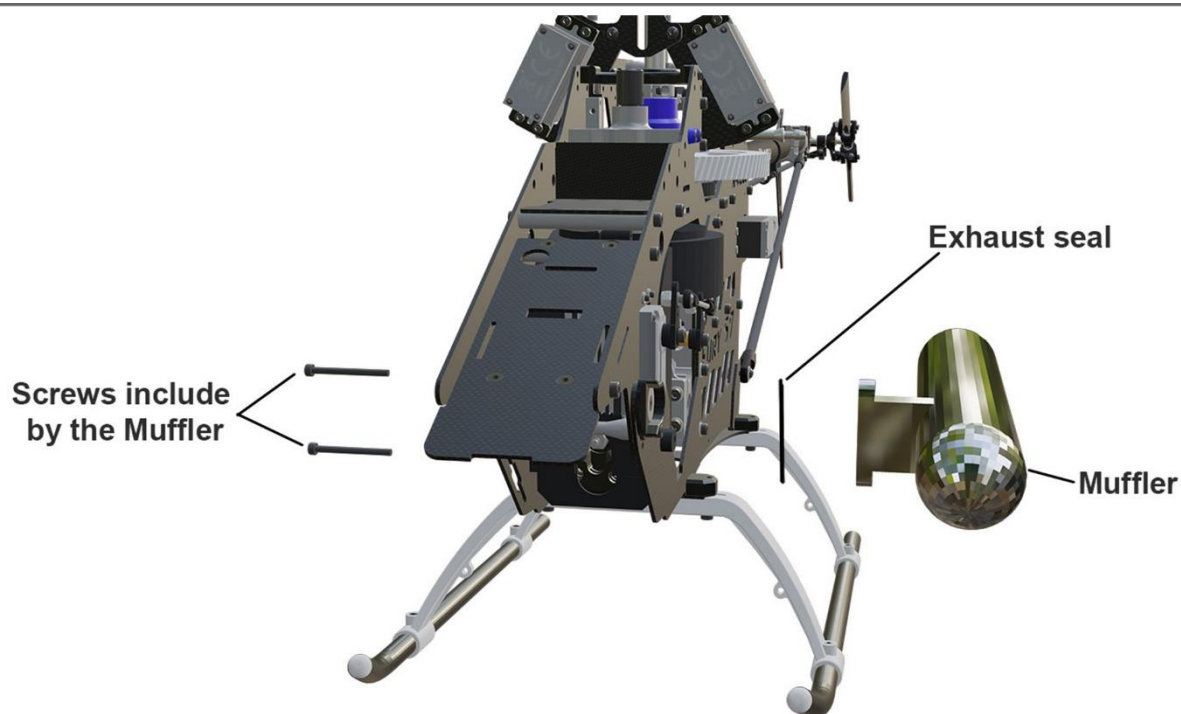
M4 x 30mm

0021 x 2



M4

31,4 mm







# PARTS LIST SECTION

**106-22**



**Rubber Grommet  
M5 x 11**

**115-65**



**Fuel Line**

**120-99**



**Knurled Canopy  
Knob**

**121-4**



**Control Rod**

**121-5**



**Control Rod**

**122-65-C**



**Stell tail Hub**

**127-15**



**13T Tailrotor  
Pulley**

**127-16**



**Tailrotor Output  
Shaft**

**127-53**



**Plastic Struts  
Black**

**127-54**



**Aluminium Skid  
Black**

**127-54A**



**Skid Plug Black**

**128-17-B**



**Left Servo Mount**

**128-18-B**



**Right Servo Mount**

**128-19-B**



**Boom Clamp Plate**

**128-22**



**Fan Shroud Mount**

**128-25**



**Shroud Seal**

**128-28-B**



**Left Front Frame  
Plate**

**128-34**



**Battery Tray**

**128-40**



**Lower Mainshaft  
Block**

**128-43-B**



**Main Shaft**



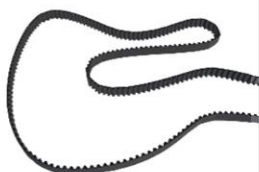


**128-46**



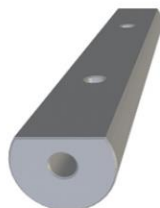
**60T Tail Drive  
Pulley**

**128-47**



**Drive Belt**

**128-57**



**Aluminium Tray  
Mount**

**128-58**



**Frame Spacers**

**128-59**



**Front Boom  
Support Spacer**

**128-65**



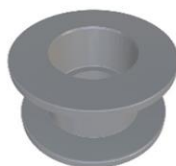
**Landing Gear  
Mounting Block**

**128-67**



**Pulley Mount**

**128-70-B**



**Aluminium Pulley**

**128-80**



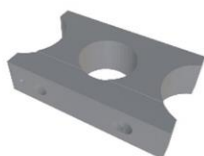
**Aluminium Boom  
Clamp**

**128-82**



**Aluminium Motor  
Mount Base**

**128-83**



**Motor Mount**

**128-85**



**Tank Mounting  
Plate**

**128-88**



**Rubber Fuel Tank  
Mount**

**128-90**



**Tank Plate Stud  
Mount**

**128-92**



**Rubber Fuel Tank  
Plug**

**128-94**



**Fuel Nipple**

**128-96-S**



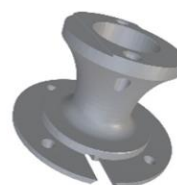
**Fuel Clunk**

**128-99**



**Fuel Tank**

**128-102**



**Aluminium  
Fan Hub**

**128-104**



**Aluminium Fan**



**128-106**



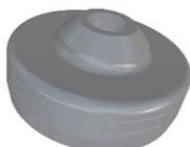
**Clutch**

**128-109**



**Start Shaft**

**128-111**



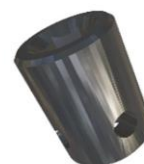
**Clutch Bell**

**128-413**



**Pinion**

**128-118**



**6mm Hex Starting  
Adaptor**

**128-120**



**Clutch Drive  
Bearing Block**

**128-123**



**Fan Shroud  
Left + Right**

**128-125**



**Shroud Deflector**

**128-128**



**O-Ring**

**128-140**



**Aluminium  
Tail Boom**

**128-144**



**Plastic Pushrod  
Guide**

**128-148**



**Boom Support**

**128-149**



**Boom Support  
Clamb**

**128-155**



**Aluminium Clamb**

**128-156**



**M3 Threaded  
Bearing Stud**

**128-157-B**



**Ball Bearing Idler**

**128-158**



**Aluminium  
Bellcrank Mount**

**128-159**



**Tail Rotor Pitch  
Slider**

**128-65-B**



**Tail Plate**

**128-165-C**



**Tail Bearing  
Support**



**128-167**



**Vertical Fin**

**128-170**



**Plastic Servo  
Block**

**128-172**



**Servo Spacer**

**128-174**



**Swashplate Guide  
Pin**

**128-176**



**M2 Washout  
Pivot Pins**

**128-187-B**



**8mm Head Axle**

**128-316**



**Antirotation Guide**

**128-400**



**Push Rod End**

**128-410**



**Main Frame Right**

**128-412**



**Frame Doubler**

**128-411**



**Main Frame Left**

**128-415**



**Bottom Plate**

**128-422**



**Blade Grip**

**128-421**



**Head Block**

**128-423**



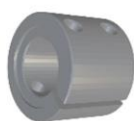
**Pitch Arm**

**128-424**



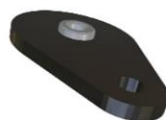
**Swashplate  
Follower**

**128-425**



**Aluminium Sleeve**

**128-437**



**Front Breakaway  
Mounts**

**128-438**



**Safety Shield**

**128-450**



**Autorotation Hub**





**128-453**



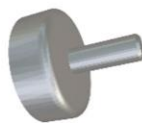
**Gyro Plate**

**128-461**



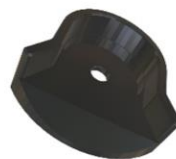
**Rear Canopy Mount**

**128-463**



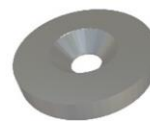
**Magnet**

**128-464**



**Front Canopy Mount**

**128-464-1**



**Canopy Magnet Support**

**0868-41**



**Push Rod Sleeve**

**128-472**



**Tail Control Rod**

**129-37**



**Breakaway Mounts**

**129-40**



**Upper Mainshaft Block**

**129-455**



**103T Helical Main Gear**

**131-452**



**Splint**

**0133**



**Ball Link**

**0133-1**



**Ball Link**

**0217-B**

0217



**10mm Swashplate 120 Degree**

**0225**



**M2 x 13.7 Steel Pins**

**0279**



**Clutch Liner**

**0367**



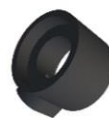
**Threaded Rod M2x60**

**0435**



**M5 Brass T/R Control Slider**

**0437**



**Plastic Control Slider Ring**

**0440**



**Pivot Pin Style T/R Pitch Yoke**



**0442**



**Pivot Pin Style  
T/R Pitch Links**

**0443**



**M6 Push On  
Retaining Clip**

**0445**



**Plastic Tailrotor  
Bellcrank**

**0447-1**



**M2 External  
Locking Clips**

**0586-16**



**Corner Block**

**3700-155**



**Delrin Blade  
Spaces**

**0844-4**



**O - Ring 80D**

**0844-6**



**O - Ring 90D**

**0868-5**



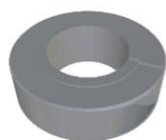
**Plastic Rod Guide**

**0873-1**



**Plastic Blade  
Tail Rotor Mount**

**0875-1**



**Main Shaft Collar**

**0597-3**



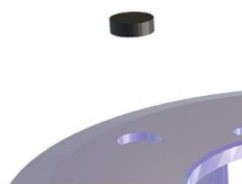
**M3 x 4.75 x 0.184  
Brass Spacer**

**0869**



**Plastic  
Washout Links**

**4500-100**



**Magnet**

**128-204**



**Fury 57 Canopy  
Fire**

**128-203**



**Fury 57 Canopy  
Snake**

**128-202**



**Fury 57 Canopy  
Racing Green**

**128-205**



**Fury 57 Canopy  
Neon Pink**

**128-206**



**Fury 57 Canopy  
Angry Bird**





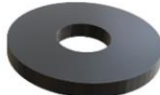




















**128-207**



**Fury 57 Canopy  
Colorful**



# HARDWARE

0001  M2	0003  M3	0007  M6	0009  M3 (small)	0011-CF  M5 CF
0014-F  M5 (fine)	0015  M2	0016-2  M4	0017  M3	0018  M2
0019  M3	0021  M4	0029  M2.2 x 13mm	0032  M2.9 x 9.5mm	0032-2  M3 x 8mm
0049-1  M2 x 12mm	0051  M3 x 3mm	0053  M3 x 5mm	0053-5  M3 x 16mm	0056  M3 x 5mm
0057  M4 x 4mm	0058-1  M4 x 6mm	0058-5  M5 x 6mm	0058-6  M5 x 5mm	0059-1  M2.5 x 6mm





**0059-3**



M2.5 x 10mm

**0059-6**



M2.5 x 16mm

**0060-1**



M3 x 6mm

**0061**



M3 x 8mm

**0063**



M3 x 10mm

**0064-3**



M3 x 6mm

**0064-4**



M3 x 16mm

**0065**



M3 x 12mm

**0067**



M3 x 14mm

**0074**



M3 x 22mm

**0077-2**



M3 x 23mm

**0078**



M4 x 12mm

**0078-5**



M4 x 10mm

**0081**



M4 x 16mm

**0082-5**



M4 x 30mm

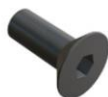


**0086**



M5 x 12mm

**0088**



M3 x 8mm

**0088-2**



M3 x 6mm

**0091**



M3 x 16mm

**0101**



M2 x 5.3mm

**0103**



M2 x 5.3

**0107**



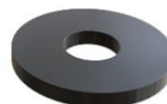
M3 x 6mm

**0109**



M3 x 8mm

**120-7**



M5 x 15mm CF

**0332**



8 x 13 x 1mm

**122-70**



M5 x .25mm

**0273**



M6 x 10 x .28mm

**0324**



10.75 x 16mm

**0329**



8 x 13 x 0.25mm

**0331**



8 x 13 x 0.5mm

**2700-01**

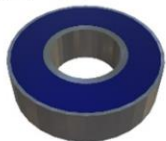


M3 (blue)



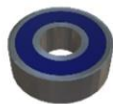
# BALL BEARING

**122-47**



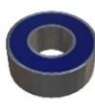
**M10 x 22 x 6**  
Sealed Bearing

**105-70**



**M6 x 15 x 5**  
Ball Bearing

**128-121**



**M6 x 13 x 5**  
Ball Bearing

**106-02**



**M3 x 7 x 3**  
Flanged Bearing

**128-162**



**M5 x 13 x 4**  
Flanged Bearing

**106-06**



**M2 x 5 x 1,5**  
Flanged Bearing

**120-39**



**M5 x 10 x 4**  
Ball Bearing

**127-17**



**M3 x 8 x 4**  
Flanged Bearing

**131-66**



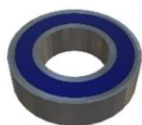
**M5 x 10**  
Thrust Bearing

**0159**



**M3 x 7 x 3**  
Ball Bearing

**0183**



**M10 x 19 x 5**  
Ball Bearing

**0208**



**M10 x 12 One Way**  
Torrington

**0283**



**M6 x 10 x 3**  
Flanged Bearing

**127-17-C**



**M3 x 8 x 53**  
Ball Bearing

**0439**



**M6 x 10 x 2,5**  
Open Ball Bearing

**0840-12**



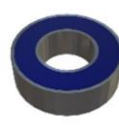
**M8 x 16**  
Thrust Bearing

**120-39-3**



**M5 x 10 x 3**  
Ball Bearing

**0319**



**M8 x 16 x 5**  
Ball Bearing