

40 Class
2-cycle engine

52 Class
4-cycle engine

Or Electric equivalent

P-39 Q/N AIRACOBRA

BUILDING INSTRUCTIONS / MONTAGEANLEITUNG



RADIO CONTROLLED ALMOST READY-TO-FLY ENGINE POWERED ALL Balsa PLANE

SPECIFICATIONS

Wingspan	1580mm
Length	1160mm
Flying weight	2500g
Electric Motor	650 Watt
Glow Engine	6,5cc 2T / 8,5cc 4-T
Radio	7 Channel / 7 Servos

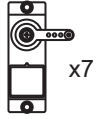
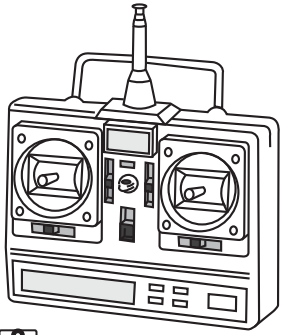
Technische Daten

Spannweite	1580mm
Länge	1160mm
Fluggewicht	2500g
Elektroantrieb	650 Watt
Verbrennerantrieb	6,5cc 2T / 8,5cc 4T
Fernsteuerung	7 Kanal / 7 Servos

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.

ACHTUNG! Dieses ferngesteuerte Modell ist KEIN Spielzeug! Es ist für fortgeschrittene Modellflugpiloten bestimmt, die ausreichende Erfahrung im Umgang mit derartigen Modellen besitzen. Bei unsachgemäßer Verwendung kann hoher Personen- und/oder Sachschaden entstehen. Fragen Sie in einem Modellbauverein in Ihrer Nähe um professionelle Unterstützung, wenn Sie Hilfe im Bau und Betrieb benötigen. Der Zusammenbau dieses Modells ist durch die vielen Abbildungen selbsterklärend und ist für fortgeschrittene, erfahrene Modellbauer bestimmt.

OPTIONAL ACCESSORIES

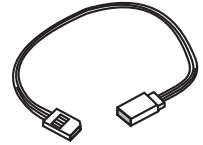


x7

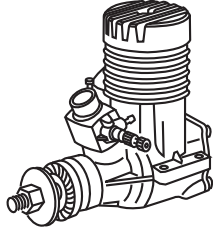
Minimum 7 channel radio
for airplane with 7 mini servos
.Motor control x1 (glow engine)
.Aileron x 2
.Flap x 2
.Elevator x 2
.Rudder x1



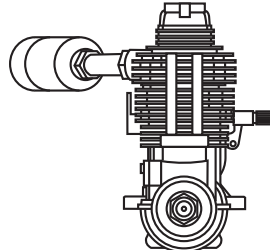
10.5x6 for .40 - 2 cycle engine
11x6 for .46 - 2 cycle engine
11X7 for .52 - 4 cycle engine
13X8 for Electric motor.



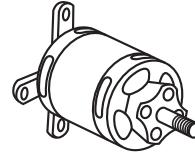
Extension for ailerons, flaps,
elevators, rudder servo.



.40-.45 - 2 cycle



.52-.60 - 4 cycle



G-46 HP Motor
5 cell 4500mAh.
or equivalent.



Silicone tube

GLUE (Purchase separately)



Silicon sealer

Cyanoacrylate
Glue
Klebstoff



Epoxy Glue (5 minute type)
Epoxy-Klebstoff (5min-Typ)



Epoxy Glue (30 minute type)
Epoxy-Klebstoff (30min-Typ)

TOLLS REQUIRED (Purchase separately)

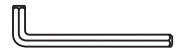
Hobby knife



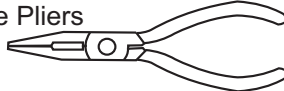
Phillip screw driver



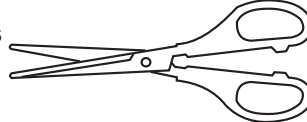
Hex Wrench



Needle nose Pliers



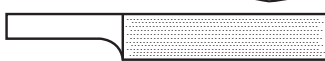
Scissors



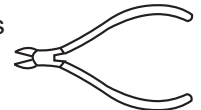
Awl



Sander



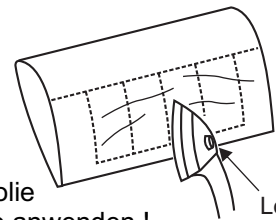
Wire Cutters




Masking tape - Straight Edged Ruler - Pen or pencil - Rubbing alcohol - 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.


Bei Sonneneinstrahlung und/oder Wärme kann die Folie erschlaffen bzw. Falten entstehen. Verwenden Sie ein Warmluftgebläse (Haartrockner) um evtl. Falten aus der Folie zu bekommen. Die Kanten können Sie mit einem Bügeleisen behandeln. Nicht zuviel Hitze anwenden!





Low setting


 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

 Löcher bohren mit dem angegebenen Bohrer (hier 1,5 mm)


 Hier besonders aufpassen

 Schraffierte Stellen, Bespannfolie vorsichtig entfernen

 Während des Zusammenbaus immer prüfen, ob sich die Teile auch reibungslos bewegen lassen

 Epoxy-Klebstoff verwenden

 Sekundenkleber auftragen

 Linke und rechte Seite wird gleichermaßen zusammgebaut

 Nicht enthalten. Teile müssen separat gekauft werden.

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

CONVERSION TABLE

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"	

SAFETY NOTES BEFORE ASSEMBLING

This model is highly pre-fabricated and can be built in a very short time. However, the work which you have to carry out is important and must be done carefully.

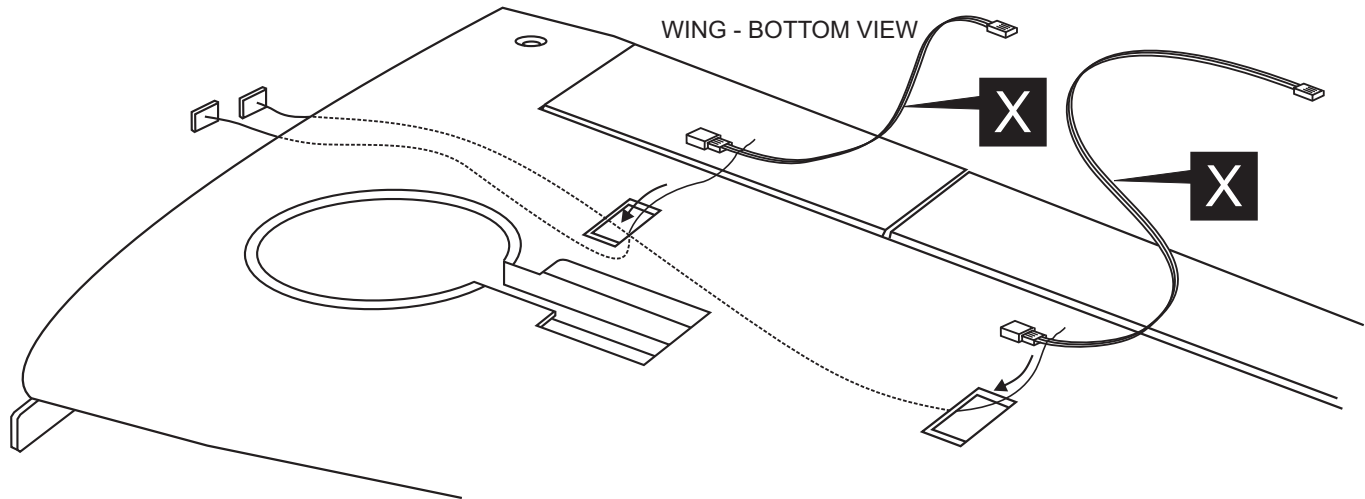
The model will only be strong and fly well if you complete your tasks competently - so please work slowly, accurately and check every joints, maybe apply more glue to be safe.

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

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

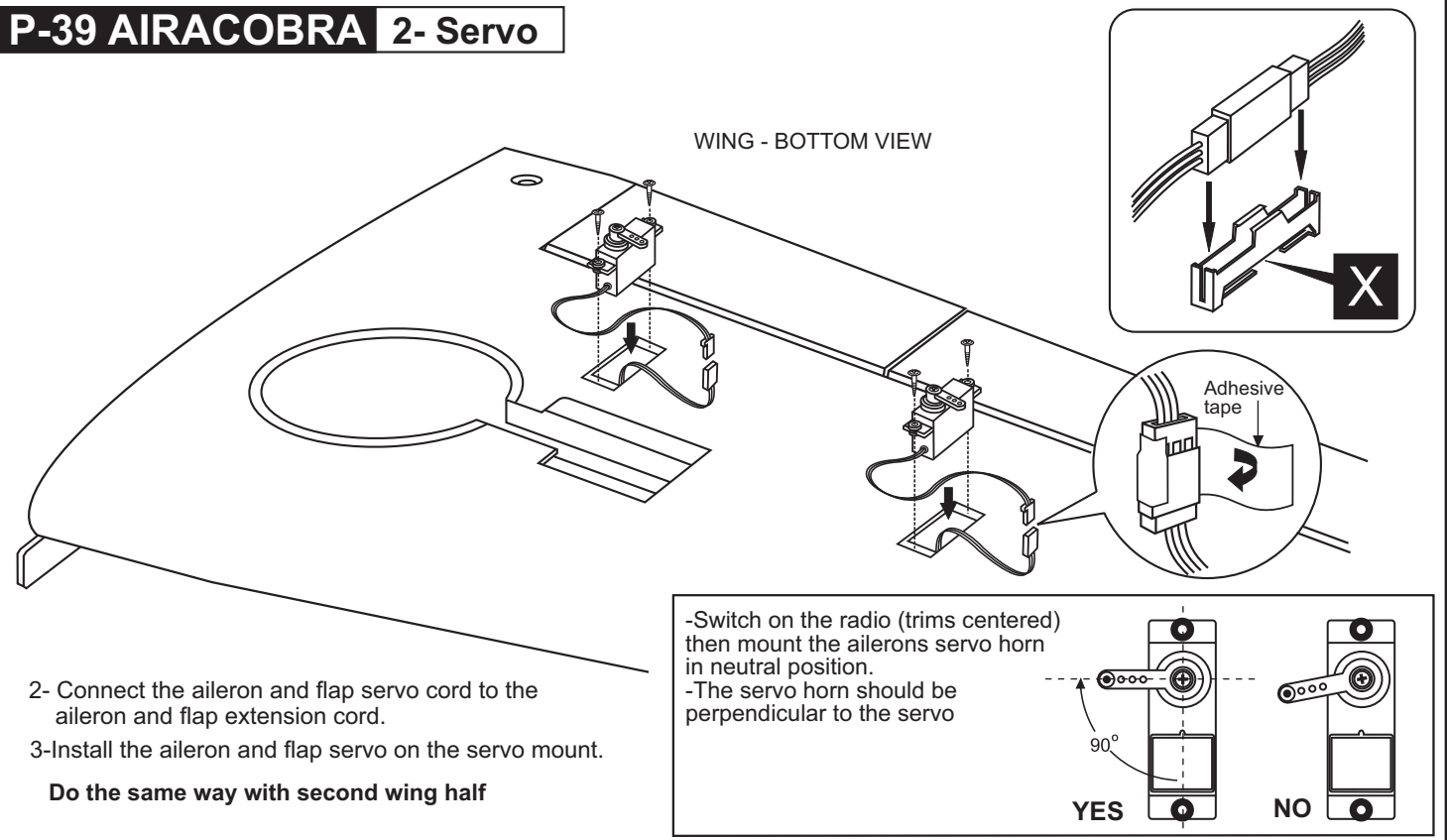
WARNING: Do not put in a large-than recommended engine. A bigger engine does not necessarily mean better performance.

P-39 AIRACOBRA 1- Servo extension cord



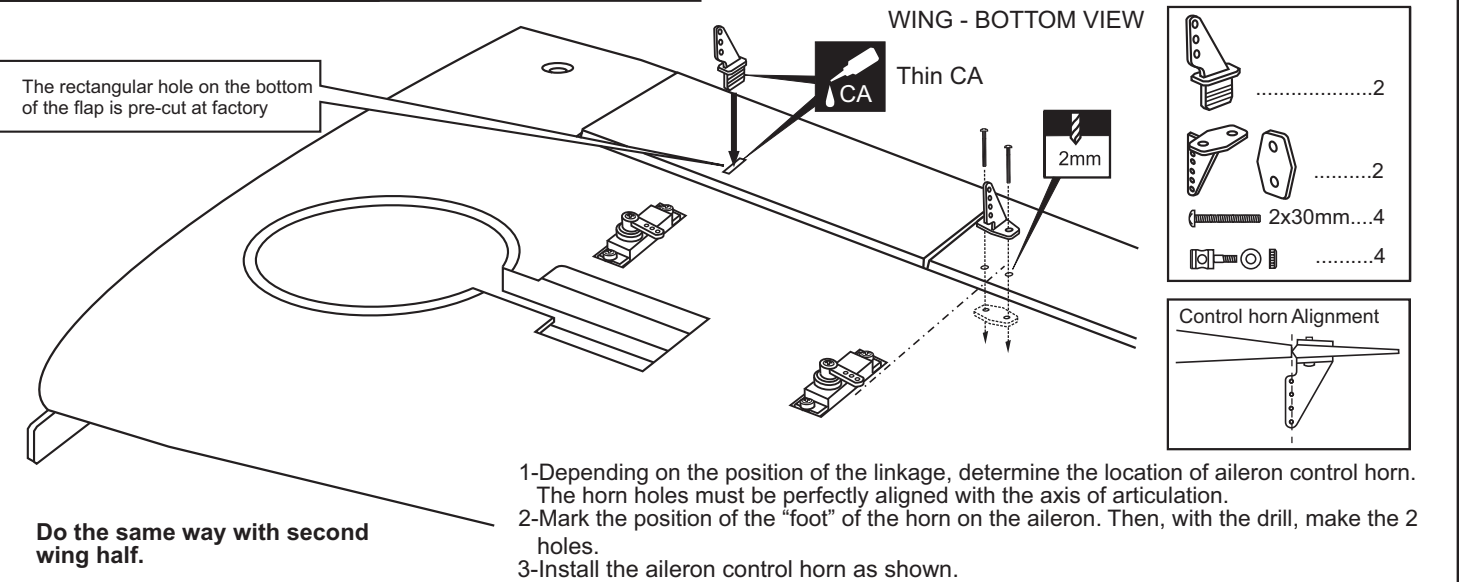
Thread the flap and aileron extension cords into the wing with the existing thread.

P-39 AIRACOBRA 2- Servo

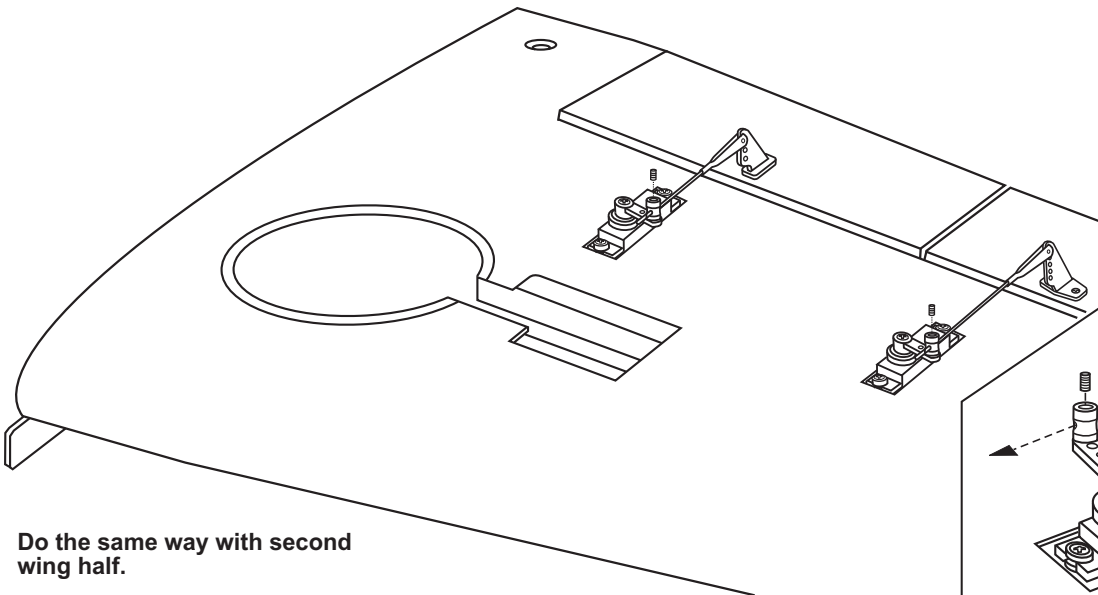


- 2- Connect the aileron and flap servo cord to the aileron and flap extension cord.
 - 3-Install the aileron and flap servo on the servo mount.
- Do the same way with second wing half**

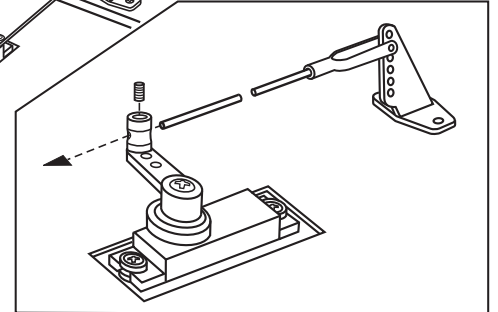
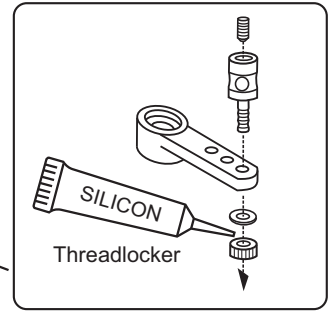
P-39 AIRACOBRA 3- Control horn



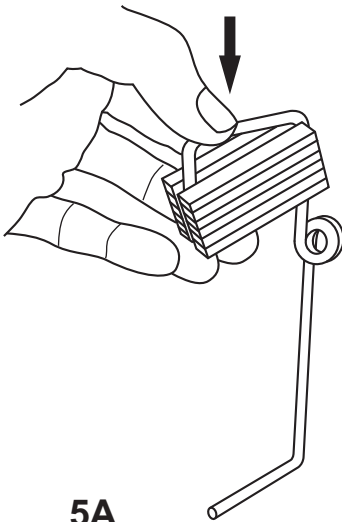
P-39 AIRACOBRA 4- Flap & Aileron linkages



Do the same way with second wing half.

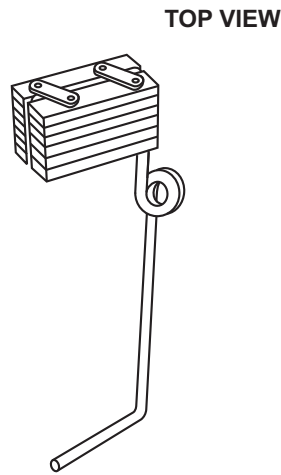


P-39 AIRACOBRA 5- Fixed gear assembling



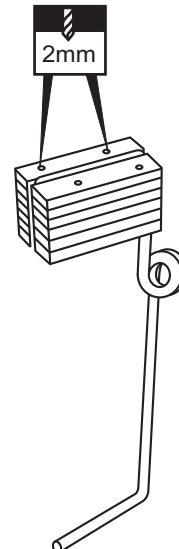
5A

Slide the landing gear onto the plywood gear mount and push the landing gear as shown.



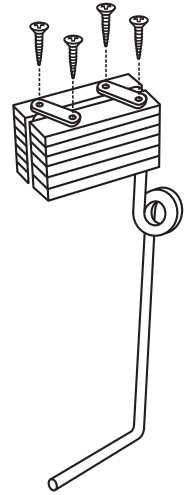
5B

Using the nylon gear strap as a template, mark the plywood gear mount where the four holes to be drill.



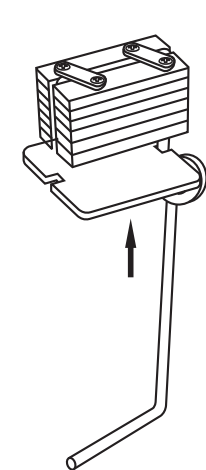
5C

Remove the nylon gear strap and drill a 2mm hole at each of the four marks marked.



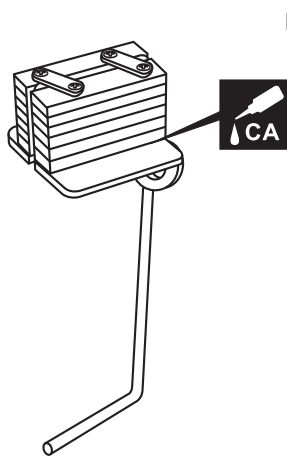
5D

Reposition the nylon gear strap and secure them in place using four 3x20mm screws.



5E

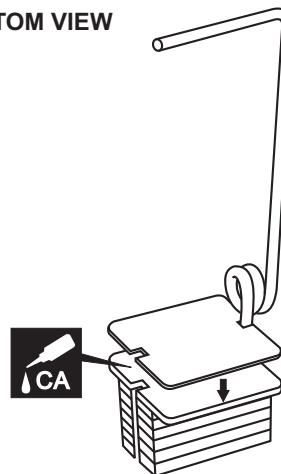
Attach the ply gear mount plate to the plywood gear mount.



5F

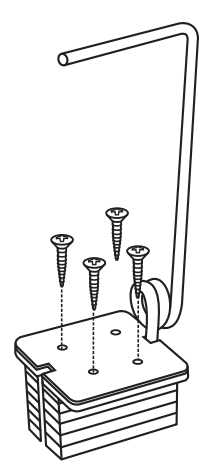
Secure the ply gear mount plate in place using CA glue.

BOTTOM VIEW



5G



Attach the square plastic onto the ply gear mount, secure it in place using CA glue.

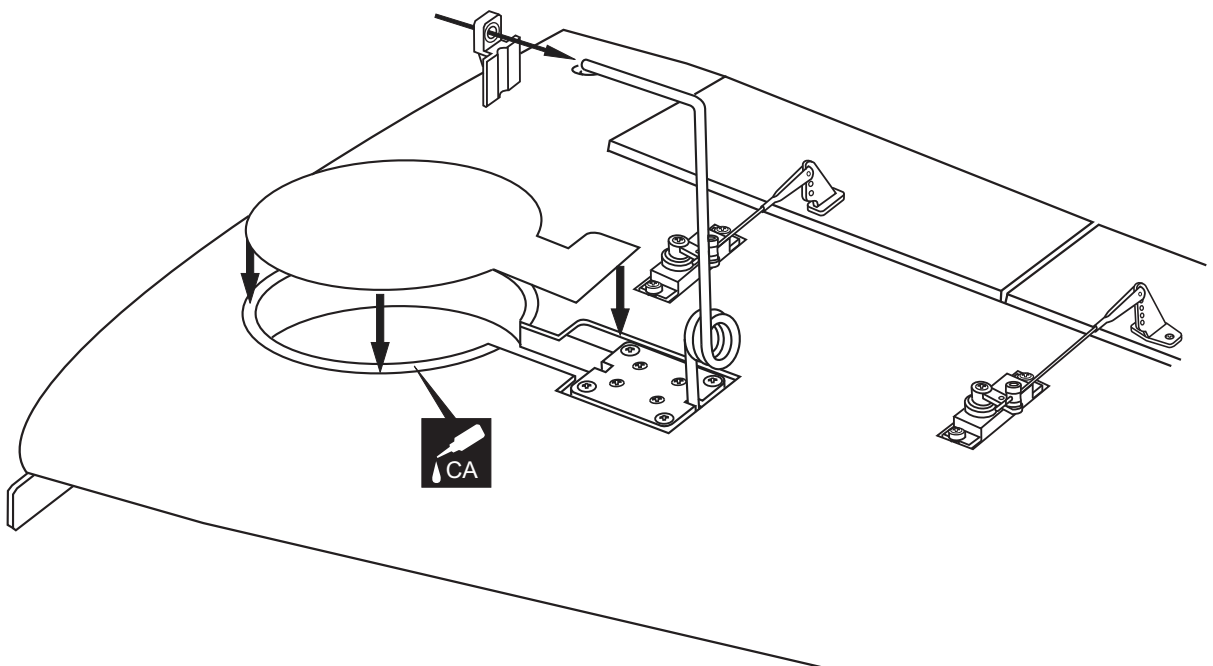
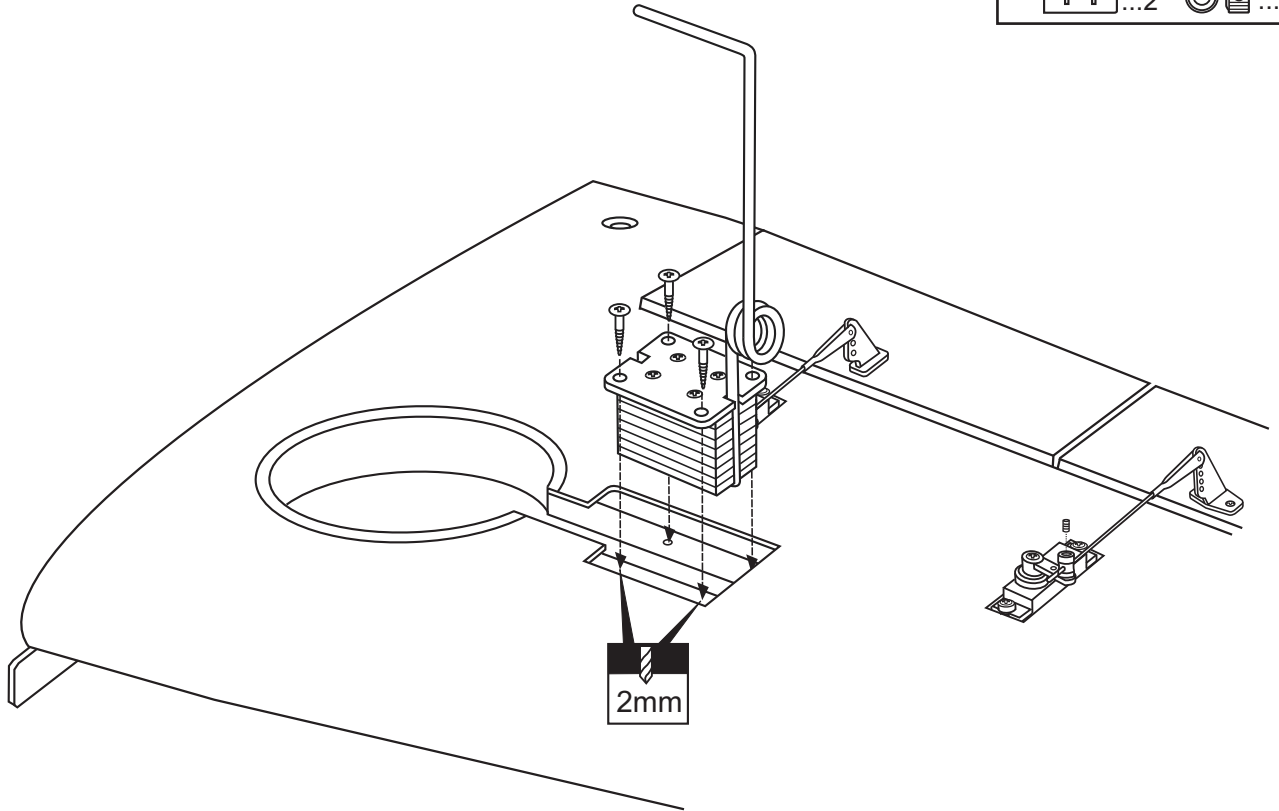


5H

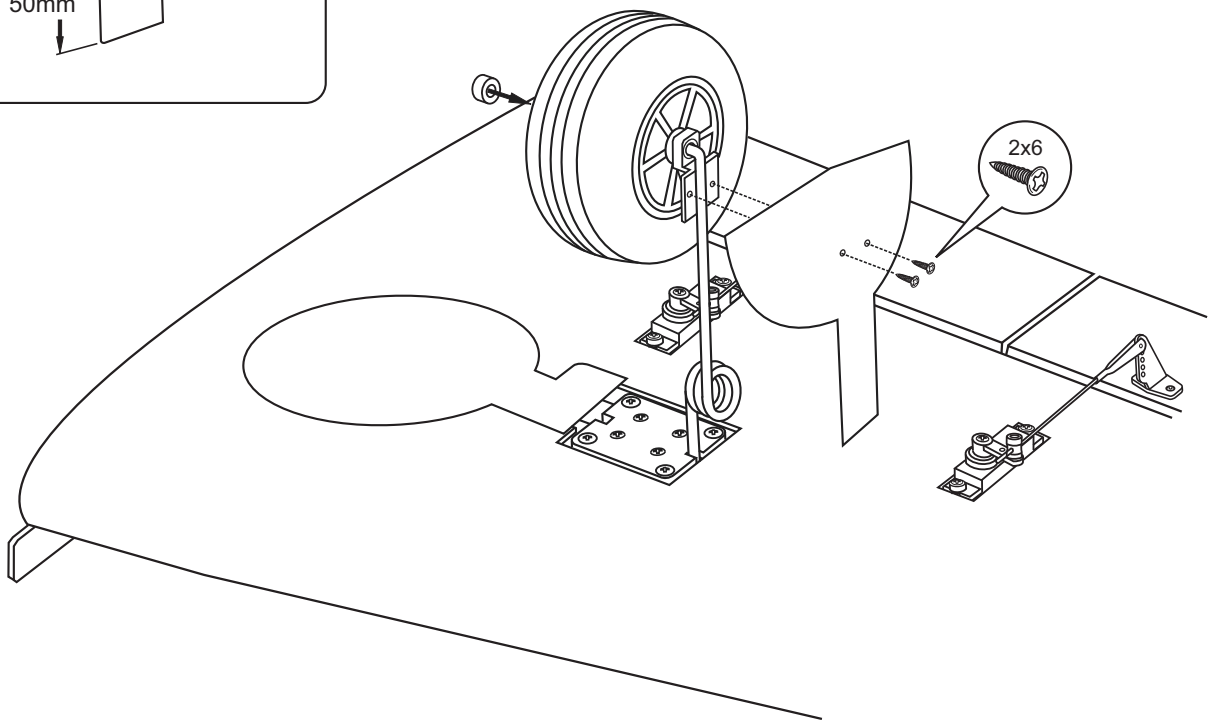
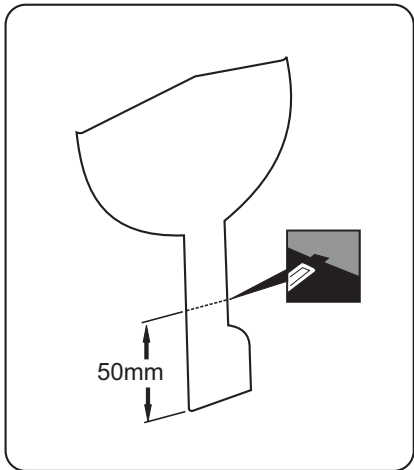
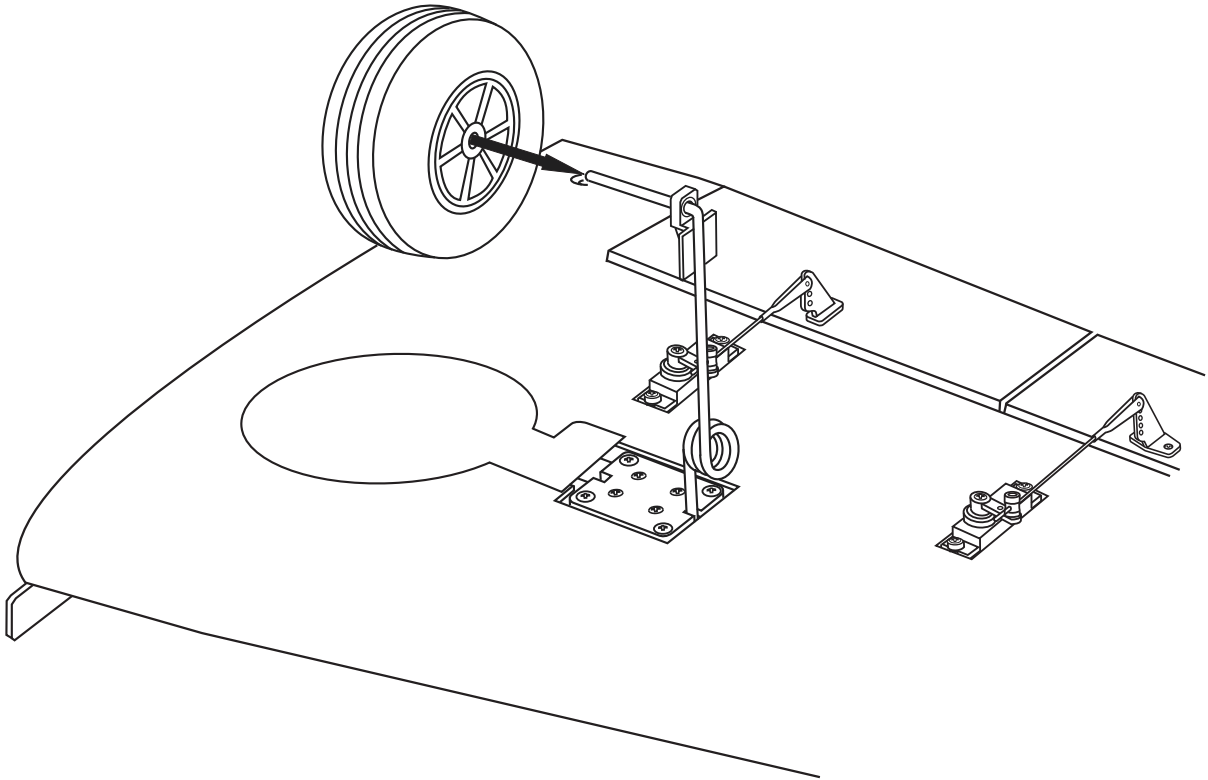
Drill a 2mm holes through the square plastic and ply gear mount plate. Secure the ply gear mount using four 3x20mm screws.

P-39 AIRACOBRA 6- Fixed gear installation

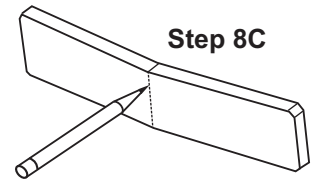
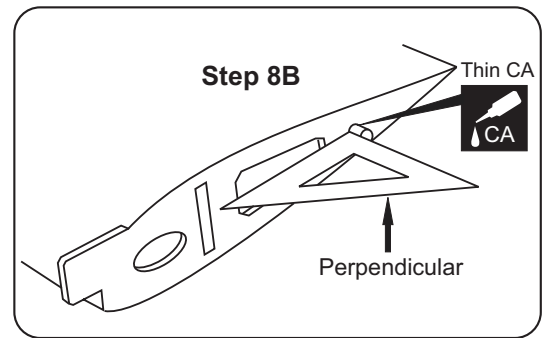
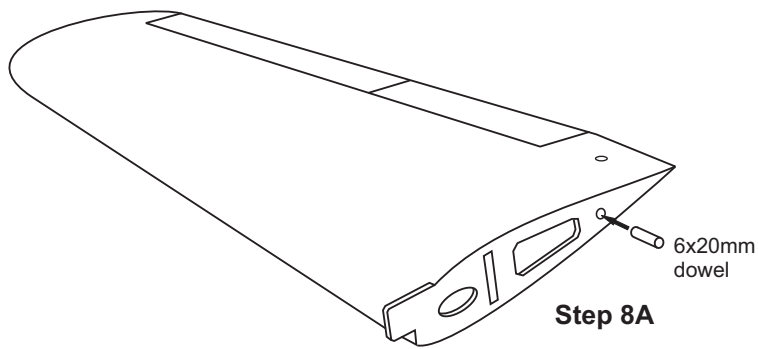
- 2x6mm screw
4
- 4mm collar
2



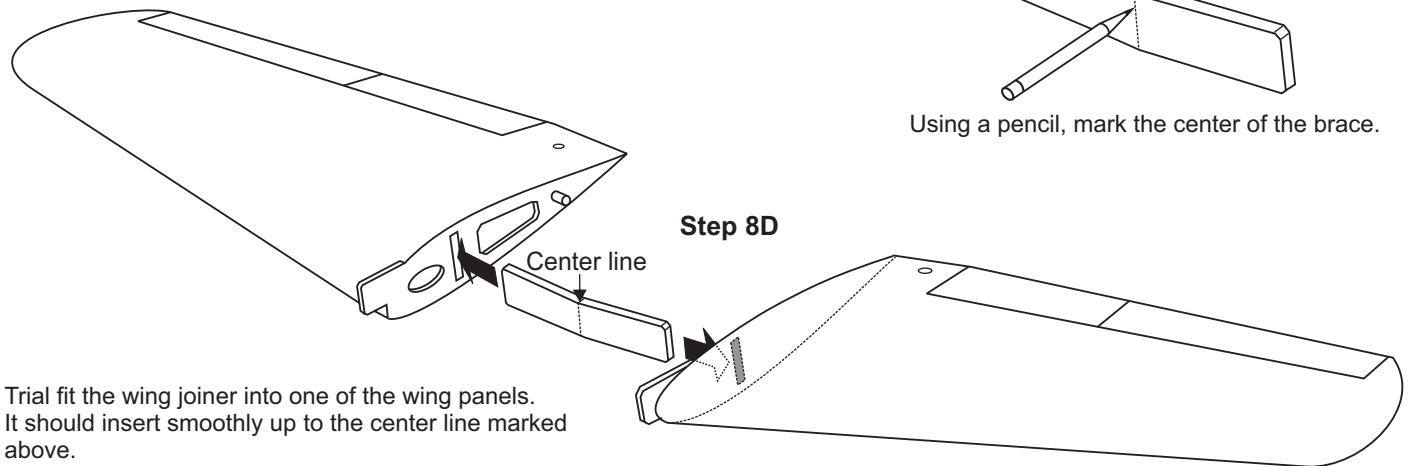
P-39 AIRACOBRA 7- Fixed gear installation



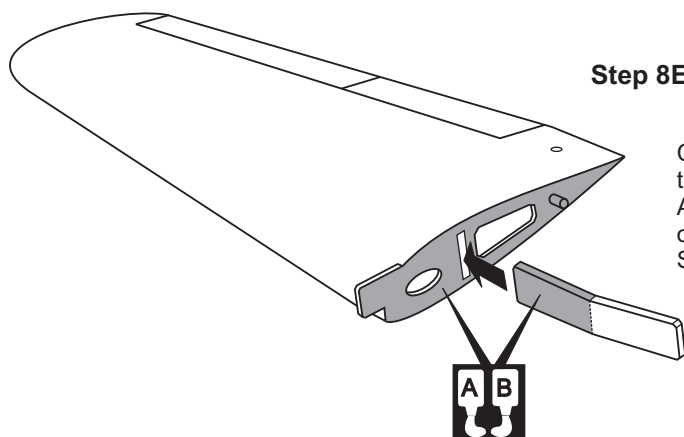
P-39 AIRACOBRA 8- Joining the wing halves



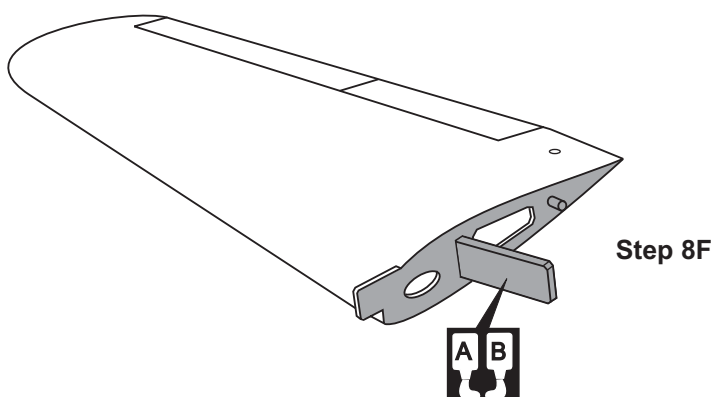
Using a pencil, mark the center of the brace.



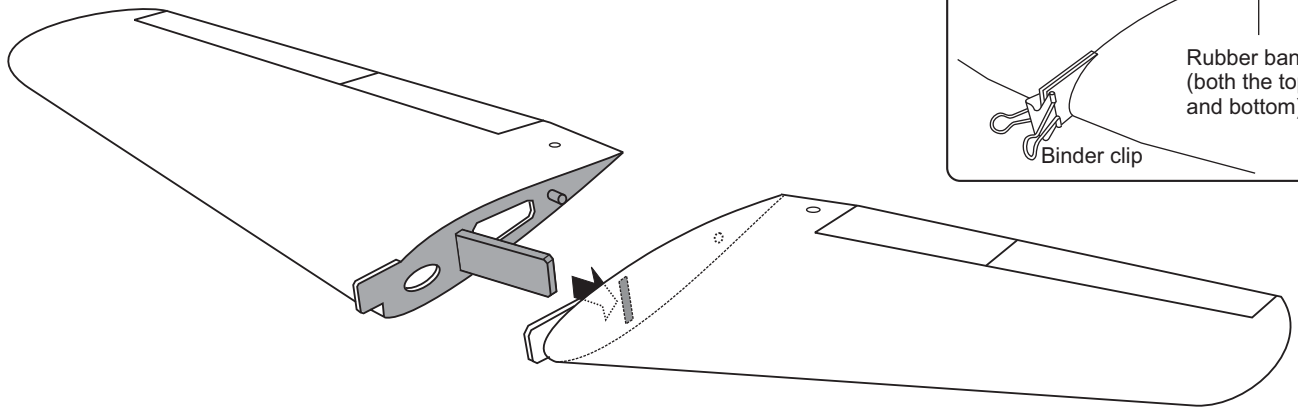
Trial fit the wing joiner into one of the wing panels. It should insert smoothly up to the center line marked above. Slide the other wing half onto the dihedral brace until the wing panel meet. If the fit is over tight, it may be necessary to lightly sand the dihedral brace.



Coat one half of the dihedral brace with 30 minute epoxy up to the center line. Install the epoxy-coated side of the dihedral brace. Apply a generous amount of epoxy into the wing joiner cavity of one wing half. Smear epoxy on the wing root as show.



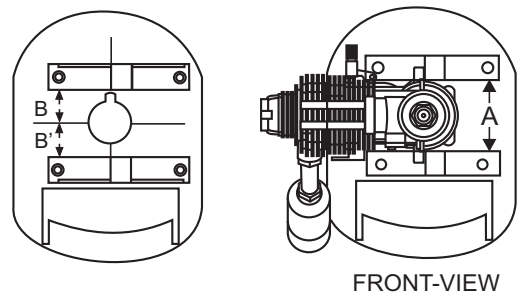
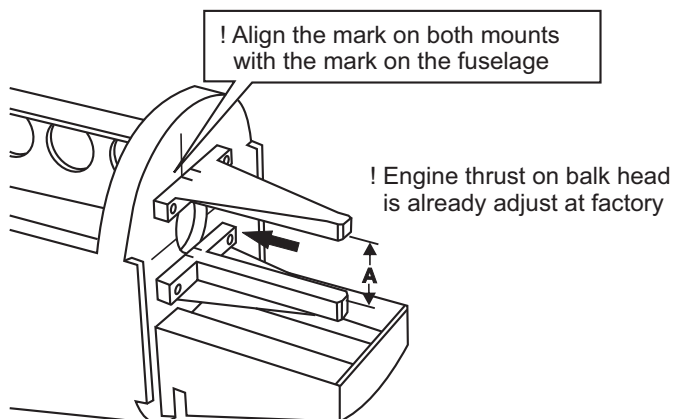
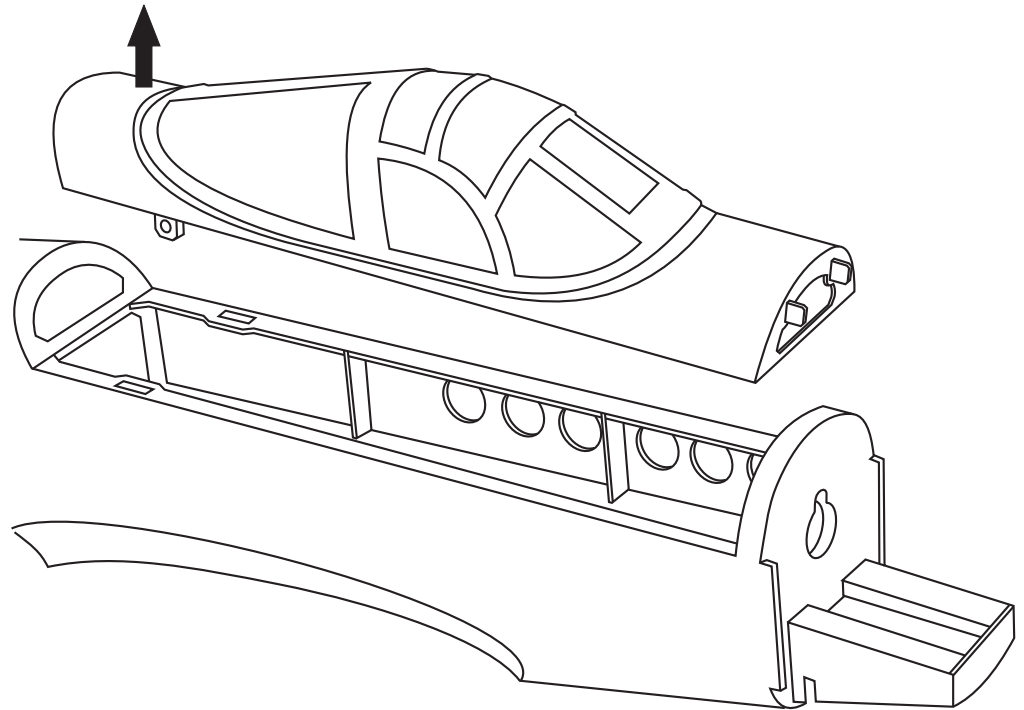
P-39 AIRACOBRA 9- Joining the wing halves



Carefully, slide the wing halves together, ensuring that they are accurately aligned. Firmly press the two halves together, allowing the excess epoxy to run out. Clean off the excess epoxy with **paper towel and kerosene**.

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.

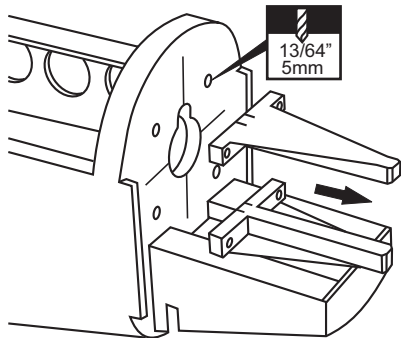
P-39 AIRACOBRA 10- Engine mount



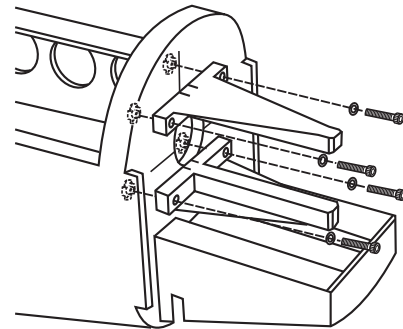
FRONT-VIEW

- Position the top and bottom engine mounts to the fire-wall, using a pencil or felt tipped pen, mark the fire-wall where the four holes are to be drilled.

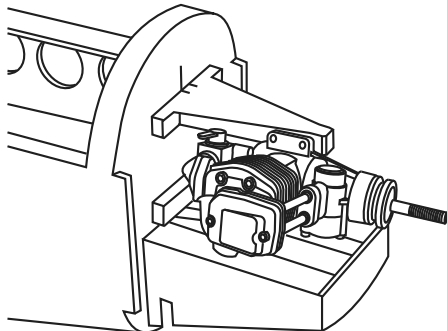
P-39 AIRACOBRA 11- Engine mount



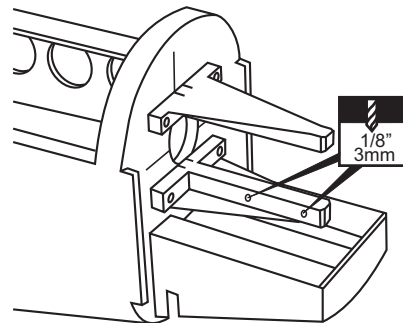
- Remove the engine mounts and drill a 13/64"(5mm) hole through the fire-wall at each of the four marks marked.
- Attach the four blind-nut to the fire-wall as show



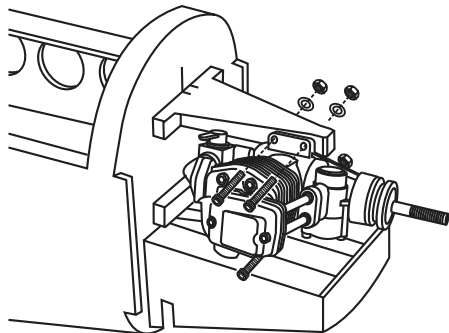
- Reposition the engine mounts on to the fire-wall and secure them with four 4x25mm screw



- Position the engine on to the engine mounts so the distance from the prop hub to the fire wall is 118mm.
- Mark the engine mounting plate where the four holes are to be drilled.



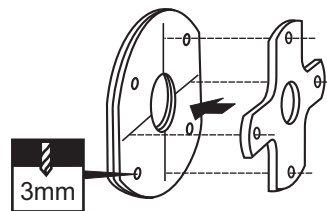
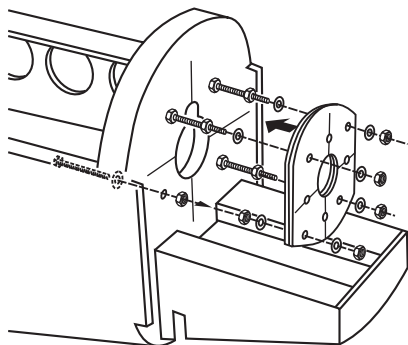
- Remove the engine and drill a 1/8" (3mm) holes through the beam at each of the four marks make before.



- Reposition the engine on the engine mount beams, aligning it with the holes. Secure the engine to the engine mount using four 3x25mm screws.

5/32x1" 4x25mm screw	1/8x5-1/64" 3x20mm screw
...4	...4
Blind-nut	1/8"(3mm) nut
.....44

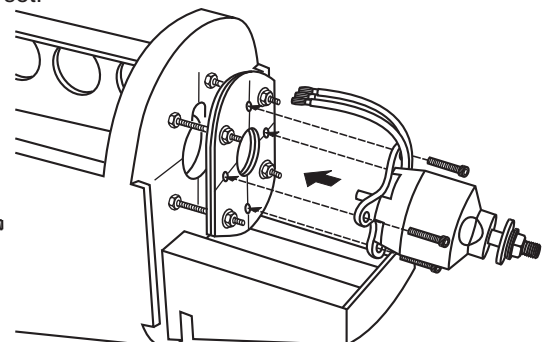
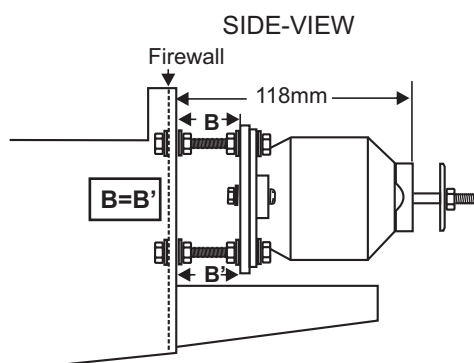
P-39 AIRACOBRA 12- Electric motor mount



- Using a aluminum motor mounting plate as a template, mark the plywood motor mounting plate where the four holes are to be drilled.

- Remove the aluminum motor mounting plate and drill a 1/8"(3mm) hole through the plywood at each of the four marks marked .

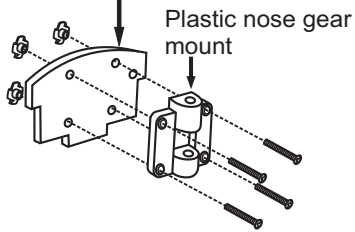
Note: The aluminum motor mounting included with electric motor set.



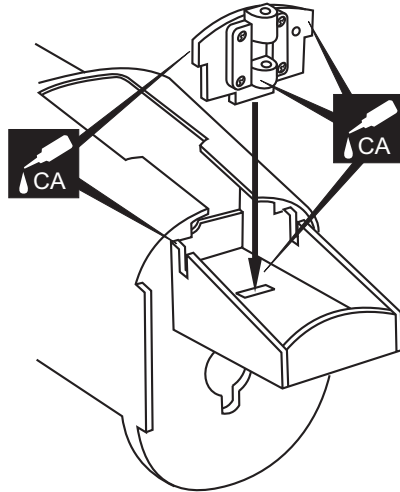
5x80mm.....4
5mm nut.....12
5mm washer.....16
3mm screw/nut...4

P-39 AIRACOBRA 13- Nose gear

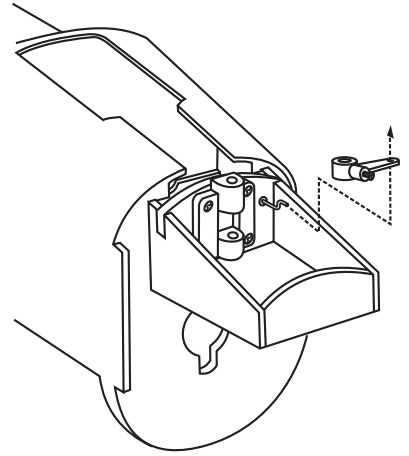
Plywood nose gear plate



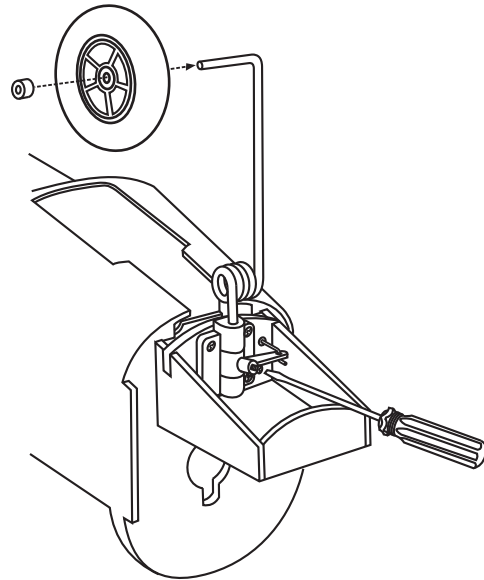
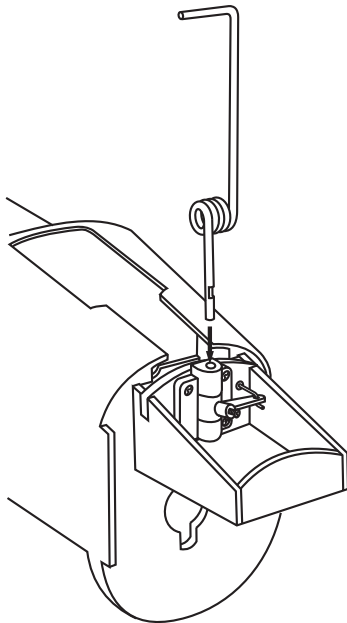
Attach the plastic nose gear mount to the plywood nose gear plate using four 3x20mm screws and blind nuts.



Secure the plywood nose gear plate in place using CA glue.



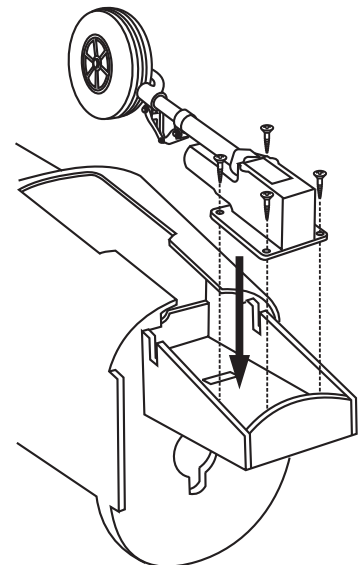
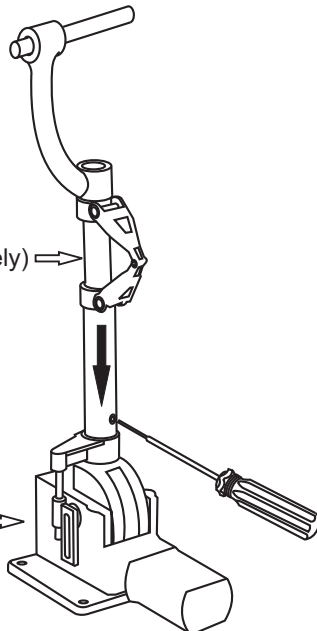
Insert the nose gear pushrod into the fuselage with the "Z" bend in front.
Insert the "Z" bend into the hole on the nose gear control horn.



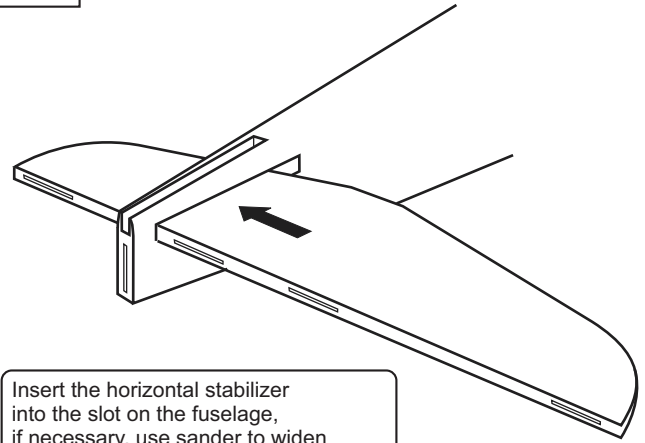
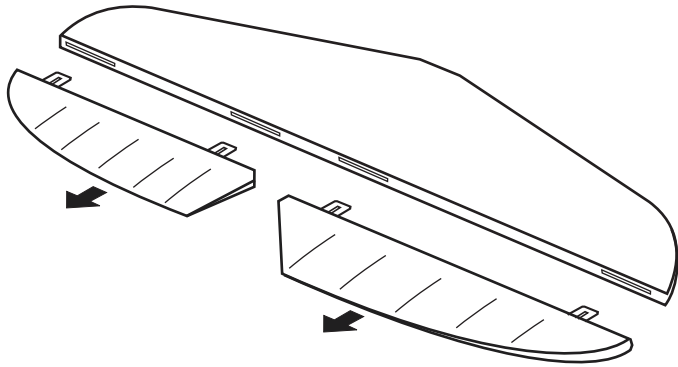
P-39 AIRACOBRA 14- Struts (Not include)

Struts (purchase separately)

Electric retract (purchase separately)

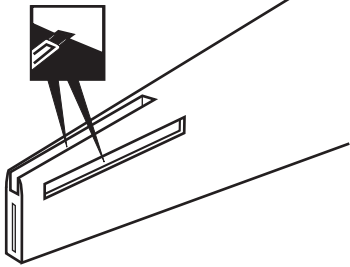


P-39 AIRACOBRA 15- Horizontal stabilizer

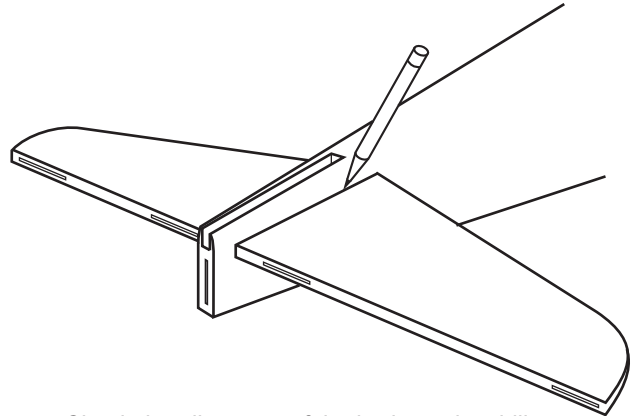
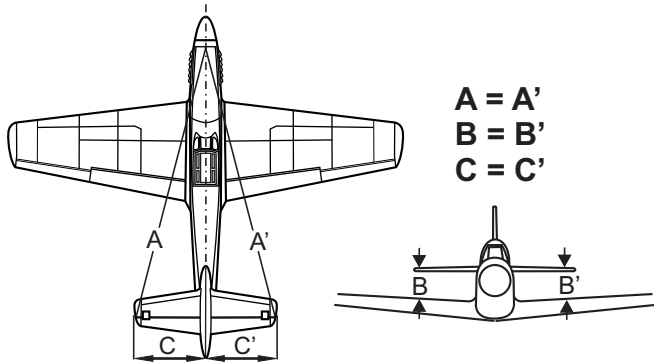


Insert the horizontal stabilizer into the slot on the fuselage, if necessary, use sander to widen the slot to make this easier.

Cut away only the covering

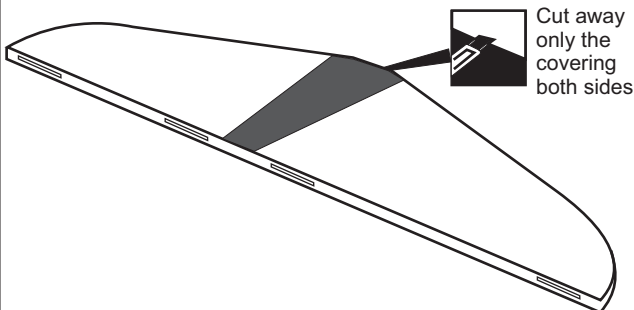


Using a sharp hobby knife, carefully cut away the covering around of all slots for the horizontal stabilizer and vertical fin installation.



Check the alignment of the horizontal stabilizer by measuring from the fixed point along the center line of the fuselage to the trailing edge of the horizontal stabilizer. The distance must be equal on both sides.

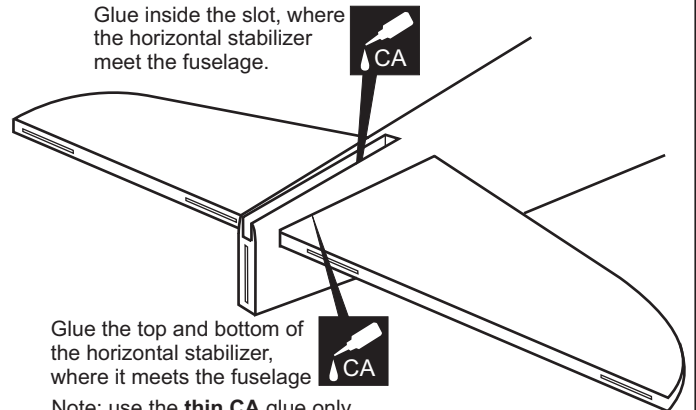
When you are satisfied with the alignment, use a pencil to carefully trace around the top and bottom of the horizontal stabilizer where it meets the fuselage.



Cut away only the covering both sides

Reposition the stabilizers into the fuselage, ensuring that they are accurately aligned. Secure the horizontal stabilizer in place using thin CA glue.

Glue inside the slot, where the horizontal stabilizer meet the fuselage.



Glue the top and bottom of the horizontal stabilizer, where it meets the fuselage

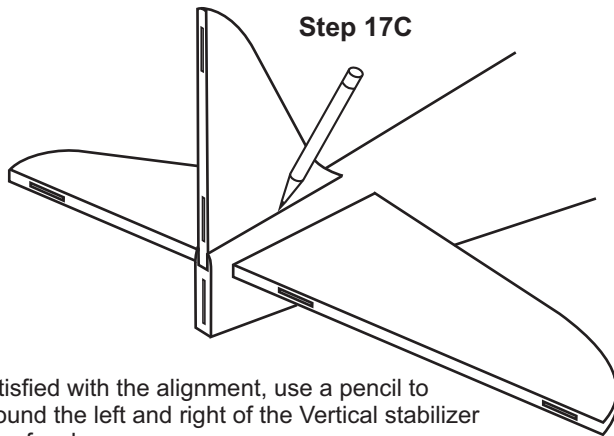
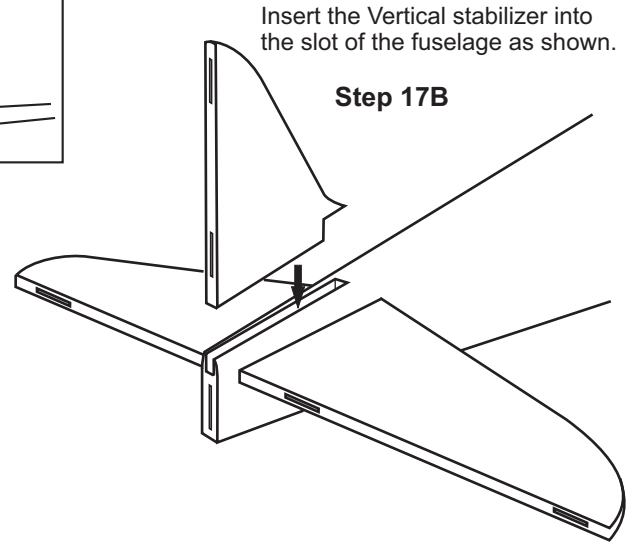
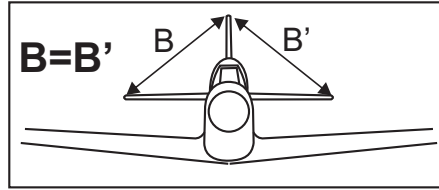
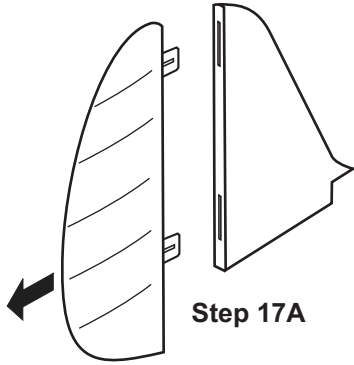
Note: use the **thin CA** glue only

Remove the horizontal stabilizer from the fuselage. Using the sharp hobby knife, carefully cut away the covering **inside the lines** which were marked above.

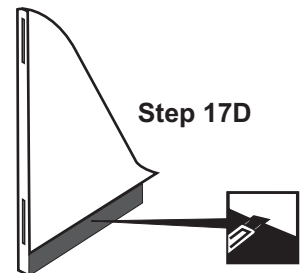
Be cautious **not to cut into the wood**, this will weaken the structure.

! Securely glue together. If coming off during fly, you lose control of your air plane.

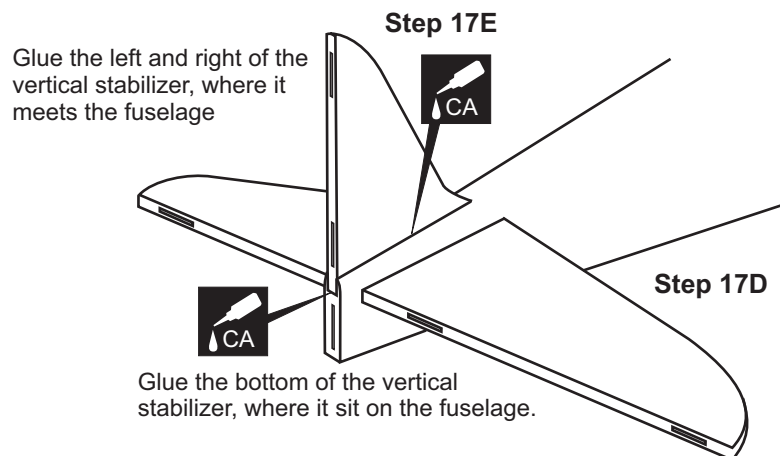
P-39 AIRACOBRA 16- Vertical stabilizer



When you are satisfied with the alignment, use a pencil to carefully trace around the left and right of the Vertical stabilizer where it meets the fuselage.



Remove the vertical stabilizer from the fuselage. Cut away the covering **inside the lines**. **Not to cut into the wood.**



Glue the left and right of the vertical stabilizer, where it meets the fuselage

Glue the bottom of the vertical stabilizer, where it sit on the fuselage.

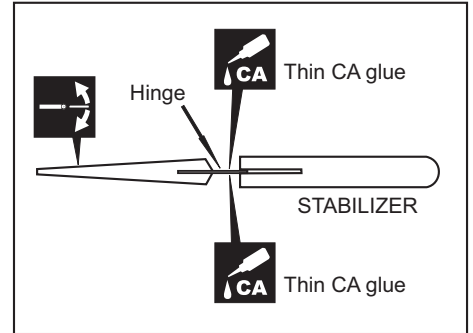
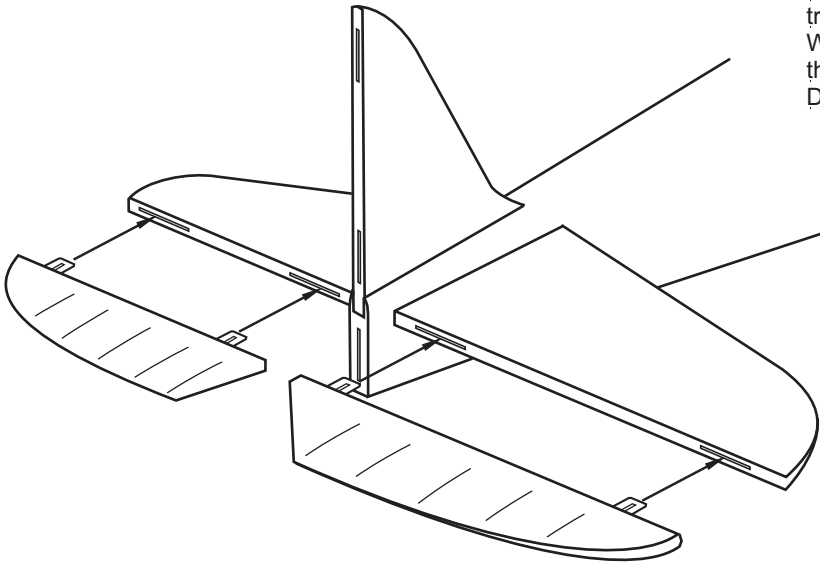
Note: use the **thin CA** glue only

Reposition the stabilizers onto the fuselage, ensuring that they are accurately aligned. Secure the horizontal stabilizer in place using thin CA glue.

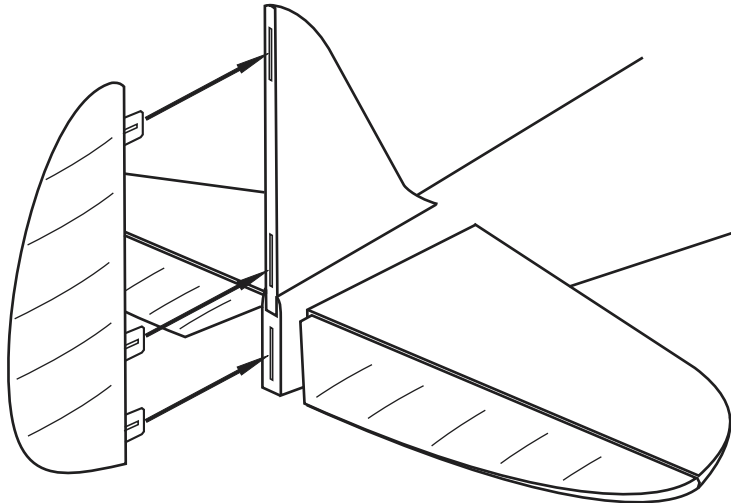
! Securely glue together. If coming off during fly, you lose control of your air plane.

P-39 AIRACOBRA 17- Elevator and rudder

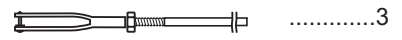
Push the elevator and its hinges into the hinge slots in the trailing edge of the horizontal stabilizer. When satisfied with the alignment, hinge the elevator to the horizontal stabilizer using CA glue. Do the same way with the rudder.



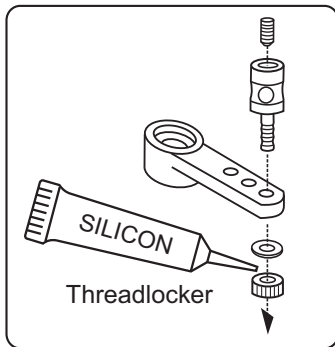
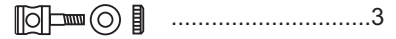
! Securely glue together. If coming off during fly, you lose control of your air plane.



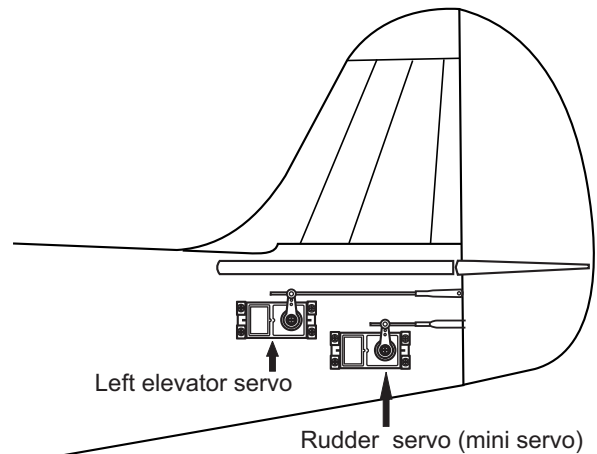
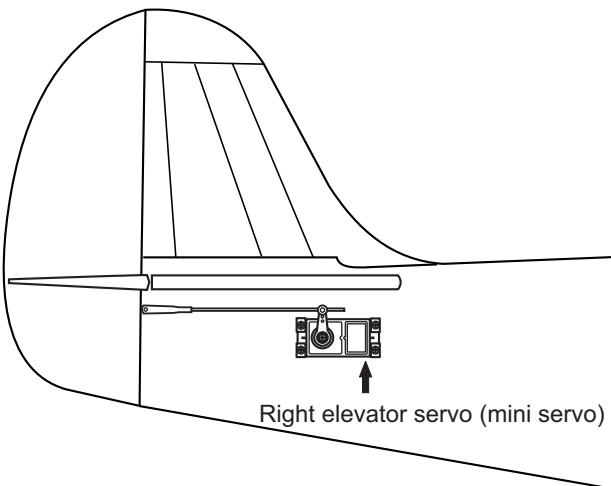
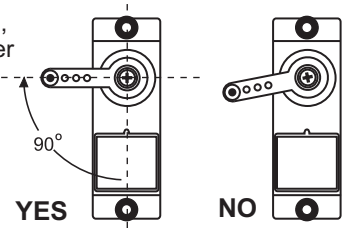
175mm push-rod with clevis one end3



2mm dia. connector3

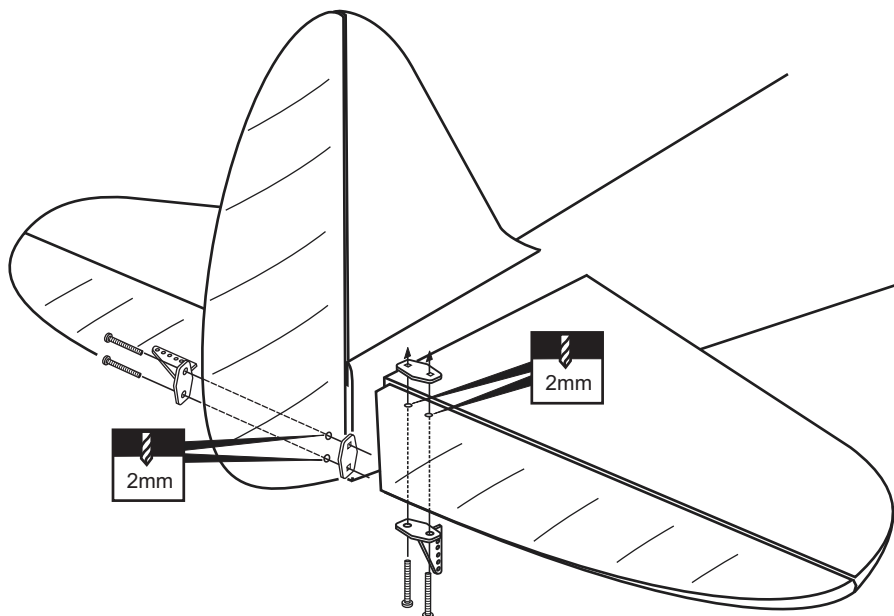
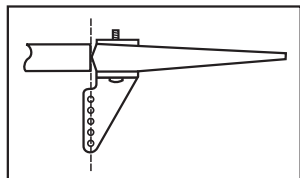


- Switch on the radio (trims centered), then mount the elevators and rudder servo arms in neutral position.
- The servo arm should be perpendicular to the servo.



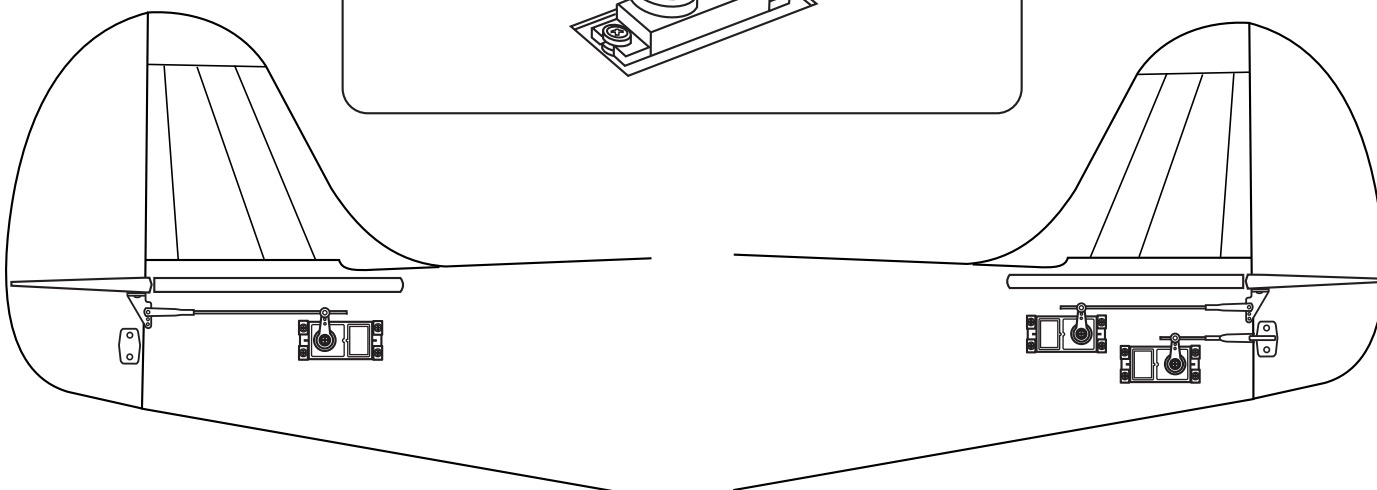
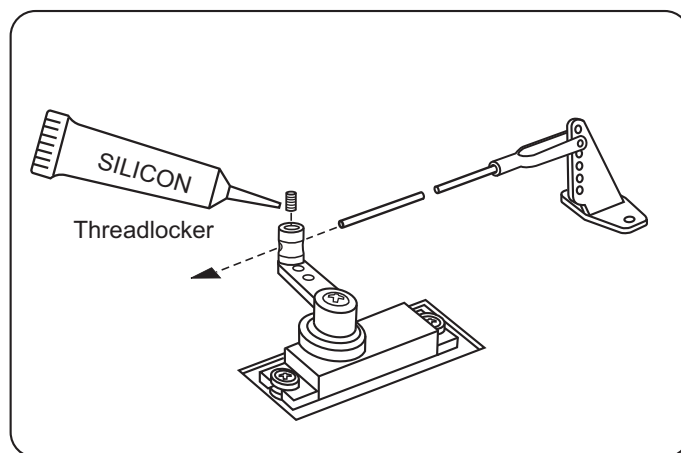
P-39 AIRACOBRA 18- Control horn

Plastic control horn
.....3
2x12mm screw
.....6

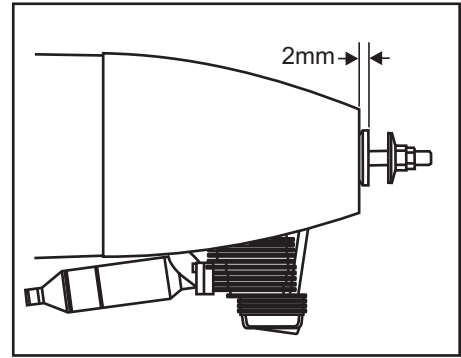
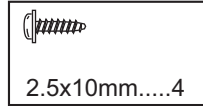
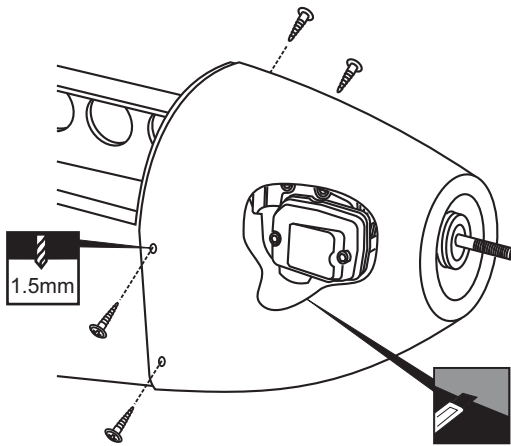


- 1-Depending on the position of the linkage, determine the location of elevator and rudder control horn.
- 2-Mark the position of the "foot" of the horn on the elevator and rudder. Then, with the drill, make the 2 holes.
- 3-Attach the elevator and rudder control horn as shown.

P-39 AIRACOBRA 19- Elevator & Rudder linkages

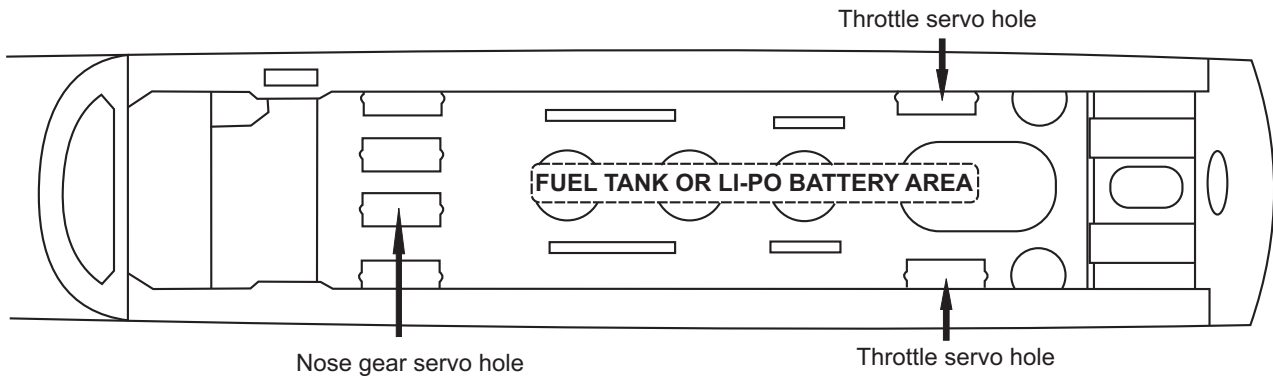


P-39 AIRACOBRA 20- Cowling



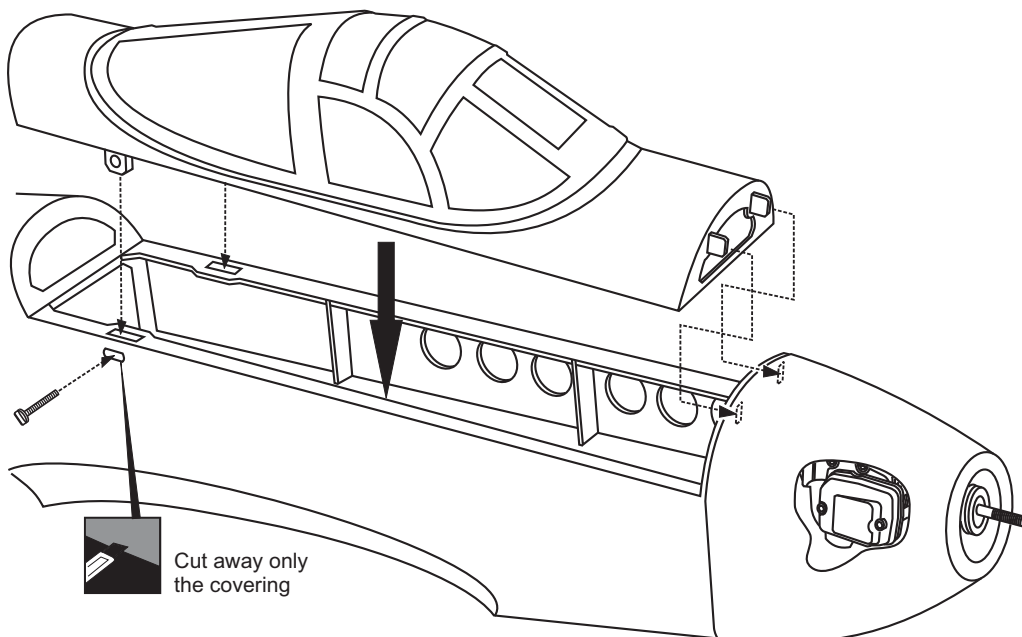
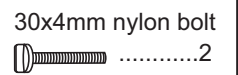
Relieve the cowl to clear the engine head

P-39 AIRACOBRA 21- Battery & Fuel tank area

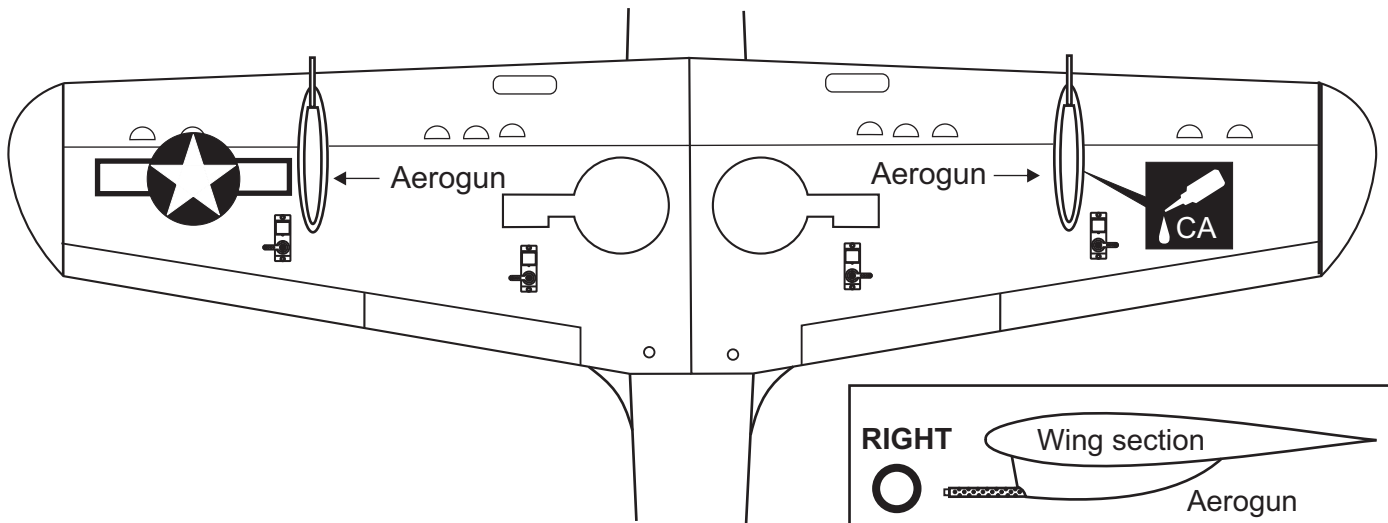
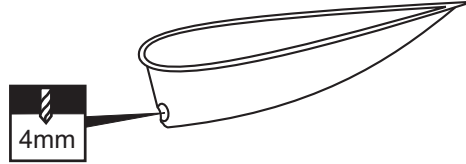
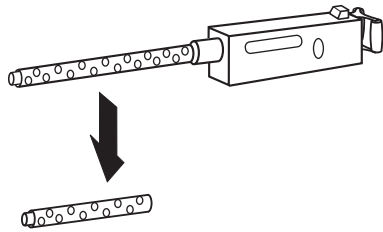


FUSELAGE - TOP VIEW

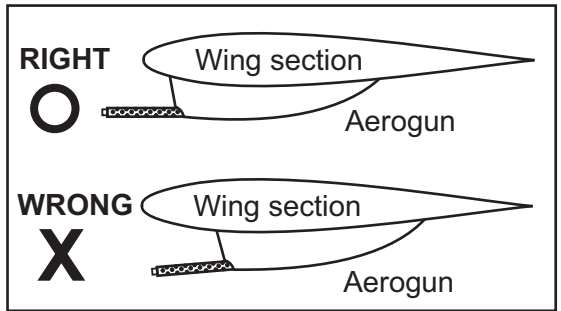
P-39 AIRACOBRA 22- Canopy hatch



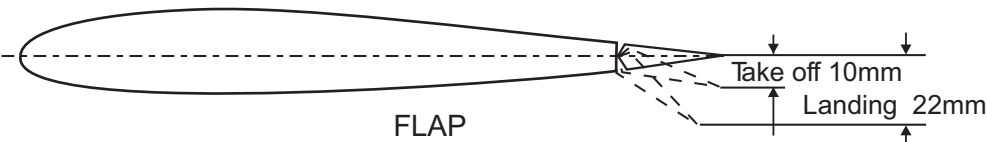
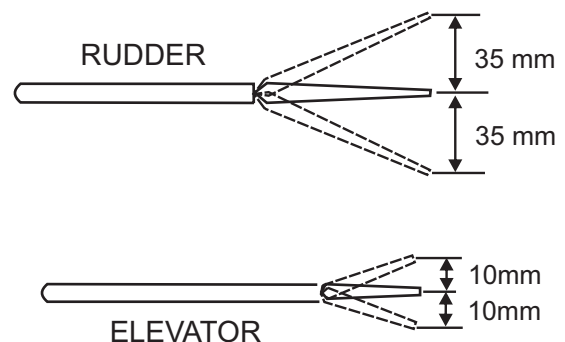
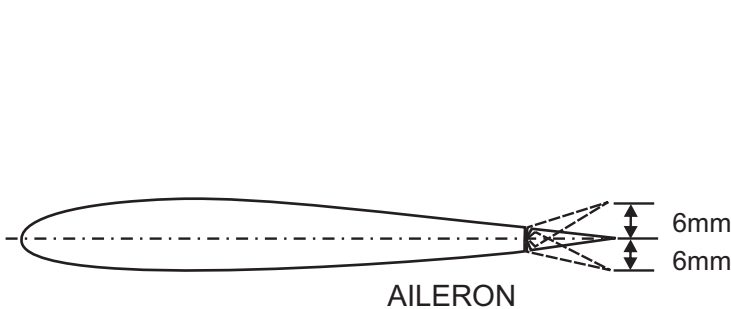
P-39 AIRACOBRA 23- Aero gun



BOTTOM VIEW



P-39 AIRACOBRA 24- Control surface

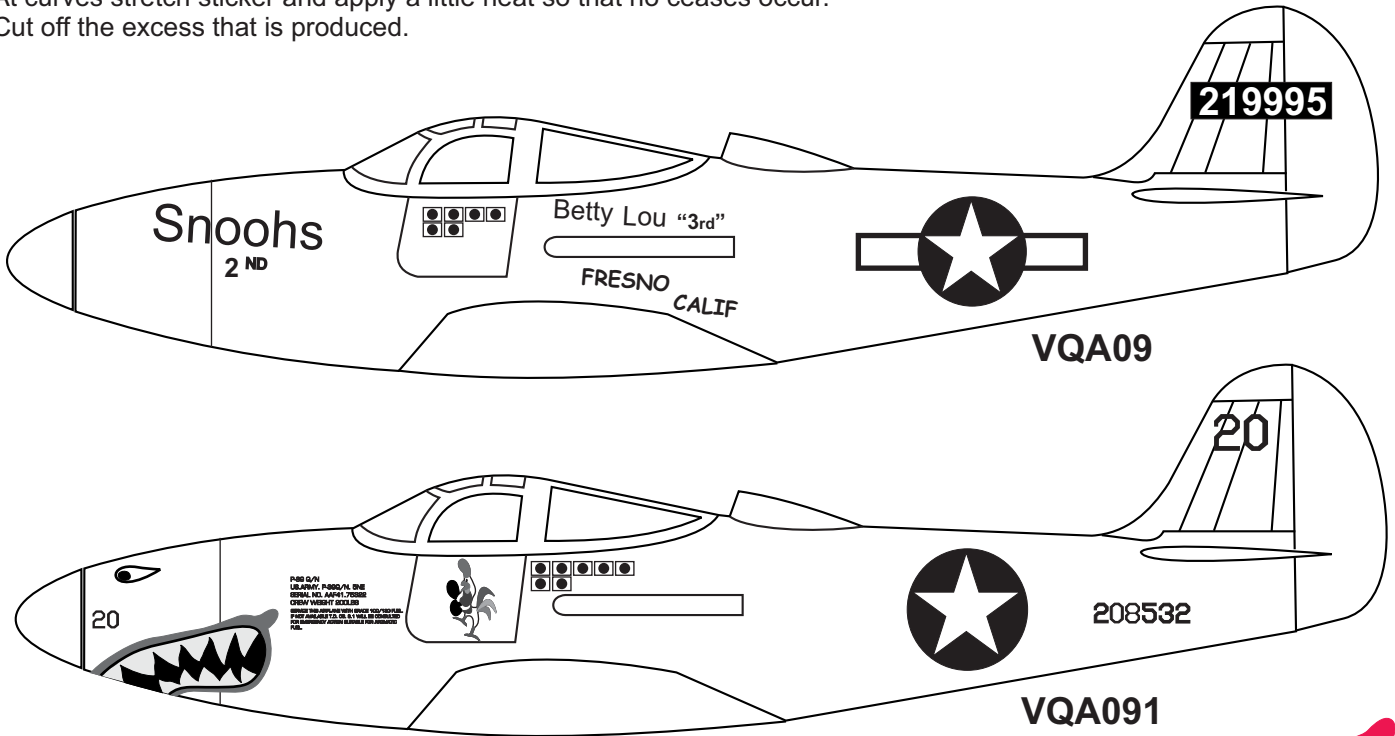


IMPORTANT: Flying your model at these throws will provide you with the greatest chance for successful first flights. If, after you have become accustomed to the way the P-39 flies, you would like to change the throws to suit your taste that is fine. However, too much control throw could make the model difficult to control, so remember, "more is not always better".

P-39 AIRACOBRA 25- Decal

Note: Cut out the stickers and apply them in the proper area. Do not peel the backing paper off all at once. Peel off one corner of the backing and cut off with scissors. Arrange sticker on model and when satisfied adhere the corner without backing. Carefully peel back the rest of the backing while at the same time adhering the rest of the sticker.

Try not to make air bubbles, if there are some, carefully puncture sticker (center of bubble) but not model surface with the tip of the knife or sharp pin and squeeze out the air. At curves stretch sticker and apply a little heat so that no creases occur. Cut off the excess that is produced.



VQA09 DECAL SHEET



VQA091 DECAL SHEET



VQA091 DECAL SHEET

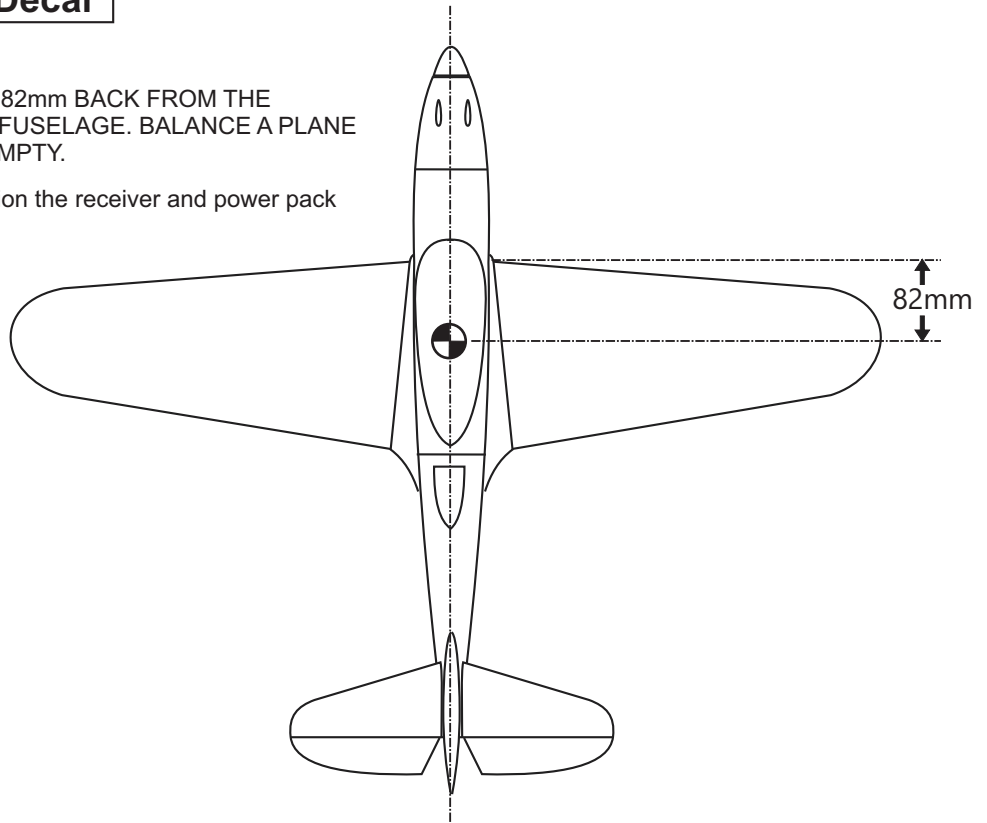


IMPORTANT: Please do not clean your model with pure alcohol, only use liquid soap with water or use glass cleaner to clean on surface of your model to keep the colour not fade.

P-39 AIRACOBRA 26- Decal

THE CENTER OF GRAVITY IS LOCATED 82mm BACK FROM THE LEADING EDGE OF THE WING, AT THE FUSELAGE. BALANCE A PLANE UPSIDE DOWN WITH THE FUEL TANK EMPTY.

In order to obtain the CG specified, reposition the receiver and power pack



- 1- Mount the wing to the fuselage. Using a couple of pieces of masking tape, place them on the top side of the wing (126mm) back from the leading edge, at the fuselage sides.
- 2- Lift the airplane. Place your fingers on the masking tape and carefully lift the plane.
- 3- If the nose of the plane falls, the plane is heavy nose. To correct this, move the battery pack further back in the fuselage. If the tail of plane falls, the plane is tail heavy. To correct this, move the battery forward or if this is not possible, stick weight onto the firewall.
When balanced correctly, the airplane should level or slightly nose down when you lift it up with your fingers.

LATERAL BALANCE:

After you have balanced a plane on the CG, you should laterally balance it. Doing this will help the airplane track straighter.

- 1- Turn the airplane upside down. Attach one loop of heavy string to the engine crankshaft and one to the tail wheel wire. With the wing level, carefully lift the airplane by the string. This may require two people to make easier.
- 2- If one side of the wing fall, that side is heavier than the opposite. Add small amounts of lead weight to the bottom side of the lighter wing half's wing tip. Follow this procedure until the wing stays level when you lift the airplane.

DO NOT try to fly an out-of-balance model !

WARNING ! Securely install the receiver and power pack, ensuring they will not come loose or rattle during flight.