

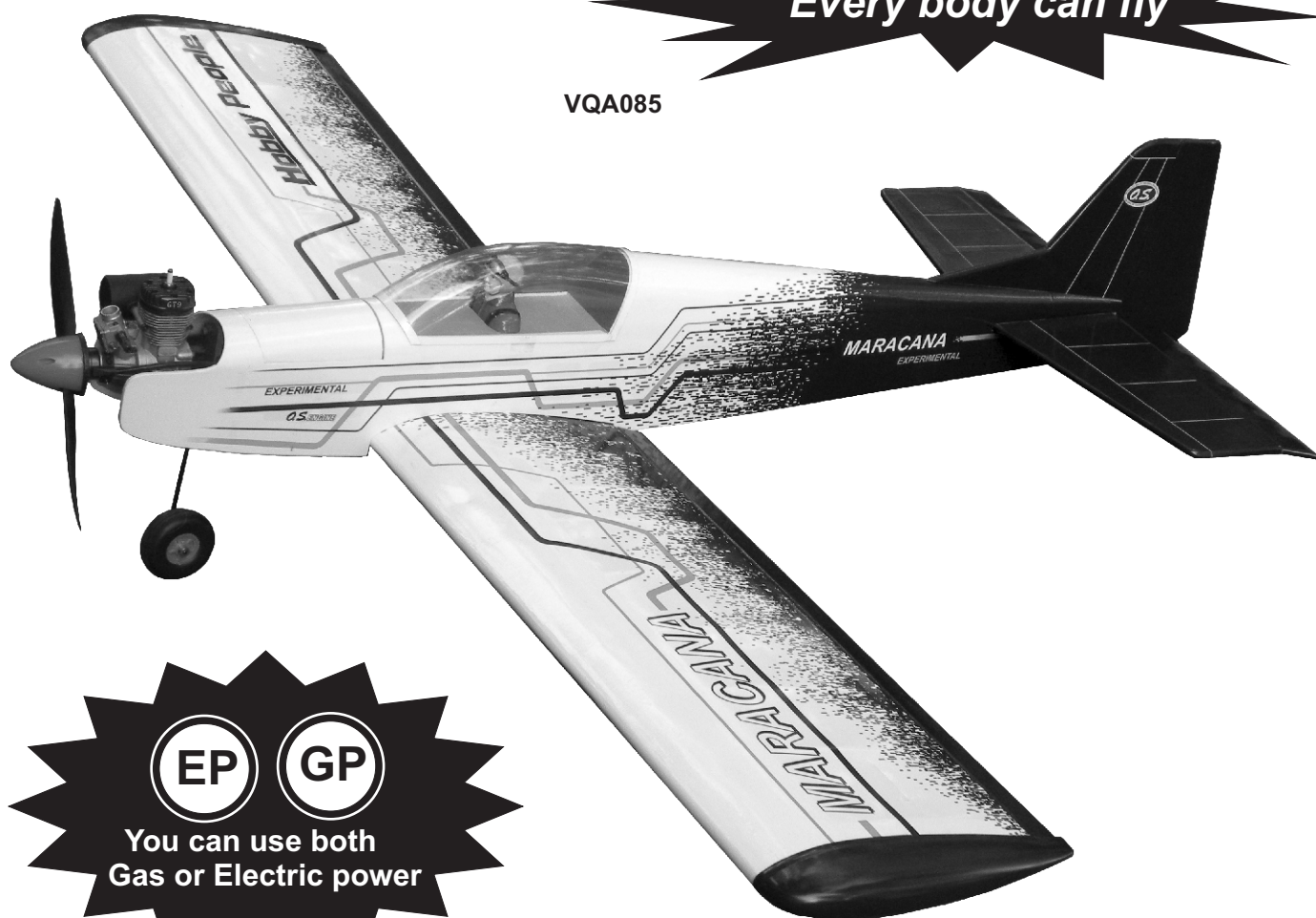
RADIO CONTROL MODEL
ASSEMBLY INSTRUCTION

MARACANA

.40 ARF LOW WING TRAINER

Every body can fly

VQA085



EP

GP

You can use both
Gas or Electric power

Wingspan: 59in.(1520mm)

Fuselage length: 48in.(1220mm)

Engine: 40 - 46 2T / 48 - 52 4T

Electric Motor: 600W

Radio: 5 channel / 5 servo

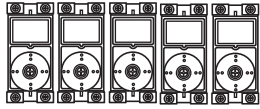
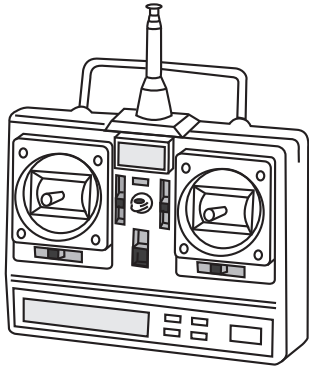
RC Functions: Rudder - Elevator - Aileron - Throttle

WARNING! This radio controlled model is NOT a toy. If modified or flown carelessly it could go out of control and cause serious human injury or property damage. Before flying your airplane, ensure the air field is spacious enough. Always fly it outdoors in safe areas and seek professional advice if you are unexperienced.

WARNING! Please do not clean your model with pure alcohol, only use liquid soap with water or use glass cleaner to clean on surface of your model to keep the colour not fade.



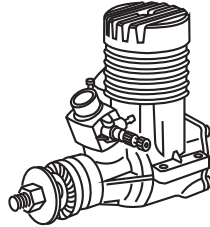
REQUIRED FOR OPERATION (Purchase separately)



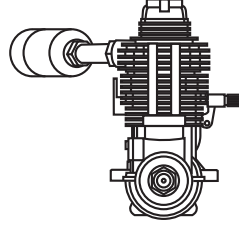
Radio a 5 channel (min)
5 servo standard (Motorx1,
Rudderx1, Elevatorx1,
Aileronx2)



10.5x6 for .40 - 2 cycle engine
11x6 for .46 - 2 cycle engine
11x7 for .52 - 4 cycle engine
12x7 ~13x6 - Electric motor



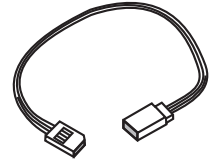
.40 - .46 - 2T



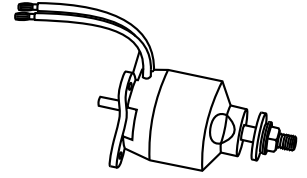
.48 - .52 4T



Silicone tube



Extension for aileron servo.



Brushless Motor
600-720W
or equivalent.
LiPo 4500 mAh (5-6)S

GLUE (Purchase)



Silicon sealer

Cyanoacrylate
Glue



EPOXY A



EPOXY B

Epoxy glue (5 minute type)
Epoxy glue (30 minute type)

TOOL REQUIRED

Hobby knife



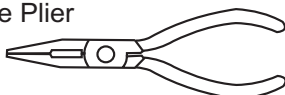
Phillip screw driver



Hex Wrench



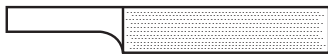
Needle nose Plier



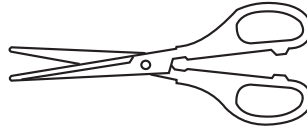
Awl



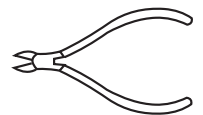
Sander



Scissor

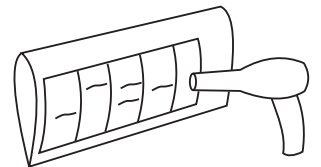



Wire Cutters




Masking tape - Straight Edged Ruler - Drill and Assorted Drill Bits


If exposed to direct sunlight and / or heat, wrinkles can appear. Storing the model in a cool place will let the wrinkles disappear. Otherwise, remove wrinkles in covering film with a hair-dryer, starting with low temperature. You can fix the corners by using a hot iron.





 Drill holes using the stated size of drill (in this case 1.5 mm Ø)


 Take particular care here


 Hatched-in areas: remove covering film carefully

 Check during assembly that these parts move freely, without binding

 Use epoxy glue

 Apply cyano glue

 Assemble left and right sides the same way.

 Not included. These parts must be purchased separately

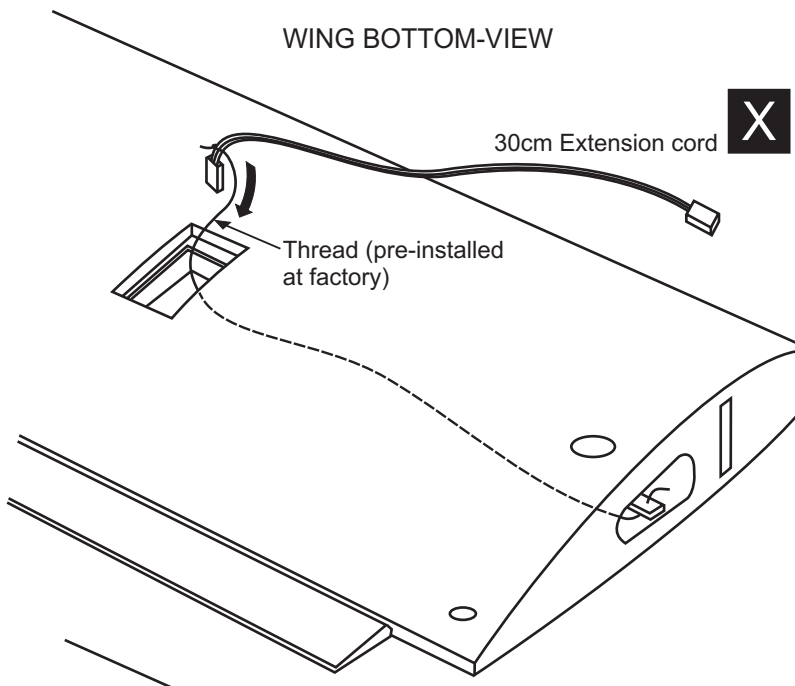
Read through the manual before you begin, so you will have an overall idea of what to do.

TABELLA DI CONVERSIONE

1.0mm = 3/64"	3.0mm = 1/8"	10mm = 13/32"	25mm = 1"
1.5mm = 1/16"	4.0mm = 5/32"	12mm = 15/32"	30mm = 1-3/16"
2.0mm = 5/64"	5.0mm = 13/64"	15mm = 19/32"	45mm = 1-51/64"
2.5mm = 3/32"	6.0mm = 15/64"	20mm = 51/64"	

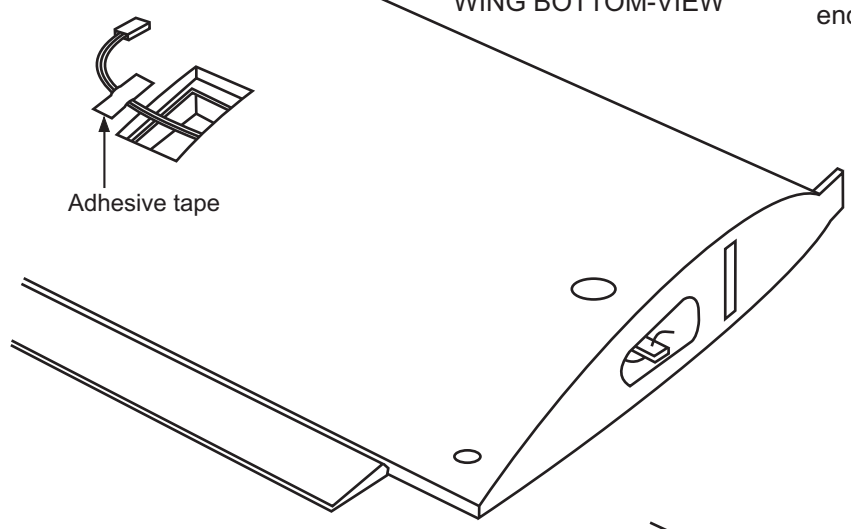
1-Aileron extension cord installation

WING BOTTOM-VIEW



Using the thread (pre-installed at factory) to slide the aileron extension cord into the wing half.

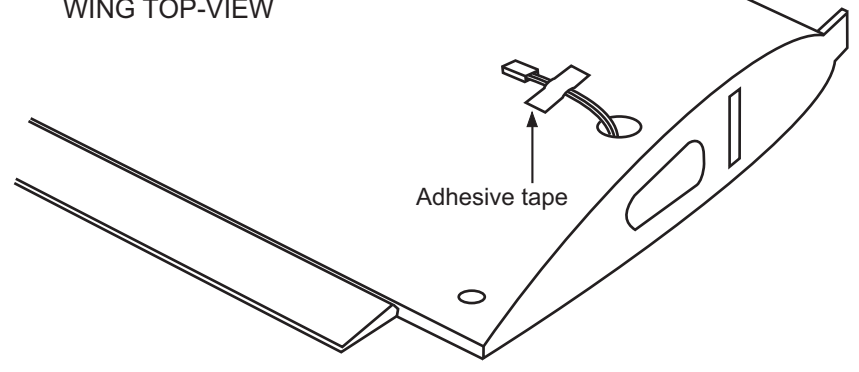
WING BOTTOM-VIEW



Using the adhesive tape to secure the one end of the aileron extension cord in place.

Using the adhesive tape to secure the one end of the aileron extension cord in place.

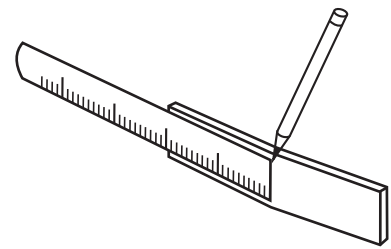
WING TOP-VIEW



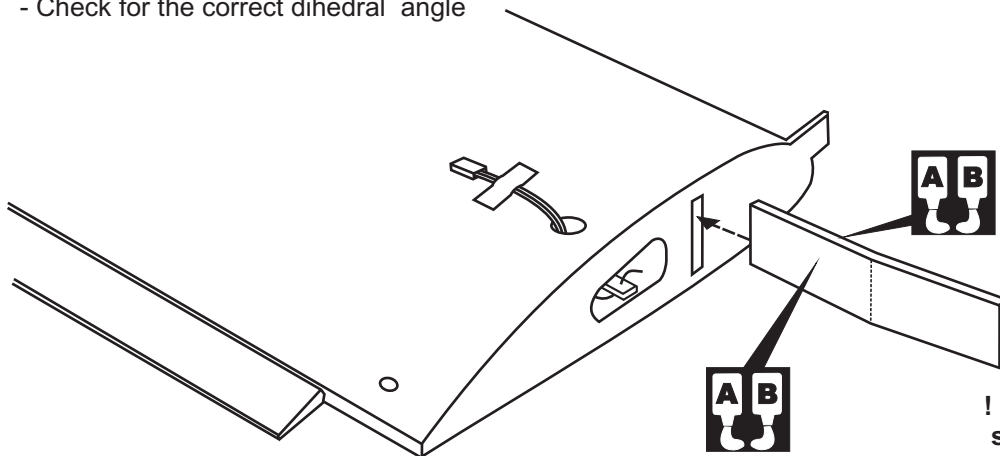
2- Joining the wing

Before gluing:

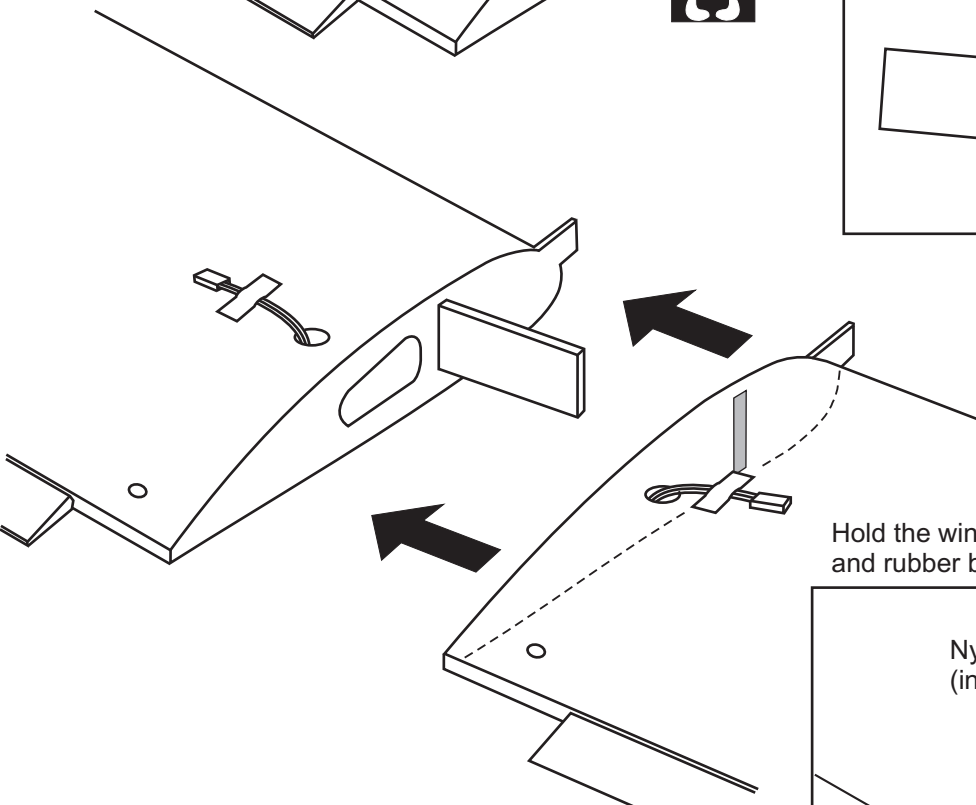
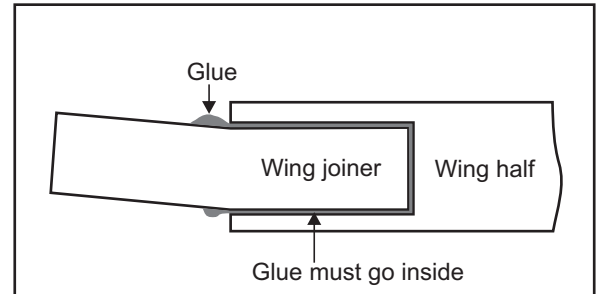
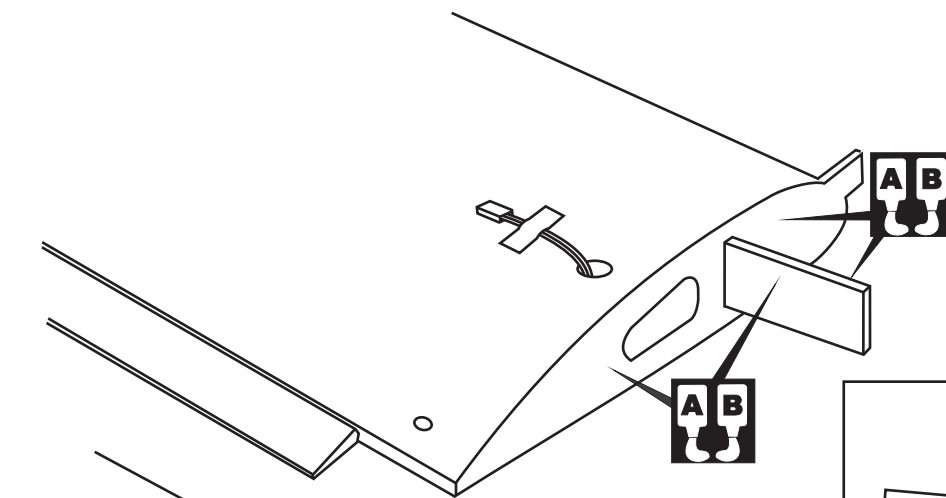
- Draw the center line on the wing joiner.
- Trial fit each part before gluing . Be certain that there are no gaps. If the parts will join, but with a gaps, sand or trim the parts a little at a time until the parts meet exactly with no gaps.
- Check for the correct dihedral angle



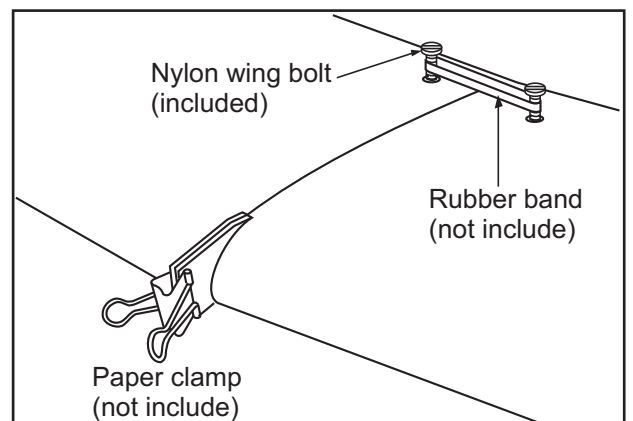
Draw the center line on the wing joiner



! Make sure to glue securely, If not properly glued, a failure in flight may occur.



Hold the wing halves together with paper clamp and rubber band

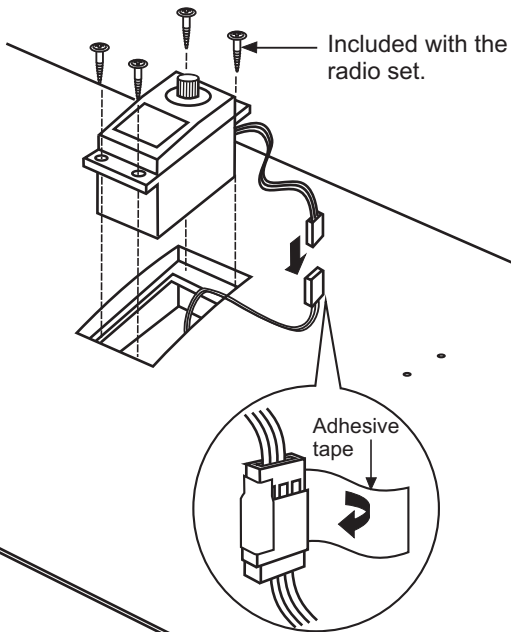
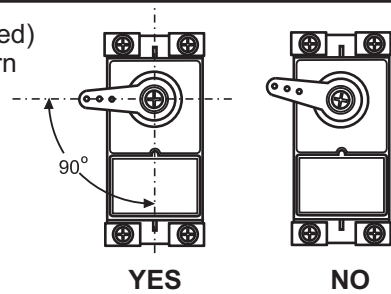


Note: The two wing halves roots must fit together perfectly.

IMPORTANT: Please do not clean off the excess epoxy on the wing with strong solvent or pure alcohol, only use kerosene to keep the colour of your model not fade.

3-Aileron servo installation

-Switch on the radio (trims centered) then mount the ailerons servo horn in neutral position.
 -The servo horn should be perpendicular to the servo



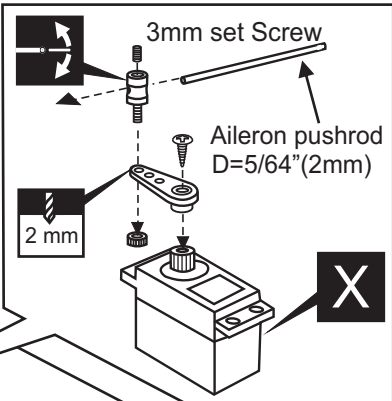
- 1-Cut away the covering of the wing bottom where the aileron servo goes.
- 2-Connect the aileron servo cord to the aileron extension cord.
- 3-Install the aileron servo on the servo mount.

WING BOTTOM-VIEW

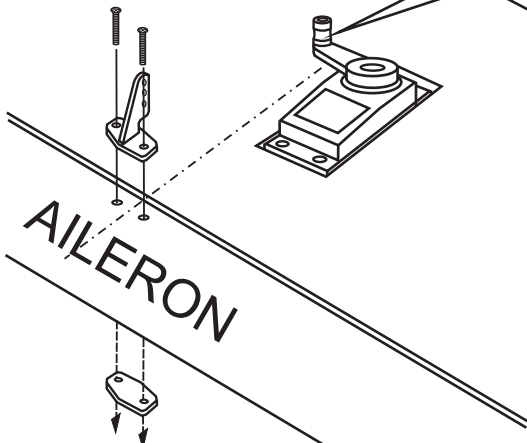
4- Aileron linkage

Plastic control horn

-2
-4
-2

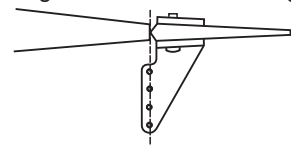


WING BOTTOM-VIEW






WING BOTTOM-VIEW

Hinge Line/Control horn Alignment

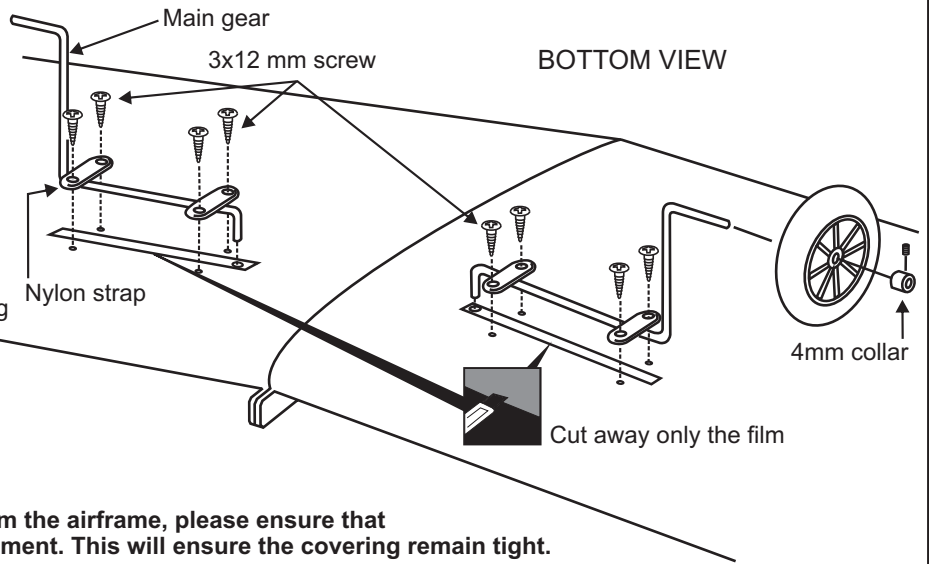


Depending on the position of the linkage, determine the location of aileron control horn. The horn holes must be perfectly aligned with the axis of articulation. Mark the position of the "foot" of the horn on the aileron. Then, with the drill, make the 2 holes. Install the aileron control horn as shown.

5- Installing the main gear

-  Nylon strap...4
-  3x12mm screw...8
-  4mm collar...2

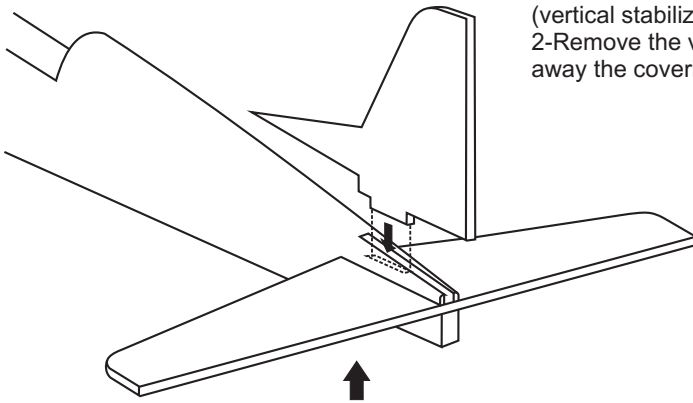
- 1- Locate the main landing gear struts and place them into the landing gear slot as show. Make sure that the ends of the struts are inserted into the holes in the landing gear channel.
- 2- Position the four nylon straps across the landing gear struts. Using the eight 3x12mm screws located in the hardware bag, fasten the landing gear to the bottom of the wing as show.
- 3- Slide one wheel onto each of the landing gear axles and secure them with the supplied wheel collars



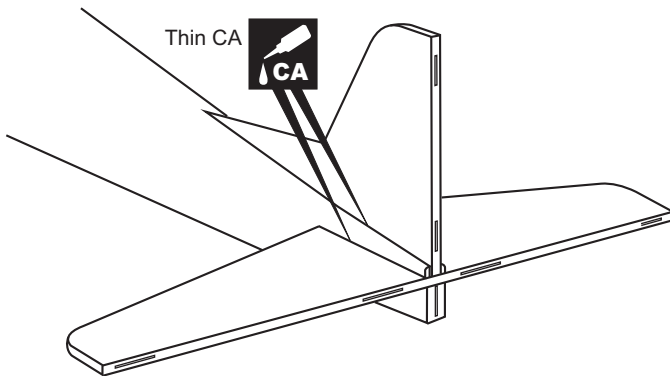
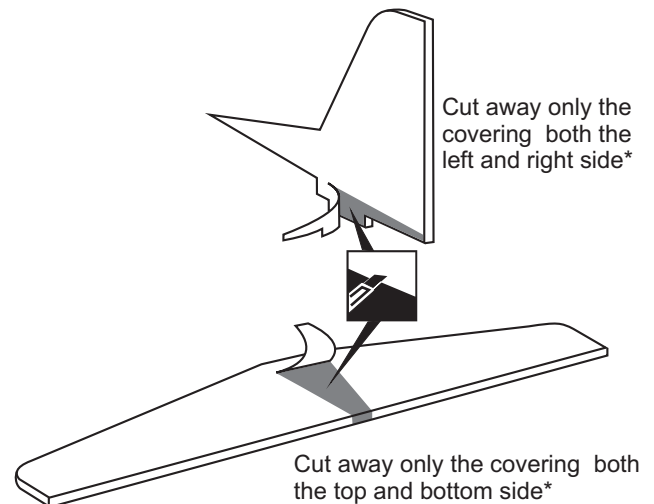
*** WARNING: When removing any covering from the airframe, please ensure that you secure the cut edge with CA or similar cement. This will ensure the covering remain tight.**

6- Stabilizer

- 1-Slide the vertical and horizontal stabilizer on the fuselage, use a pencil to trace around the bottom and the top (horizontal stabilizer) and the right and the left (vertical stabilizer).
- 2-Remove the vertical and horizontal stabilizer from the fuselage. Careful cut away the covering inside the lines which were marked in step 1.



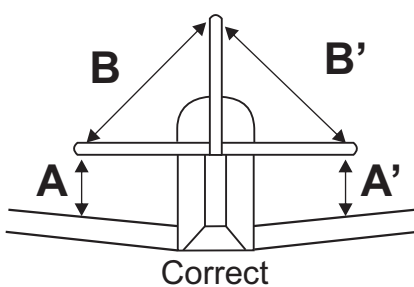
Note: Check the alignment of the horizontal stabilizer by measuring from a fixed point along the center line of the fuselage to the leading edge on each side of the horizontal stabilizer. The distance must be equal on both sides. If not, adjust the stabilizer until the measurements are the same.



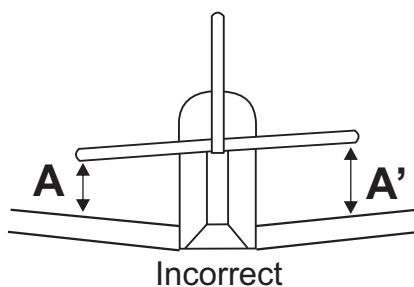
Realign the vertical stabilizer and horizontal stabilizer, then glue the vertical stabilizer and horizontal stabilizer into the fuselage, using a generous amount of **thin CA**.

Note: glue both the right and left of the vertical stabilizer, and both the top and bottom of the horizontal stabilizer.

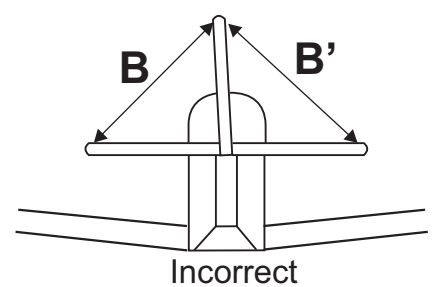
Attach the Vertical Stabilizer and the Horizontal Stabilizer



$$A=A' \quad B=B'$$

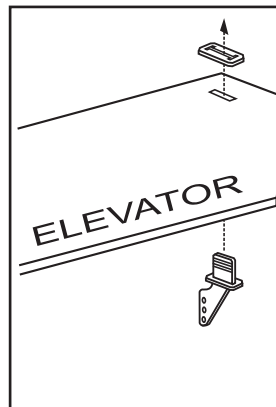
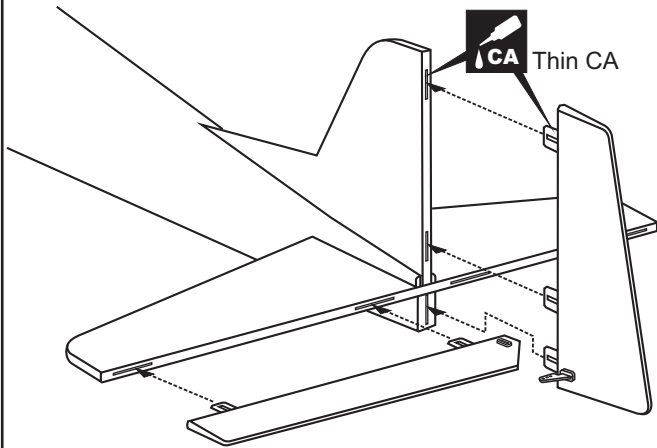


$$A \neq A'$$



$$B \neq B'$$

7- Rudder and elevator



Note: The slots for the control horn installation are pre-cut at factory.

Trial fit the horn. Actuate elevator linkage manually it should not be hard spot. Adjust if necessary.

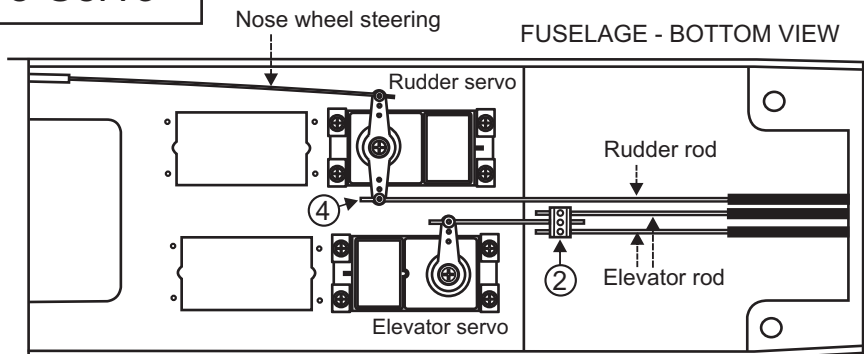
Insert the plate through the foot of the horn.

Bond with **thin CA glue**.

Do the same way with other elevator and rudder

Push the elevator and its hinges into the hinge slots in the trailing edge of the horizontal stabilizer. There should be a minimal hinge gap. When satisfied with the alignment, hinge the elevator to the horizontal stabilizer using **thin CA glue**. Do the same way with other elevator and rudder.

8-Servo



Insert the elevator linkages from the rear of the fuselage. Screw the clevis mid-thread, then connect to the elevator horn.(1)

Set elevator to neutral, then cut elevator linkages to length and insert into the triple connector as pictured.(2)

Adjust neutral and tighten everything. You can use thread lock to prevent inadvertent loosening.

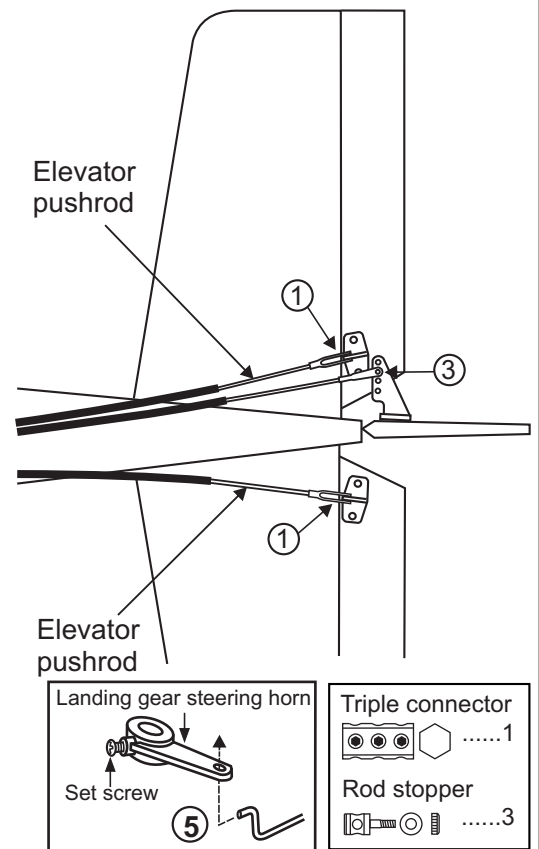
Insert the rudder linkages from the rear of the fuselage. Screw the clevis mid-thread, then connect to the rudder horn.(3)

Set the rudder to neutral, then cut rudder linkages to length and insert into the connector as pictured (4).

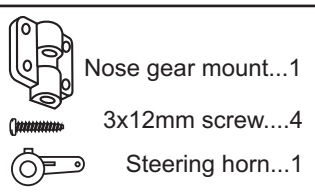
Insert "Z" bend of steering wheel linkage inside the hole of front landing gear steering horn (5).

Insert steering wheel linkage inside outer tube already installed inside the fuselage from the front.

FUSELAGE - BOTTOM VIEW



9- Front landing gear

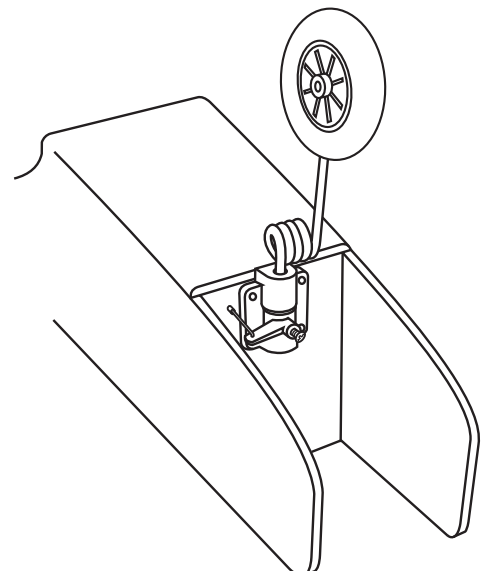


1-Position the steering horn inside the front landing gear mount already attached to the firewall.

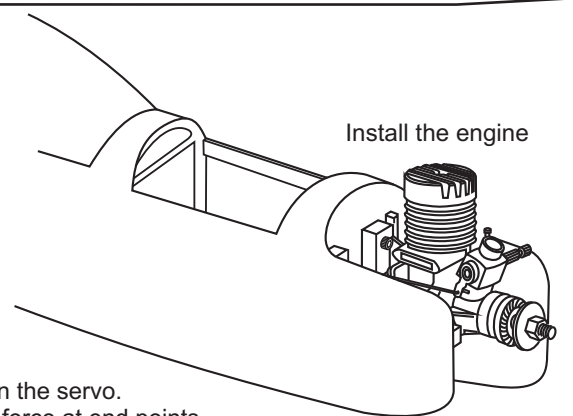
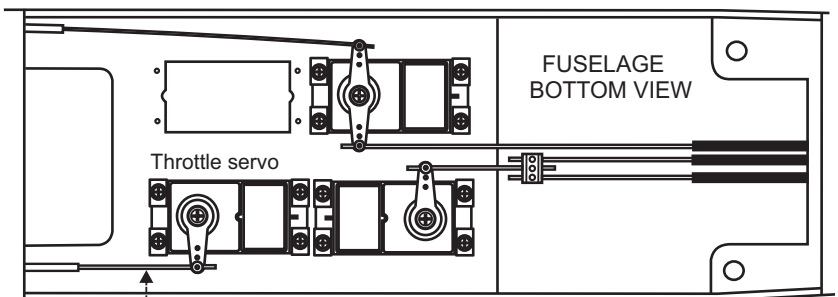
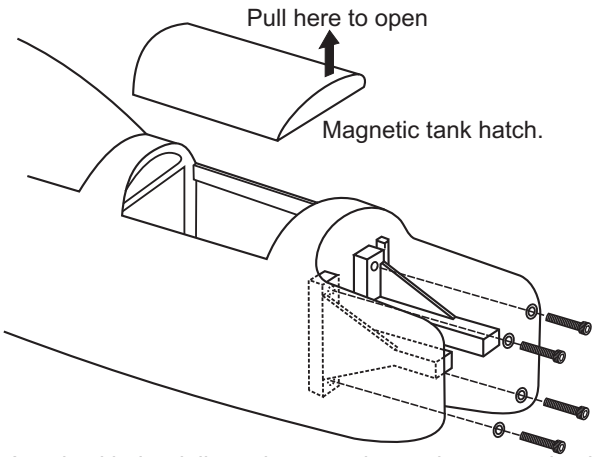
2-Slide front leg into the bearing and through the horn.

3-Screw steering horn on the leg.

4-Insert steering linkage into rod stopper installed on rudder servo arm. Adjust neutral position of the nose wheel. Tighten adjustable rod stopper.

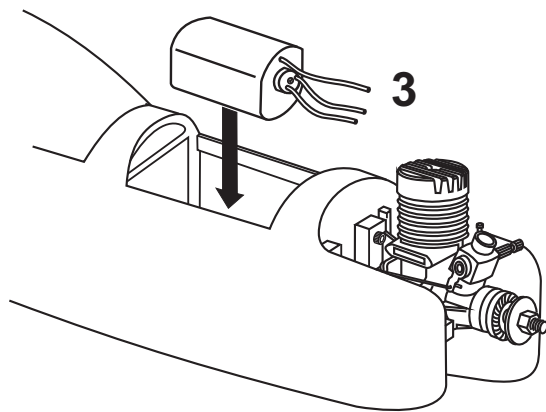


10- Engine installation

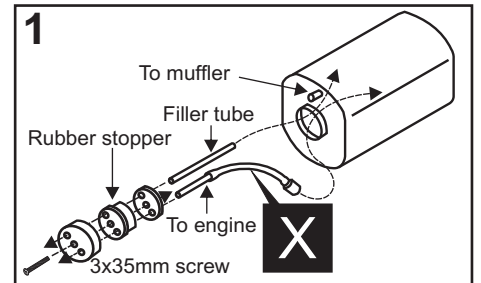


- 1-Attach with the delivered screws the engine mount in place.
- 2-Install the engine.
- 3-Install throttle servo inside the fuselage.
- 4-Slide the throttle linkage in its outer tube from the front of the fuselage and insert the "Z" bend in the carburetor throttle lever.
- 5-Install an adjustable rod stopper on the servo arm, then attach the equipped arm on the servo.
- 6-Insert the rod into the stopper, adjust throttle linkage travel. Caution should never force at end points (full throttle and idle). Once the throttle control set up, tighten the rod stopper.

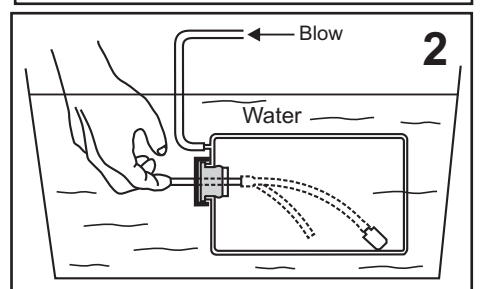
11-Fuel tank



After confirming the direction . Insert this assembly, clunk end first, into the fuel tank and tighten and screw the fuel tank cap on firmly. Ensure that the fuel tank clunk does not touch the rear of the fuel tank.



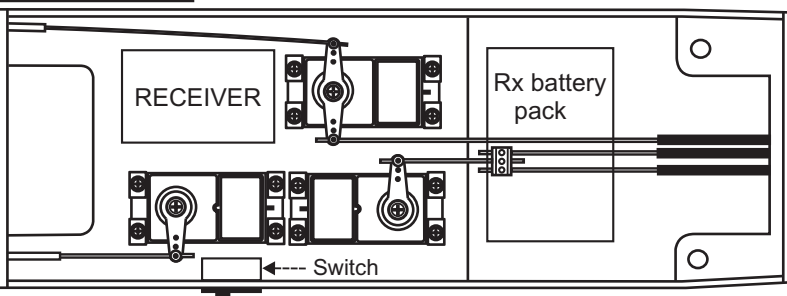
Checking for leaks - block the vents and blow into the feed - if in doubt submersing the tank in a blow of water will show up any problems.



Carefully install the fuel tank to ensure that they will not shift during flight (secure the fuel tank in place using foam padding).

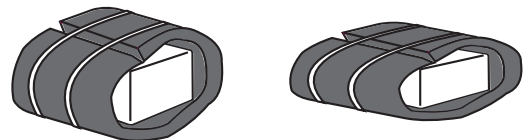
12-Radio

FUSELAGE - BOTTOM VIEW



1-Install RC switch (the hole is already cut on fuselage side).

- 2-Secure foam padding with rubber bands or tape.
- 3-Shift the location of the receiver and battery pack as needed to obtain the specified CG.
- 4-Carefully install the receiver and battery pack to ensure that they will not shift during flight.



13-Control surface-balance

