



**READ THROUGH THIS MANUAL
BEFORE STARTING CONSTRUCTION.
IT CONTAINS IMPORTANT INSTRUCTIONS
AND WARNINGS CONCERNING THE
ASSEMBLY AND USE OF THIS MODEL.**



PHOENIX MODEL®

SPECIFICATION

- Wingspan: 1437mm (56.5in)
- Length: 1145mm (45 in)
- Flying weight: 2400-2700 gr
- Wing area: 35 dm²
- Wing loading: 79g/dm²
- Wing type: Naca airfoils
- Covering type: V-kote film
- Spinner size: Plastic 58mm (included)
- Radio: 4 channel minimum (not included)
- Servo: 5 standard servo: 2 aileron;
1 elevator; 1 rudder; 1 throttle (not included)
- Recommended receiver battery:
4.8-6V / 800-1200mAh NiMH (not included)
- Servo mount: 21mm x 42 mm
- Propeller: suit with your engine
- Engine: .40-.46 / 2-stroke (not included)
- Motor: brushless outrunner
- Gravity CG: 65-70 mm (2.5-2.7 in) Back from
the leading edge of the wing, at the fuselage

- Control throw Ailerons: Low: 11mm up/down,
10% expo; High: 14mm up/down, 10% expo
- Control throw Elevators: Low: 11mm up/down,
12% expo; High: 14mm up/down, 12% expo
- Control throw Rudder: Low: 25mm right/left,
15% expo; High: 40mm right/left, 15% expo
- Experience level: Beginner
- Plane type: Trainer

RECOMMENDED MOTOR AND BATTERY SET UP

- Motor: RIMFIRE .46 (not included)
- Lipo cell: 4-6 cells / 4000-5000 mAh (not included)
- Esc: 50-60A (not included)



UNDER SAFETY PRECAUTIONS

This radio control model is not a toy!

- It is highly recommended that first-time builders seek advice of experienced modelers before beginning assembly.
- Assemble this kit only in places out of children's reach!
- Take enough safety precautions prior to operating this model.
You are responsible for this model's assembly and safe operation!
- Always keep this instruction manual ready at hand for quick reference, even after completing the assembly.

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INTRODUCTION

Thank you for purchasing Phoenix Model products. With over 20 years experience in production and fly testing, Phoenix Model is committed to bring the best quality products and good service to customers. Along with a team of creative engineers and skilled workers, we will always accompany with customers by our great experiences, fully enthusiasm... which will burn our passion!! Joining with us to explore and conquer challenges in the sky ...

Your satisfaction is our success. Please read through this manual before starting construction.

Academy of Model Aeronautics: If you are not already a member of the AMA, please join! The AMA is the governing body of model aviation and membership provides liability insurance coverage, protects modelers' rights and interests and is required to fly at most R/C sites.

Academy of Model Aeronautics

5151 East Memorial Drive Muncie, IN 47302-9252

Tele. (800) 435-9262

Fax (765) 741-0057

Or via the Internet at: <http://www.modelaircraft.org>



WARRANTY

Phoenix Model guarantees the component parts in this kit to be free from defects in both material and workmanship at the date of purchase by the purchaser.

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 Phoenix Model.

Further, Phoenix Model reserves the right to change or modify this warranty without notice.

DISCLAIMER

Read this disclaimer carefully before using this product. Please strictly follow the instruction manual to assemble and use this.

In that Phoenix Model has no control over the final assembly or material used for final assembly, Phoenix Model is not responsible for loss of use, or other incidental or consequential damages.

Furthermore, Phoenix Model cannot be held liable for personal injury or property damage caused by the use or misuse of Phoenix Model products. By the act of using the user-assembled products, the user accepts all resulting liability.

SAFETY PRECAUTION

- This is not a toy and pilots must be over the age of 14
- Be sure that no other flyers are using your radio frequency.
- Do not smoke near fuel
- Store fuel in a cool, dry place, away from children and pets.
- Wear safety glasses.
- The glow plug clip must be securely attached to the glow plug.
- Do not flip the propeller with your fingers.
- Keep loose clothing and wires away from the propeller.
- Do not start the engine if people are near. Do not stand in line with the side of the propeller.
- Make engine adjustments from behind the propeller only. Do not reach around the spinning propeller.
- Moisture causes damage to electronics. Avoid water exposure to all equipment not specifically designed and protected for this purpose.

IMPORTANT BUILDING NOTES

- Please trial fit all the parts. Make sure you have the correct parts and that they fit and are aligned properly before gluing! This will assure proper assembly. This kit is hand made from natural materials, every plane is unique and minor adjustments may have to be made. However, you should find the fit superior and assembly simple.
- The painted and plastic parts used in this kit are fuel proof. However, they are not tolerant of many harsh chemicals including the following: paint thinner, C/A glue accelerator, C/A glue debonder and acetone. Do not let these chemicals come in contact with the colors on the covering and the plastic parts.
- Some parts included in this kit such as the cowl or wheel pants are made of fiberglass, the fibers of which may cause eye, skin and respiratory tract irritation. Never blow into a part to remove fiberglass dust, as the dust will blow back into your eyes. Always wear safety goggles, a particle mask and rubber gloves when grinding, drilling and sanding fiberglass parts. Vacuum the parts and the work area thoroughly after working with fiberglass parts.

SUGGESTION

To avoid scratching your new airplane, do not unwrap the pieces until they are needed for assembly. Cover your workbench with an old towel or brown paper, both to protect the aircraft and to protect the table. Keep a couple of jars or bowls handy to hold the small parts after you open the bag.

FLIGHT WARNINGS

- Always operate in open areas, away from factories, hospitals, schools, buildings and houses etc.
- NEVER fly your aircraft close to people or built up areas.
- NEVER fly near power lines, aerials or other dangerous areas including airports, motorways etc.
- NEVER fly in wet conditions or on windy or stormy days.
- ALWAYS adjust the engine from behind the propeller, and do not allow any part of your body to be in line with the propeller.
- THE PROPELLER IS DANGEROUS Keep fingers, clothing (ties, shirt sleeves, scarves) or any other loose objects that could be caught or drawn in, away from the propeller. Take care at ALL times.
- NEVER use damaged or deformed propellers or spinners.
- Keep all onlookers (especially small children and animals) well back from the area of operation. This is a flying aircraft, which will cause serious injury in case of impact with a person or animal.
- DO NOT dispose of empty fuel containers on a fire, this can lead to an explosion.

FLIGHT WARNINGS

- When ready to fly, first extend the transmitter aerial.
- Switch on the transmitter.
- Switch on the receiver.
- Check that the wings are correctly fitted to the fuselage.
- Operate the control sticks on the transmitter and check that the control surfaces move freely and in the CORRECT directions.
- Check that the transmitter batteries have adequate power.
- ALWAYS take off into the wind.
- If the model does not respond correctly to the controls, land it as soon as possible and correct the fault.
- ALWAYS land the model INTO the wind, this ensures that the model lands at the slowest possible speed.
- Switch off the receiver.
- Switch off the transmitter.
- Empty the fuel tank after flying, fuel left in the tank can cause corrosion and lead to engine problems.

COVERING TOOLS

- Top Flite® MonoKote® Sealing Iron
- Top Flite Hot Sock Iron Cover
- Top Flite MonoKote Trim Seal Iron
- Top Flite MonoKote Heat Gun

ADHESIVES AND REQUIRED TOOLS

- Thin CA
- 30-minute epoxy
- 6-minute epoxy
- Threadlocker thread locking cement
- Mixing sticks
- Mixing cups (GPMR8056)
- Epoxy brushes
- Denatured alcohol
- Canopy Glue
- Felt-tipped pen or pencil
- Flat screwdriver
- Adjustable wrench
- Drill
- Hobby knife
- Masking tape
- Phillips screwdriver (large)
- Phillips screwdriver (small)
- Ruler
- Sandpaper
- Soldering iron
- Solder
- Hex wrench
- Drill bit: 1/16-inch (1.5mm), 5/64-inch (2mm), 1/8-inch (3,2mm), 3/16-inch (4,8mm), 11/64-inch (4.5mm), 13/64-inch (5,2mm), 1/4-inch (6,4mm)

Academy of Model Aeronautics National Model Aircraft Safety Code

Effective January 1, 2014

A. GENERAL: A model aircraft is a non-human-carrying aircraft capable of sustained flight in the atmosphere. It may not exceed limitations of this code and is intended exclusively for sport, recreation, education and/or competition. All model flights must be conducted in accordance with this safety code and any additional rules specific to the flying site.

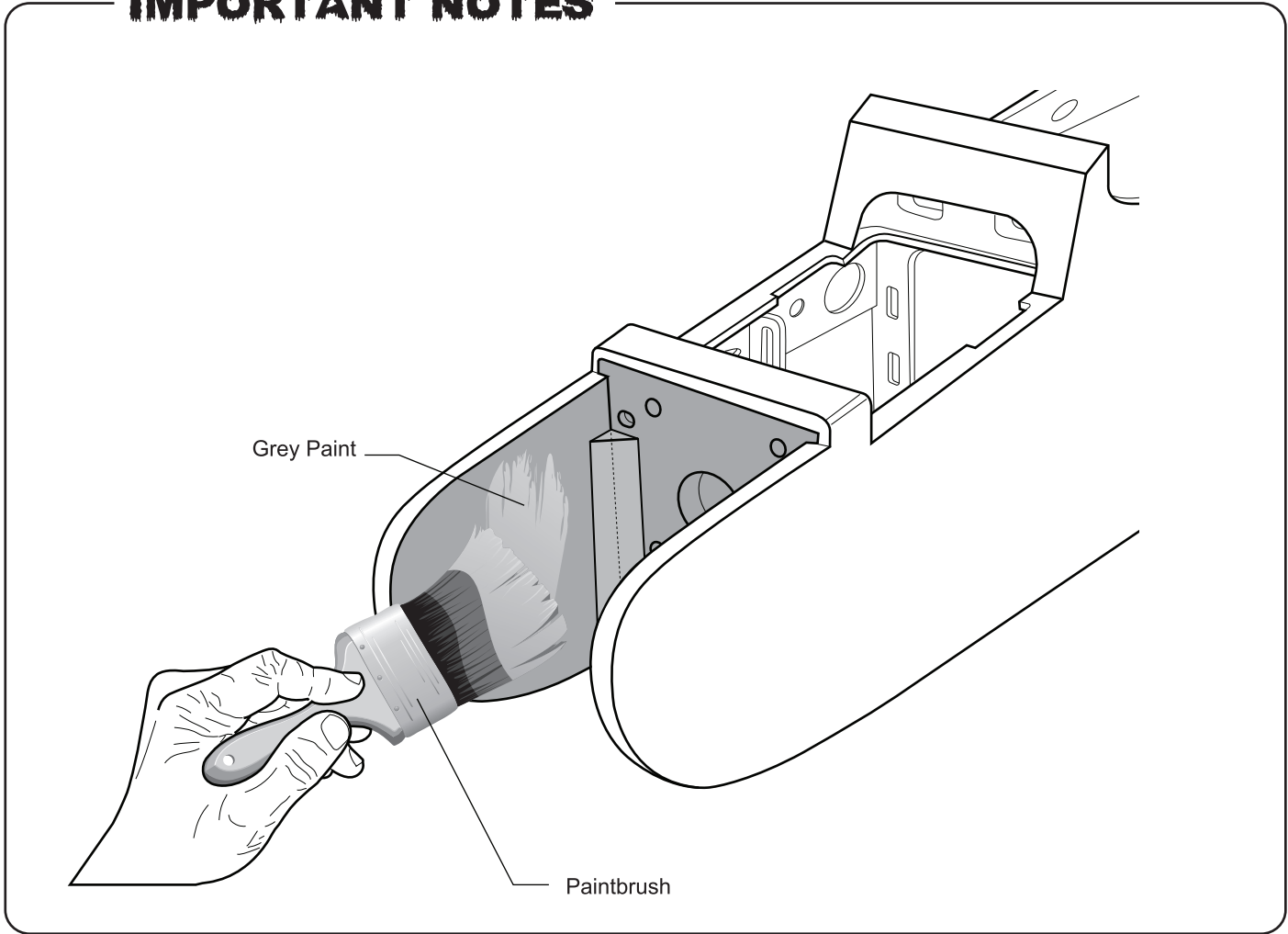
1. Model aircraft will not be flown:
 - (a) In a careless or reckless manner.
 - (b) At a location where model aircraft activities are prohibited.
2. Model aircraft pilots will:
 - (a) Yield the right of way to all human-carrying aircraft.
 - (b) See and avoid all aircraft and a spotter must be used when appropriate. (AMA Document #540-D.)
 - (c) Not fly higher than approximately 400 feet above ground level within three (3) miles of an airport without notifying the airport operator.
 - (d) Not interfere with operations and traffic patterns at any airport, heliport or seaplane base except where there is a mixed use agreement.
 - (e) Not exceed a takeoff weight, including fuel, of 55 pounds unless in compliance with the AMA Large Model Airplane program. (AMA Document 520-A.)
 - (f) Ensure the aircraft is identified with the name and address or AMA number of the owner on the inside or affixed to the outside of the model aircraft. (This does not apply to model aircraft flown indoors.)
 - (g) Not operate aircraft with metal-blade propellers or with gaseous boosts except for helicopters operated under the provisions of AMA Document #555.
 - (h) Not operate model aircraft while under the influence of alcohol or while using any drug that could adversely affect the pilot's ability to safely control the model.
 - (i) Not operate model aircraft carrying pyrotechnic devices that explode or burn, or any device which propels a projectile or drops any object that creates a hazard to persons or property.

Exceptions:

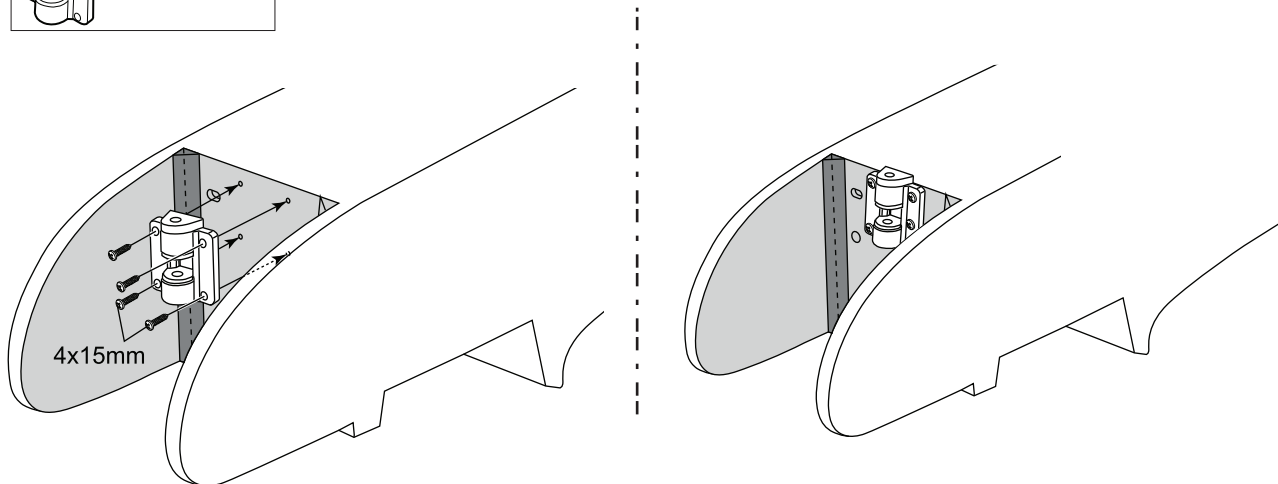
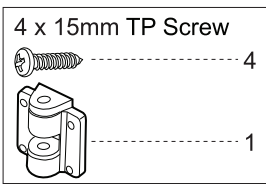
- Free Flight fuses or devices that burn producing smoke and are securely attached to the model aircraft during flight.
- Rocket motors (using solid propellant) up to a G-series size may be used provided they remain attached to the model during flight. Model rockets may be flown in accordance with the National Model Rocketry Safety Code but may not be launched from model aircraft.

- Officially designated AMA Air Show Teams (AST) are authorized to use devices and practices as defined within the Team AMA Program Document. (AMA Document #718.)
- (j) Not operate a turbine-powered aircraft, unless in compliance with the AMA turbine regulations. (AMA Document #510-A.)
- 3. Model aircraft will not be flown in AMA sanctioned events, air shows or model demonstrations unless:
 - (a) The aircraft, control system and pilot skills have successfully demonstrated all maneuvers intended or anticipated prior to the specific event.
 - (b) An inexperienced pilot is assisted by an experienced pilot.
- 4. When and where required by rule, helmets must be properly worn and fastened. They must be OSHA, DOT, ANSI, SNELL or NOCSAE approved or comply with comparable standards.
- B. RADIO CONTROL (RC)
 - 1. All pilots shall avoid flying directly over unprotected people, vessels, vehicles or structures and shall avoid endangerment of life and property of others.
 - 2. A successful radio equipment ground-range check in accordance with manufacturer's recommendations will be completed before the first flight of a new or repaired model aircraft.
 - 3. At all flying sites a safety line(s) must be established in front of which all flying takes place. (AMA Document #706.)
 - (a) Only personnel associated with flying the model aircraft are allowed at or in front of the safety line.
 - (b) At air shows or demonstrations, a straight safety line must be established.
 - (c) An area away from the safety line must be maintained for spectators.
 - (d) Intentional flying behind the safety line is prohibited.
 - 4. RC model aircraft must use the radio-control frequencies currently allowed by the Federal Communications Commission (FCC). Only individuals properly licensed by the FCC are authorized to operate equipment on Amateur Band frequencies.
 - 5. RC model aircraft will not knowingly operate within three (3) miles of any pre-existing flying site without a frequency-management agreement. (AMA Documents #922 and #923.)
 - 6. With the exception of events flown under official AMA Competition Regulations, excluding takeoff and landing, no powered model may be flown outdoors closer than 25 feet to any individual, except for the pilot and the pilot's helper(s) located at the flightline.
 - 7. Under no circumstances may a pilot or other person touch an outdoor model aircraft in flight while it is still under power, except to divert it from striking an individual.
 - 8. RC night flying requires a lighting system providing the pilot with a clear view of the model's attitude and orientation at all times. Hand-held illumination systems are inadequate for night flying operations.
 - 9. The pilot of an RC model aircraft shall:
 - (a) Maintain control during the entire flight, maintaining visual contact without enhancement other than by corrective lenses prescribed for the pilot.
 - (b) Fly using the assistance of a camera or First-Person View (FPV) only in accordance with the procedures outlined in AMA Document #550.
 - (c) Fly using the assistance of autopilot or stabilization system only in accordance with the procedures outlined in AMA Document #560.
- C. FREE FLIGHT
 - 1. Must be at least 100 feet downwind of spectators and automobile parking when the model aircraft is launched.
 - 2. Launch area must be clear of all individuals except mechanics, officials, and other fliers.
 - 3. An effective device will be used to extinguish any fuse on the model aircraft after the fuse has completed its function.
- D. CONTROL LINE
 - 1. The complete control system (including the safety thong where applicable) must have an inspection and pull test prior to flying.
 - 2. The pull test will be in accordance with the current Competition Regulations for the applicable model aircraft category.
 - 3. Model aircraft not fitting a specific category shall use those pull-test requirements as indicated for Control Line Precision Aerobatics.
 - 4. The flying area must be clear of all utility wires or poles and a model aircraft will not be flown closer than 50 feet to any above-ground electric utility lines.
 - 5. The flying area must be clear of all nonessential participants and spectators before the engine is started.

IMPORTANT NOTES



STEERABLE NOSE WHEEL MOUNT



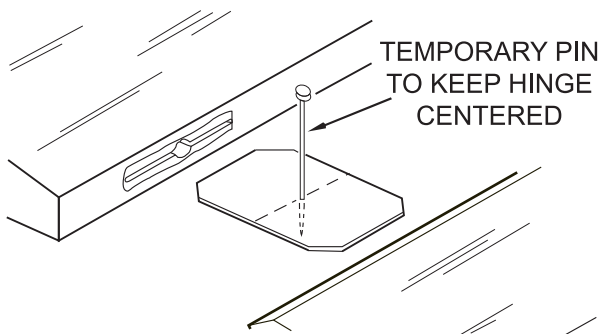
PREPARATIONS

Remove the tape and separate the ailerons from the wing and the elevators from the stab. Use a covering iron with a covering sock on high heat to tighten the covering if necessary. Apply pressure over sheeted areas to thoroughly bond the covering to the wood.

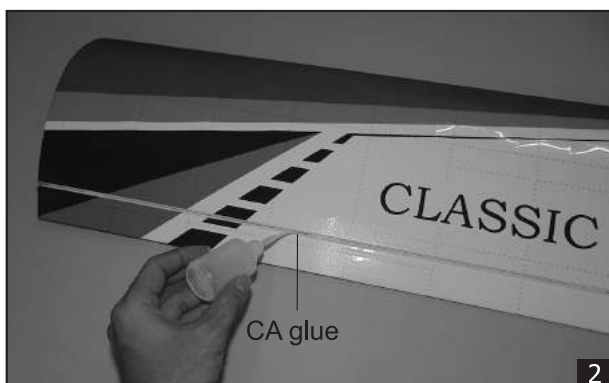


INSTALLING THE AILERONS

1. Test fit the ailerons to the wing with the hinges. If the hinges don't remain centered, stick a pin through the middle of the hinge to hold it in position.

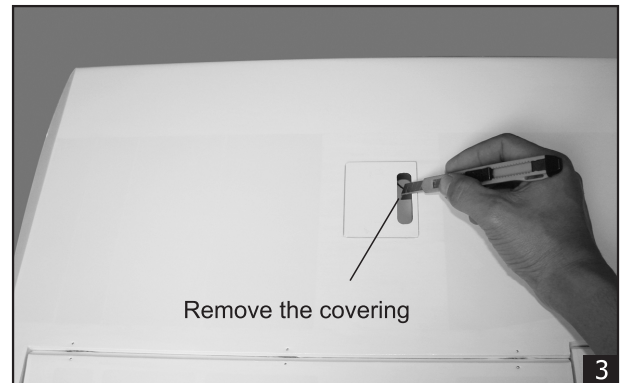


2. Apply six drops of thin CA to the top and bottom of each hinge. Do not use CA accelerator. After the CA has fully hardened, test the hinges by pulling on the aileron.



INSTALLING THE AILERON SERVOS

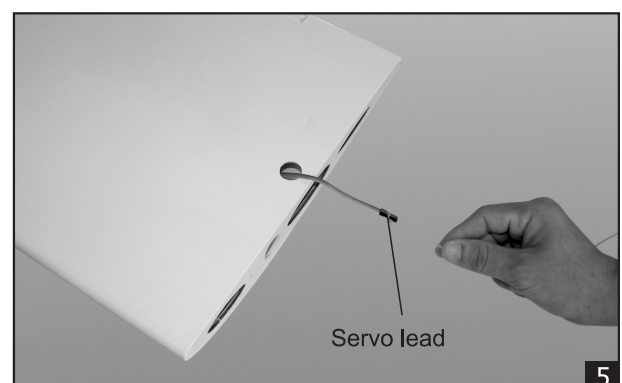
1. Install the rubber grommets and brass eyelets onto the aileron servo.
2. Using a modeling knife, remove the covering from over the pre-cut servo arm exit hole on the aileron servo tray / hatch. This hole will allow the servo arm to pass through when installing the aileron pushrods.



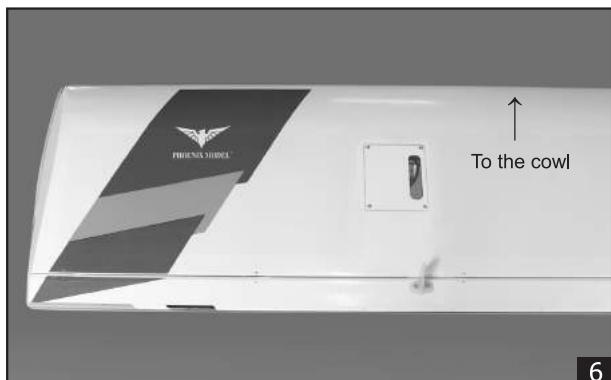
3. Place the servo into the servo tray. Center the servo within the tray and drill 1,6mm pilot holes through the block of wood for each of the four mounting screws provided with the servo.



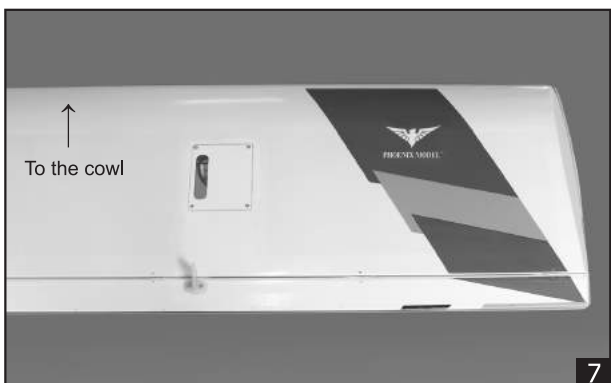
4. Using the thread as a guide and using masking tape, tape the servo lead to the end of the thread: carefully pull the thread out. When you have pulled the servo lead out, remove the masking tape and the servo lead from the thread.



- Place the aileron servo tray / hatch into the servo box on the bottom of the wing and drill 1,6mm pilot holes through the tray and the servo box for each of the four mounting screws. Secure the servo tray in place using the mounting screws provided (2mm x 12mm).



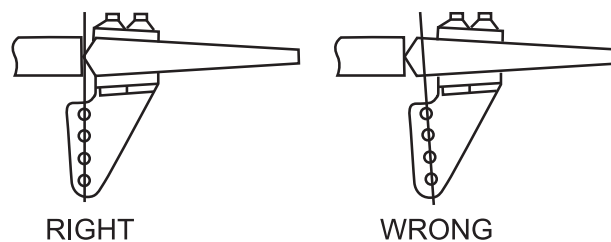
- Repeat step # 2 - # 5 to install the second aileron servo in the opposite wing half.



- Using masking tape, tape the servo leads on to the top of the wing.

INSTALLING THE CONTROL HORNS

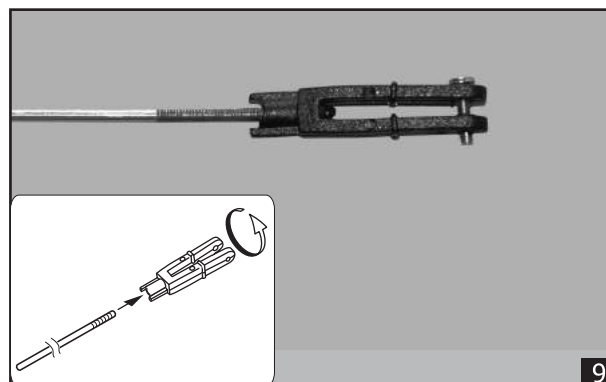
- One aileron control horn in positioned on each aileron. Using a ruler and a pen, locate and mark the location of the control horn. It should be mounted on the bottom side of the aileron at the leading edge, in line with the aileron pushrod.
- Drill two 1.6mm holes through the aileron using the control horn as a guide and screw the control horn in place.



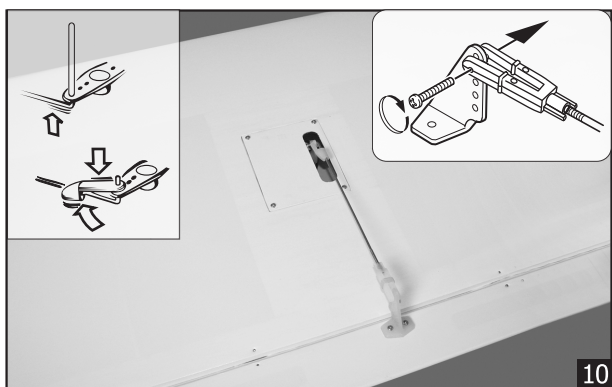
- Repeat step # 1 - # 2 to install the control horn on the opposite aileron.

INSTALLING THE AILERON LINKAGES

- Working with the aileron linkage for now, thread one nylon clevis at least 14 turns onto one of the 2mm x 180mm threaded wires.



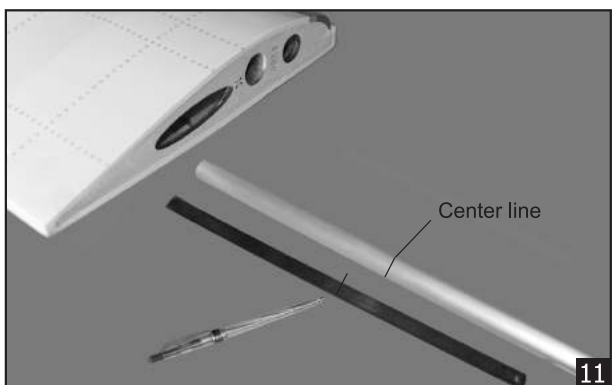
- Attach the clevis to the outer hole in the control horn. Install a silicone tube on the clevis.
- Locate one nylon servo arm, and using wire cutters, remove all but one of the arms. Using a 2mm drill bit, enlarge the third hole out from the center of the arm to accommodate the aileron pushrod wire.
- Plug the aileron servo into the receiver and center the servo. Install the servo arm onto the servo. The servo arm should be perpendicular to the servo and point toward the middle of the wing.
- Center the aileron and hold it in place using a couple of pieces of masking tape.
- With the aileron and aileron servo centered, carefully place a mark on the aileron pushrod wire where it crosses the hole in the servo arm.
- Using pliers, carefully make a 90 degree bend down at the mark made. Cut off the excess wire, leaving about 4mm beyond the bend.



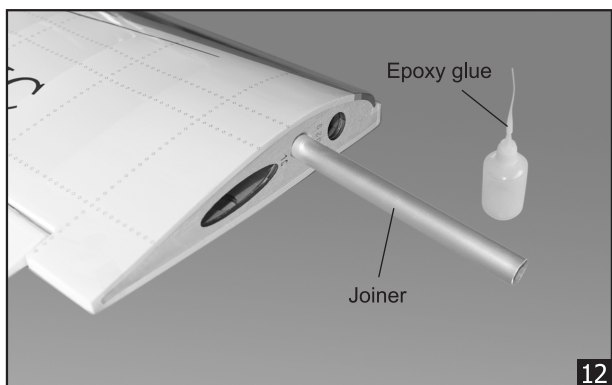
8. Insert the 90 degree bend down through the hole in the servo arm. Install one nylon snap keeper over the wire to secure it to the arm. Install the servo arm retaining screw and remove the masking tape from the aileron.
9. Repeat step # 4 - # 8 to install the second aileron linkage. After both linkages are completed, connect both of the aileron servo leads using a Y-harness you have purchased separately.

WING ASSEMBLY

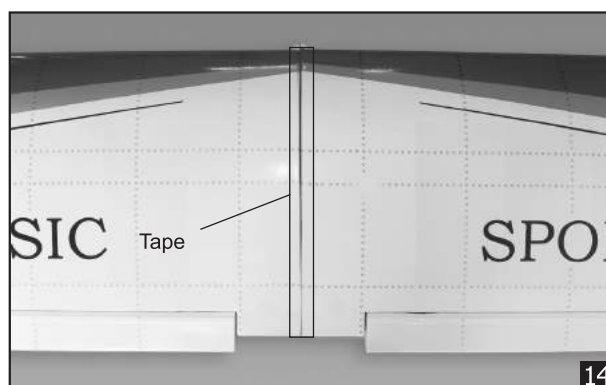
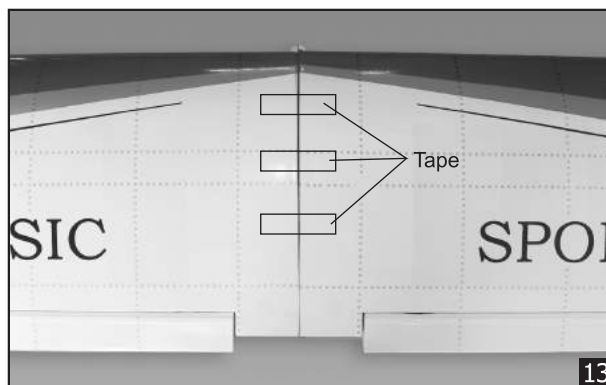
1. Draw a center line on the wing joiner.



2. Glue wing joiner in wing halves with 30 minute epoxy. Put epoxy on wing joiner and in wing joiner pocket. Wipe off excess epoxy with a paper towel and alcohol.



3. Hold wing halves together with tape while epoxy cures.

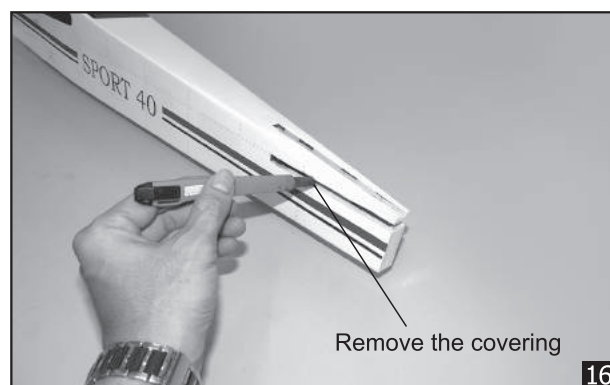


5. Secure the wing to the fuselage using the plastic screws

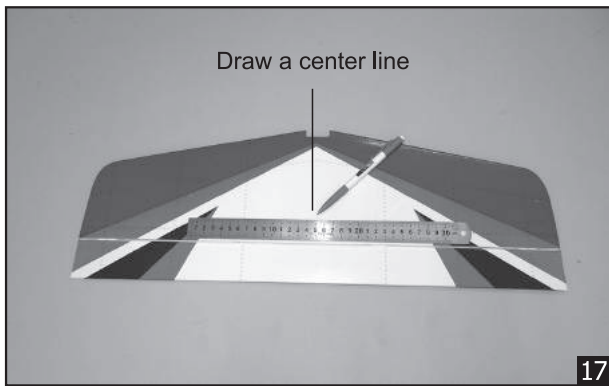


INSTALLING THE HORIZONTAL STABILIZER

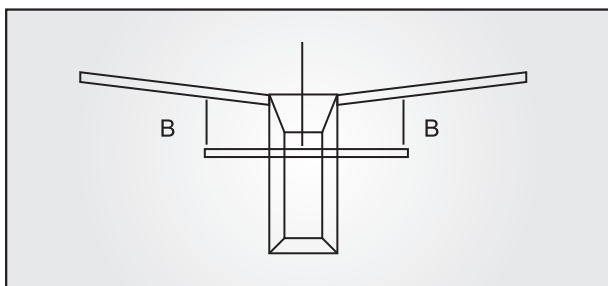
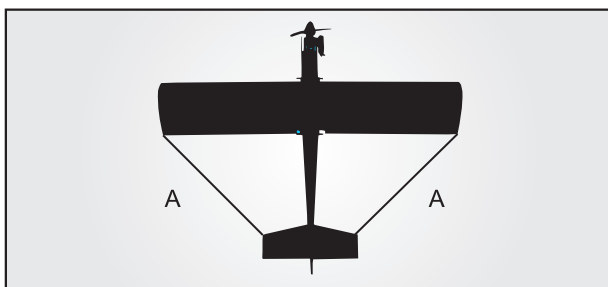
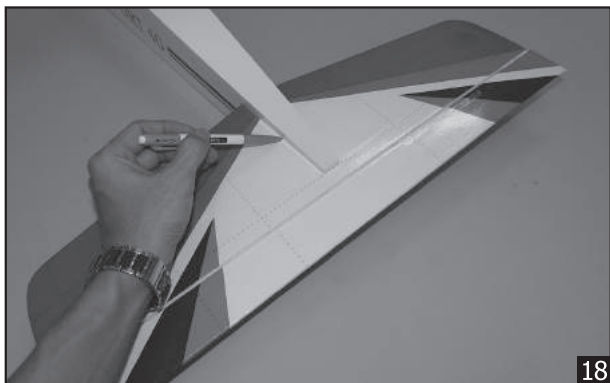
1. Using a modeling knife, cut away the covering from the fuselage for the stabilizer and remove it.



2. Draw a center line onto the horizontal stabilizer.



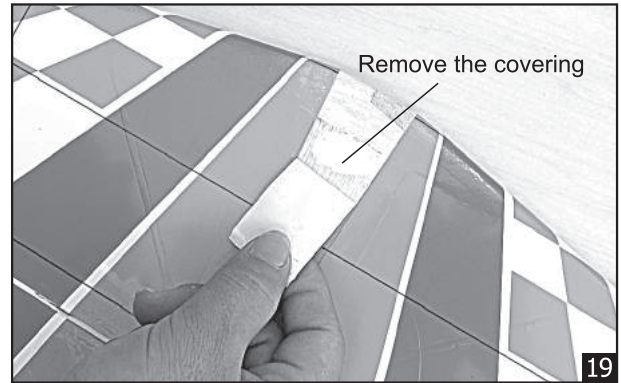
3. Check the fit of the horizontal stabilizer in its slot. Make sure the horizontal stabilizer is square and centered to the fuselage by taking measurements, but don't glue anything yet.
4. With the horizontal stabilizer correctly aligned, mark the shape of the fuselage on the top and bottom of the tail plane using a water soluble / non-permanent felt-tip pen.



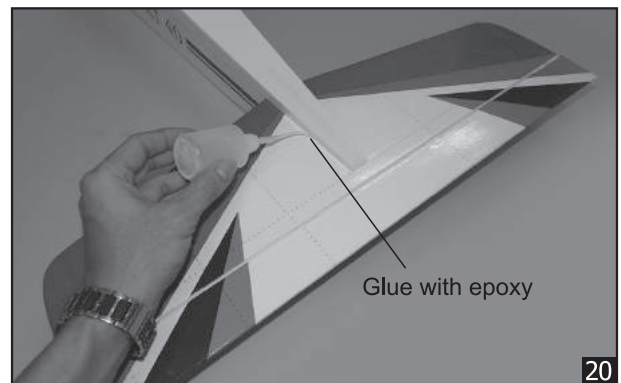
5. Remove the stabilizer. Using the lines you just drew as a guide, carefully remove the covering from between them using a modeling knife.



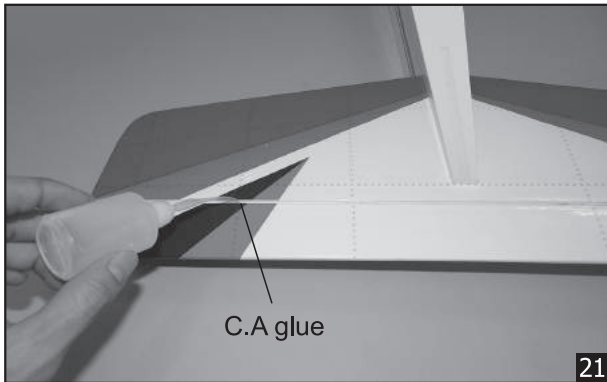
When cutting through the covering to remove it, cut with only enough pressure to only cut through the covering it's self. Cutting into the balsa structure may weaken it. This could lead to possible failure during flight.



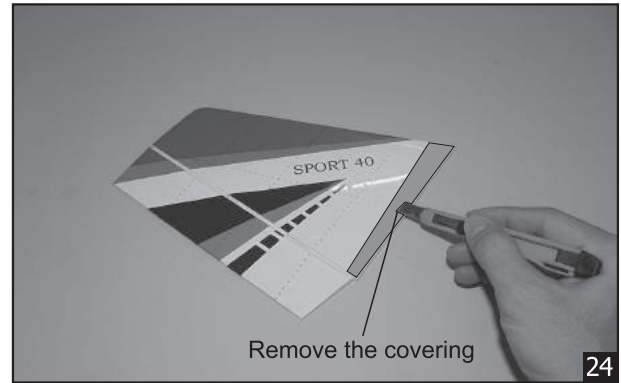
6. When you are sure that everything is aligned correctly, mix up a generous amount of 30 minute epoxy. Apply a thin layer to the top and bottom of the stabilizer mounting area and to the stabilizer mounting platform sides in the fuselage. Slide the stabilizer in place and re-align. Double check all of your measurements one more time before the epoxy cures. Remove any excess epoxy using a paper towel and rubbing alcohol and hold the stabilizer in place with T-pins or masking tape.



7. After the epoxy has fully cured, remove the masking tape or T-pins used to hold the stabilizer in place and carefully inspect the glue joints. Use more epoxy to fill in any gaps that were not filled previously and clean up the excess using a paper towel and rubbing alcohol.
8. Installing the elevator using C.A glue as installing the aileron.



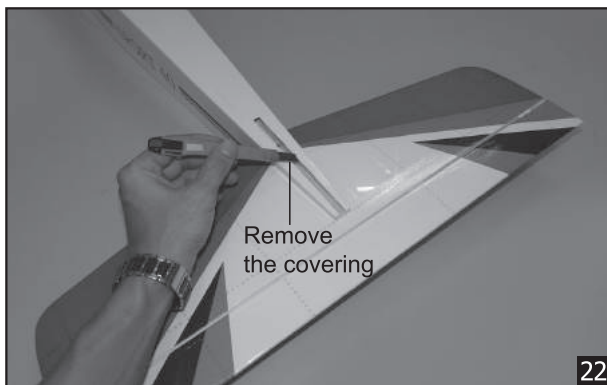
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INSTALLING THE VERTICAL STABILIZER

1. Using a modeling knife, remove the covering on the top of the fuselage for the vertical stabilizer.



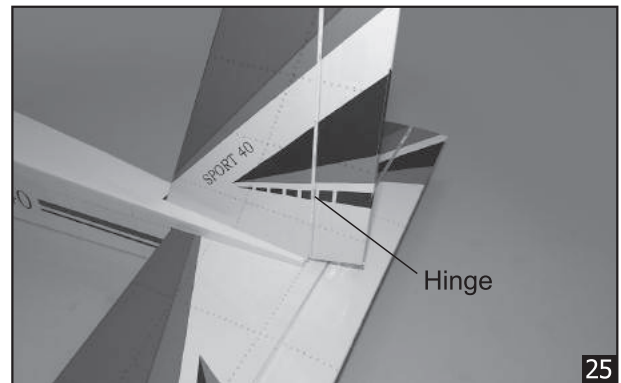
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2. Slide the vertical stabilizer into the slot in the mounting platform in the top of the fuselage. Mark the shape of the fuselage on the left and right sides of the vertical stabilizer using a felt-tip pen.



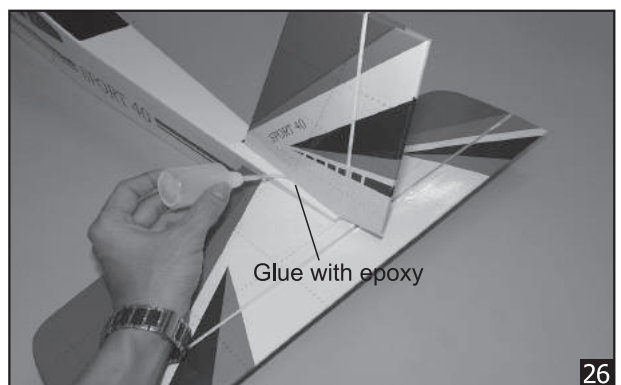
23

3. Now, remove the vertical stabilizer and using a modeling knife, carefully cut just inside the marked lines and remove the film on both sides of the vertical stabilizer. Just as you did with the horizontal stabilizer, make sure you only press hard enough to cut the film, not the balsa vertical stabilizer.



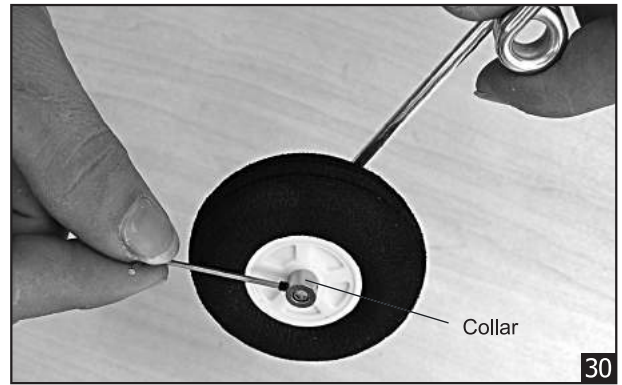
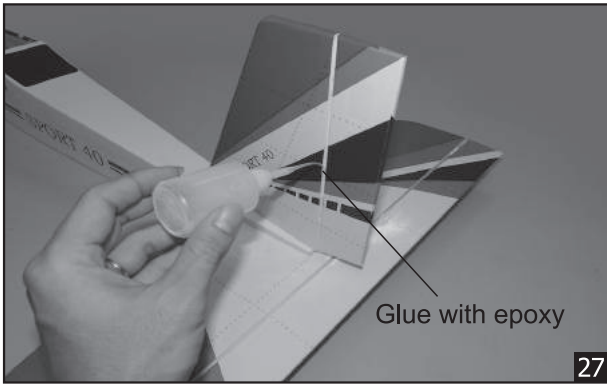
25

4. Slide the vertical stabilizer back in place. Using a triangle, check to ensure that the vertical stabilizer is aligned 90 degree to the horizontal stabilizer.
5. When you are sure that everything is aligned correctly, mix up a generous amount of 30 minute epoxy. Apply a thin layer to the slot in the mounting platform and to the vertical stabilizer mounting area. Apply epoxy to the lower rudder hinge. Set the stabilizer in place and re-align. Double check all of your measurements once more before the epoxy cures. Remove any excess epoxy using a paper towel and rubbing alcohol and hold the stabilizer in place with T-pins or masking tape. Allow the epoxy to fully cure before proceeding.



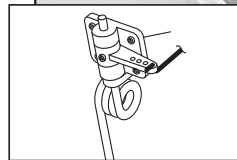
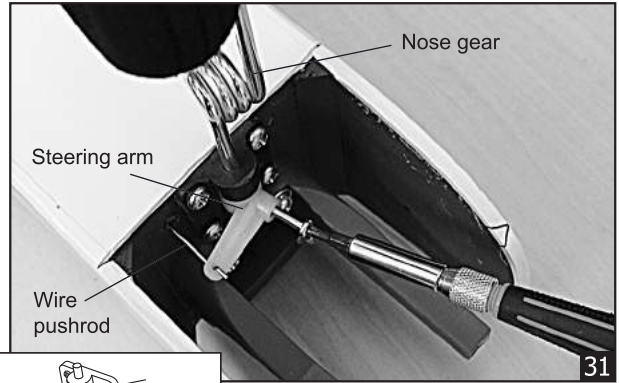
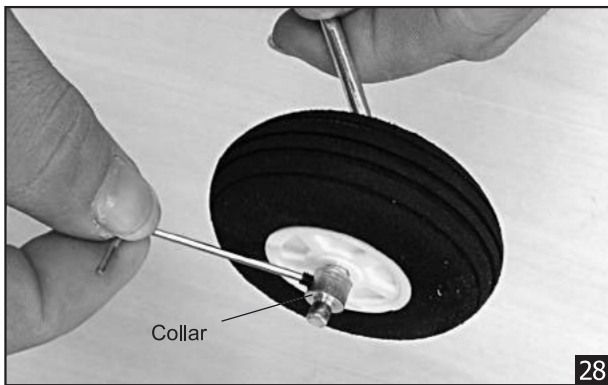
26

6. Installing the rudder using C.A glue as installing the aileron.

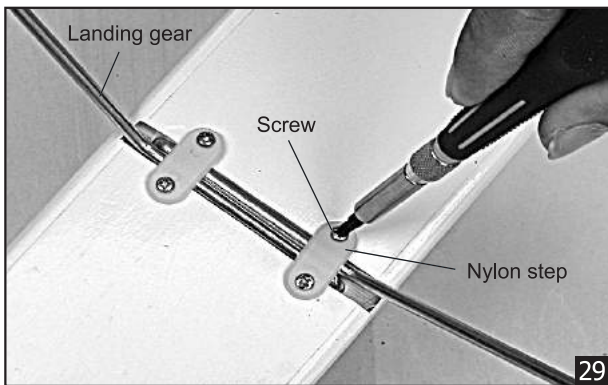


MAIN GEAR INSTALLATION

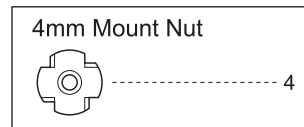
1. Attach wheels on the gear and secure using the wheel collars.



2. Trim the covering from the slot in the landing gear mount.
3. Install landing gear wires in fuselage bottom and secure using screws and nylon straps.



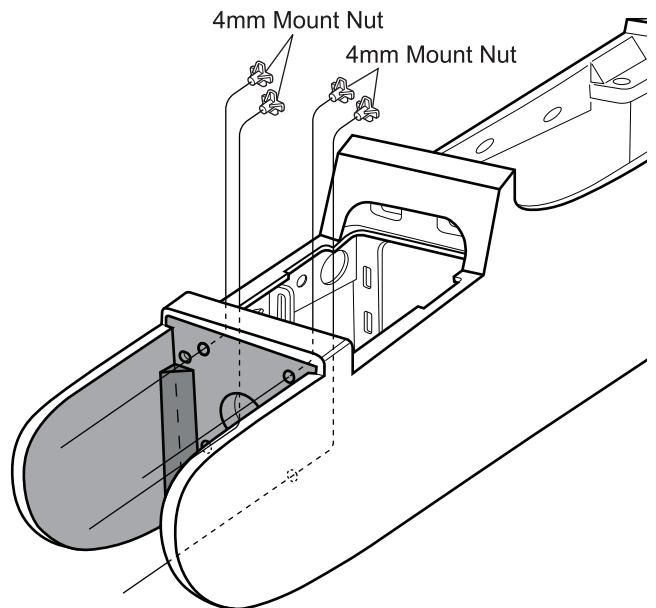
INSTALLING THE ENGINE MOUNT



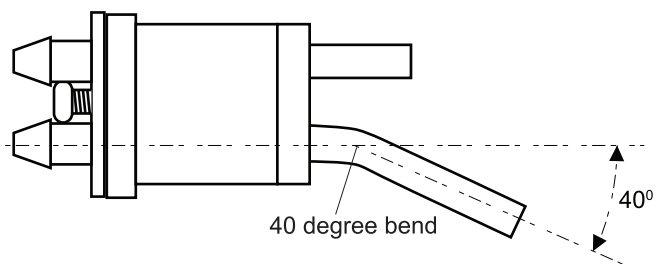
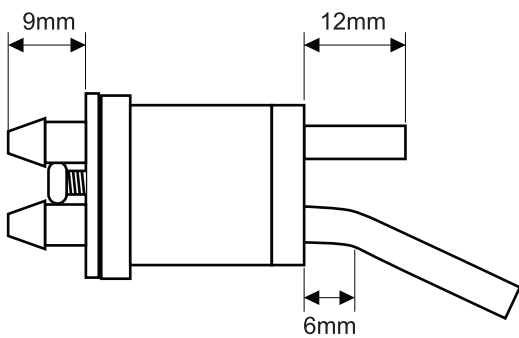
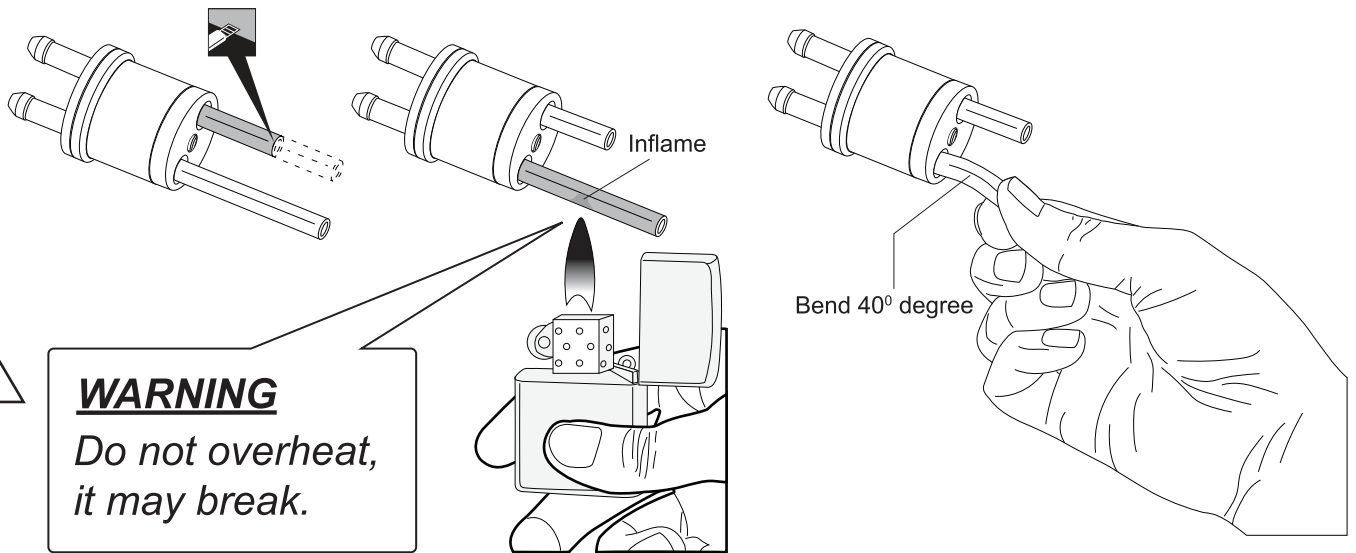
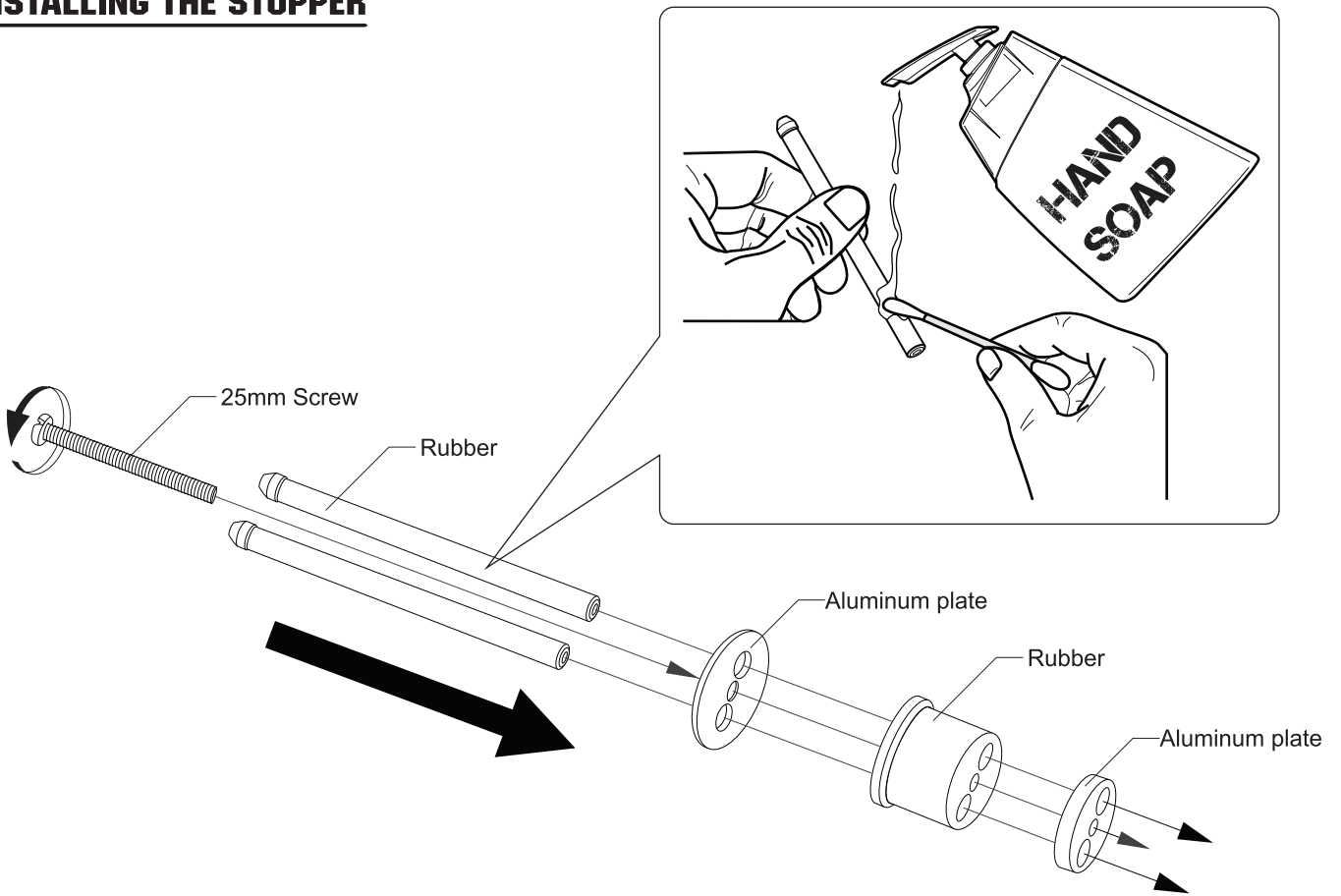
4. Fit the nose leg steering arm onto the "Z" bend on the steering pushrod. Now slide the steering arm into the middle of the pre-fitted nylon nose gear bearing. Hold the nose gear steering arm in place then slide the nose wire into the nylon mount, passing through the steering arm.

! **Note:** that the ground flat section of the leg should face forward. Now tighten the nose gear steering arm retaining screw onto the nose leg. This will ensure that the nose leg cannot turn in the steering arm.

5. Install nose wheel using supplied wheel collars.



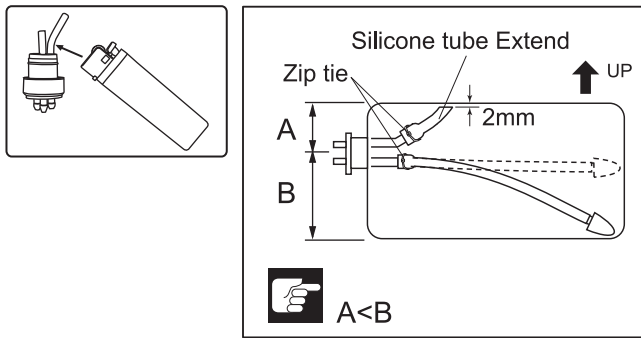
INSTALLING THE STOPPER



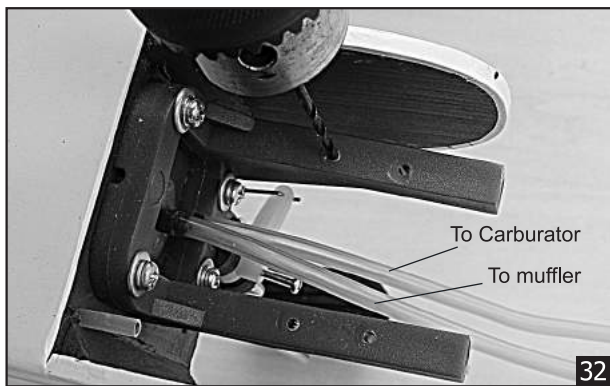
Cut off shaded portion

FUEL TANK INSTALLATION

1. Assemble the fuel tank.

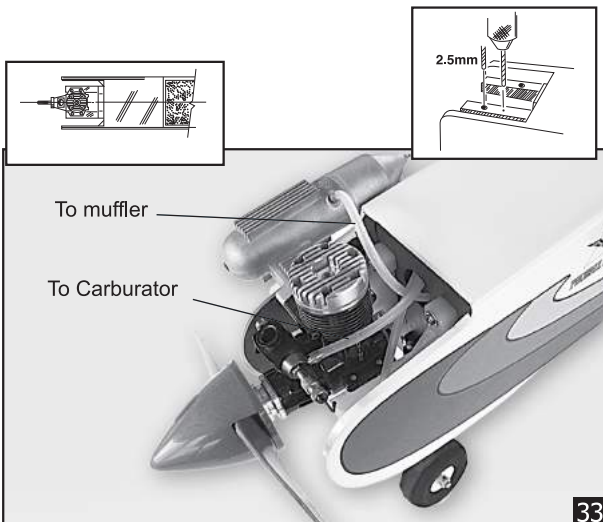


2. Slide the fuel tank in the fuselage using foam rubber to cushion the tank, and route the fuel lines out the hole in the firewall.



ENGINE INSTALLATION

1. Insert the Z-bend of the throttle pushrod into the throttle arm of the engine. See the "high throttle" photo on page 9
2. Install the engine of your choice using the Philip head screws. Make sure the engine is pointing straight ahead or pointing a little to the right, i. e. with right thrust. Mark the locations of the screws and drill mounting holes with a drill bit that is slightly smaller than the screw threads. Test to get the right size drill bit before drilling holes in the engine mount.

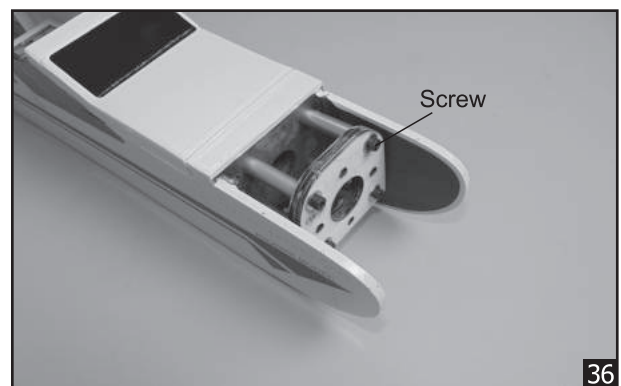
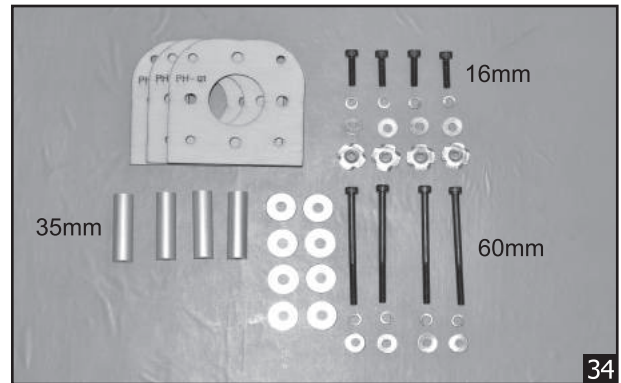


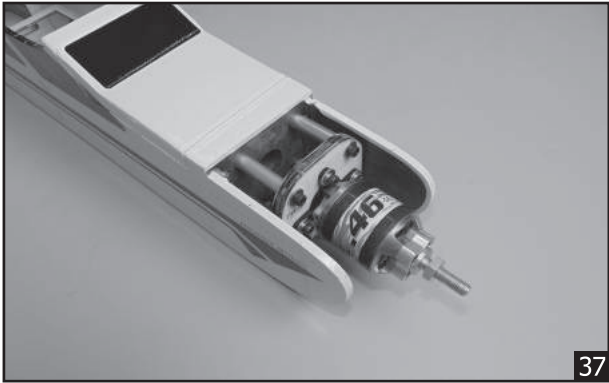
INSTALLING THE MOTOR AND BATTERY

Installing the electric motor

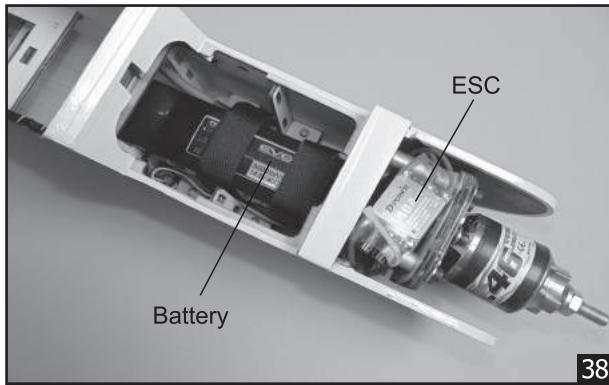
This model can fly with electric, here is our recommended for set up the system.

- Motor brushless: Rimfire .46 - .55
- Lipo cells: 4-6 cells / 4000 - 5000 mAh.
- ESC: 50A - 60A.





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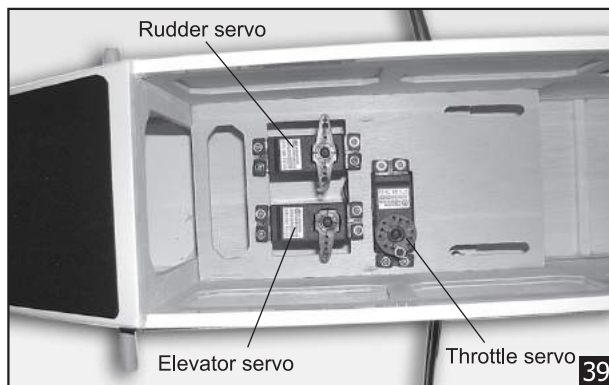


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SERVO INSTALLATION

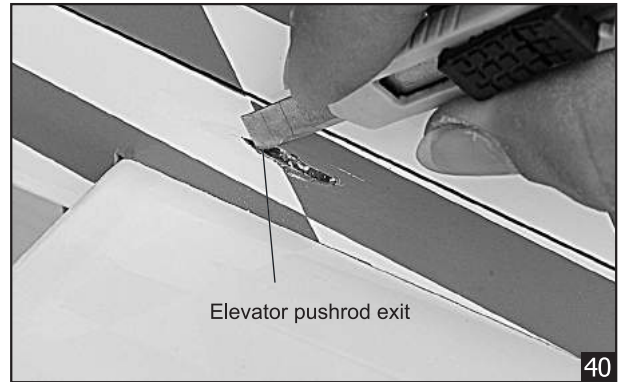
Install the rubber grommets and brass eyelets into the elevator, rudder and throttle servos. Test fit the servos into the servo tray.

Mount the servos to the tray using the mounting screws provided with your radio system.



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ELEVATOR - RUDDER LINKAGE

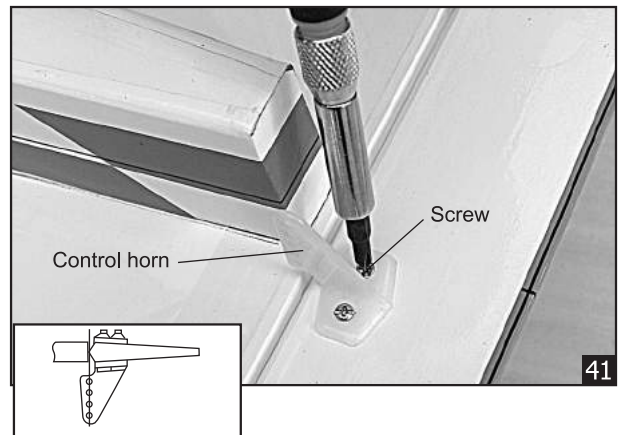


40

1. Remove the covering from the hole as shown.

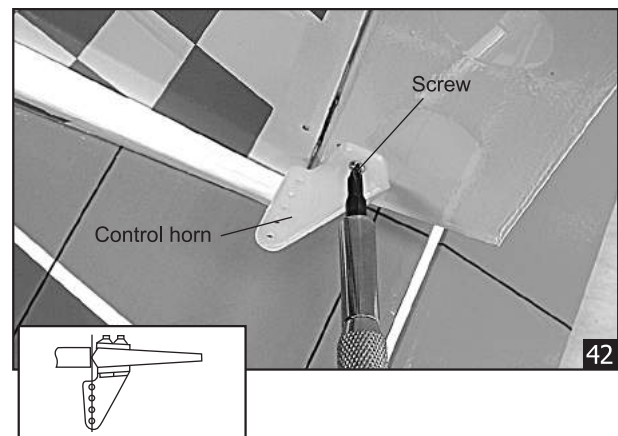
The elevator control horn should be mounted on the bottom of the elevator at the leading edge, **IN LINE WITH THE ELEVATOR PUSHROD.**

2. Cut the covering from the exit slot for the rudder pushrod on the top of the fuselage, on the left side of the vertical fin.



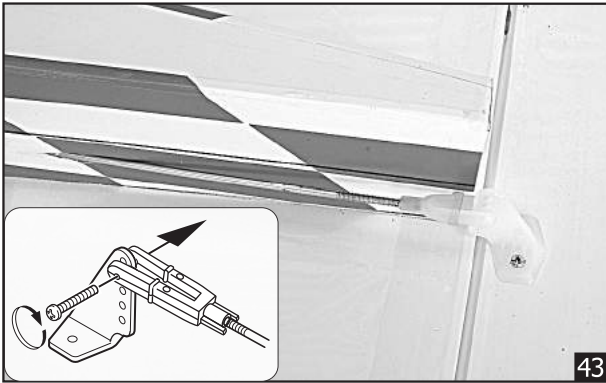
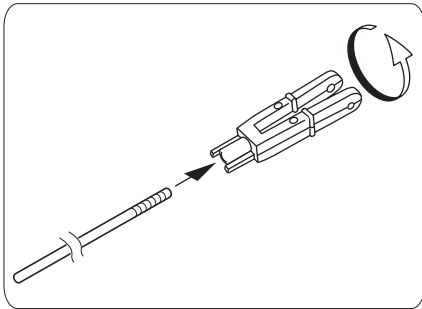
41

The rudder control horn should be mounted on the left of the rudder at the leading edge, **IN LINE WITH THE RUDDER PUSHROD.**

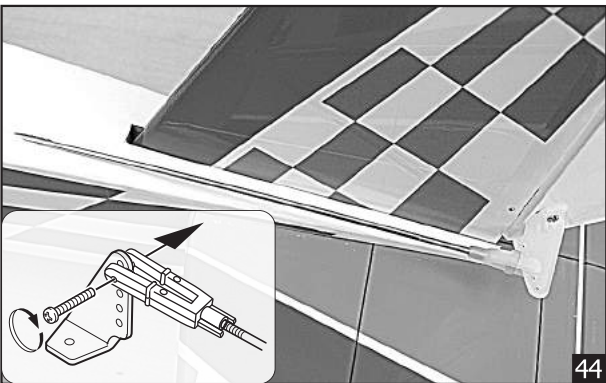


42

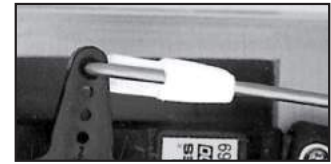
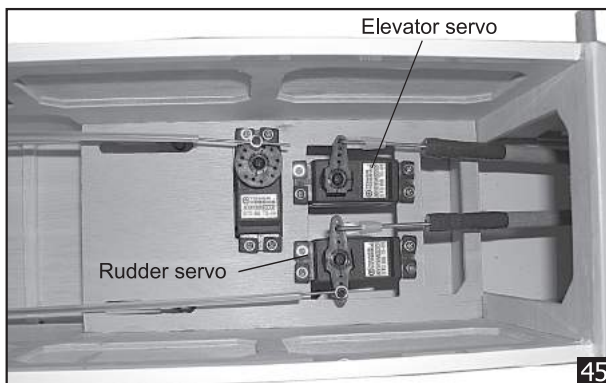
3. Install the elevator pushrod in fuselage. Thread a nylon clevis at least 6 mm onto the pushrod. Route it to the elevator, attach clevis to horn and secure using small piece of silicone tubing.



4. Install the rudder pushrod in fuselage. Thread a nylon clevis at least 6 mm onto the pushrod. Route it to rudder, attach clevis to horn and secure using small piece of silicone tubing.

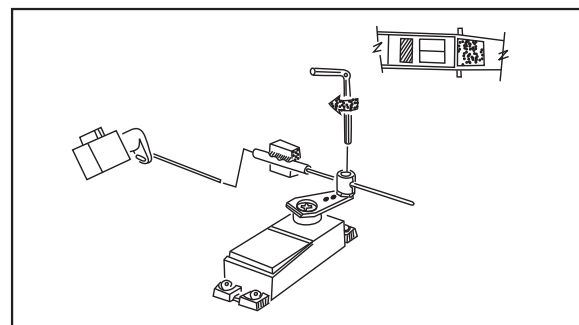
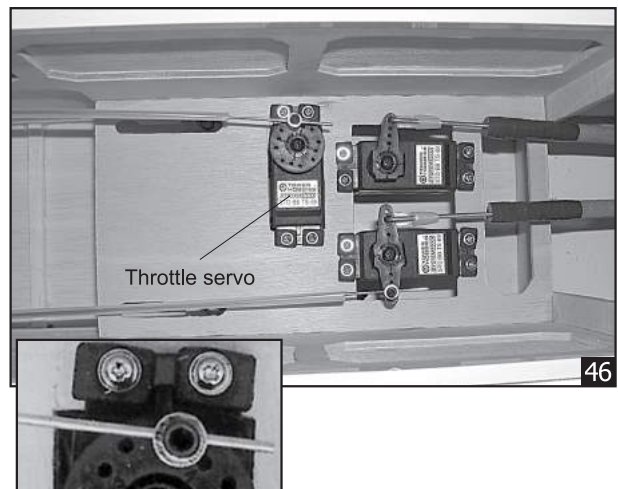


5. Trim and attach the pushrods to the servos using fast loc connectors.
6. Install a metal connector onto the rudder servo arm and connect the nose wheel steering pushrod to it.



THROTTLE LINKAGE

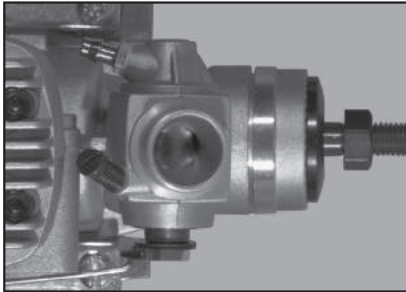
Attach throttle pushrod to throttle servo arm using a metal connector. Use two wood blocks to hold the pushrod securely.



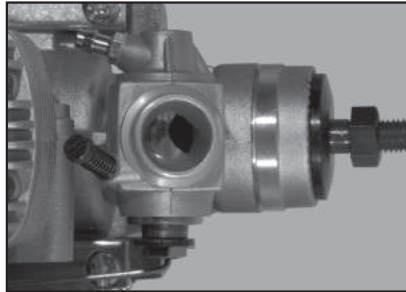
SETTING UP THE THROTTLE

This is a very important stage in the completion of the model. The throttle must open and close fully - without the linkage binding at either end of its travel. Work by setting the "mid throttle" position first, followed by the low and high. Once the linkage has been properly set-up it can be adjusted mechanically or by using the Travel Adjust, or ATV/EPA feature on most modern transmitters.

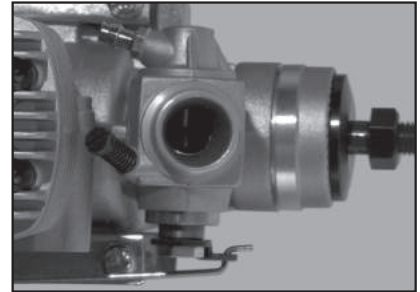
Note: The final adjustment of the low throttle point can only be carried out with the engine running.



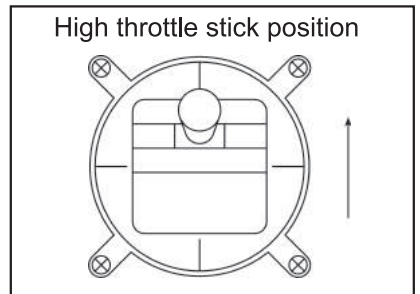
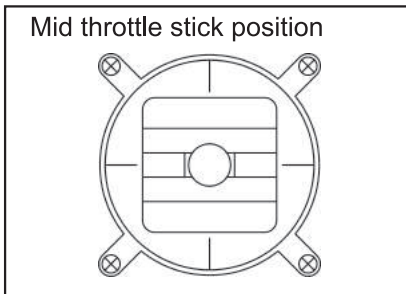
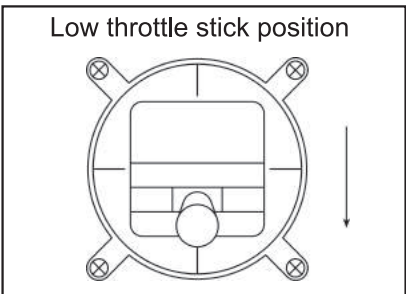
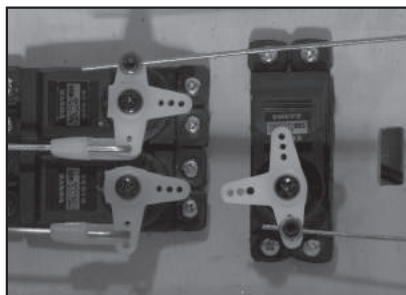
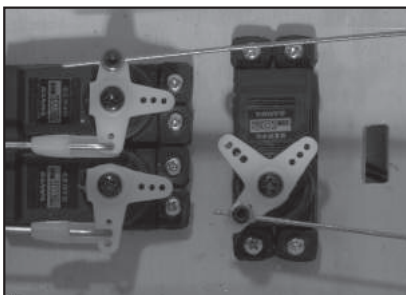
Low throttle



Mid throttle

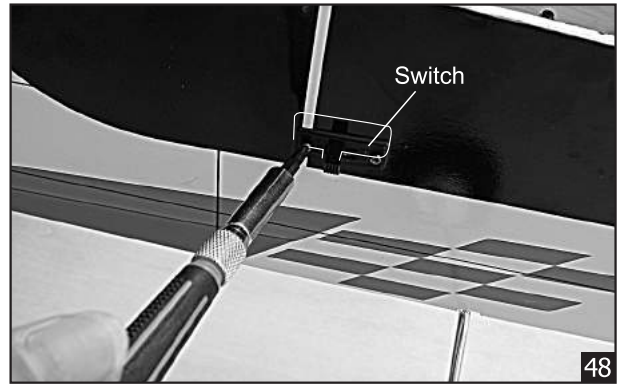
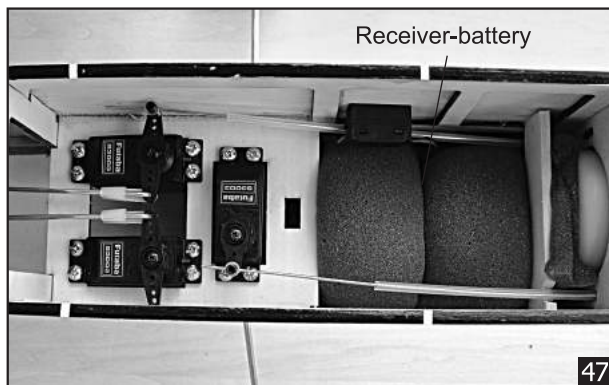


High throttle



Wrap battery and receiver in protective foam padding.

Install the switch.

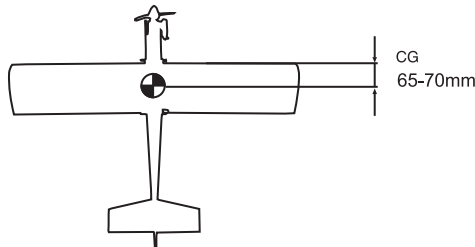


BALANCING

1. It is critical that your airplane be balanced correctly. Improper balance will cause your plane to lose control and crash.

Place receiver and battery in radio compartment and adjust their position to make the plane balance on the center of gravity (65-70mm from leading edge of wing). Make sure the center of gravity is located where it is indicated before flying. If additional tail or nose weigh is needed, securely attach it at the nose or tail as needed.

2. Wrap battery and receiver in protective foam padding. Route the receiver antenna out of the fuselage and to the rear of the airplane. Secure to the vertical fin or one side of the horizontal stab with a pin and small rubber band.



CONTROL THROWS

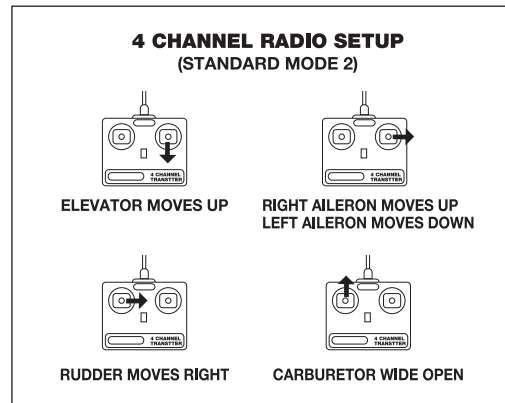
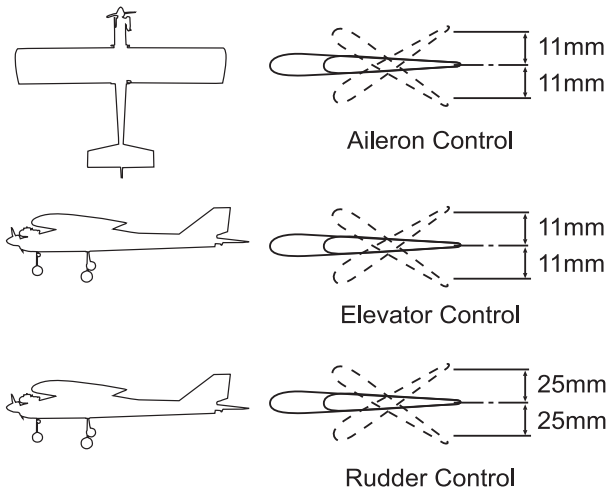
1. We highly recommend setting up a plane using the control throws listed. Adjust pushrod positions on control arms or horns to provide control surface throws as illustrated. Center all control surfaces.
2. The control throws should be measured at the widest point of each surface!.

● **LOW RATE**

Ailerons :	11 mm up	11 mm down
Elevator:	11 mm up	11 mm down
Rudder :	25 mm right	25 mm left

● **HIGH RATE**

Ailerons :	14 mm up	14 mm down
Elevator:	14 mm up	14 mm down
Rudder :	40 mm right	40 mm left



FLIGHT PREPARATION

PRE FLIGHT CHECK

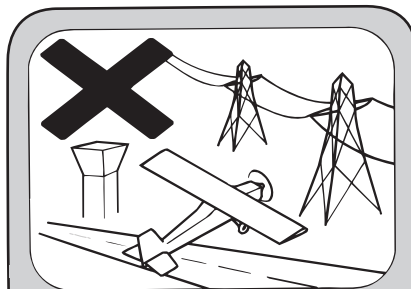
1. Completely charge your transmitter and receiver batteries before your first day of flying.
2. Check every bolt and every glue joint in your plane to ensure that everything is tight and well bonded.
3. Double check the balance of the airplane
4. Check the control surfaces.
5. Check the receiver antenna . It should be fully extended and not coiled up inside the fuselage.
6. Properly balance the propeller.
7. Use at least 5 rubber bands per side to hold the wing onto the fuselage.

We wish you many enjoyable flights with your plane and once again thank you for your choosing a Phoenix Model's product.

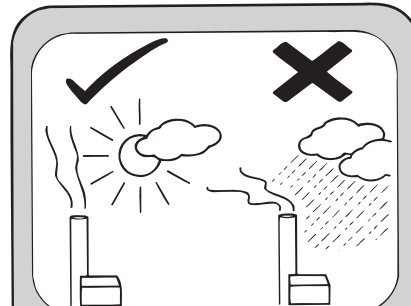
I/C FLIGHT WARNINGS



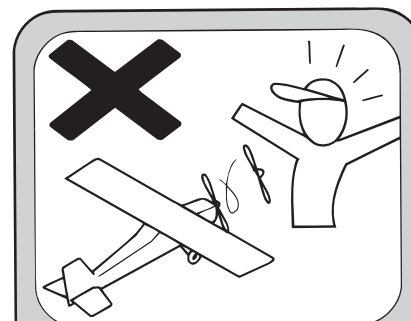
Always operate in open areas, away from factories, hospitals, schools, buildings and houses etc. **NEVER** fly your aircraft close to people or built up areas.



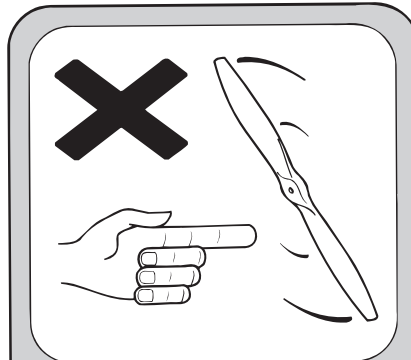
NEVER fly near power lines, aerials or other dangerous areas including airports, motorways etc.



NEVER fly in wet conditions or on windy or stormy days.

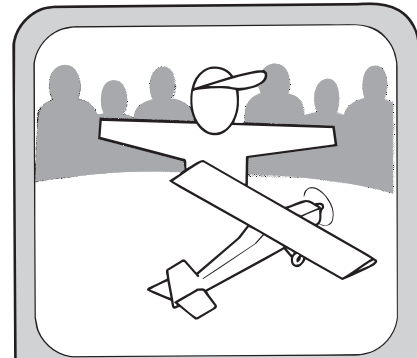


ALWAYS adjust the engine from behind the propeller, and do not allow any part of your body to be in line with the propeller.

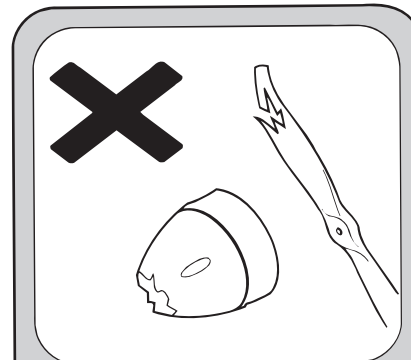


THE PROPELLER IS DANGEROUS

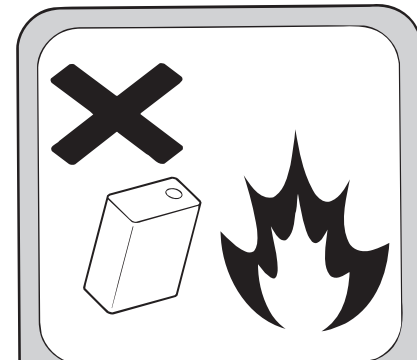
Keep fingers, clothing (ties, shirt sleeves, scarves) or any other loose objects that could be caught or drawn in, away from the propeller. Take care at **ALL** times.



Keep all onlookers (especially small children and animals) well back from the area of operation. This is a flying aircraft, which will cause serious injury in case of impact with a person or animal.

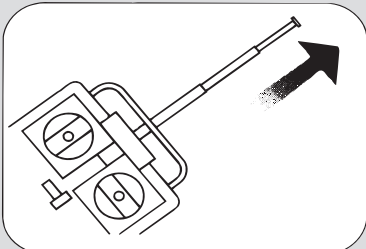


NEVER use damaged or deformed propellers or spinners.

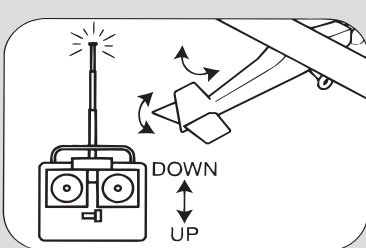


DO NOT dispose of empty fuel containers on a fire, this can lead to an explosion.

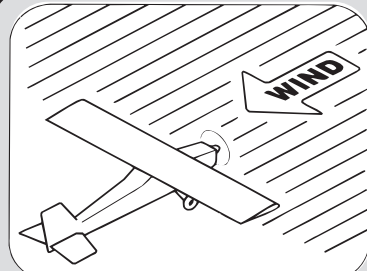
I/C FLIGHT GUIDELINES



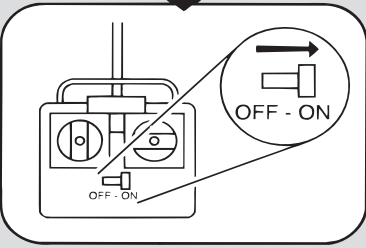
When ready to fly, first extend the transmitter aerial.



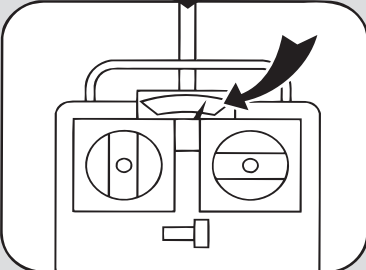
Operate the control sticks on the transmitter and check that the control surfaces move freely and in the CORRECT directions.



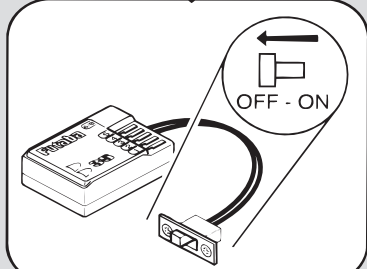
ALWAYS land the model INTO the wind, this ensures that the model lands at the slowest possible speed.



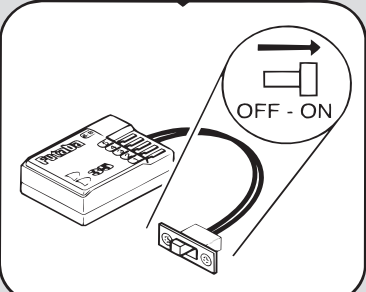
Switch on the transmitter.



Check that the transmitter batteries have adequate power.



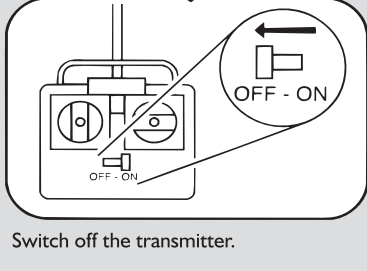
Switch off the receiver.



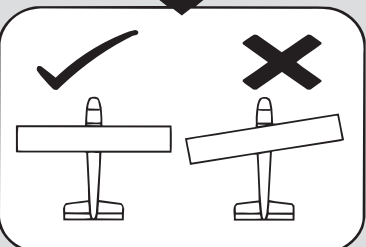
Switch on the receiver.



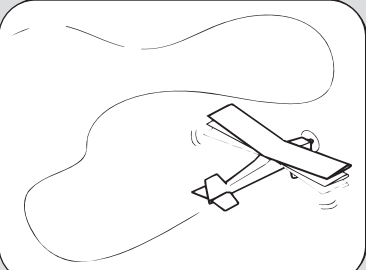
ALWAYS take off into the wind.



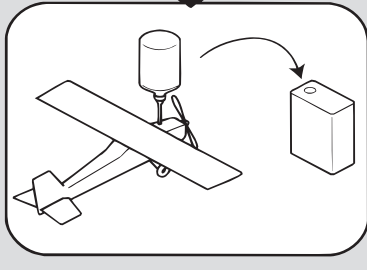
Switch off the transmitter.



Check that the wings are correctly fitted to the fuselage.



If the model does not respond correctly to the controls, land it as soon as possible and correct the fault.



Empty the fuel tank after flying, fuel left in the tank can cause corrosion and lead to engine problems.