ASSEMBLY MANUAL

SEAGULL MODELS

ISPORTS 10cc

" Graphics and specifications may change without notice " .

ALMOST READY TO FLY

Specifications:

Wingspan----------65.0 in (165 cm).
Wing area----------821.5 sq.in (53.0 sq.dm).
Weight----------7.1 - 7.9 lbs (3.2 - 3.6 kg).
Length----------51.9 in (131.7cm).
Engine----------0.55 - 0.61 cu.in -2 stroke
.....10cc - 15cc.
Radio----------5 channels with 7 servos.
Electric conversion: Optional.

MS: 210

INTRODUCTION.

Thank you for choosing the **ISPORT** ARTF by **SEAGULL MODELS COMPANY LTD**,. The **ISPORT** was designed with the intermediate/advanced sport flyer in mind. It is a semi scale airplane which is easy to fly and quick to assemble. The airframe is onventionally built using balsa, plywood to make it stronger than the average ARTF, yet the design allows the aeroplane to be kept light. You will find that most of the work has been done for you already. The motor mount has been fitted and the hinges are pre-installed. Flying the **ISPORT** is simply a joy.

This instruction manual is designed to help you build a great flying earoplane. Please read this manual throughly before starting assembly of your **ISPORT**. User the parts listing below to indentify all parts.

WARNING.

Please be awere that this aeroplane is not a toy and if assembley or used incorrectly it is capable of causing injury to people or property. WHEN YOU FLY THIS AEROPLANE YOU ASSUME ALL RISK & REPONSIBILITY.

If you are inexperianced with basic R/C flight we strongly recommend you contact your R/C supplier and join your local R/C model Flying Club. R/C Model Flying Clubs offer a variety of training procedures designed to help the new pilot on his way to successful R/C flight. They will also be able to advise on any insurance and safety regulations that may apply.

KIT CONTENTS

FACTORY BUILT MODEL SEAGULL MODEL

KIT CONTENTS.

SEA2101	Fuselage
SEA2102	Wing set
SEA2103	Tail set
SEA2104	Canopy Hatch
SEA2105	Cowling
SEA2106	Landing gear
SEA2107	Hardware set
SEA2108	Pushrod set
SEA2109	Wheel Pants
SEA2110	Wing tube

ADDITIONAL ITEMS REQUIRED.

- ☐ 0.55-0.61 2 stroke. 10cc - 15cc
- ☐ Computer radio with 5 servos.
- ☐ Glow plug to suit engine.
- ☐ Propeller to suit engine.
- ☐ Protective foam rubber for radio system.
- ☐ Silicone fuel line.

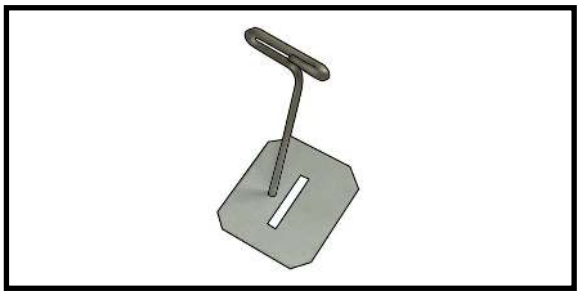
TOOLS & SUPPLIES NEEDED.

- ☐ Thick cyanoacrylate glue.
- ☐ 30 minute epoxy.
- ☐ 5 minute epoxy.
- ☐ Hand or electric drill.
- ☐ Assorted drill bits.
- ☐ Modelling knife.
- ☐ Straight edge ruler.
- ☐ 2mm ball driver.
- ☐ Phillips head screwdriver.
- ☐ 220 grit sandpaper.
- ☐ 90° square or builder's triangle.
- ☐ Wire cutters.
- ☐ Masking tape & T-pins.
- ☐ Thread-lock.
- ☐ Paper towels.

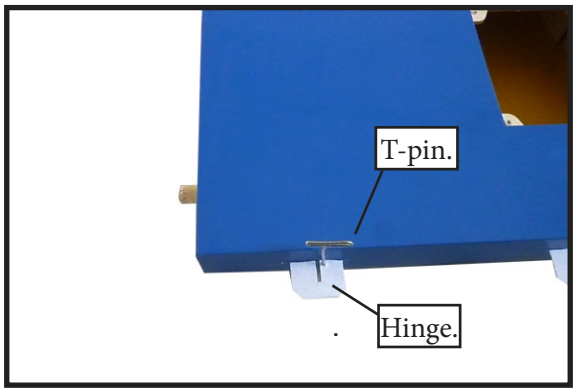
HINGING THE AILERONS.

Note : *The control surfaces, including the ailerons, elevators, and rudder, are prehinged with hinges installed, but the hinges are not glued in place. It is imperative that you properly adhere the hinges in place per the steps that follow using a high-quality thin C/A glue.*

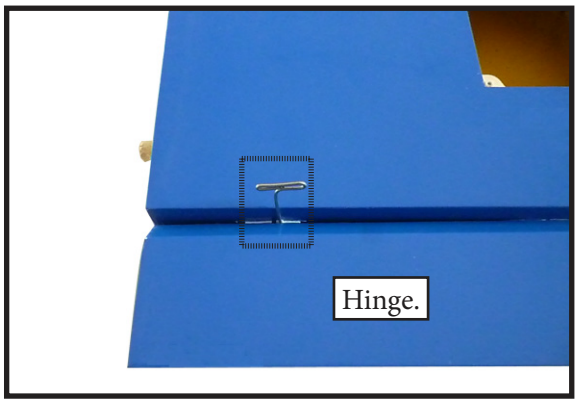
1) Carefully remove the aileron from one of the wing panels. Note the position of the hinges.



2) Remove each hinge from the wing panel and aileron and place a T-pin in the center of each hinge. Slide each hinge into the aileron until the T-pin is snug against the aileron. This will help ensure an equal amount of hinge is on either side of the hinge line when the aileron is mounted to the wing panel.

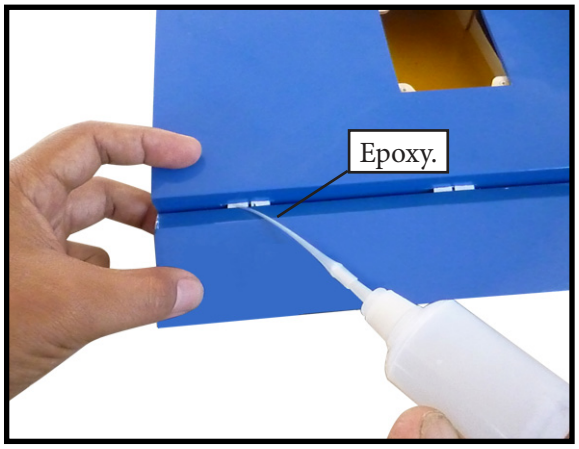


3) Slide the aileron on the wing panel until there is only a slight gap. The hinge is now centered on the wing panel and aileron. Remove the T-pins and snug the aileron against the wing panel. A gap of 1/64" or less should be maintained between the wing panel and aileron.



4) Deflect the aileron and completely saturate each hinge with thin C/A glue. The ailerons front surface should lightly contact the wing during this procedure. Ideally, when the hinges are glued in place, a 1/64" gap or less will be maintained throughout the lengh of the aileron to the wing panel hinge line.

NOTE : The hinge is constructed of a special material that allows the C/A to wick or penetrate and distribute throughout the hinge, securely bonding it to the wood structure of the wing panel and aileron.

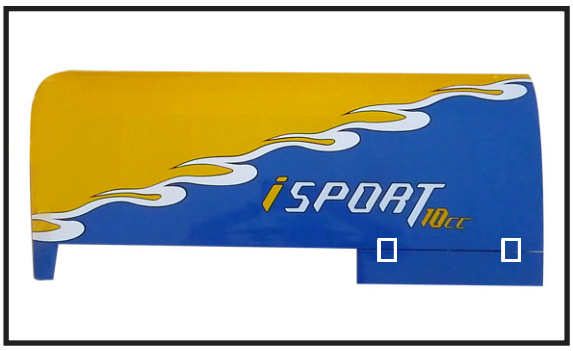


5) Turn the wing panel over and deflect the aileron in the opposite direction from the opposite side. Apply thin C/A glue to each hinge, making sure that the C/A penetrates into both the aileron and wing panel.

6) Using C/A remover/debonder and a paper towel, remove any excess C/A glue that may have accumulated on the wing or in the aileron hinge area.

7) Repeat this process with the other wing panel, securely hinging the aileron in place.

8) After both ailerons are securely hinged, firmly grasp the wing panel and aileron to make sure the hinges are securely glued and cannot be pulled out. Do this by carefully applying medium pressure, trying to separate the aileron from the wing panel. Use caution not to crush the wing structure.



Note : Work the aileron up and down several times to "work in" the hinges and check for proper movement.

HINGING THE AILERONS.

Note : *The control surfaces, including the ailerons, elevators, and rudder, are prehinged with hinges installed, but the hinges are not glued in place. It is imperative that you properly adhere the hinges in place per the steps that follow using a high-quality thin C/A glue.*

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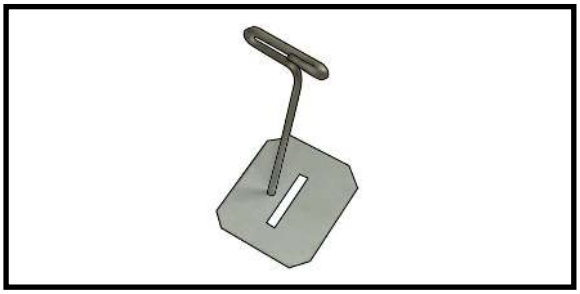
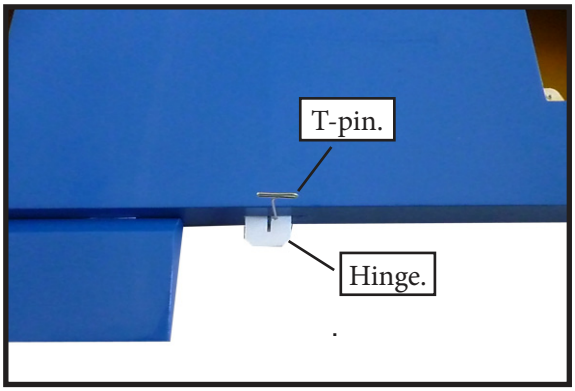
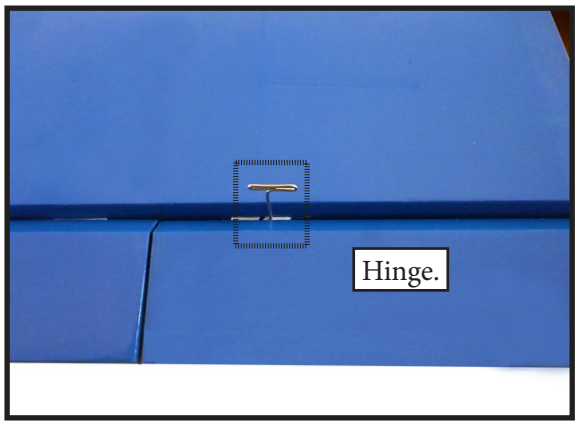


2) Remove each hinge from the wing panel and aileron and place a T-pin in the center of each hinge. Slide each hinge into the aileron until the T-pin is snug against the aileron. This will help ensure an equal amount of hinge is on either side of the hinge line when the aileron is mounted to the wing panel.

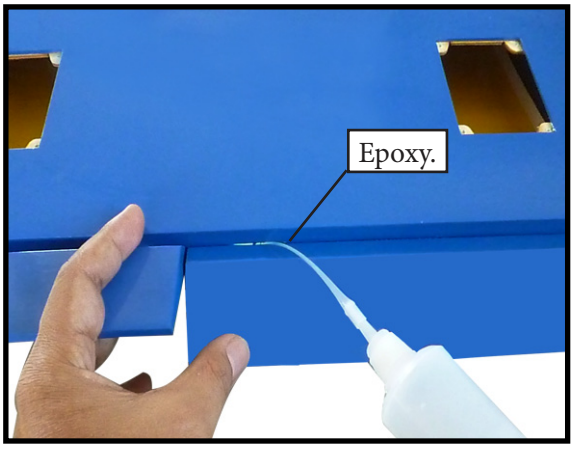


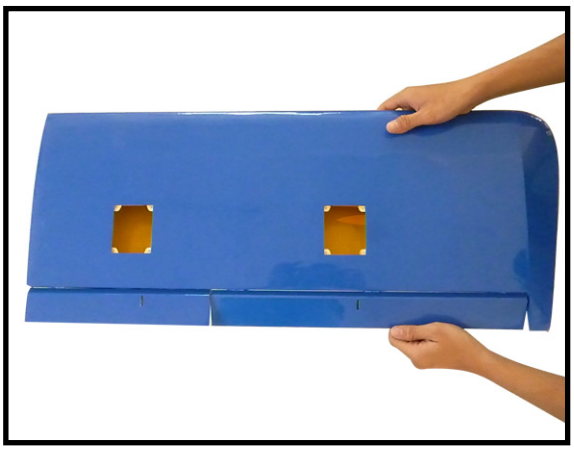
3) Slide the aileron on the wing panel until there is only a slight gap. The hinge is now centered on the wing panel and aileron. Remove the T-pins and snug the aileron against the wing panel. A gap of 1/64" or less should be maintained between the wing panel and aileron.



4) Deflect the aileron and completely saturate each hinge with thin C/A glue. The ailerons front surface should lightly contact the wing during this procedure. Ideally, when the hinges are glued in place, a 1/64" gap or less will be maintained throughout the lengh of the aileron to the wing panel hinge line.

NOTE : The hinge is constructed of a special material that allows the C/A to wick or penetrate and distribute throughout the hinge, securely bonding it to the wood structure of the wing panel and aileron.



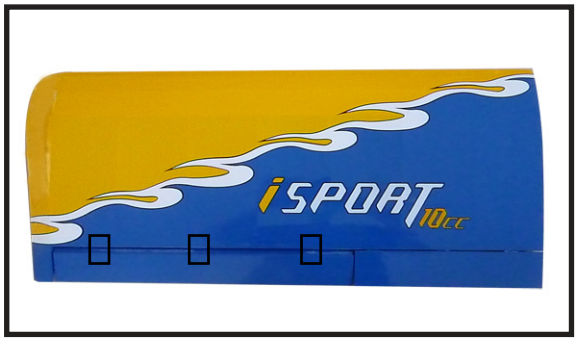


5) Turn the wing panel over and deflect the aileron in the opposite direction from the opposite side. Apply thin C/A glue to each hinge, making sure that the C/A penetrates into both the aileron and wing panel.

6) Using C/A remover/debonder and a paper towel, remove any excess C/A glue that may have accumulated on the wing or in the aileron hinge area.

7) Repeat this process with the other wing panel, securely hinging the aileron in place.

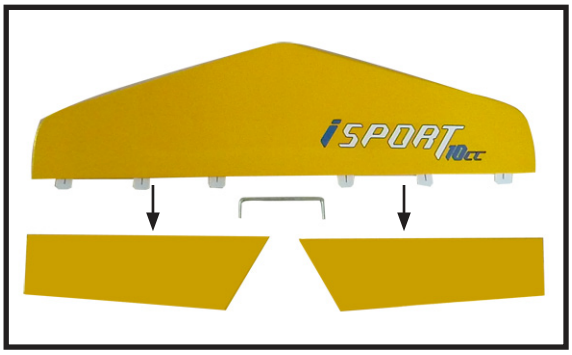
8) After both ailerons are securely hinged, firmly grasp the wing panel and aileron to make sure the hinges are securely glued and cannot be pulled out. Do this by carefully applying medium pressure, trying to separate
the aileron from the wing panel. Use caution



Note : Work the aileron up and down several times to "work in" the hinges and check for proper movement.

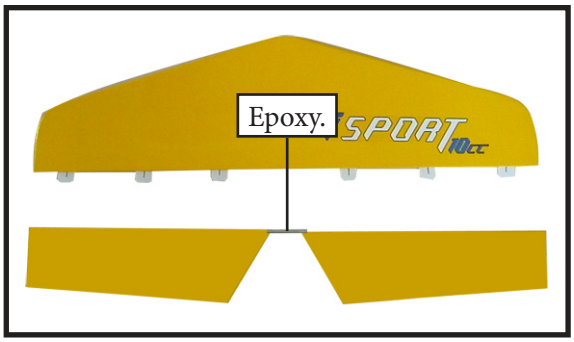
HINGING THE ELEVATORS.

1) Locate the item for this sectiom of the manual.

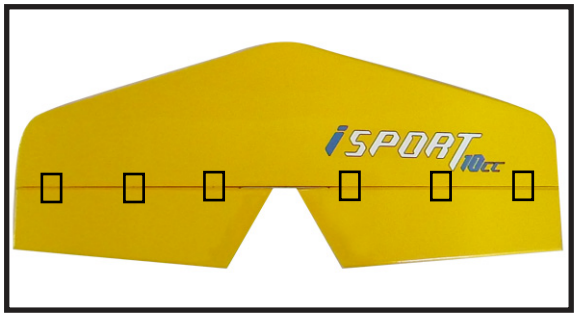


2) Carefully remove the elevator from one of the horizontal stabilizer panels. Note the position of the hinges.

3) Remove each hinge from the horizontal stabilizer panel and elevator and place a T-pin in the center of each hinge. Slide each hinge into the elevator until the T-pi n is snug against the elevator. This will help ensure an equal amount of hinge is on either side of the hinge line when the elevator is mounted to the horizontal stabilizer panel.



Glue the hinge hinges in place using the same techniques used to hing the ailerons.

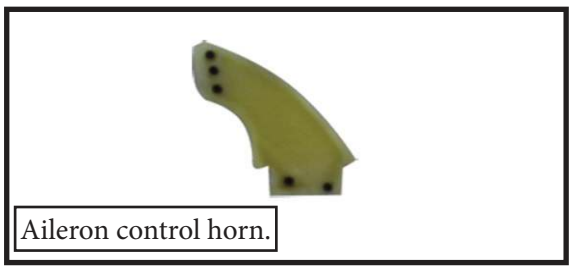


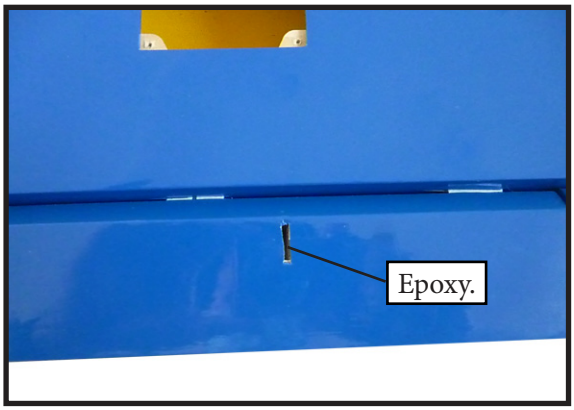
HINGING THE RUDDER.

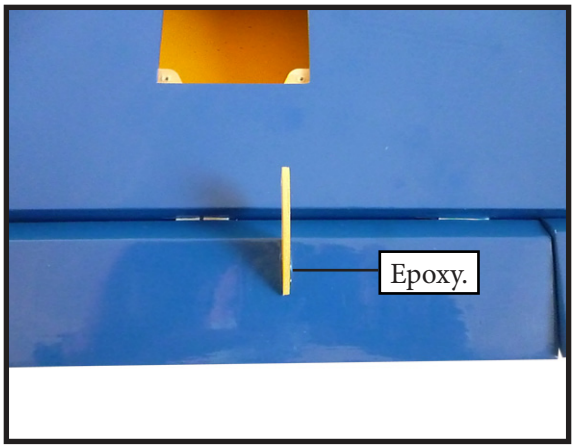
Glue the rudder hinges in place using the same techniques used to hinge the ailerons.

INSTALL THE AILERONS CONTROL HORN.

Locate the hardware necessary to install the control horns for the ailerons.

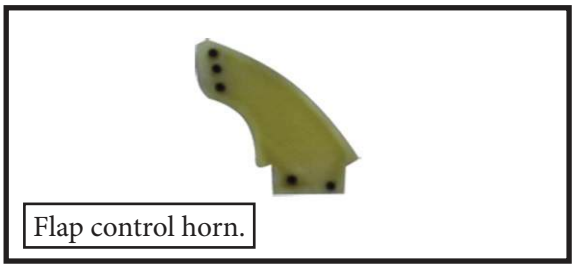


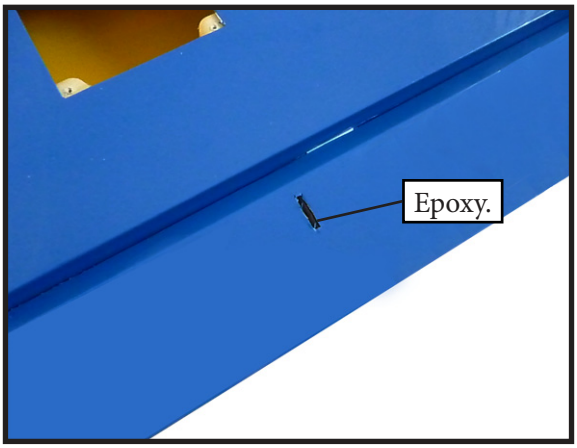


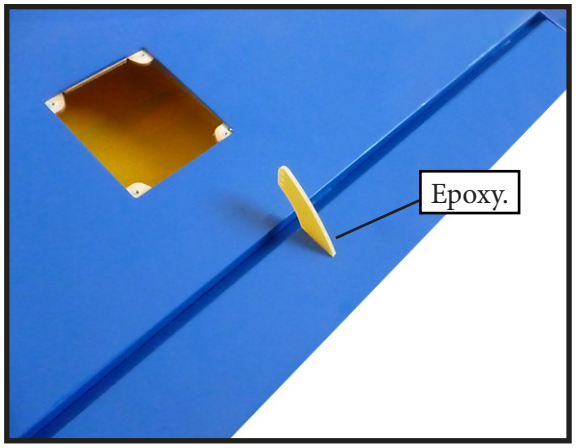


INSTALL FLAP CONTROL HORN.

Install the flap control horn using the same method as same as the aileron control horns.

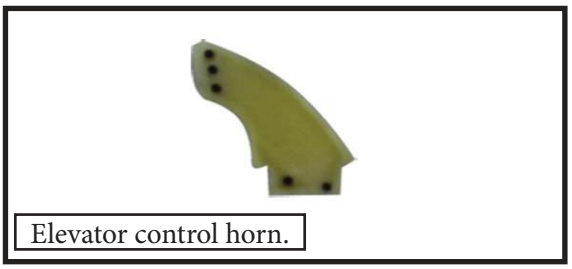


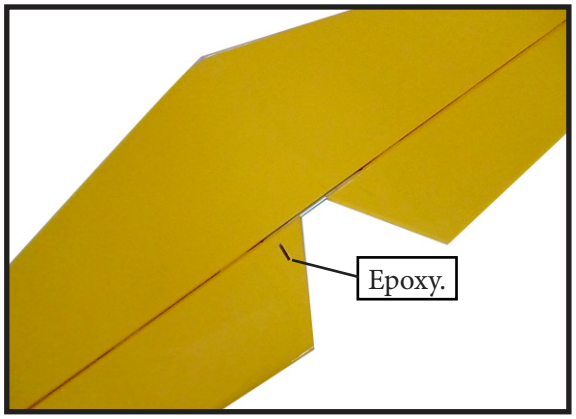


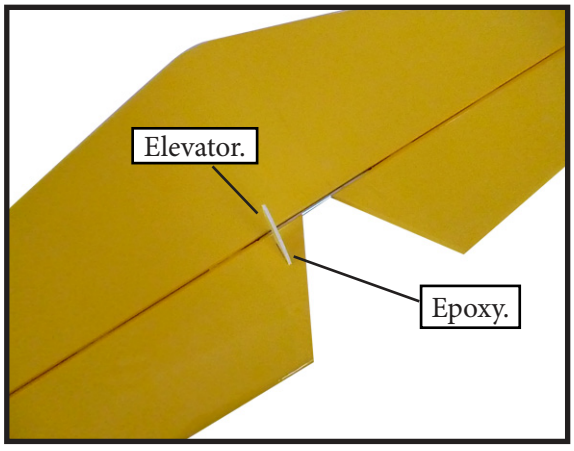


INSTALL ELEVATOR CONTROL HORN.

Install the elevator control horn using the same method as same as the aileron control horns.

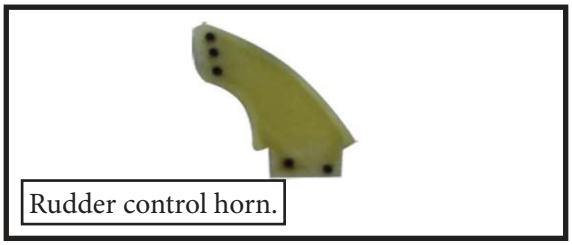


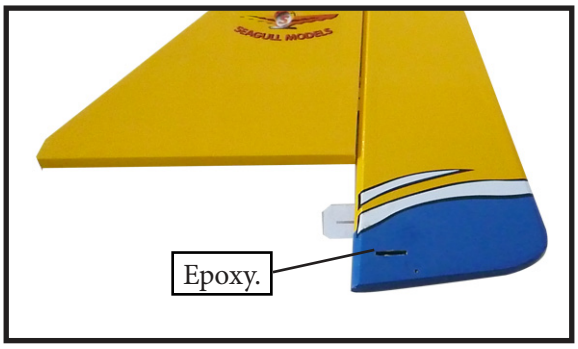




INSTALL RUDDER CONTROL HORN.

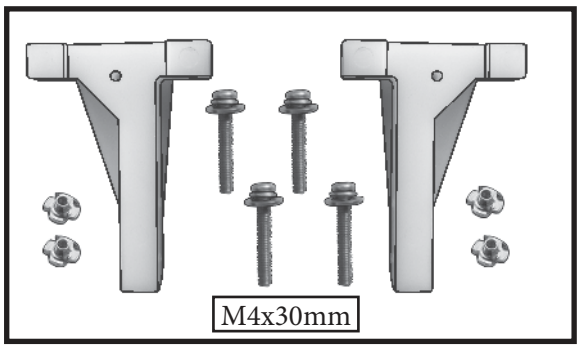
Repeat steps to install the rudder control horn as same as steps done for ailerons.



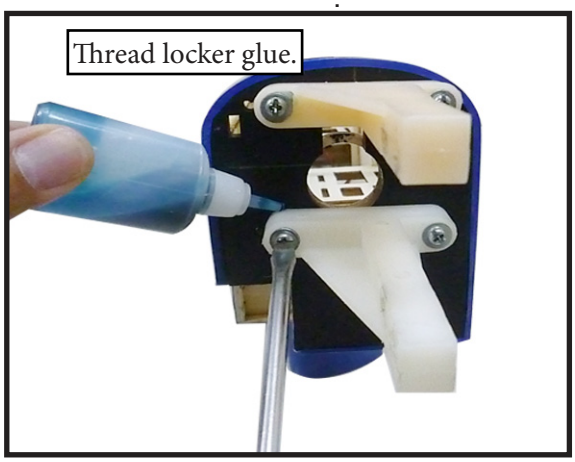


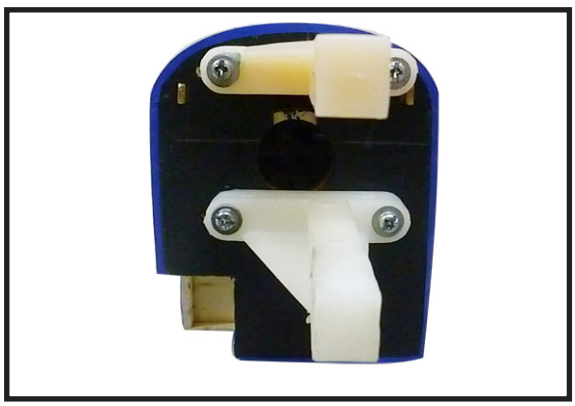
ENGINE MOUNT INSTALLATION.

1) Locate the items necessary to install the engine mount included with your model.



2) Use four 4x30mm head bolts and four 4mm washers to attach the engine mount rails to the firewall. Tighten the screws . Make sure to use threadlock on the screws to help prevent them from vibrating loose.

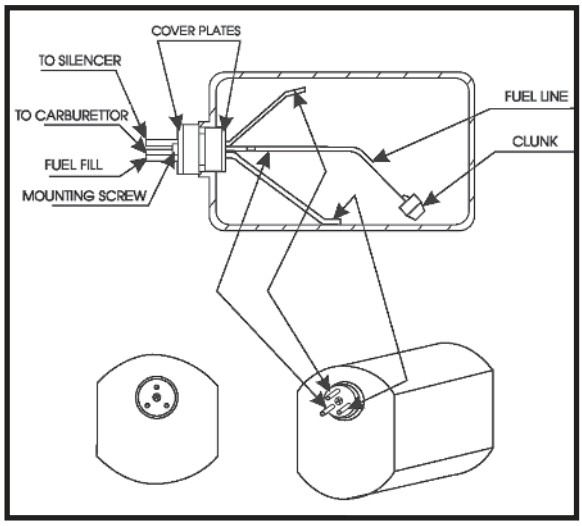


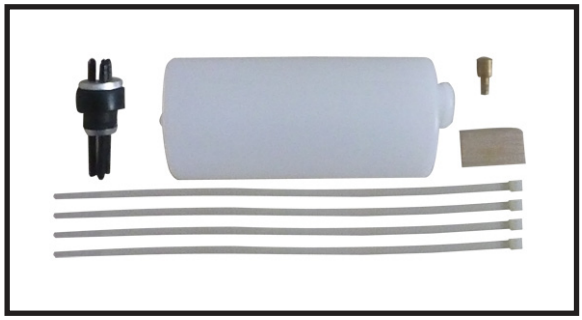


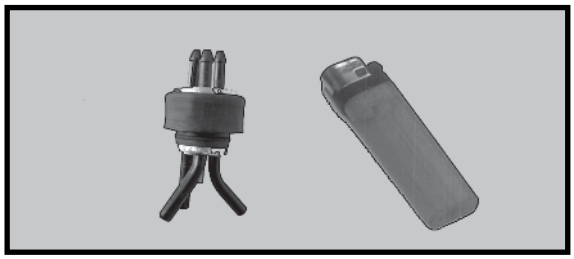
INSTALLING THE STOPPER ASSEMBLY.

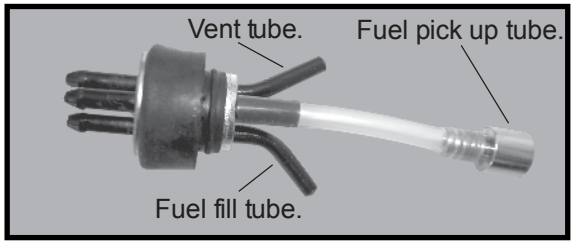
1) Using a modeling knife, carefully cut off the rear portion of one of the 3 nylon tubes leaving 1/2” protruding from the rear of the stopper. This will be the fuel pick up tube.

2) Using a modeling knife, cut one length of silicon fuel line. Connect one end of the line to the weighted fuel pick up and the other end to the nylon pick up tube.









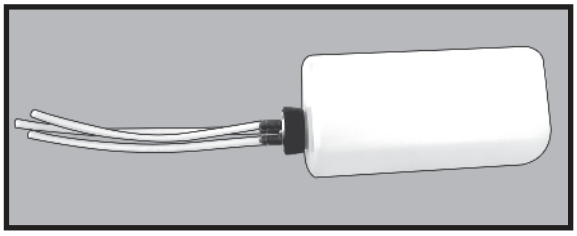
3) Carefully bend the second nylon tube up at a 45º angle. This tube is the vent tube.

4) Test fit the stopper assembly into the tank. It may be necessary to remove some of the flashing around the tank opening using a modeling knife. If flashing is present, make sure none falls into the tank.

5) With the stopper assembly in place, the weighted pick-up should rest away from the rear of the tank and move freely inside the tank. The top of the vent tube should rest just below the top of the tank. It should not touch the top of the tank.

6) When satisfied with the alignment of the stopper assembly tighten the 3 x 20mm machine screw until the rubber stopper expands and seals the tank opening. Do not overtighten the assembly as this could cause the tank to split.

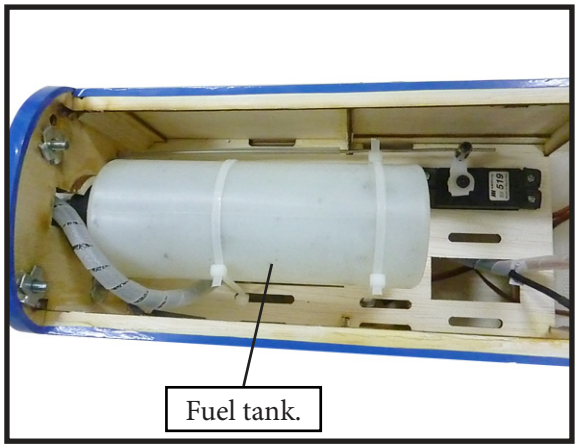
FUEL TANK INSTALLATION.

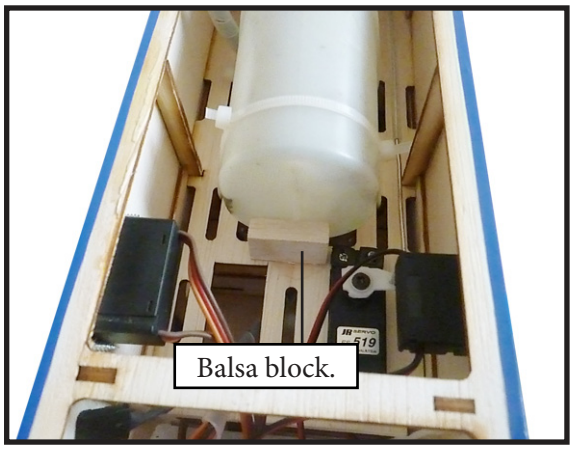


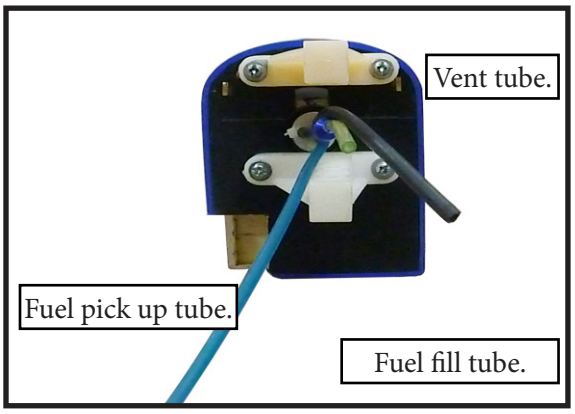
- *You should mark which tube is the vent and which is the fuel pickup when you attach fuel tubing to the tubes in the stopper. Once the tank is installed inside the fuselage, it may be difficult to determine which is which.*

7) Slide the fuel tank into the fuselage. Guide the lines from the tank through the hole in the firewall.

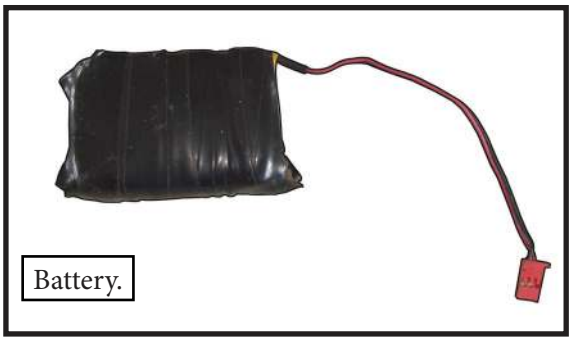
8) Use balsa plywood to help prevent moveable from transferring to the fuel tank as shown.

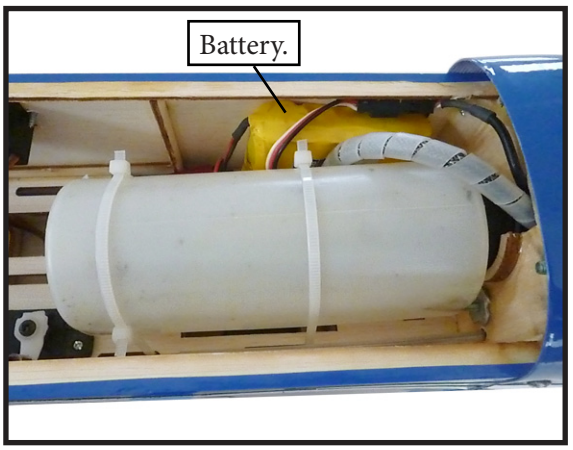




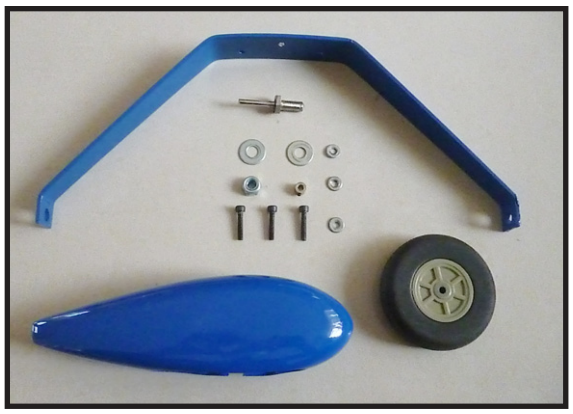


INSTALLING THE BATTERY.





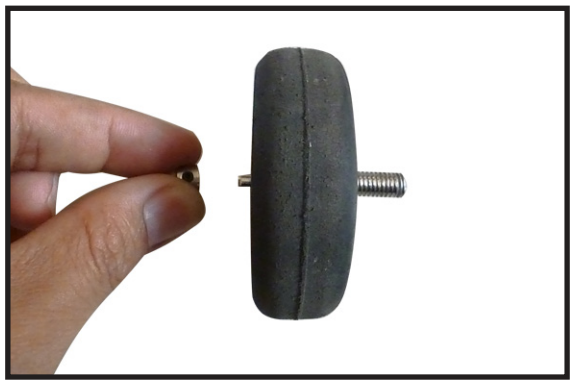
INSTALLING THE MAIN LANDING GEAR TO FUSELAGE.

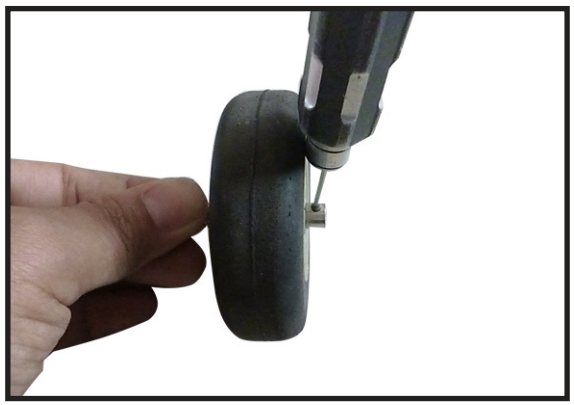


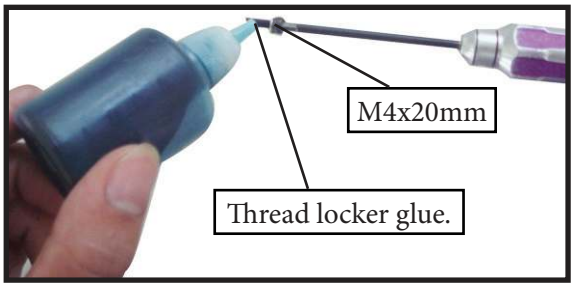
1) The blind nuts for securing the landing gear are already mounted inside the fuselage.

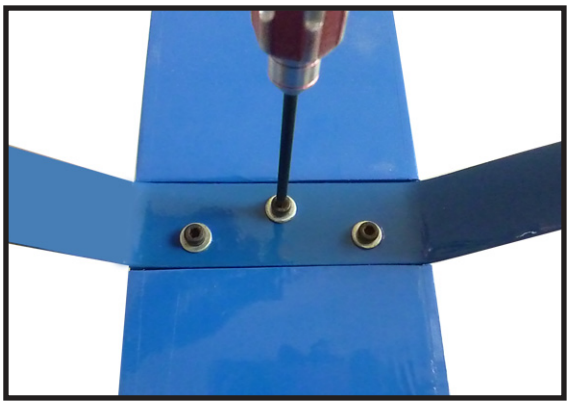
2) Using the hardware provided, mount the main landing gear to the fuselage.

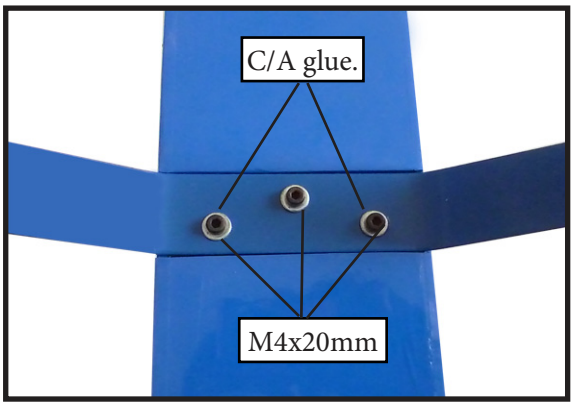
3) Place the fuselage inverted on the workbench in a suitable stand. Set the landing gear in place and use a screwdrive to secure the landing gear to the fuselage using bolts M4x20mm and washers. Make sure to use the threadlock on the bolts so they don't vibrate loose.









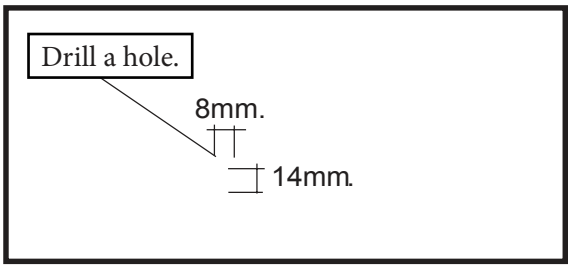


WHEELS AND WHEEL PANTS.

1) Locate the items neccessary to install

2) Follow diagram below for wheel pant installation:

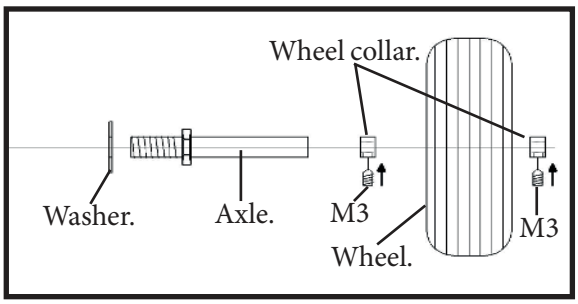
Use a drill and 8mm drill bit to drill a hole in the wheel pants.

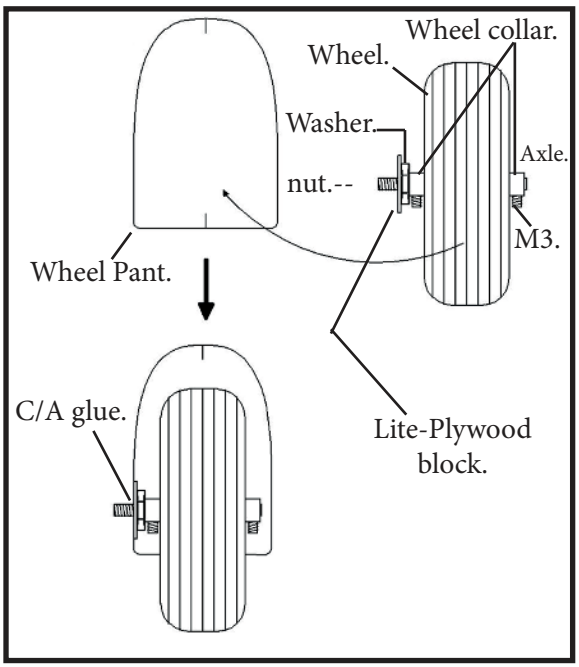


3) You have to trim each axle using a tool cutting and cut-off wheel.

4) Slide the collar to the axle and setscrew the collars to secure the collar to the axle and then slider the wheel on the axle with a drop of oil on the axle so the wheel will spin freely when installed. Prepare a second collar and tighten the setscrew using hex wrench to secure the collar to the axle.

5) Place the wheel assembly in the wheel pants. The threaded portion of the axle will fit the notch of the wheel pant as shown.





6) Slide the threaded end of the axle through the hole in the bottom of the landing gear leg. Use a washer and lock-nut to tighten the axle to the landing gear. Make sure to use threadlock on the nut so it won't vibrate loose in flight as shown.

7) Tighten the setcrews using a hex wrench to secure the collars on the axle over the flat spot to retain the wheel as shown.

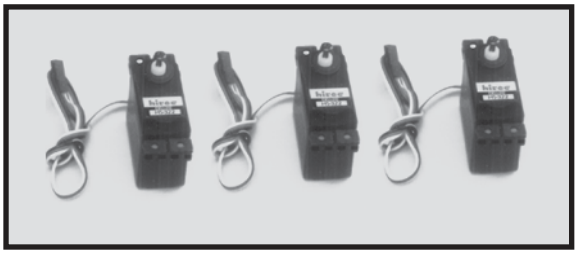
Repeat steps as above to attach remaining wheel pants to the landing gear.

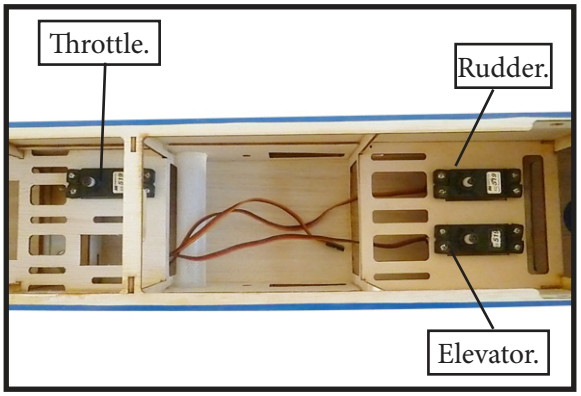
INSTALLING THE FUSELAGE SERVOS.

⚠ Because the size of servos differ, you may need to adjust the size of the precut opening in the mount. The notch in the sides of the mount allow the servo lead to pass through.

1) Install the rubber grommets and brass collets onto the throttle servo. Test fit the servo into the aileron servo mount.

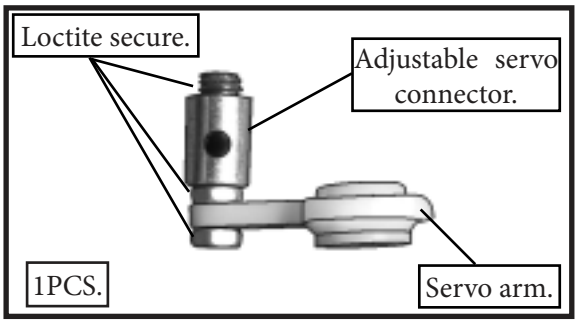
2) Secure the servos with the screws provided with your radio system.

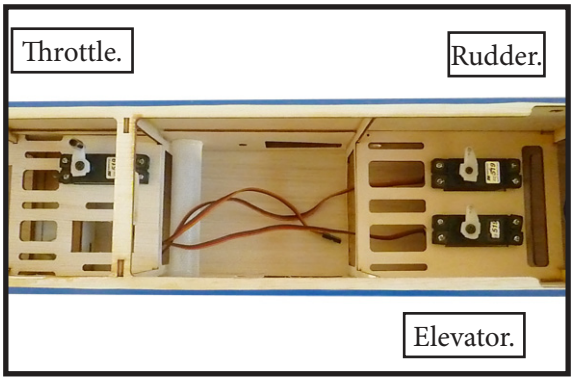




THROTTLE SERVO ARM INSTALLATION.

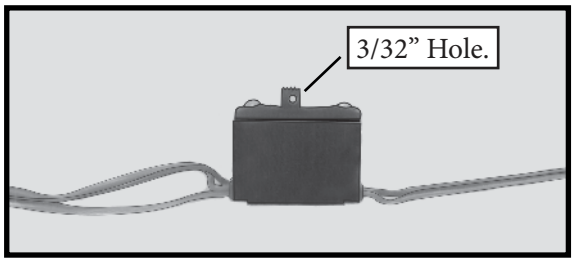
Install adjustable servo connector in the servo arm as same as picture below:

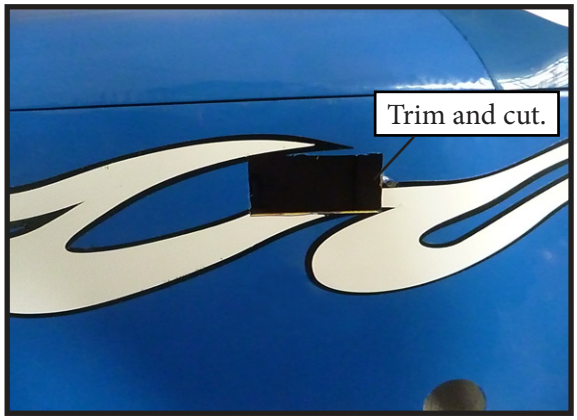


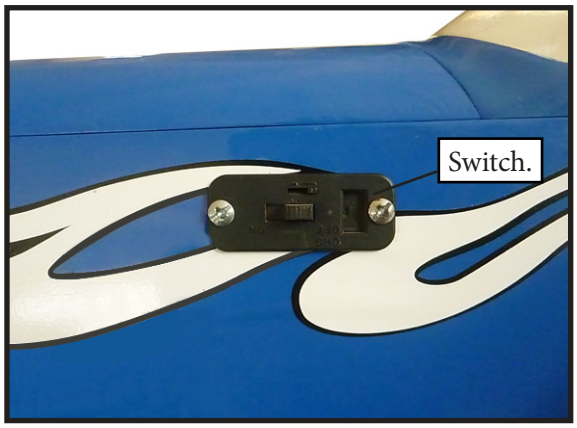


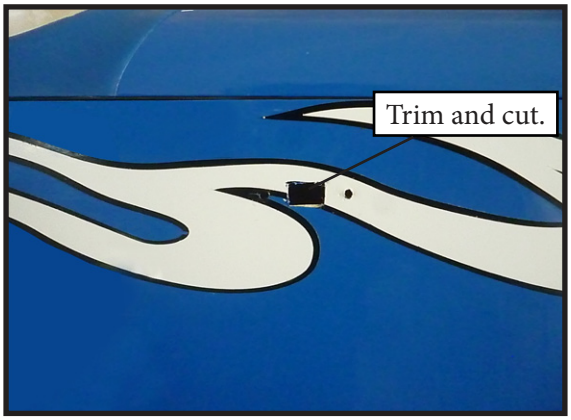
INSTALLING THE SWITCH RECEIVER.

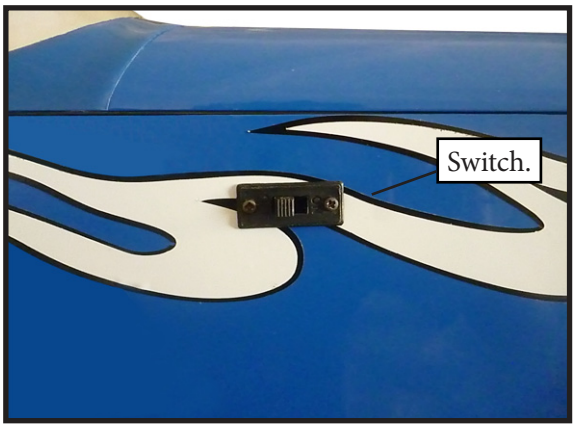
Install the switch into the precut hole in the side, in the fuselage.





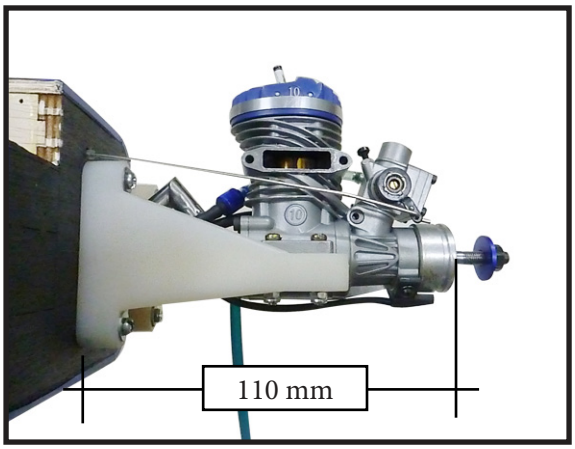




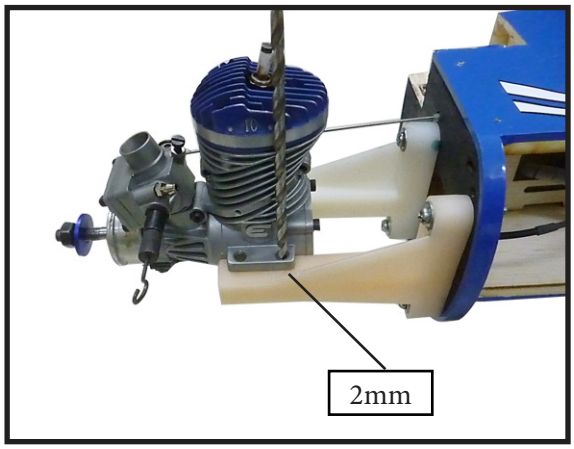


MOUNTING THE ENGINE.

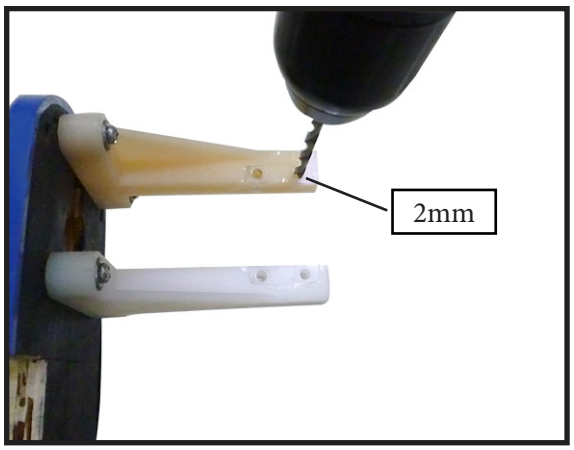
1) Position the engine with the drive washer (110mm) forward of the firewall as shown.

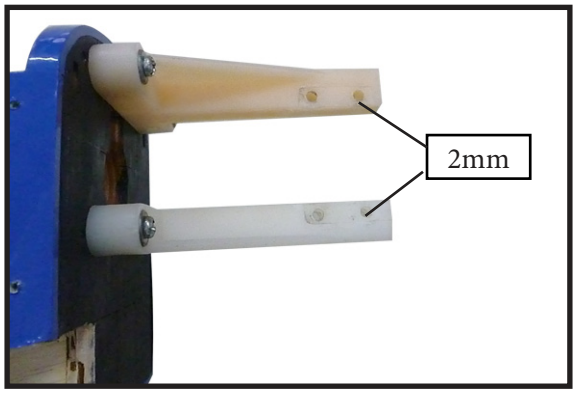


2) Use a pin drill and 2mm drill bit to drill a small indentation in the mount for the engine mounting screw.



3) Use a drill to drill the four holes in the engine mount rails.



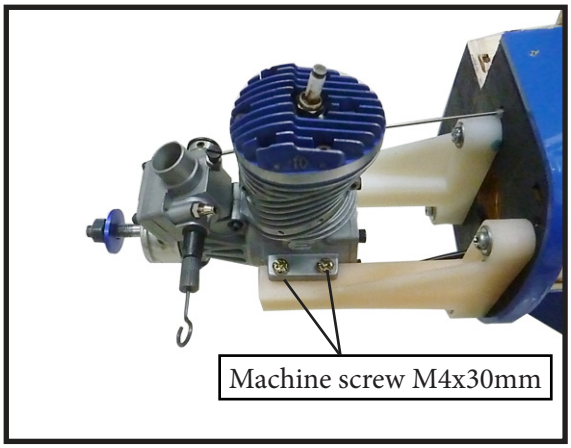


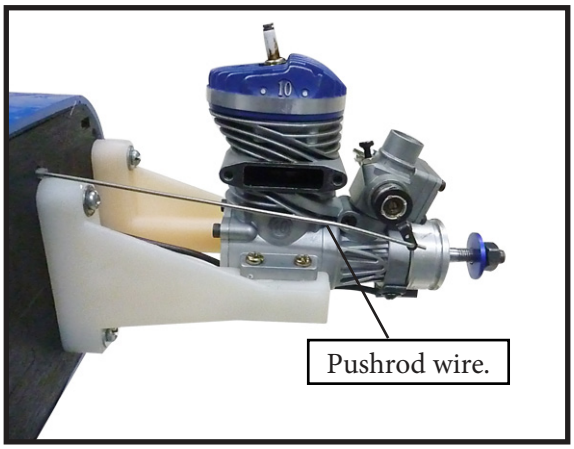
4) On the fire wall has the location for the throttle pusshrod tube (pre-drill).

5) Slide the pushrod tube in the firewall and guide it through the fuel tank mount. Use medium C/A to glue the tube to the firewall and the fuel tank mount.

6) Connect the Z-bend in the 450mm throttle pushrod to the outer hole of the carburetor arm.

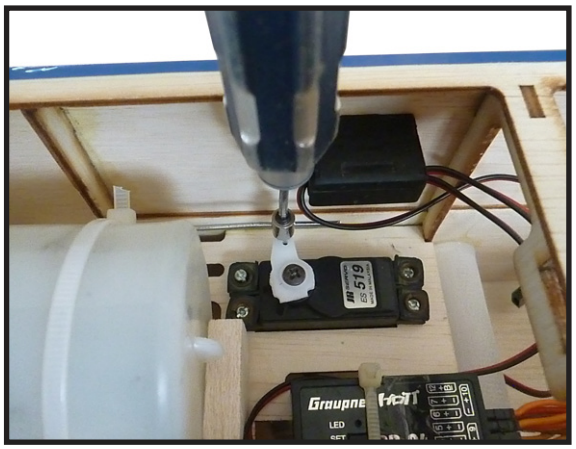
7) Slide the throttle pushrod wire into the tube. Position the engine between the mounts. Use four M4x30mm machine screws to secure the engine to the mount as shown.





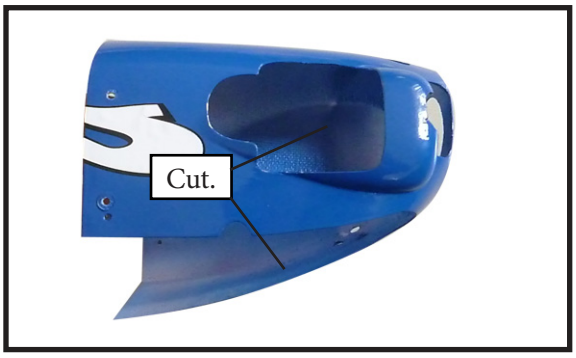
8) Reinstall the servo horn by sliding the connector over the pushrod wire. Center the throttle stick and trim and install the servo horn perpendicular to the servo center line.

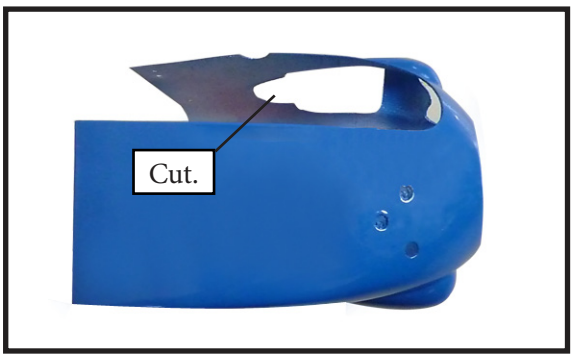
9) Move the throttle stick to the closed position and move the carburetor to closed. Use a 2.5mm hex wrench to tighten the screw that secures the throttle pushrod wire. Make sure to use threadlock on the screw so it does not vibrate loose.



COWLING.

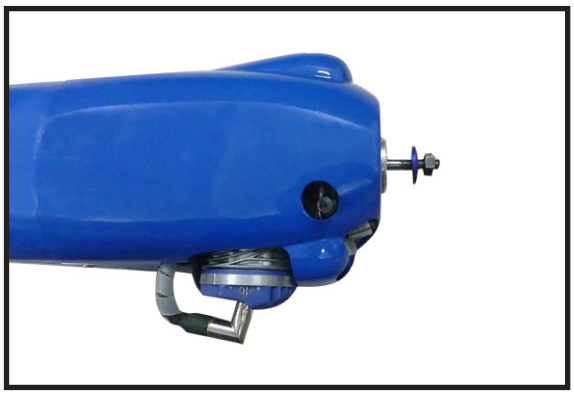
1) Slide the fiberglass cowl over the engine and line up the back edge of the cowl with the marks you made on the fuselage then trim and cut as shown.

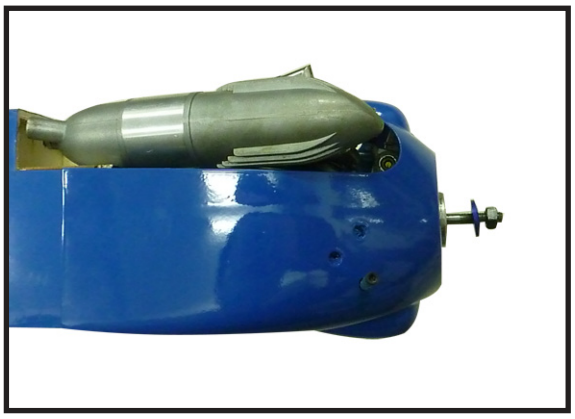


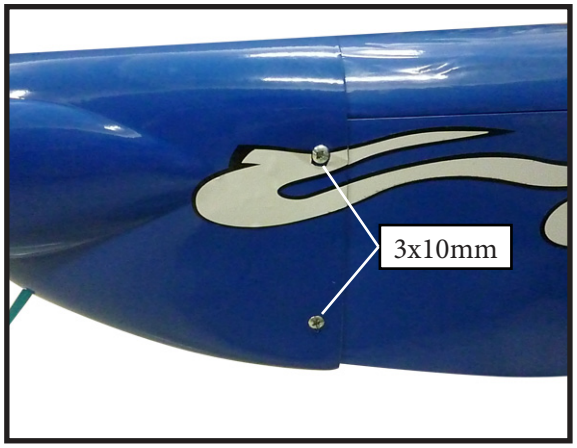


Because of the size of the cowl, it may be necessary to use a needle valve extension for the high speed needle valve. Make this out of sufficient length 1.5mm wire and install it into the end of the needle valve. Secure the wire in place by tightening the set screw in the side of the needle valve.

2) While keeping the back edge of the cowl flush with the marks, align the front of the cowl with the crankshaft of the engine. The front of the cowl should be positioned so the crankshaft is in nearly the middle of the cowl opening. Use the spinner backplate as a guide. Hold the cowl firmly in place using pieces of masking tape.



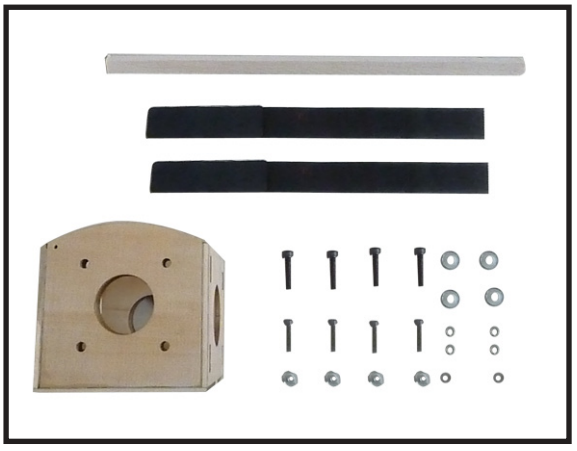




3) Install the muffler and muffler extension onto the engine and make the cutout in the cowl for muffler clearance. Connect the fuel and pressure lines to the carburetor, muffler and fuel filler valve. Secure the cowl to fuselage using the M3x10mm screws.

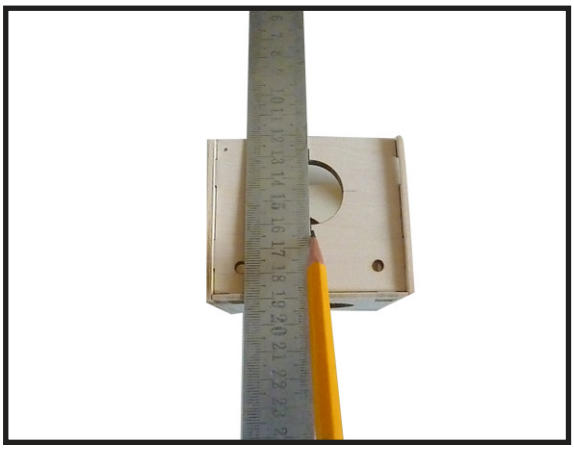
ELECTRIC POWER CONVERSION.

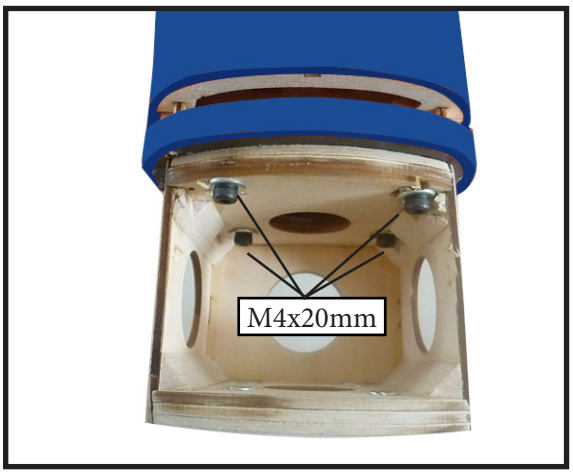
1) Locate the items neccessary to install the electric power conversion included with your model.

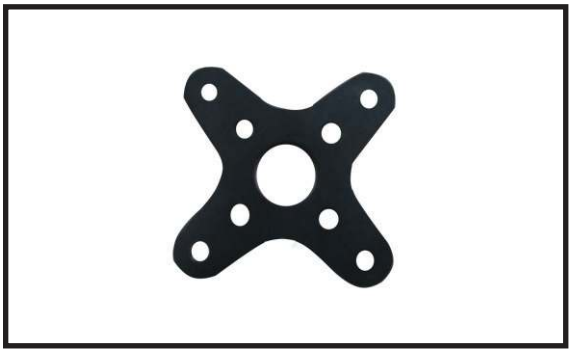


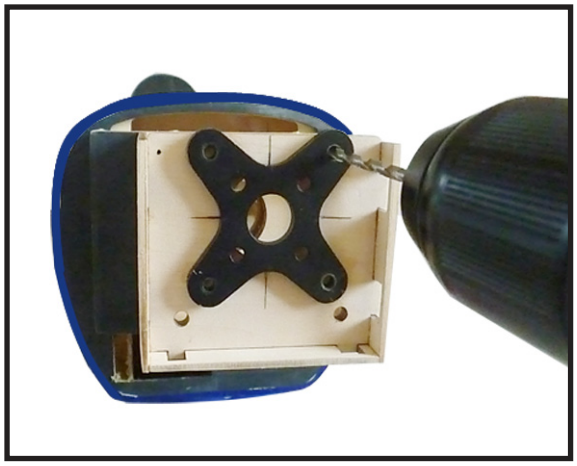
- Model size: .46-.52 size models
- Motor: 35mm 830 rev per volt
- Propeller: 12x6 ~ 13x6
- ESC: 60A
- Lipo Batteries: 4 cell 4200mA

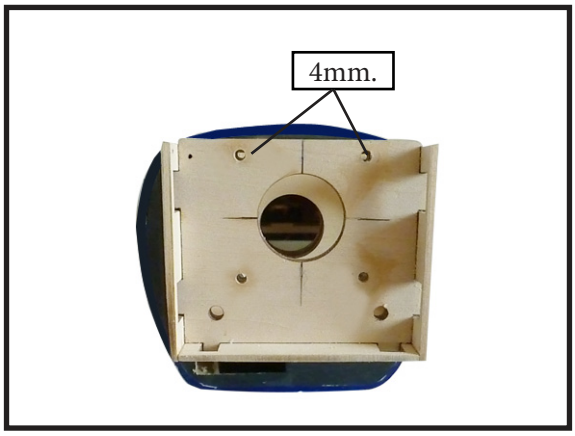
2) Attach the electric motor box to the firewall suitable with the cross lines drawn on the electric motor box and firewall. Using M4x20mm to secure the motor box to the firewall. Please see pictures below.



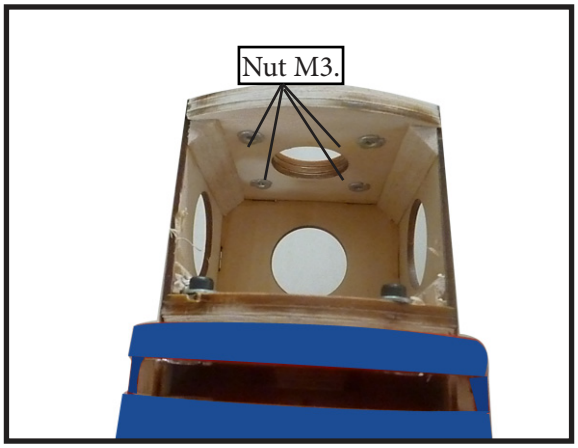


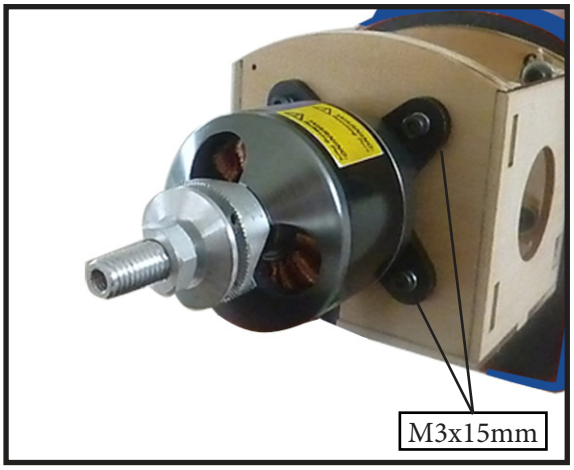




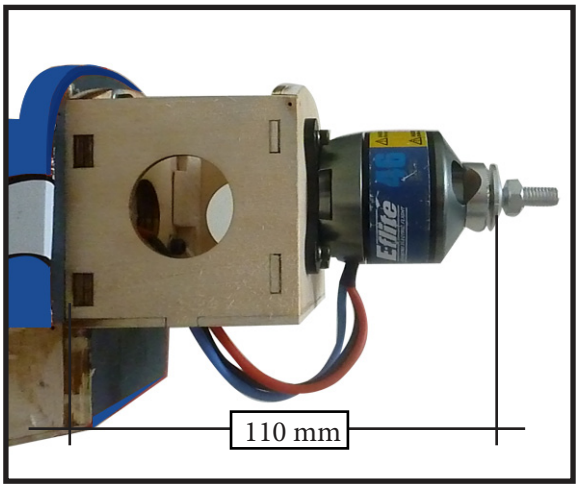


3) Attach the motor to the front of the electric motor box using four 4mm blind nut, four M3x15mm hex head bolts to secure the motor. Please see picture shown.

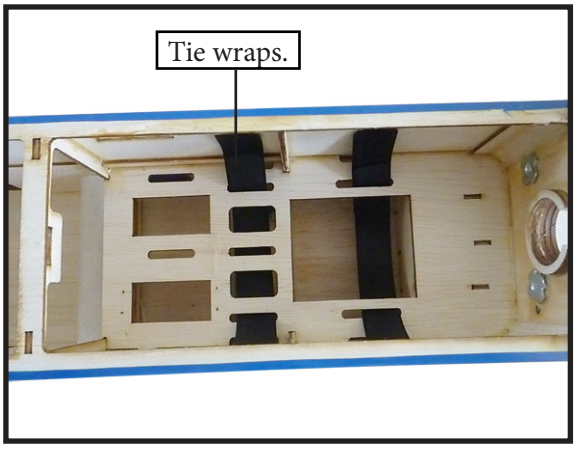


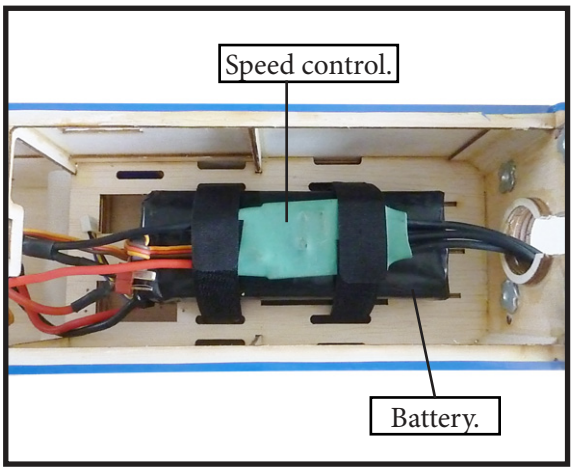


4) Locate the plywood battery tray to the fuselage. Tighten the screws using machine screws M3x15mm to secure the tray in position.



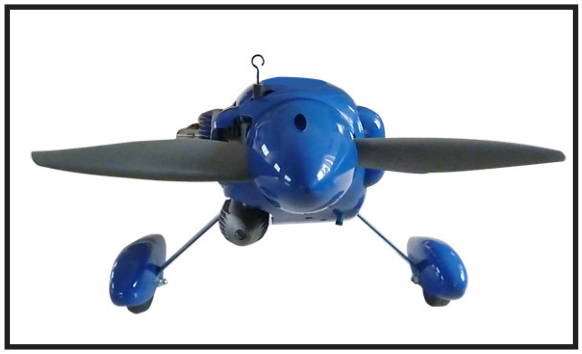
5) Attach the speed control to the side of the motor box using two-sided tape and tie wraps. Connect the appropriate leads from the speed control to the motor. Make sure the leads will not interfere with the operation of the motor.



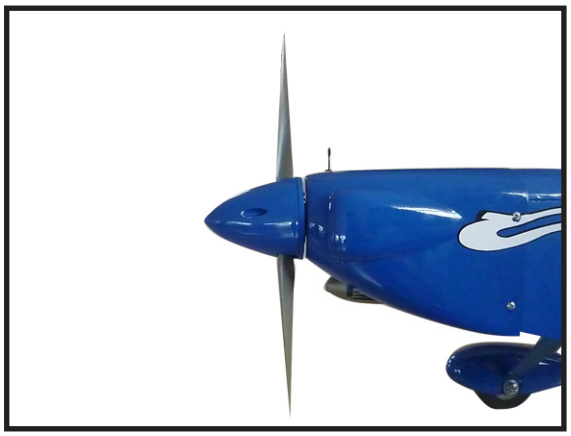


INSTALLING THE SPINNER.

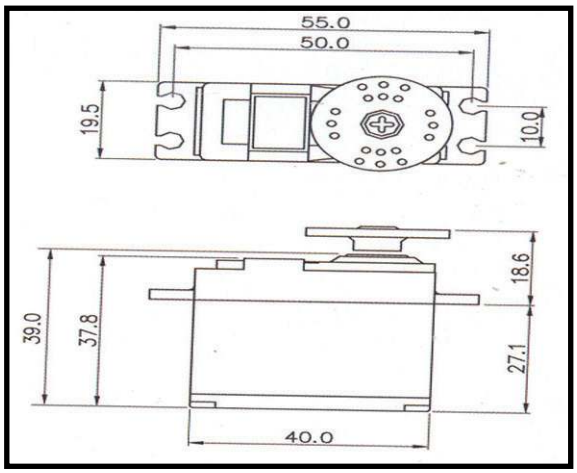
Install the spinner backplate, propeller and spinner cone.

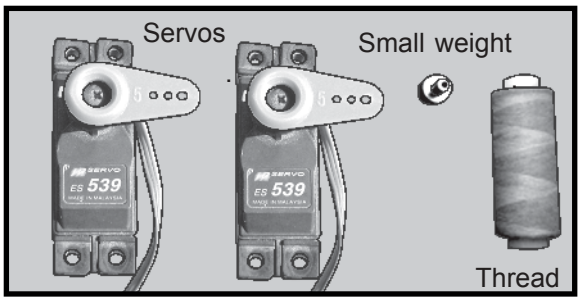


⚠ The propeller should not touch any part of the spinner cone. If it does, use a sharp modeling knife and carefully trim away the spinner cone where the propeller comes in contact with it.



INSTALLING THE AILERON -FLAP SERVOS.

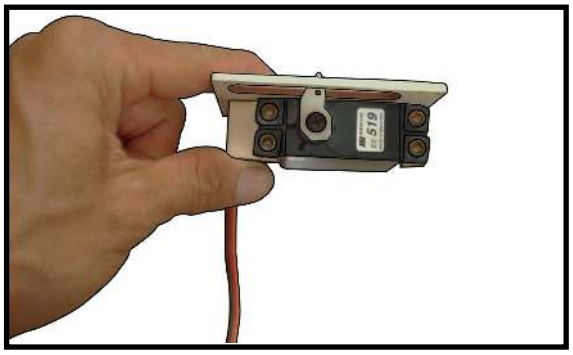




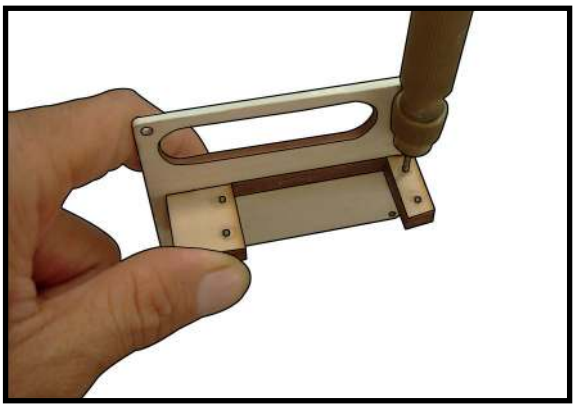
⚠ Because the size of servos differ, you may need to adjust the size of the precut opening in the mount. The notch in the sides of the mount allow the servo lead to pass through.

1) Using a small weight (Weighted fuel pick-up works well) and string, feed the string through the wing as indicated.

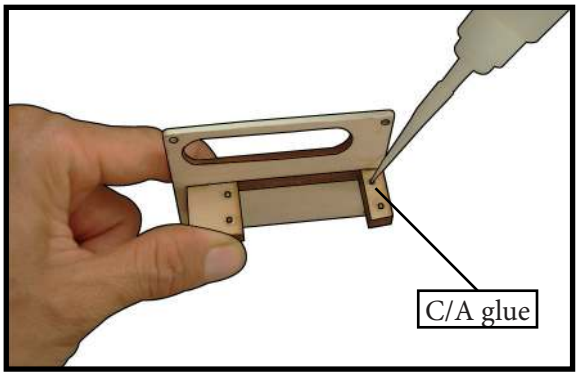
2) Place the servo between the mounting blocks and space it from the hatch. Use a pencil to mark the mounting hole locations on the blocks.



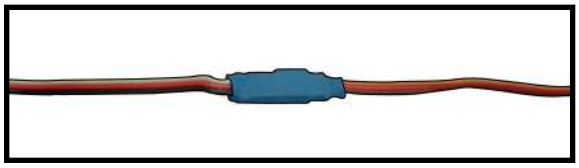
3) Use drill bit in a pin vise to drill the mouting holes in the blocks.



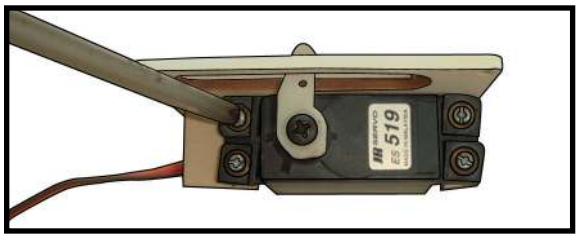
4) Apply 2-3 drops of thin C/A to each of the mounting holes. Allow the C/A to cure without using accelerator.



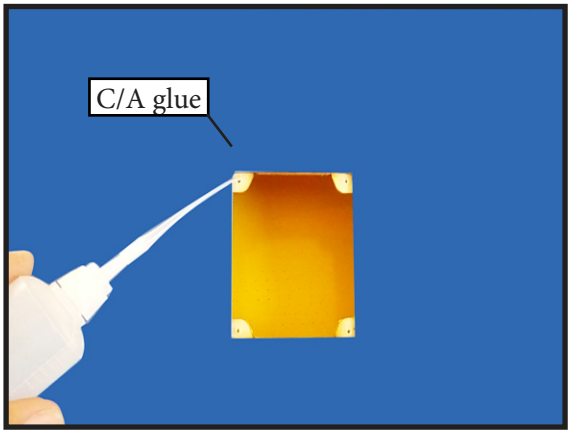
5) Use dental floss to secure the connection so they cannot become unplugged.

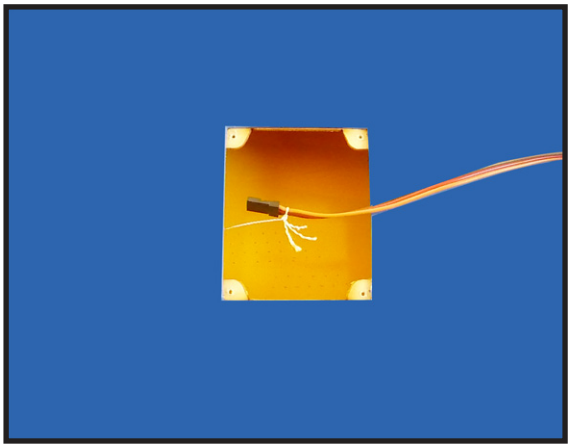


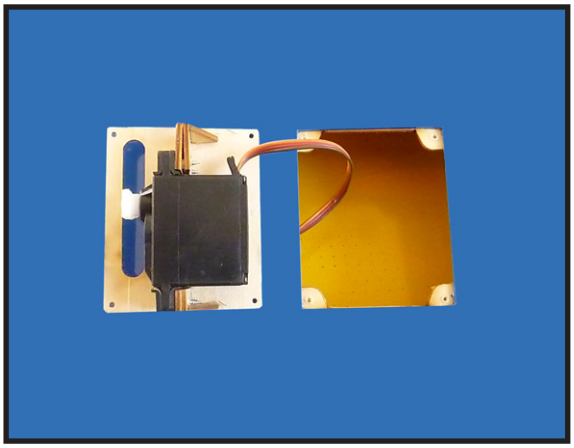
6) Secure the servo to the aileron hatch using Phillips screwdriver and the screws provided with the servo.

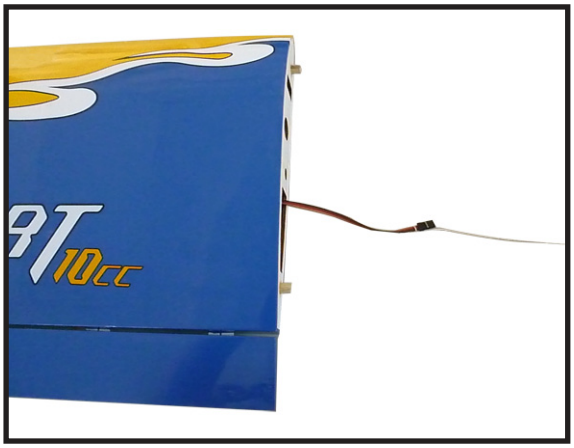


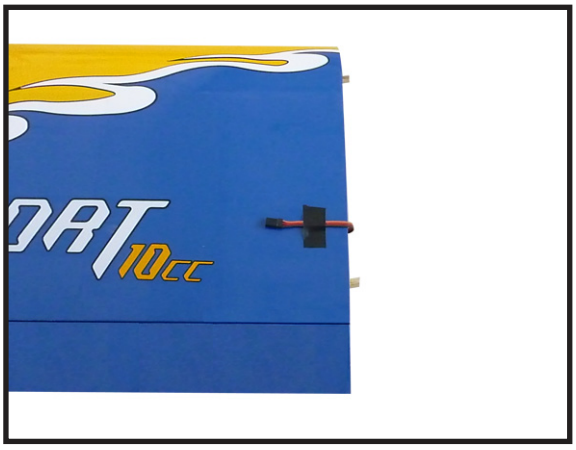
7) Apply 1-2 drops of thin C/A to each of the mounting tabs. Allow the C/A to cure without using accelerator.

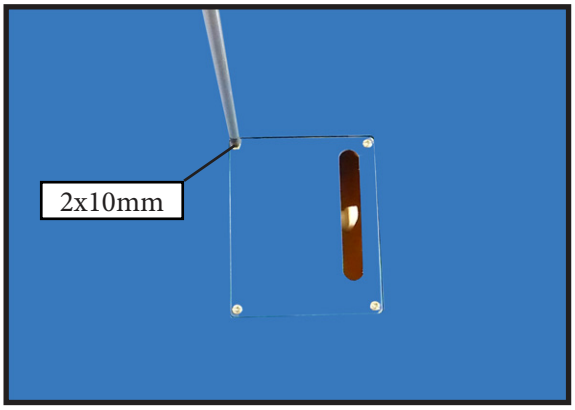


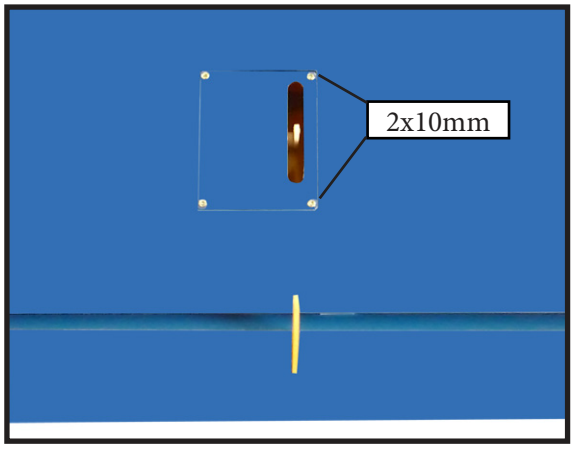






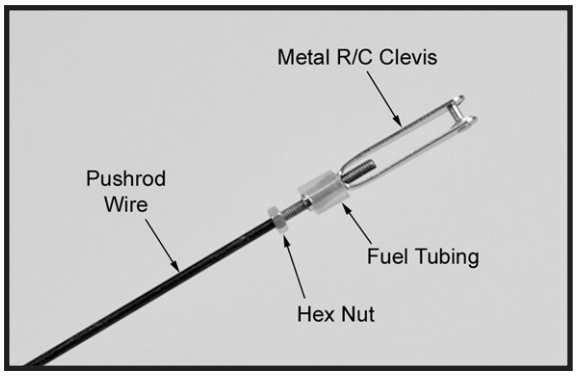




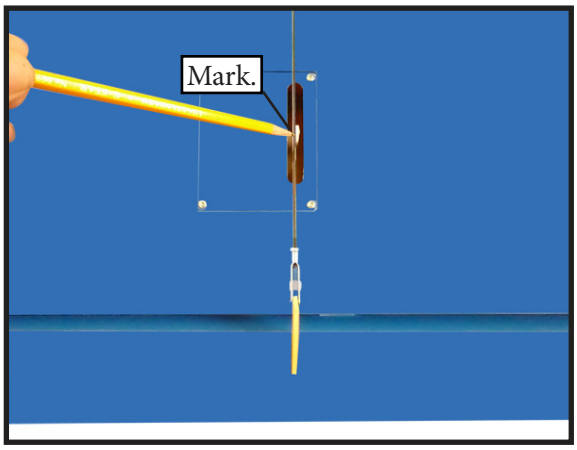


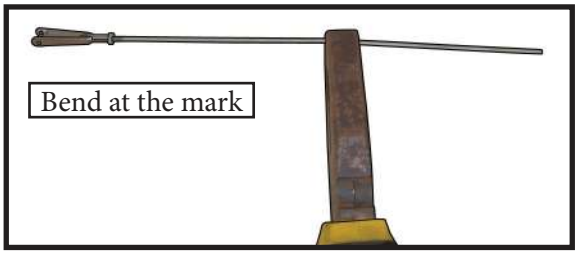
AILERON PUSHROD HORN INSTALLATION.

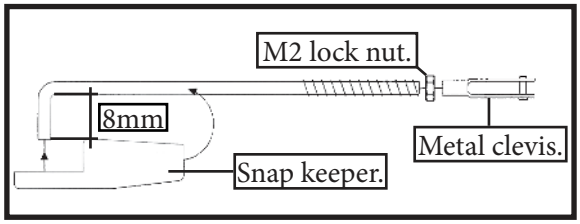
Please see below pictures.

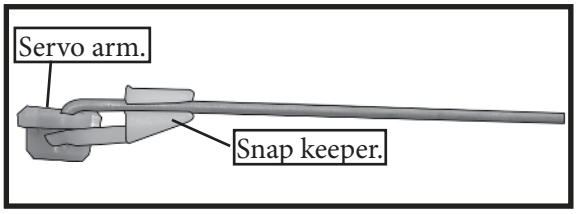


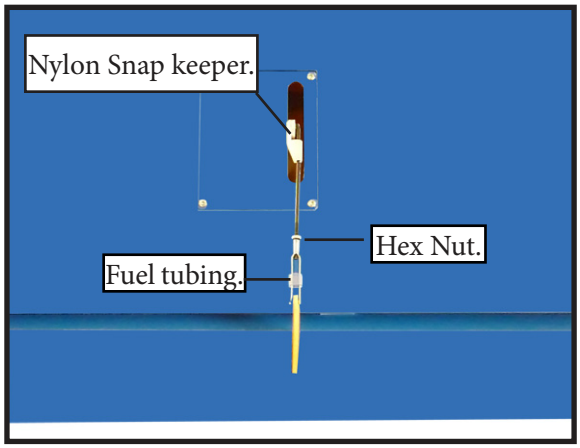
Use a felt tip pen to mark the wire where it crosses the hole. Use a pair of pliers to put a shrp 90-degree bend in the wire at the mark.





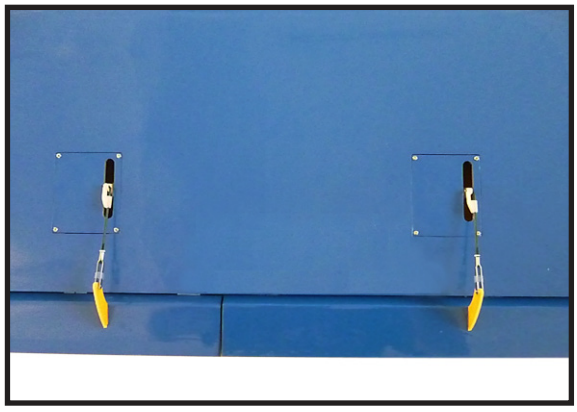






FLAP PUSHROD HORN INSTALLATION.

Assemble and install the flap pushrods as same as the aileron pushrod.



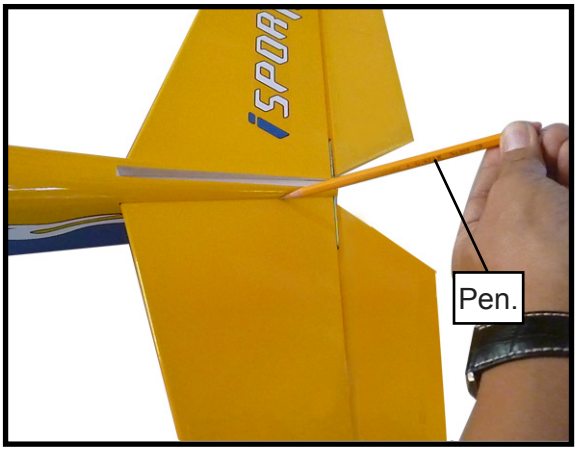
INSTALLING THE HORIZONTAL STABILIZER.

1) Using a ruler and a pen, locate the centerline of the horizontal stabilizer, at the trailing edge, and place a mark. Use a triangle and extend this mark, from back to front, across the top of the stabilizer. Also extend this mark down the back of the trailing edge of the stabilizer.

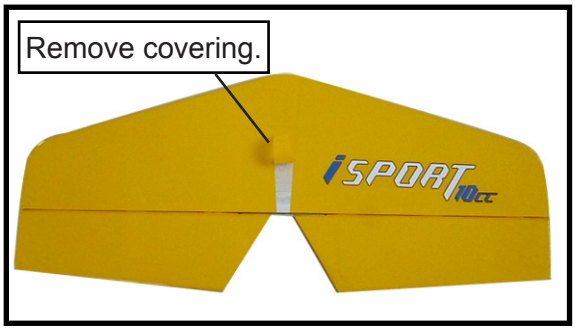
2) Using a modeling knife, carefully remove the covering at mounting slot of horizontal stabilizer (both side of fuselage).

3) Slide the stabilizer into place in the precut slot in the rear of the fuselage. The stabilizer should be pushed firmly against the front of the slot.

4) With the stabilizer held firmly in place, use a pen and draw lines onto the stabilizer where it and the fuselage sides meet. Do this on both the right and left sides and top and bottom of the stabilizer.



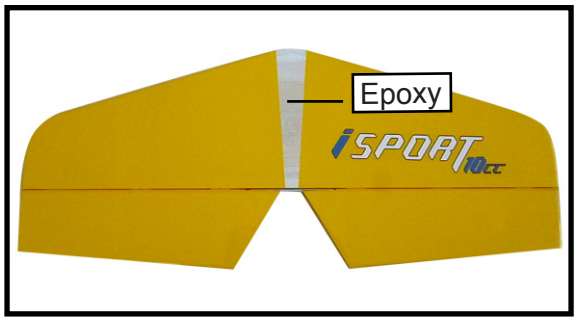
5) Remove the stabilizer. Using the lines you just drew as a guide, carefully remove the covering from between them using a modeling knife.



When cutting through the covering to remove it, cut with only enough pressure to only cut through the covering itself. Cutting into the balsa structure may weaken it.

6) Using a modeling knife, carefully remove the covering that overlaps the stabilizer mounting platform sides in the fuselage. Remove the covering from both the top and the bottom of the platform sides.

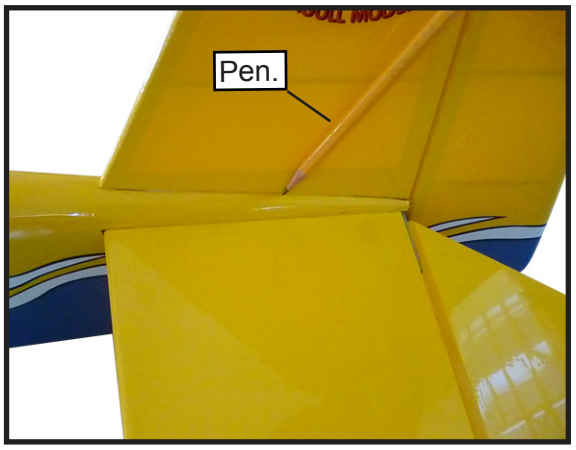
7) When you are sure that everything is aligned correctly, mix up a generous amount of 30 Minute Epoxy. Apply a thin layer to the top and bottom of the stabilizer mounting area and to the stabilizer mounting platform sidesin the fuselage. Slide the stabilizer in place and realign. Double check all of your measurements once more before the epoxy cures. Hold the stabilizer in place with T-pins or masking tape and remove any excess epoxy using a paper towel and rubbing alcohol.



8) After the epoxy has fully cured, remove the masking tape or T-pins used to hold the stabilizer in place. Carefully inspect the glue joints. Use more epoxy to fill in any gaps that may exist that were not filled previously and clean up the excess using a paper towel and rubbing alcohol.

INSTALLING VERTICAL STABILIZER

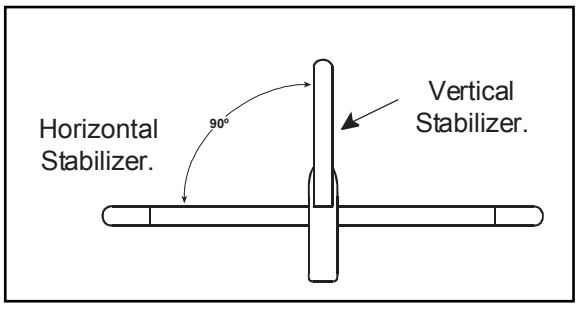
1) While holding the vertical stabilizer firmly in place, use a pen and draw a line on each side of the vertical stabilizer where it meets the top of the fuselage.

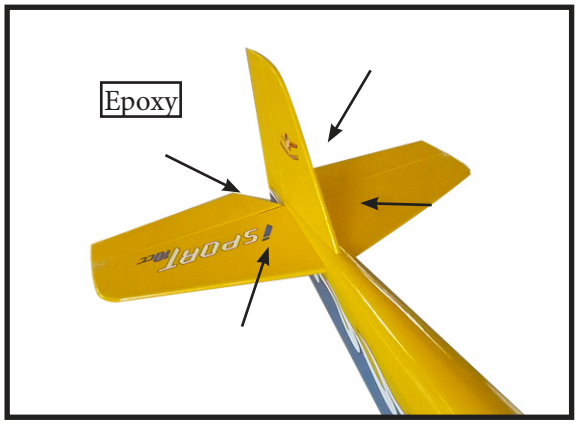


2) Using a modeling knife, remove the covering from over the precut hinge slot cut into the lower rear portion of the fuselage.

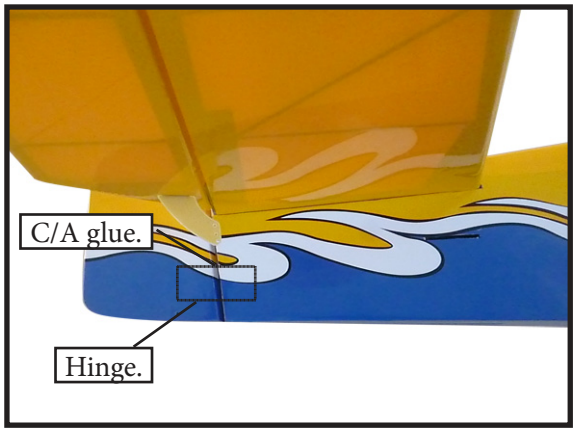
When cutting through the covering to remove it, cut with only enough pressure to only cut through the covering itself. Cutting into the balsa structure may weaken it.

3) Slide the vertical stabilizer back in-place. Using a triangle, check to ensure that the vertical stabilizer is aligned 90º to the horizontal stabilizer.



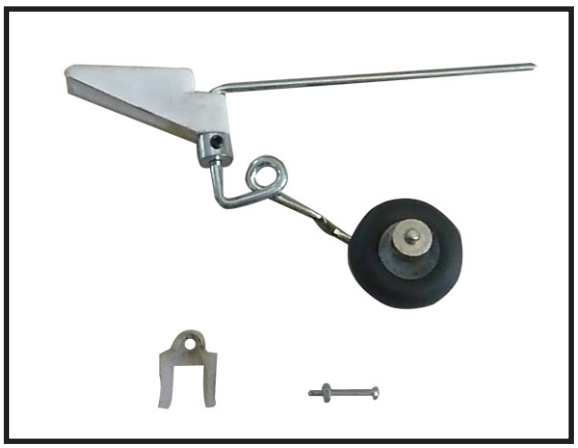


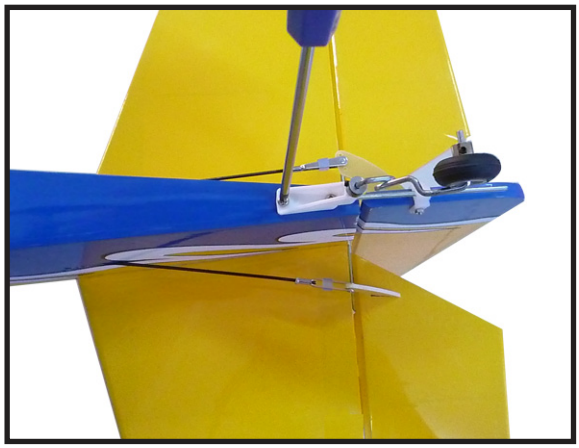
4) When you are sure that everything is aligned correctly, mix up a generous amount of Flash 30 Minute Epoxy. Apply a thin layer to the mounting slot and to bottom of the vertical stabilizer mounting area. Apply epoxy to the bottom and top edges of the filler block and to the lower hinge also. Set the stabilizer in place and realign. Double check all of your measurements once more before the epoxy cures. Hold the stabilizer in place with T-pins or masking tape and remove any excess epoxy using a paper towel and rubbing alcohol. Allow the epoxy to fully cure before proceeding.



TAILWHEEL INSTALLATION.

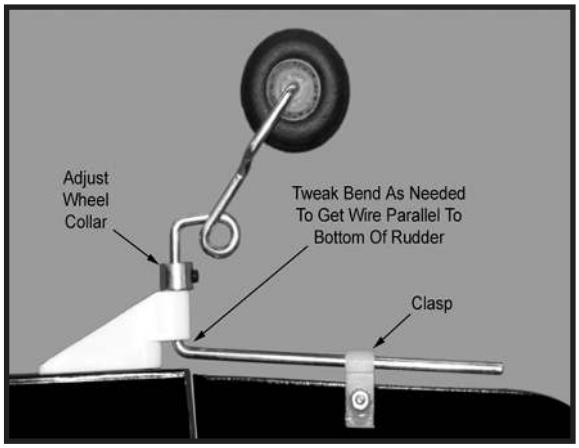
1) Mount the tailwheel assembly in place on the lower rear end of the fuselage, using two M3 x12mm screws.





2) Adjust the wheel collar shown to set the height of the tailwheel wire. Then check to see if the long steering leg of the tail-wheel wire is parallel to the bottom of the rudder. The wire may need to be tweaked slightly to make it parallel.

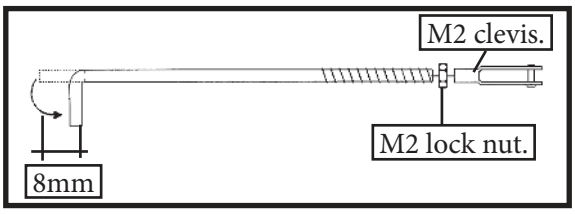
3) Slide the Nylon Rudder Steering Clasp onto the bottom of the rudder and onto the tailwheel wire at the same time. Locate the clasp at the halfway point on the wire, and then drill a hole for the M2 x 15mm Bolt. Insert the bolt through the hole and tighten down the M2 Hex nut to clamp the bracket in place.

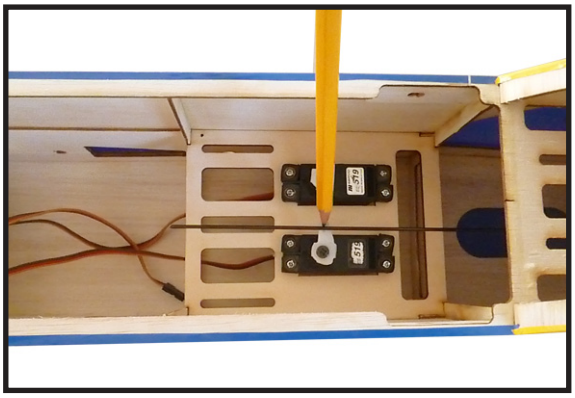


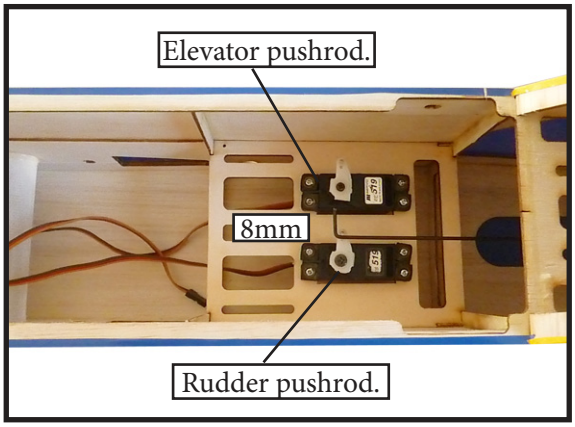
ELEVATOR - RUDDER PUSHROD HORN INSTALLATION.

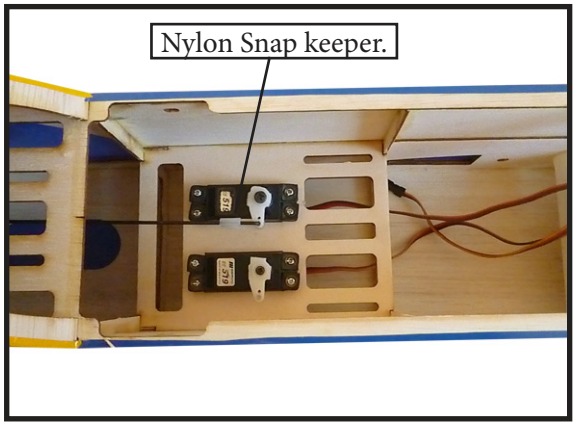
1) Install the elevator control horn using the same method as with the aileron control horns.

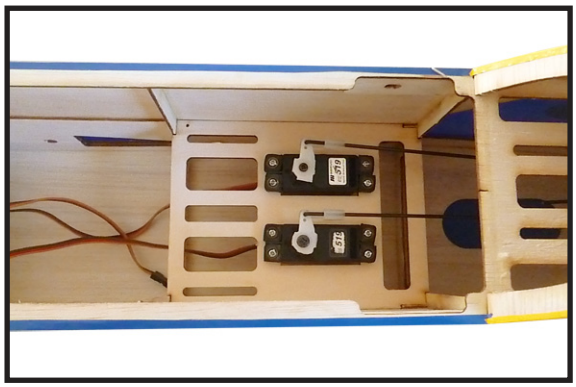
2) Position the elevator control horn on the both side of elevator.

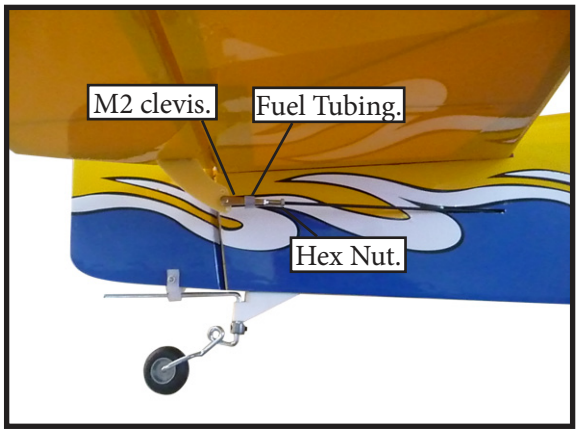


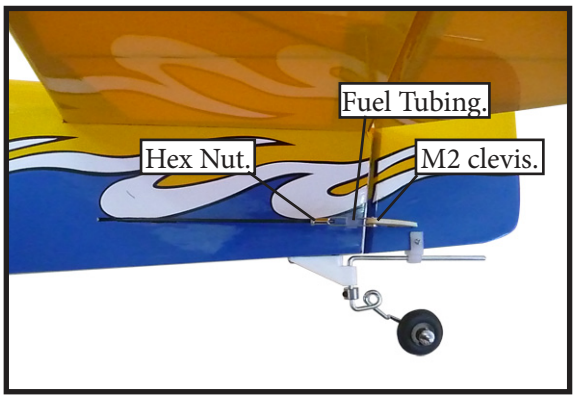












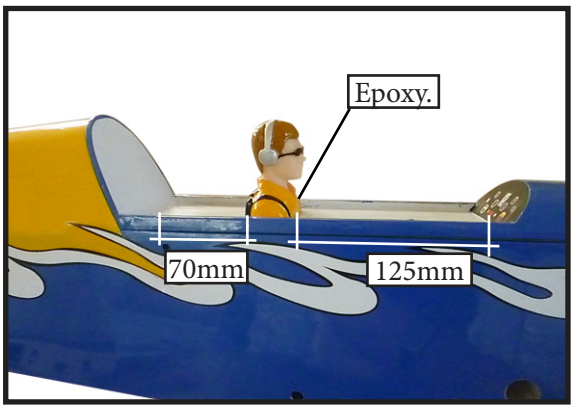
INSTALLATION PILOT .

1) Locate items necessary to install pilot, cockpit panel, and canopy.

2) A scale pilot is included with this ARF. The Seagull Pilot included fitting well to the cockpit. (or you can order others scale pilot figures made by Seagull factory. They are available at Seagull distributors.)

If you are going to install a pilot figure, please use a sanding bar to sand the base of the figure so that it is flat.

3) Position the pilot figure on the canopy floor as show. Locate the oval shaped on the canopy floor and remove the covering. Use epoxy to glue this into the base of the pilot figure and glue the cockpit panel in place with C/A glue, please see pictures as shown.



4) Position the canopy onto the fuselage. Trace around the canopy and onto the fuselage using a felt-tipped pen.

- Apply a bead of canopy glue around the inside edge of the canopy. Position the canopy onto the hatch. Use tape to hold the canopy secure until the glue fully cures.

APPLY THE DECALS.

1) If all the decals are precut and ready to stick. Please be certain the model is clean and free from oily fingerprints and dust. Position decal on the model where desired, using the photos on the box and aid in their location.

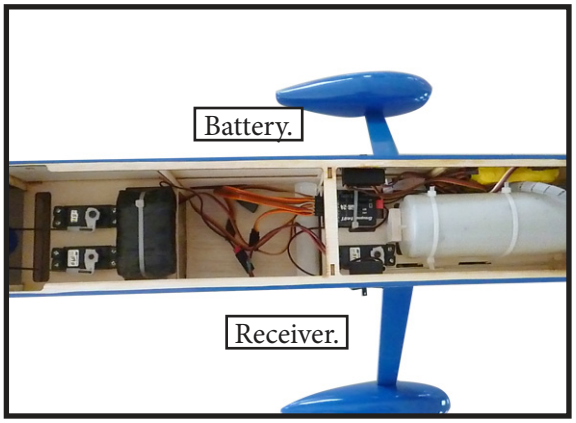
2) If all the decals are not precut, please use scissors or a sharp hobby knife to cut the decals from the sheet. Please be certain the model is clean and free from oily fingerprints and dust. Position decal on the model where desired, using the photos on the box and aid in their location.

INSTALLING THE RECEIVER.

1) Plug the five servo leads and the switch lead into the receiver. Plug the battery pack lead into the switch also.

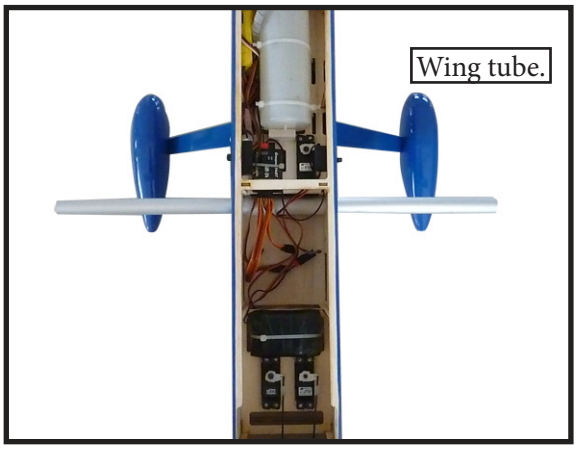
2) Wrap the receiver and battery pack in the protective foam rubber to protect them from vibration.

3) Route the antenna in the antenna tube inside the fuselage and secure it to the bottom of fuselage using a plastic tape.

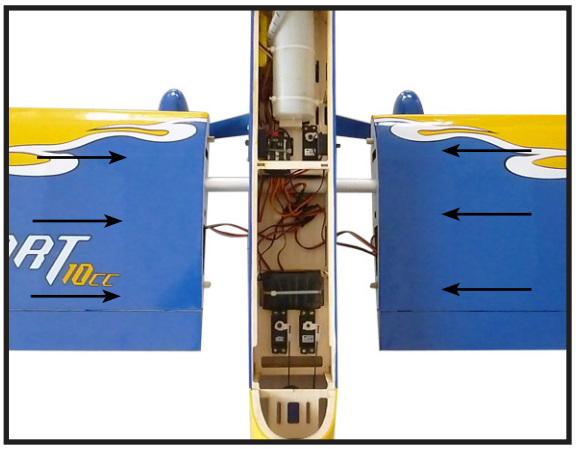


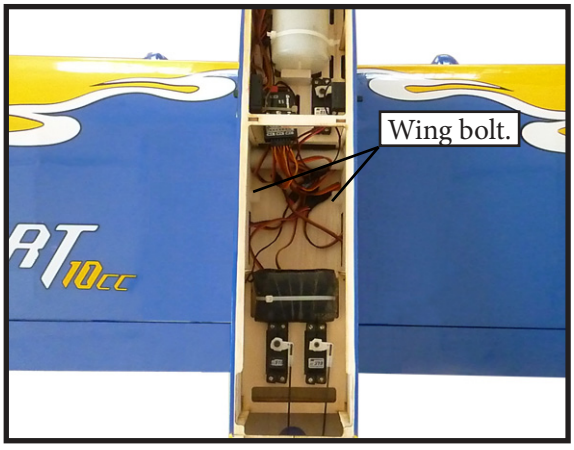
ATTACHMENT WING- FUSELAGE.

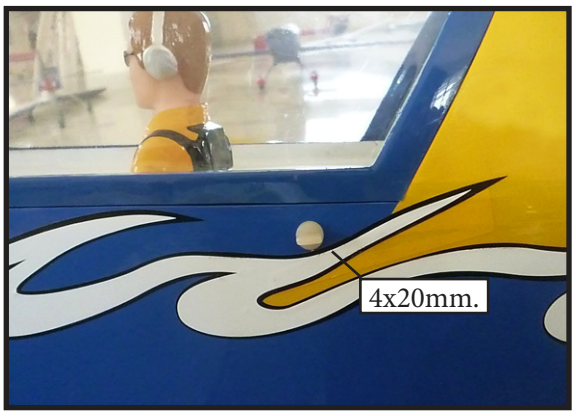
Attach the aluminium tube into fuselage.



Insert two wing panels as pictures below.







BALANCING.

1) It is critical that your airplane be balanced correctly. Improper balance will cause your plane to lose control and crash. THE CENTER OF GRAVITY IS LOCATED **75MM** BACK FROM THE LEADING EDGE OF THE WING AT THE WING ROOT.

2) Mount the wing to the fuselage. Using a couple of pieces of masking tape, place them on the bottom side of the wing **75mm** back from the leading edge of the wing at the wing root.

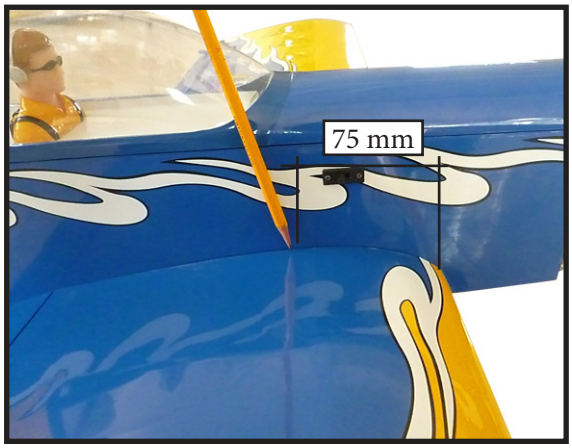
3) Turn the airplane upside down. Place your fingers on the masking tape and carefully lift the plane .

Accurately mark the balance point on the botttom of the wing on both sides of the fuselage. The balance point is located **75mm** back from the leading edge of the wing at the wing root. This is the balance point at which your model should balance for your first flights. Later, you may wish to experiment by shifting the balance up to 10mm forward or back to change the flying characteristics. Moving the balance forward may improve the smoothness and arrow- like tracking, but it may then require more speed for take off and make it more difficult to slow down for landing. Moving the balance aft makes the model more agile with a lighter and snappier "feel". In any case,please start at the location we recommend .

With the wing attached to the fuselage, all parts of the model installed (ready to fly), and empty fuel tanks, hold the model at the marked balance point with the stabilizer level.

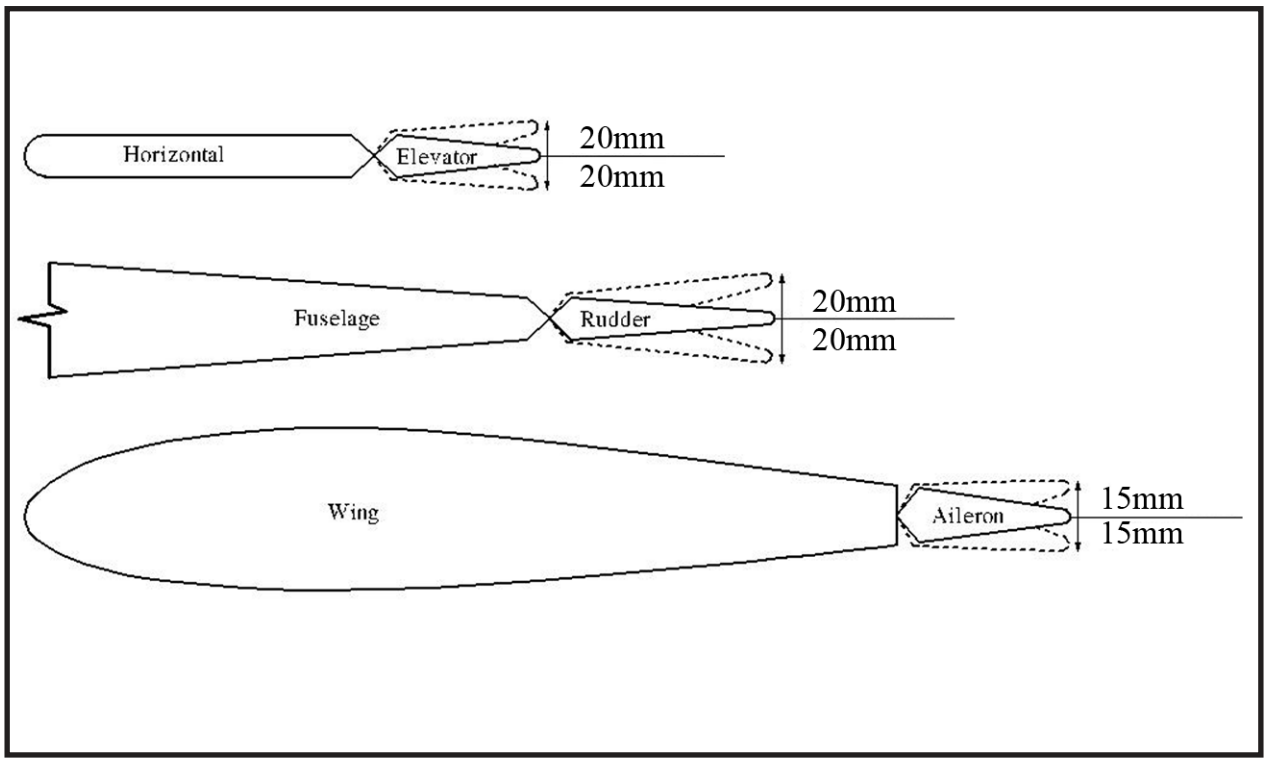
Lift the model. If the tail drops when you lift, the model is "tail heavy" and you must add weight* to the nose. If the nose drops, it is "nose heavy" and you must add weight* to the tail to balance.

*If possible, first attempt to balance the model by changing the position of the receiver battery and receiver. If you are unable to obtain good balance by doing so, then it will be necessary to add weight to the nose or tail to achieve the proper balance point.



CONTROL THROWS.

Ailerons:
Up : 15 mm
Down : 15 mm
Elevator:
Up : 20 mm
Down : 20 mm
Rudder:
Right : 20 mm
Left : 20 mm


Horizontal
Elevator
20mm
20mm
Fuselage
Rudder
20mm
20mm
Wing
Aileron
15mm
15mm

FLIGHT PREPARATION.

Check the operation and direction of the elevator, rudder, ailerons and throttle.

☐ A) Plug in your radio system per the manufacturer's instructions and turn everything on.

☐ B) Check the elevator first. Pull back on the elevator stick. The elevator halves should move up. If it they do not, flip the servo reversing switch on your transmitter to change the direc-

☐ C) Check the rudder. Looking from behind the airplane, move the rudder stick to the right. The rudder should move to the right. If it does not, flip the servo reversing switch on your transmitter to change the direction.

☐ D) Check the throttle. Moving the throttle stick forward should open the carburetor barrel. If it does not, flip the servo reversing switch on your trans-

☐ E) From behind the airplane, look at the aileron on the right wing half. Move the aileron stick to the right. The right aileron should move up and the other aileron should move down. If it does not, flip the servo reversing switch on your transmitter to change the direction.

PREFLIGHT CHECK.

☐ 1) Completely charge your transmitter and receiver batteries before your first day of flying.

☐ 2) Check every bolt and every glue joint in the **ISPORT** to ensure that everything is tight and well bonded.

☐ 3) Double check the balance of the airplane. Do this with the fuel tank empty.

☐ 4) Check the control surfaces. All should move in the correct direction and not bind in any way.

☐ 5) If your radio transmitter is equipped with dual rate switches double check that they are on the low rate setting for your first few flights.

☐ 6) Check to ensure the control surfaces are moving the proper amount for both low and high rate settings.

☐ 7) Check the receiver antenna. It should be fully extended and not coiled up inside the fuselage.

☐ 8) Properly balance the propeller. An out of balance propeller will cause excessive vibration which could lead to engine and/or airframe failure.

We wish you many safe and enjoyable flights with your ISPORT.

FOR USA MARKET ONLY.

Safety,Precautions and Warnings

As the user of this product, you are solely responsible for operating it in a manner that does not endanger yourself and others or result in damage to the product or the property of others. Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) that you use.

This model is controlled by a radio signal that is subject to interference from many sources outside your control. This interference can cause momentary loss of control so it is necessary to always keep a safe distance in all directions around your model, as this margin will help to avoid collisions or injury.

• Always operate your model in an open area away from cars, traffic or people.
• Avoid operating your model in the street where injury or damage can occur.
• Never operate the model out into the street or populated areas for any reason.
• Never operate your model with low transmitter batteries.
• Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) that you use.
• Keep all chemicals, small parts and anything electrical out of the reach of children.
• Moisture causes damage to electronics. Avoid water exposure to all equipment not specifically designed and protected for this purpose.

Warranty Period:

Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warranties that the Products purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase by the Purchaser.

Limited Warranty

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for warranty claims. Further, Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

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

(c) Purchaser Remedy- Horizon's sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be defective. In the event of a defect, these are the Purchaser's exclusive remedies. Horizon reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon. 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 other than Horizon. Return of any goods by Purchaser must be approved in writing by Horizon before shipment.

Damage Limits:

HORIZON 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 Horizon exceed the individual price of the Product on which liability is asserted. As Horizon 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.

Law: These Terms are governed by Illinois law (without regard to conflict of law principals).

Safety Precautions:

This is a sophisticated hobby Product and not a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the Product or other property. This Product is not intended for use by children without direct adult supervision. The Product manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or injury.

Questions, Assistance, and Repairs:

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to productsupport@horizonhobby.com, or call 877.504.0233 toll free to speak to a service technician.

Inspection or Repairs

If this Product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, **as Horizon is not responsible for merchandise until it arrives and is accepted at our facility.** A Service Repair Request is available at www.horizonhobby.com on the "Support" tab. If you do not have internet access, please include a letter with your complete name, street address, email address and phone number where you can be reached during business days, your RMA number, a list of the included items, method of payment for any non-warranty expenses and a brief summary of the problem. Your original sales receipt must also be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon Hobby.

Non-Warranty Repairs

Should your repair not be covered by warranty the repair will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Please advise us of your preferred method of payment. Horizon accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any repair left unpaid or unclaimed after 90 days will be considered abandoned and will be disposed of accordingly. Please note: non-warranty repair is only available on electronics and model engines.

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Service Center
4105 Fieldstone Road
Champaign, Illinois 61822

All other Products requiring warranty inspection or repair should be shipped to the following address:

Horizon Product Support
4105 Fieldstone Road
Champaign, Illinois 61822

Please call 877-504-0233 with any questions or concerns regarding this product or warranty.