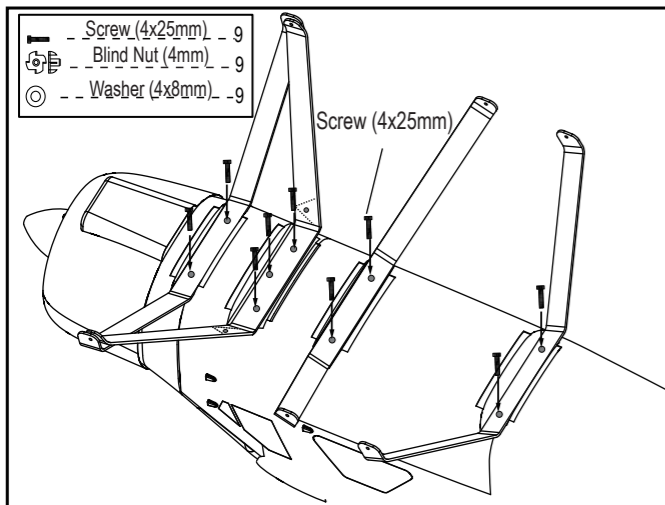
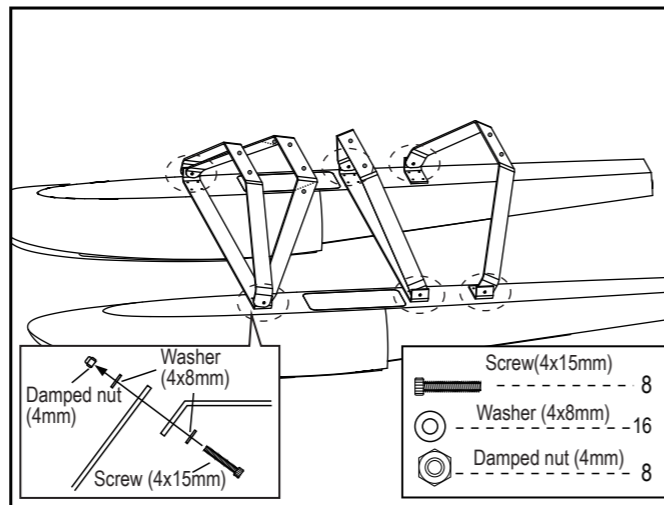


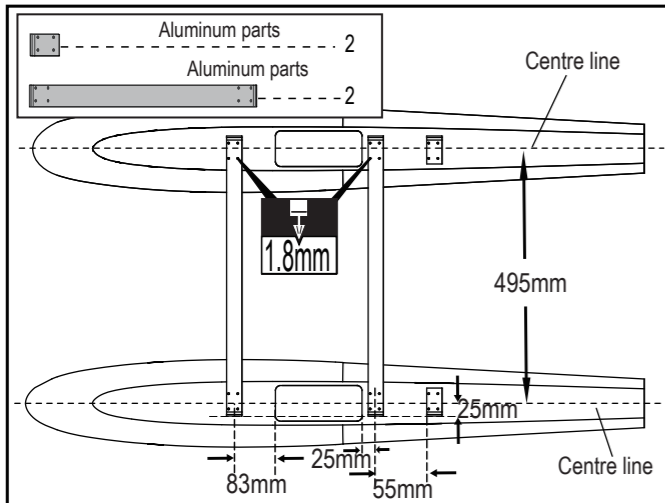
92 Fix the aluminum bracket on the fuselage with screw.



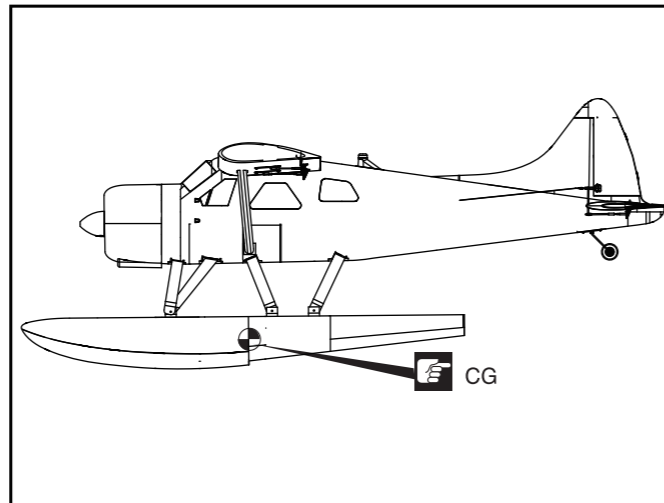
95 The floats installation finished.



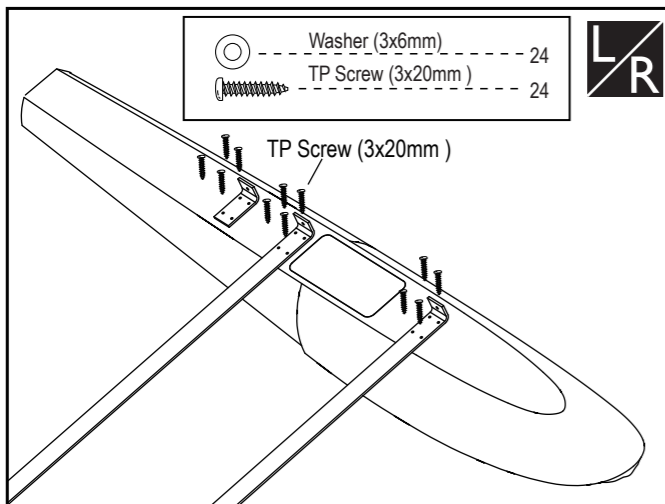
93 Drill holes to the relevant position in the floats as below.



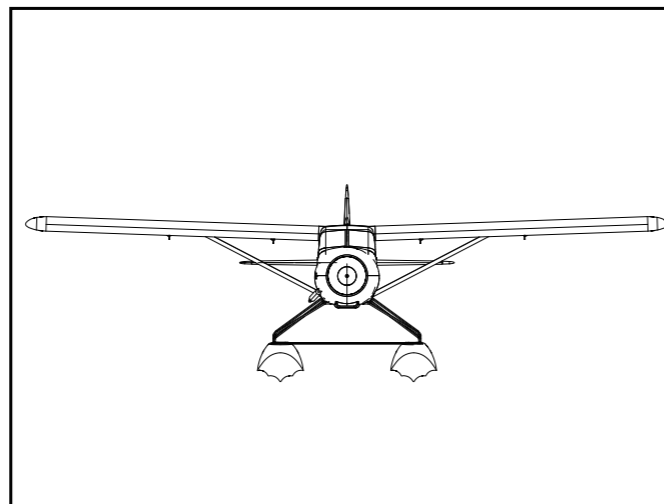
96 Fix the floats to the fuselage.find the centre of the gravity.



94 Fix the aluminum bracket to the floats.



97 The front view of the beaver with floats.



Before start ,please carefully read the explanations!

Beaver



Specification:

Length	:1550 mm(61")
Wing Span	:2413 mm(95")
Wing Area	:60.3 sq. dm
	6.49 sq. ft
Beaver seaplane wing loading	:144.2 g/sq. dm
	47.3 oz/sq. ft
Beaver wing loading	:126 g/sq. dm
	41.3 oz/sq. ft
Beaver seaplane flying weight	:8.7 kg(19.2 lbs)
Beaver flying weight	:7.6kg(16.7 lbs)
Radio	:6ch& 8servos
Engine	:160 2-cycle
	140 4-cycle

INSTRUCTION MANUAL



SAFETY PRECAUTIONS

This R/C airplane is not a toy!
(The people under 18 years old is forbidden from flying this model)

First-time builders should seek advice from people having building experience.If misused or abused,it can cause serious bodily injury and damage to property.

Fly only in open areas and preferably at a dedicated R/C flying site. We suggest having a qualified instructor carefully inspect your airplane before its first flight.Please carefully read and follow all instructions included with this airplane,your radio control system and any other components purchased separately.

Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

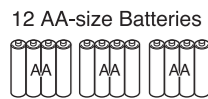
Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.
 Warning!

REQUIRED FOR OPERATION (Purchase separately!)

CAUTION: For details concerning the equipment listed below (size, maker, etc.), check with your hobby shop.

1 A minimum 6 channel radio for airplanes (with 8 servos), and dry batteries.

CAUTION: Only use a minimum 6 channel radio for airplanes! (No other radio may be used!)
6 channel radio for airplane is highly recommended for this model.

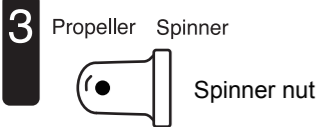
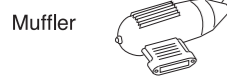
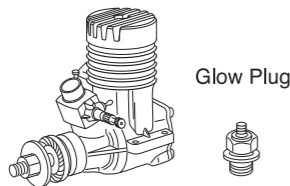


A minimum 6 channel transmitter for airplanes.

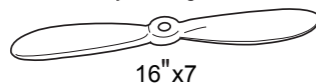


For handling the radio properly, refer to its instruction manual.

2 Engine and Muffler
Model Airplane Engine: 4-cycle .140

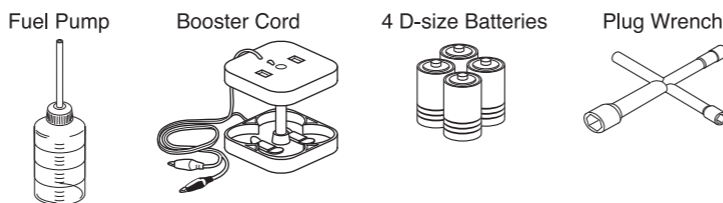
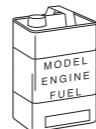


Purchase a propeller that will match your engine.

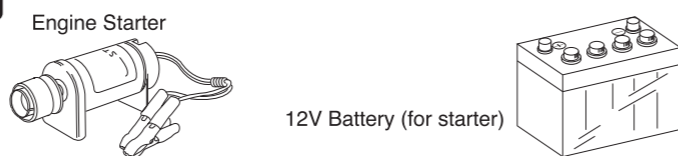


5 Required for engine starting: Glow engine fuel only.

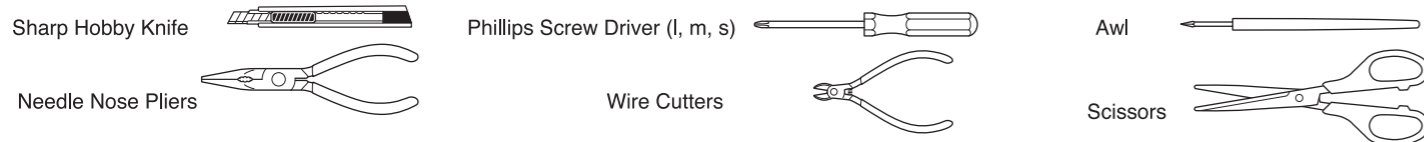
WARNING: Normal gasoline cannot be used with glow engines.



7 Other equipment for enhancing airplane operation & performance



TOOLS REQUIRED (Purchase separately!)



BEFORE YOU BEGIN

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

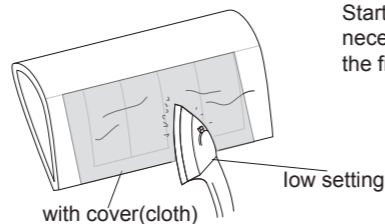
2 Check all parts. If you find any defective or missing parts, contact your local dealer.

3 Symbols used throughout this instruction manual, comprise:

Apply epoxy glue.	Drill holes with the specified diameter (2mm).	Cut off excess.	Pay close attention here!	Assemble left and right sides the same way.
Apply instant glue (CA glue, super glue).	Cut off shade portion.	Ensure smooth non-binding movement while assembling.	Do not overlook this symbol!	Must be purchased separately!

Warning
Remove the covering with proper pressure to cut through only the covering itself. Otherwise, cutting down into the balsa structure may weaken the model part and cause accident.

The pre-covered film on ARF kits may wrinkle due to variations of temperature. Smooth out as explained right.



► Pre-cover the covering with clean cloth! Start at low setting. Increase the setting if necessary. If it is too high, you may damage the film.

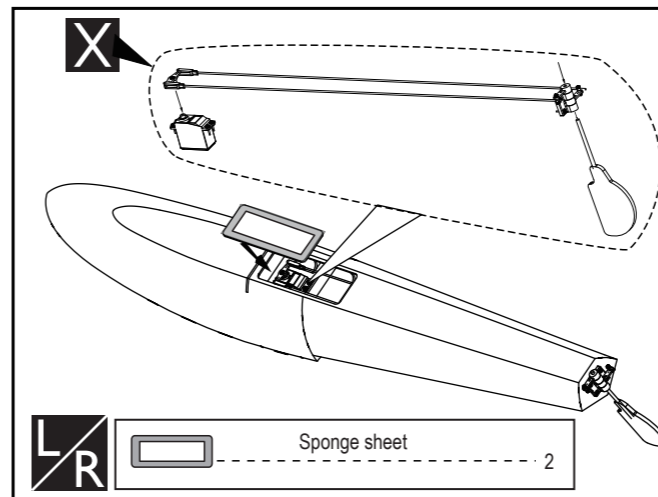
Assemble the floats

Thank you for purchasing ESM'S products. When we designed this model we have fore considered some of our customers who loves fly it with floats. So we have provided floats as Optional parts. Please be kind to find the floats installation diagram below.

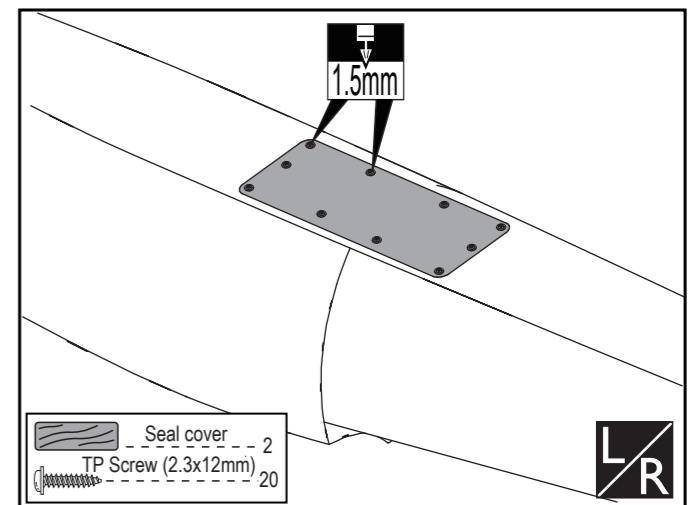
Accessory list for the coming installation steps.

	Seal cover	2
	TP Screw (2.3x12mm)	20
	Washer (4x8mm)	56
	Damped nut (4mm)	10
	Blind Nut (4mm)	8
	TP Screw (3x20mm)	24
	Screw (4x15mm)	8
	Screw (4x25mm)	9
	Sponge sheet	2
	Aluminum parts	2
	Aluminum parts	2
	Aluminum parts	2

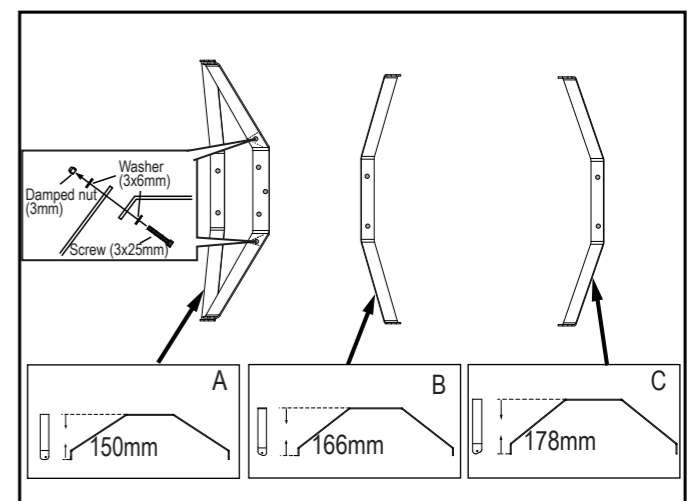
88 Put sponge sheet at appropriate position before install the seal cover.



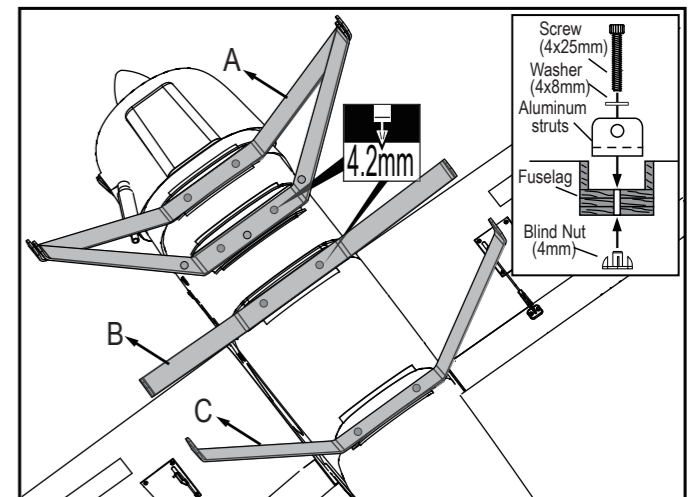
89 Mounting the seal cover.



90 Please notice the specification of the aluminum brackets before install them to fuselage.



91 Drill holes to the revelant position in the fuselage as below.



Apply epoxy glue.	Assemble left and right sides the same way.	Pay close attention here!	Do not overlook this symbol!
Apply instant glue (CA glue, super glue).	Ensure smooth non-binding movement while assembling.	Cut off shaded portion.	

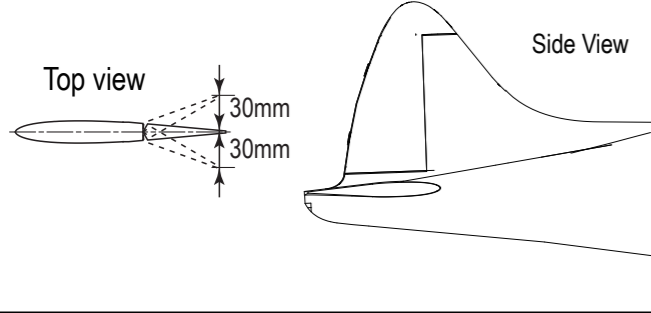
83

Adjustment.



Adjust the travel of each control surface to the values in the diagrams. These values fit general flight capabilities. Readjust according to your needs and flight level.

RUDDER



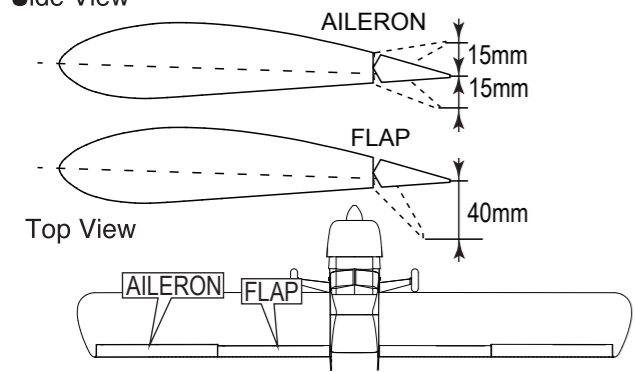
85

Adjustment.



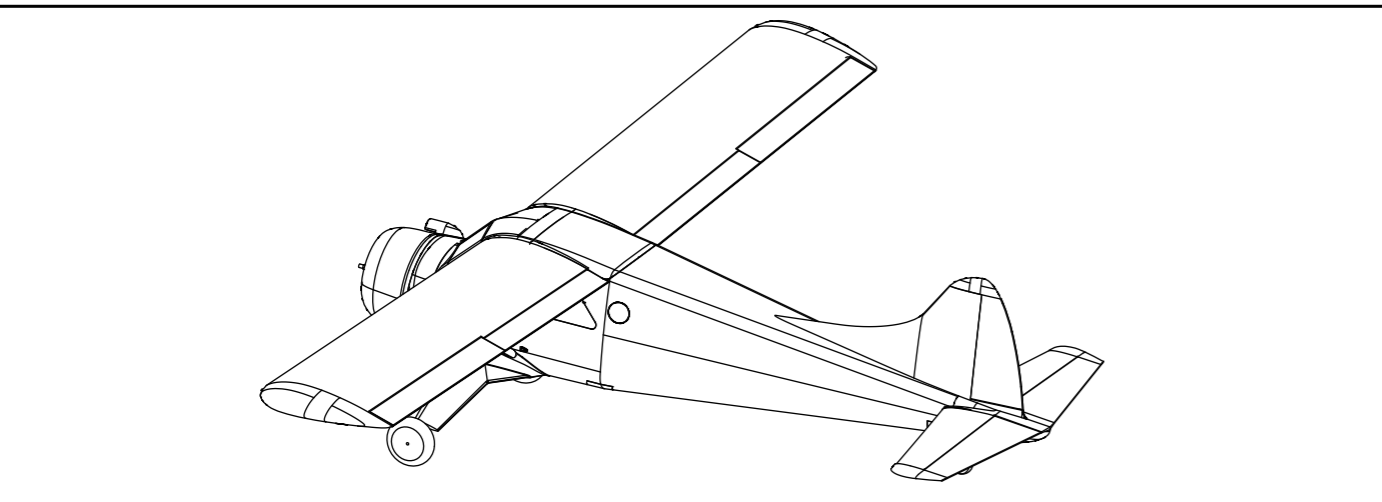
Adjust the travel of each control surface to the values in the diagrams. These values fit general flight capabilities. Readjust according to your needs and flight level.

Side View



87

The model build finished.



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!



Apply instant glue (CA glue, super glue).



Ensure smooth non-binding movement while assembling.



Cut off shaded portion.

Do not overlook this symbol!

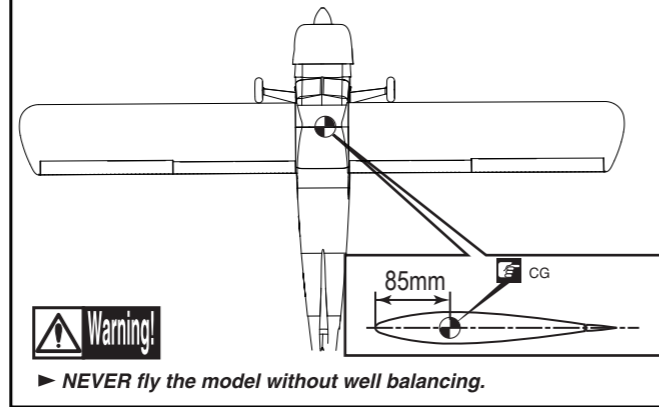


84

Centre of Gravity.

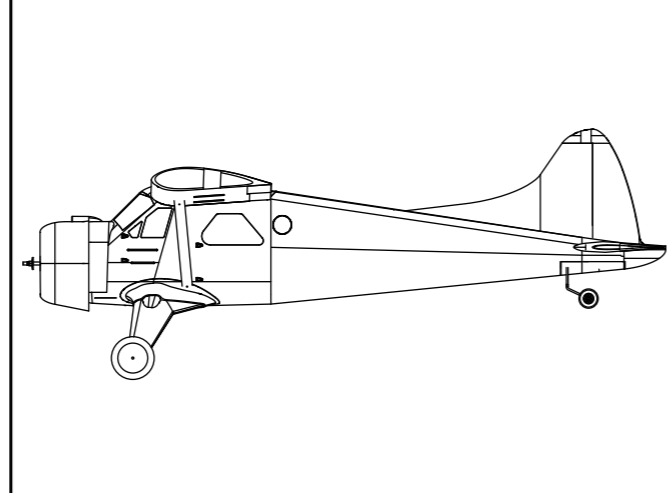


Never fly before checking the CG's required position. In order to obtain the CG specified, reposition the receiver and battery.



86

The full model side view when install completion.

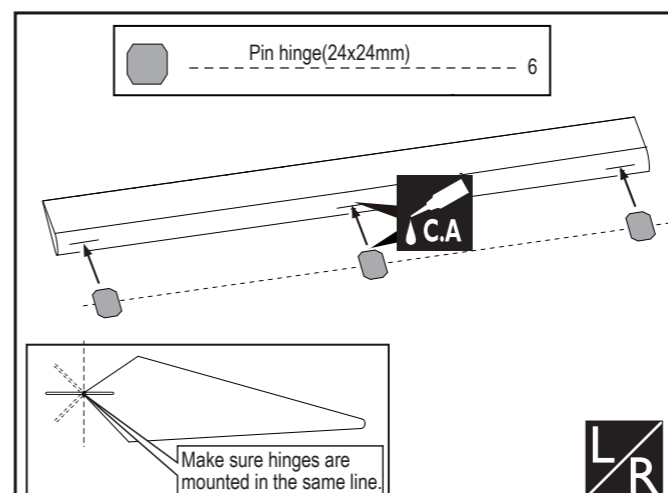


Accessory list for the coming installation steps.

	Clevis	2
	Retainer	2
	Rod (2x300mm)	2
	TP Screw (2.3x12mm)	8
	Screw (3x40mm)	2
	Servo tray(68.5x56.5x2mm)	4
	Wooden Block(20x20x8mm)	4
	Pin hinge(24x24mm)	6
	Washer(3x15mm)	2
	Lock Nut (3mm)	2
	Washer(3x15mm)	2

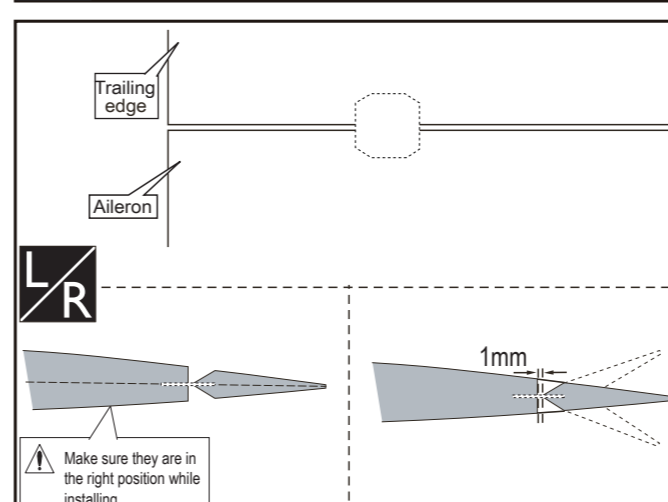
1

Apply instant type CA glue to aileron and pin hinges.



2

Keep some space about 1mm width between aileron and trailing edge.



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!



Apply instant glue (CA glue, super glue).



Ensure smooth non-binding movement while assembling.



Cut off shaded portion.



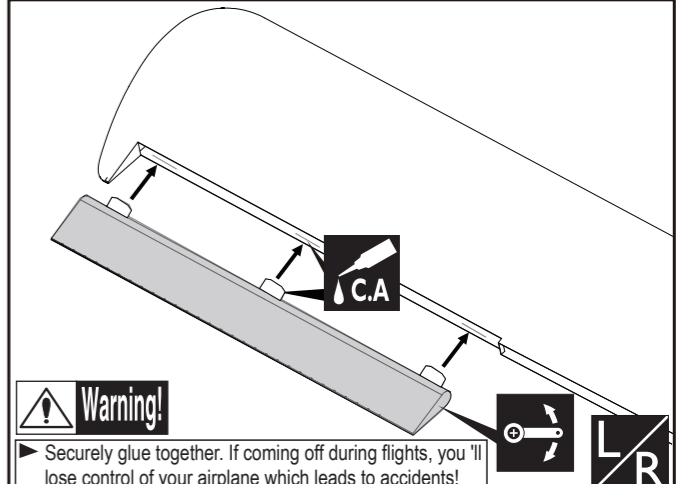
Must be purchased separately!

Do not overlook this symbol!



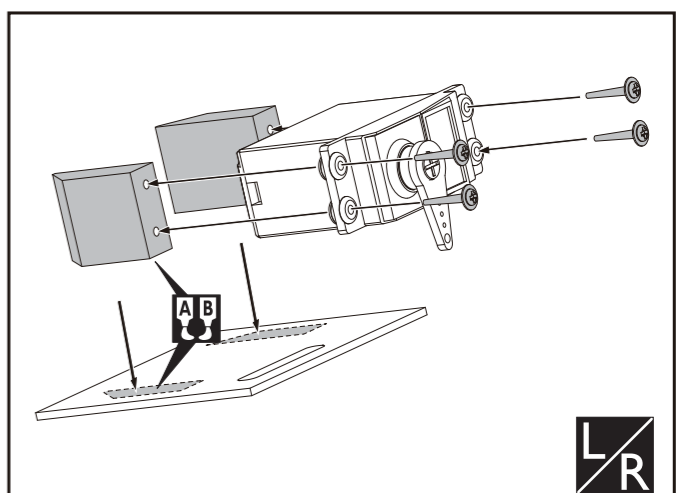
3

Assemble the aileron to main wing with instant type CA glue. Be careful to ensure the moving parts of the hinges are able to move freely.



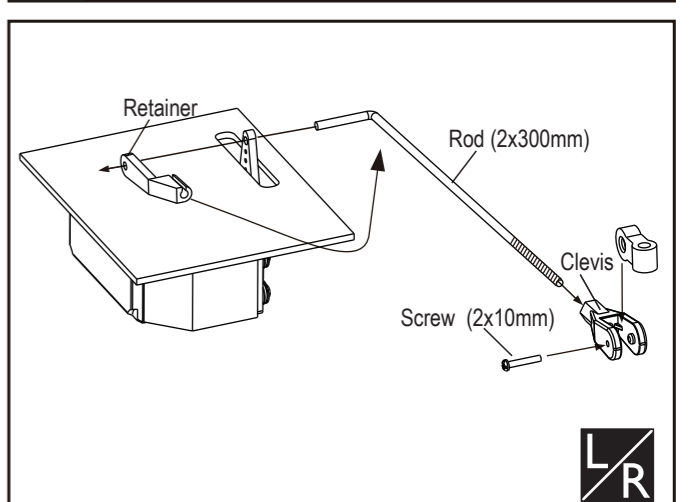
4

Install the servo as the illustration below



5

Install the nylon control horn and connect the linkage.



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!



Cut off shaded portion.

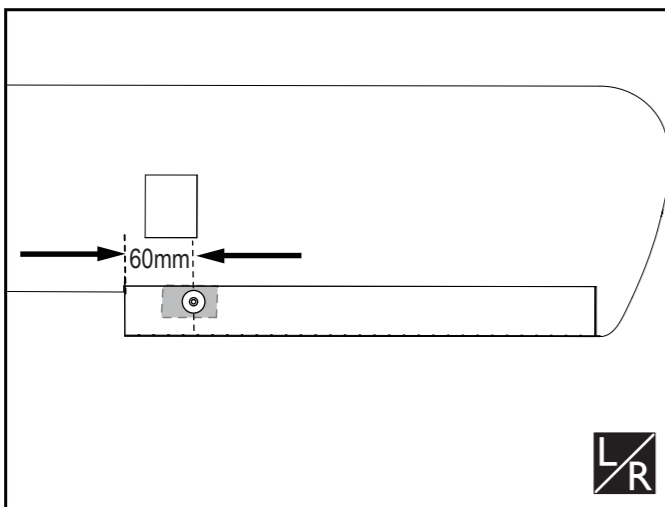


Must be purchased separately!

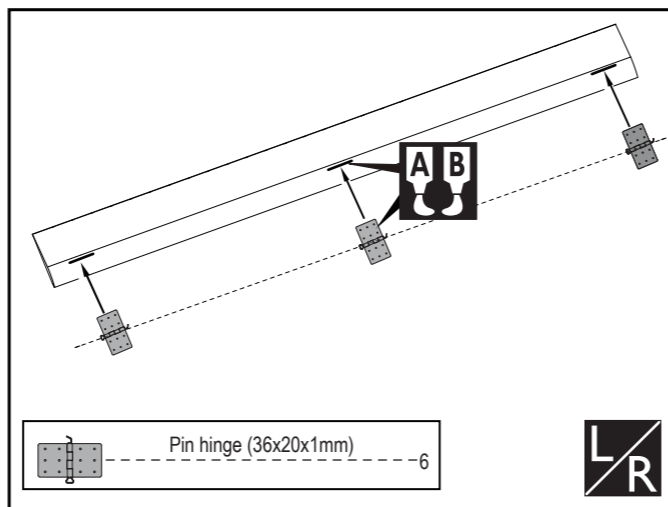
Do not overlook this symbol!



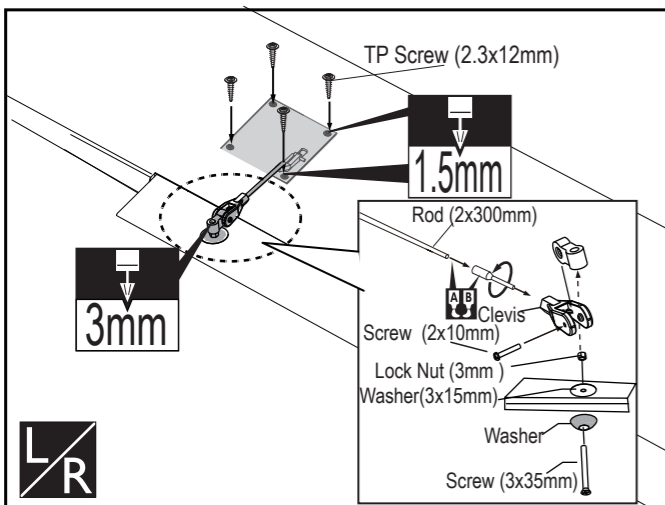
6 The position of the control horn in the aileron.



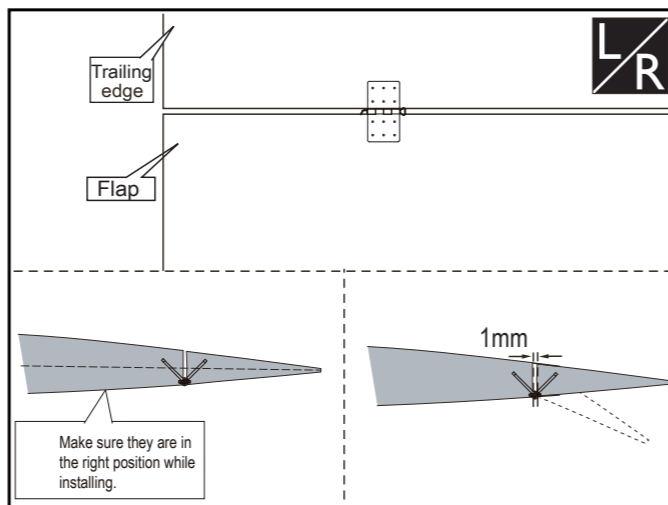
8 Apply instant type CA glue to flap and pin hinges.



7 Secure the servo. Install the nylon control horn and connect the linkage.



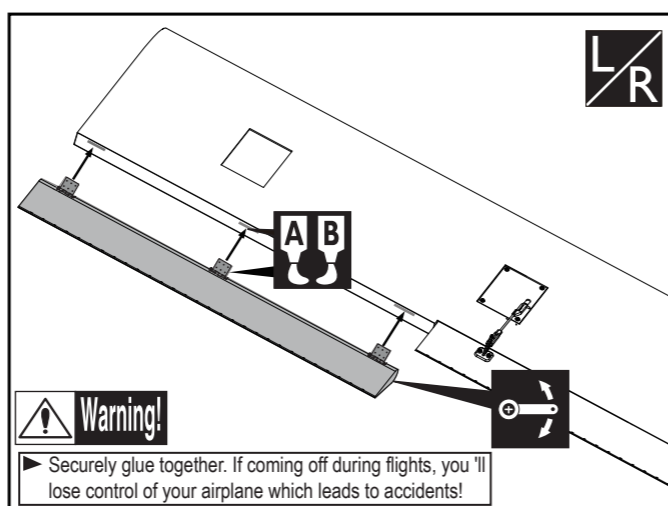
9 Keep some space about 1mm width between trailing edge and flap.



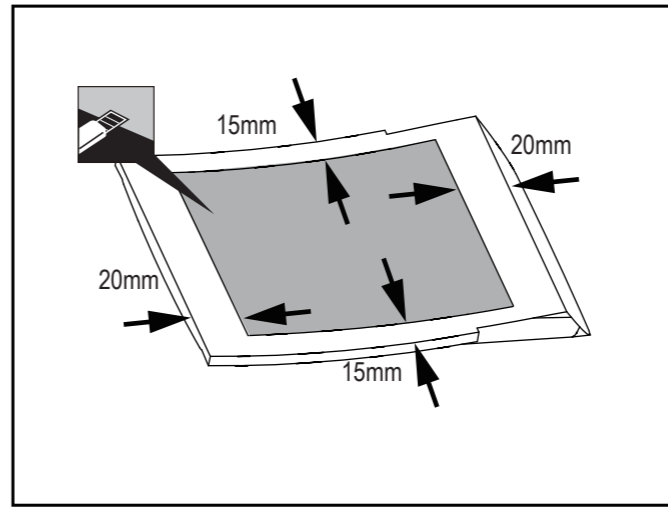
Accessory list for the coming installation steps.

	Clevis	2
	Retainer	2
	Rod (2x300mm)	2
	TP Screw (2.3x12mm)	8
	Screw (3x40mm)	2
	Servo tray(68.5x56.5x2mm)	4
	Wooden Block(20x20x8mm)	4
	Pin hinge(36x20x1mm)	6
	Washer(3x15mm)	2
	Lock Nut (3mm)	2
	Washer(3x15mm)	2

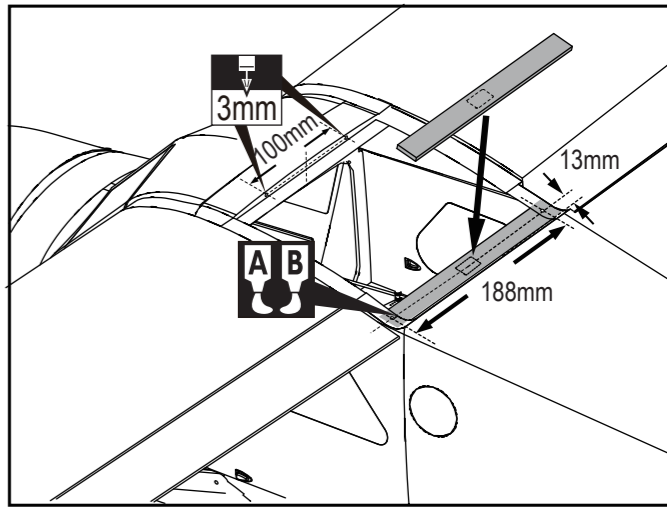
10 Assemble the flap to main wing with instant type CA glue. Be careful to ensure the moving parts of the hinges are able to move freely.



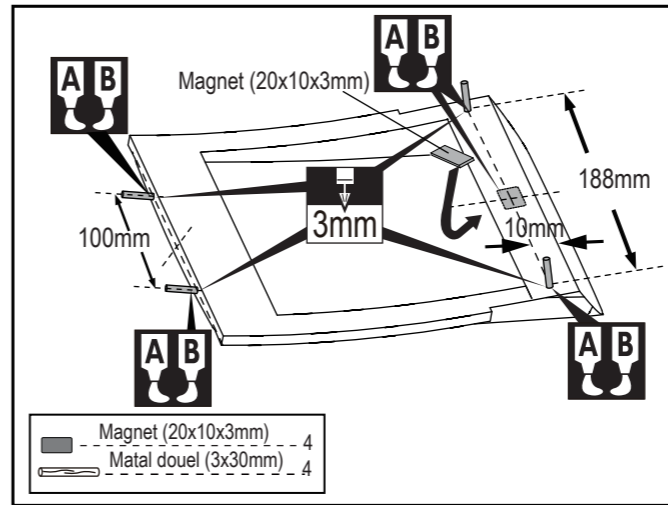
77 Trim the shaded portion from the bottom of the top hatch as below.



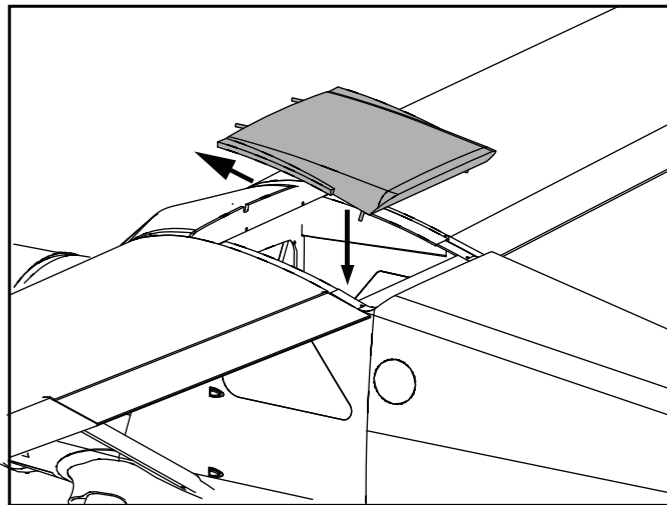
80 Epoxy the wooden block to appropriate position in the fuselage as below.



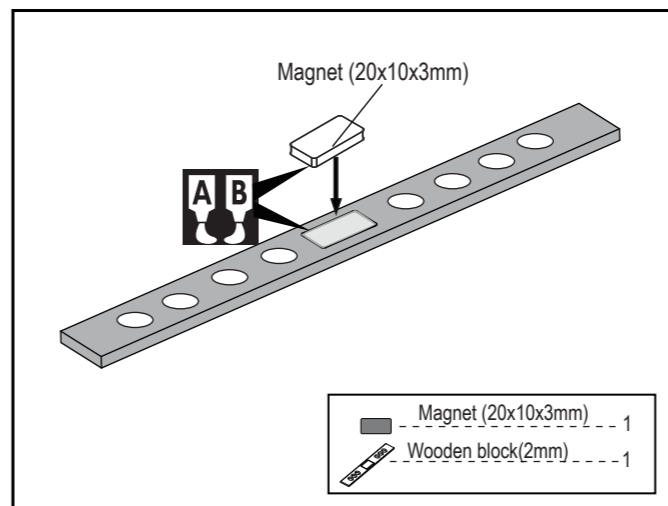
78 Drill holes to appropriate position in the hatch and epoxy the metal dowel in them.



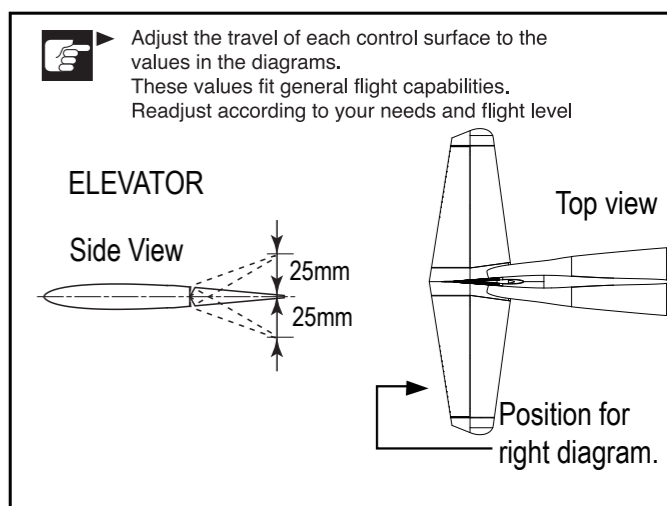
81 Drill holes to relevant position in the fuselage for mounting the top hatch.



79 Epoxy the magnet to the wooden block as below.



82 Adjustment.



AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

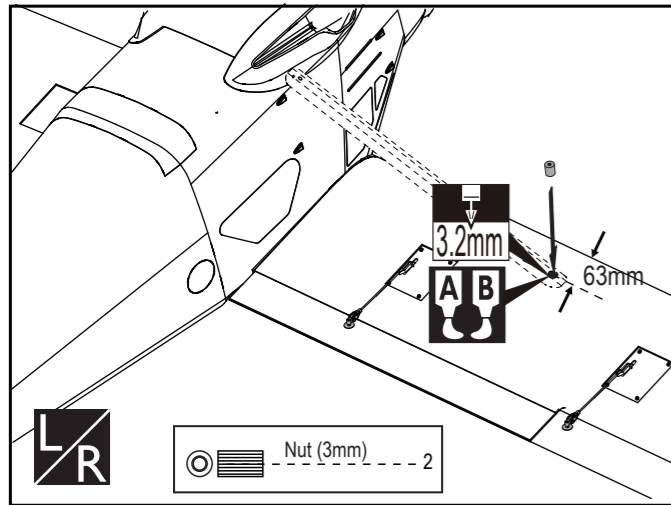
CA Apply instant glue (CA glue, super glue). **Hand icon** Ensure smooth non-binding movement while assembling. **X** Must be purchased separately! **Warning!** Do not overlook this symbol!

Hand icon Cut off shaded portion.

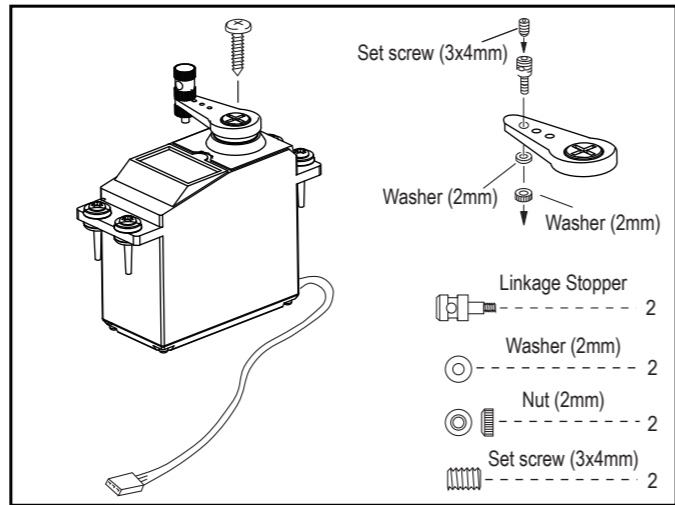
AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Hand icon** Pay close attention here! **Warning!** Do not overlook this symbol!

CA Apply instant glue (CA glue, super glue). **Hand icon** Ensure smooth non-binding movement while assembling. **Hand icon** Cut off shaded portion.

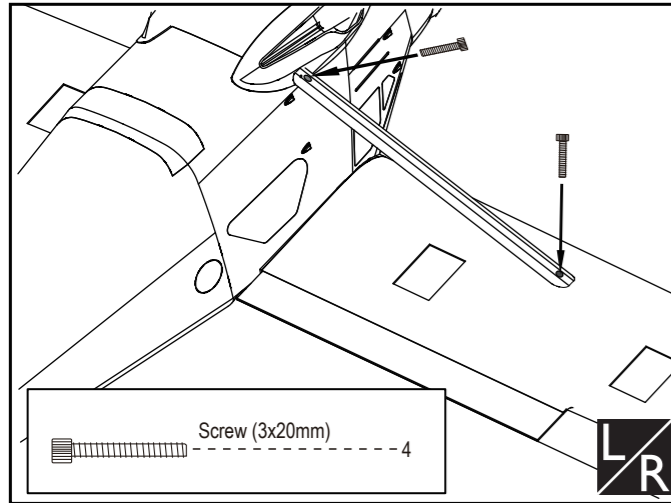
71 Drill holes to relevant position in the main wing and epoxy nut in them.



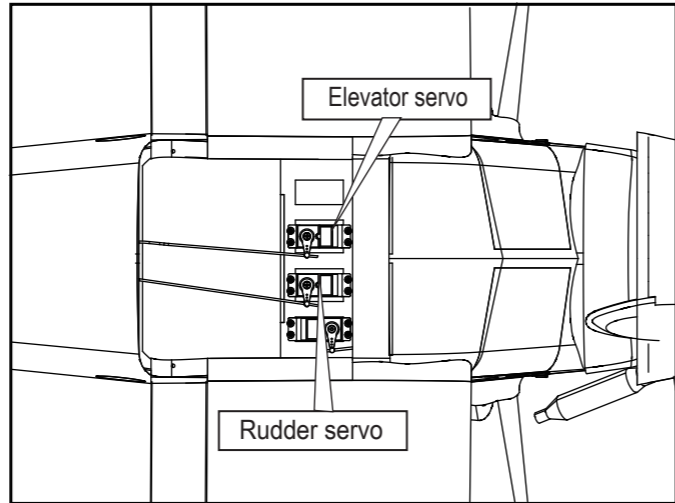
73 Install the servo of rudder.



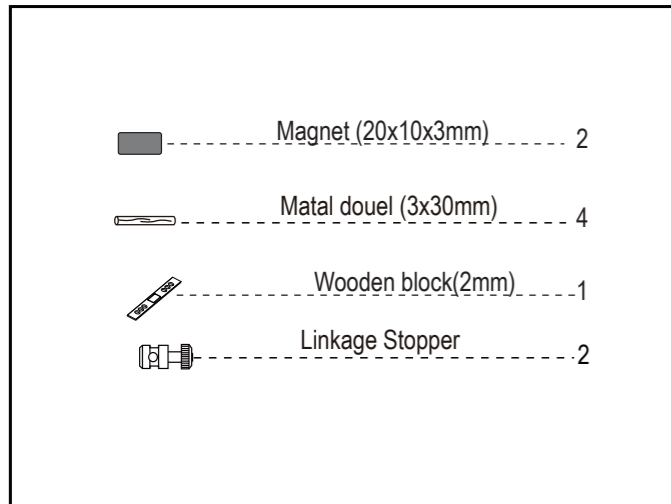
72 Assemble the wing strut with screw.



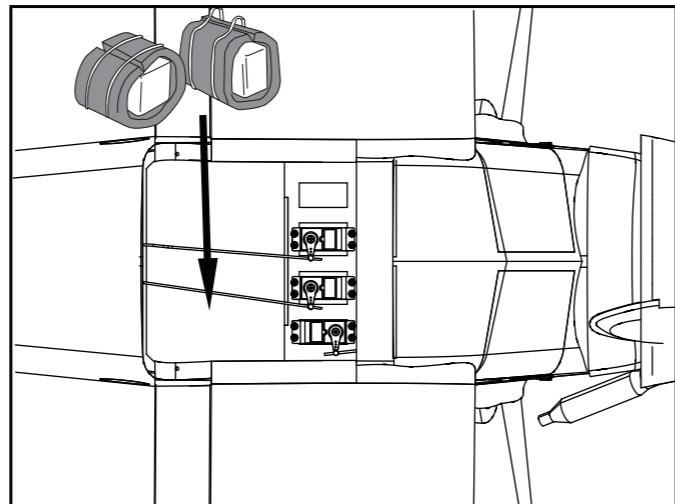
74 The servos installation finished sketch map.



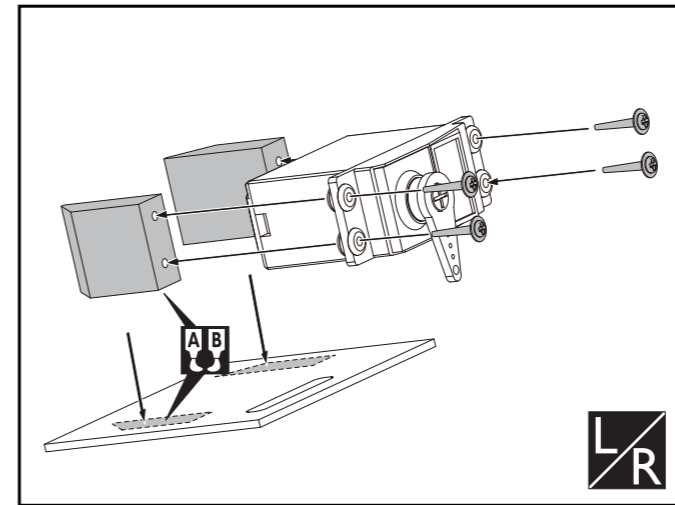
Warning! Accessory list for the coming installation steps.



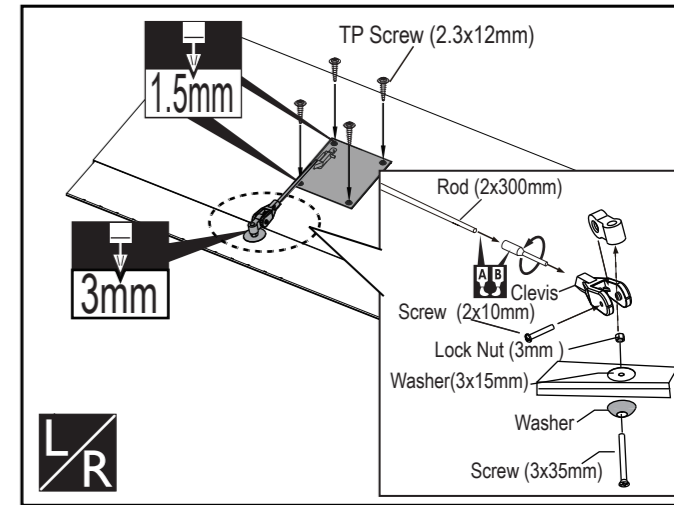
75 Mounting of the receiver and the battery.



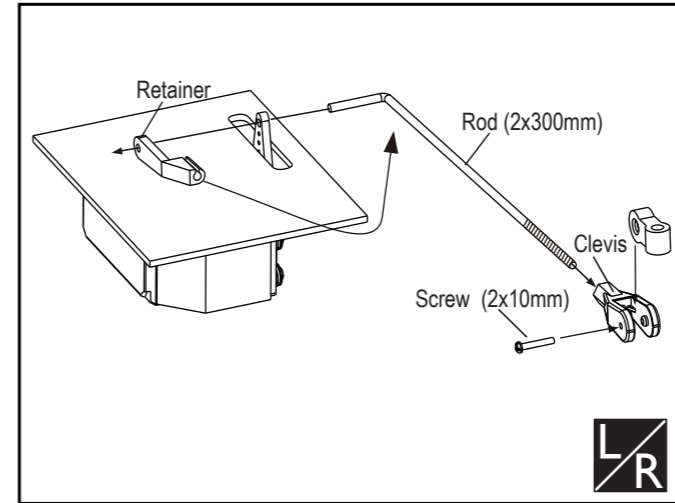
11 Install the servo as the illustration below.



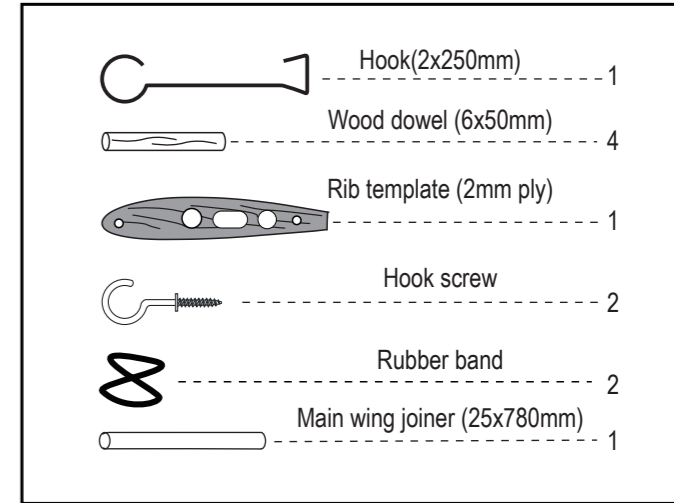
14 Secure the servo. Install the nylon control horn and connect the linkage.



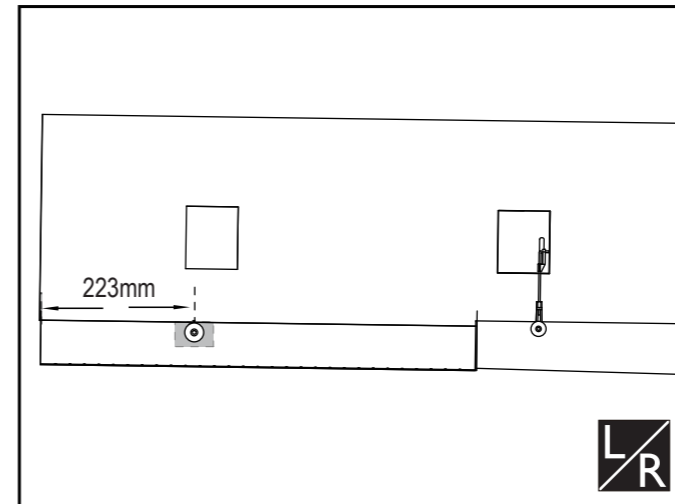
12 Install the nylon control horn and connect the linkage.



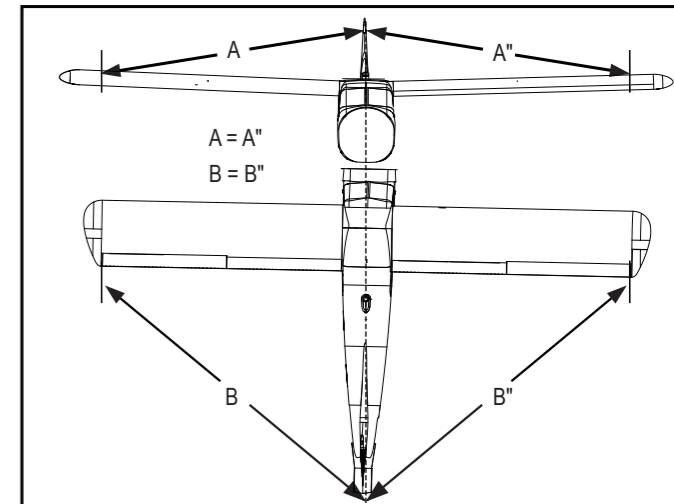
Warning! Accessory list for the coming installation steps.



13 The position of the control horn in the flap.



15 The standard sketch map of the wings installation finished.



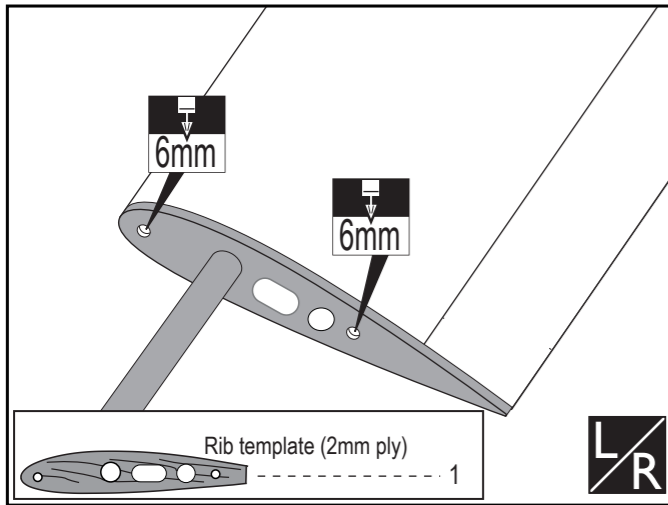
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

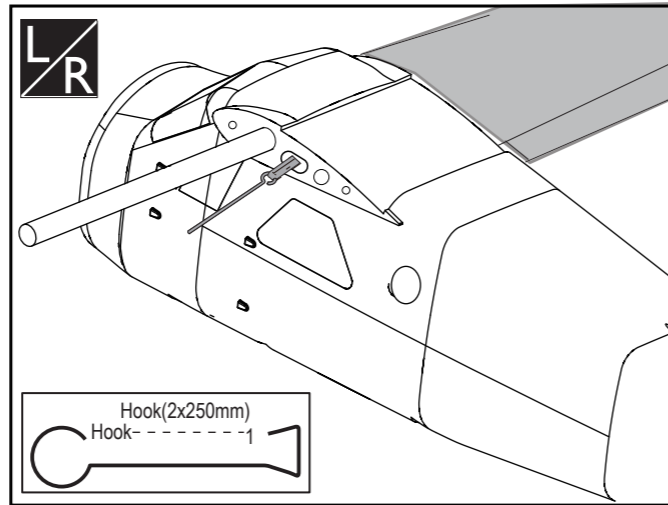
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.
 Must be purchased separately!

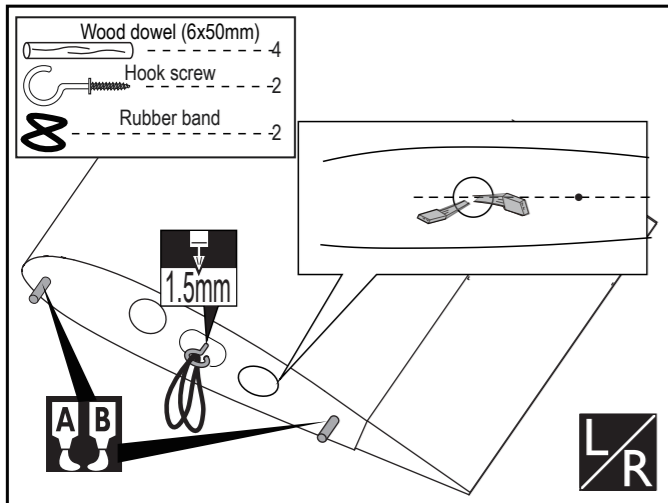
16 Set the rib templates to the appropriate position and drill holes.



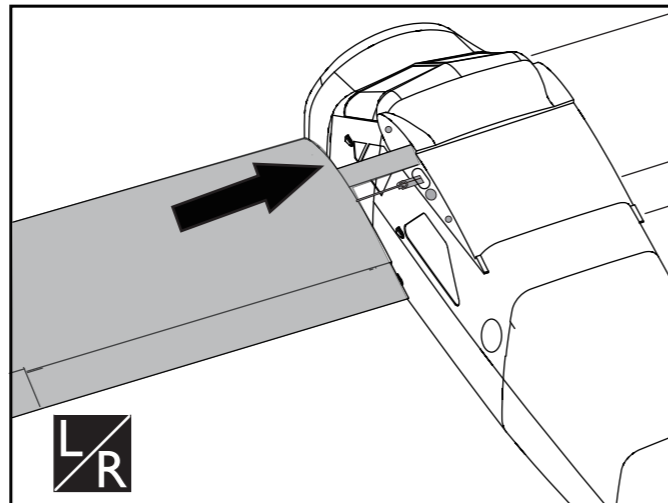
19 Fix one side of the main wing to the fuselage and take out the rubber bands with tool.



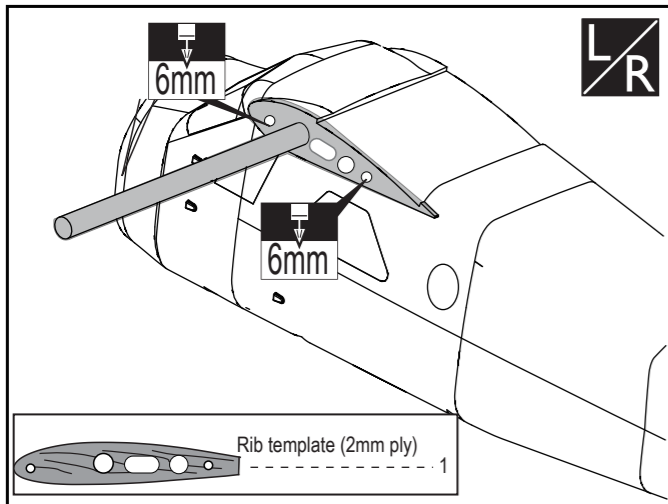
17 Epoxy the wood dowels into the holes and set the hook screw with rubber band to the appropriate position into the main wing as below.



20 Fix the other side of the wing to the fuselage steadily.



18 Set the rib templates to the appropriate position on the fuselage and drill holes as below.



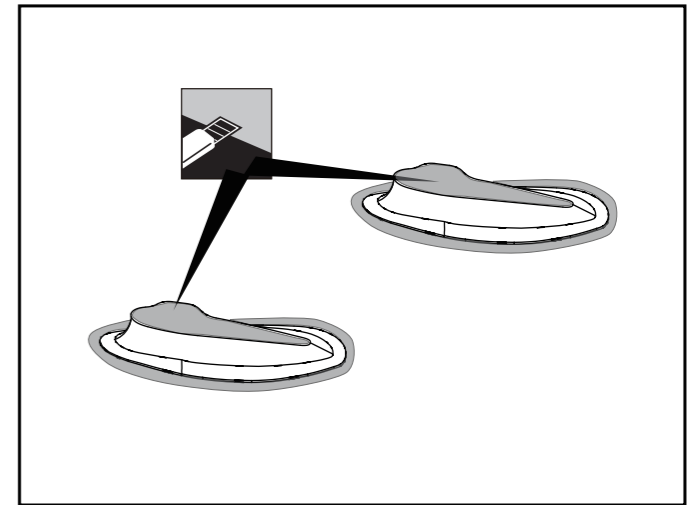
Accessory list for the coming installation steps.

Stab joiner (12x276mm)	1	Collar (3mm)	2
Pin hinge(24x24mm)	6	Wooden Block (30x20x6mm)	1
U-style wire (3x150mm)	1	Nose arm (3mm)	1
Tail landing gear(3mm)	1	Ply (32X25X3mm)	2
Wooden dowel (4x30mm)	4	Washer (3x6mm)	4
Rib template (3mm ply)	1	TP Screw(3x20mm)	4
Tail landing gear(3mm)	1	Screw (2x10mm)	3
Steering fullarm	1	Nut (2mm)	3
Tail wheel (45mm)	1	Copper ball (2mm)	3
Pin hinge(2.5x48mm)	3	Wooden Block	2

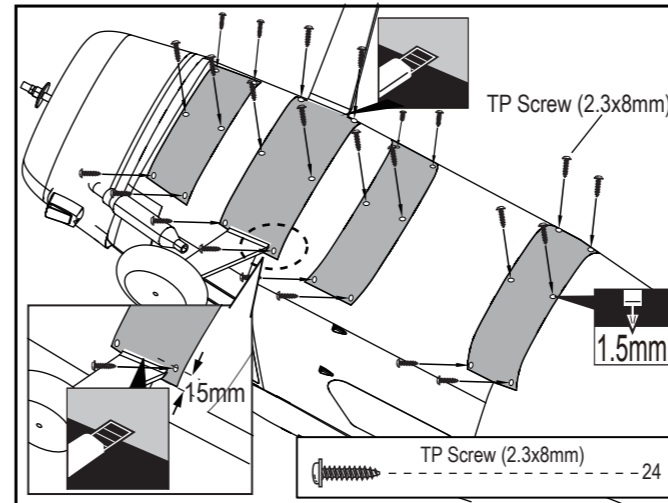
Accessory list for the coming installation steps.

Ply (25x25x6mm)	2
Blind Nut (3mm)	2
Screw (3x20mm)	4
Nut (3mm)	2
TP Screw (2.3x8mm)	24
Pvc part	2
Pvc part	4

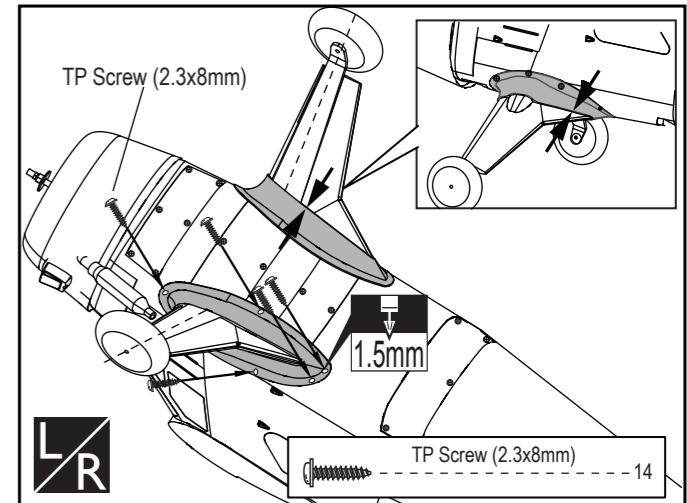
68 Cut away the surplus parts of PVCpart carefully along the shade line.



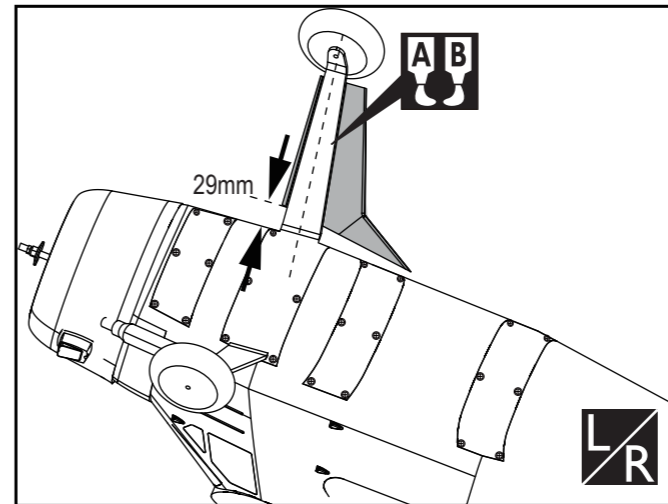
66 Fix the PVC on the fuselage with TP screw.



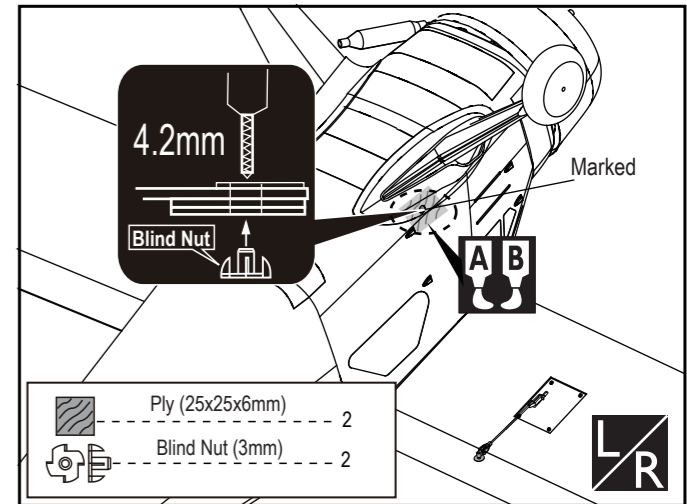
69 Assemble the PVC parts to the appropriate position as below.



67 Epoxy the wheel pants to the main landing gear steadily. Keep some space between the fuselage and the wheel pants.



70 Drill holes to appropriate position in fuselage and set the blind nut in them.



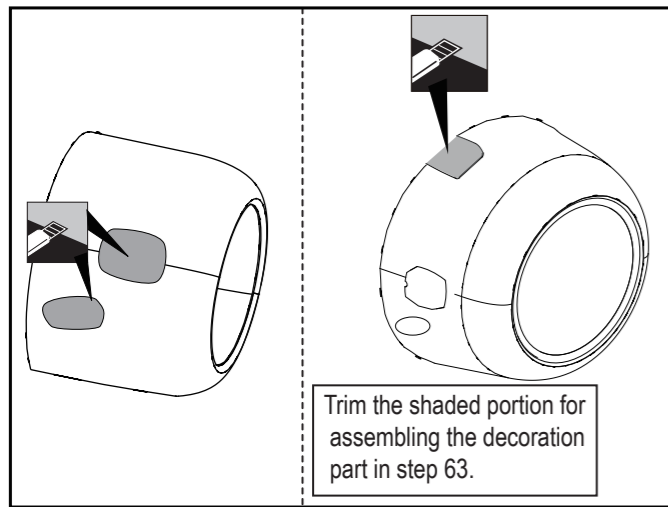
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

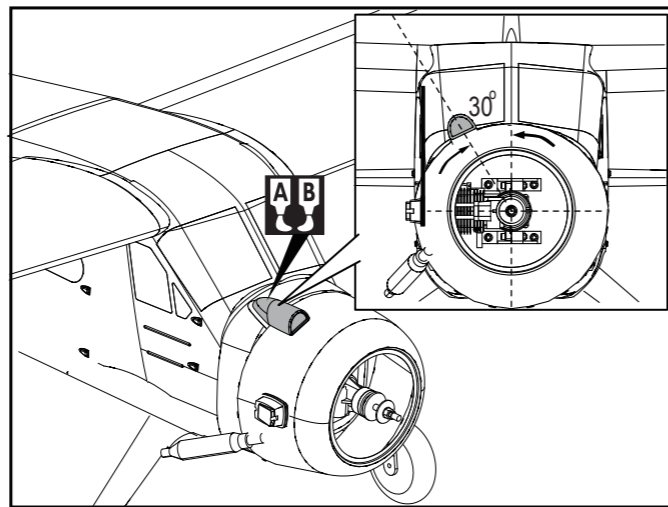
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

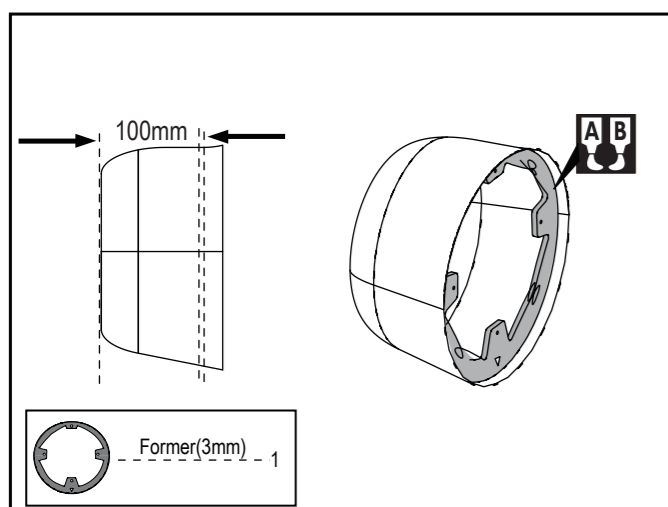
60 Trim the cowling for engine and muffler and decoration.



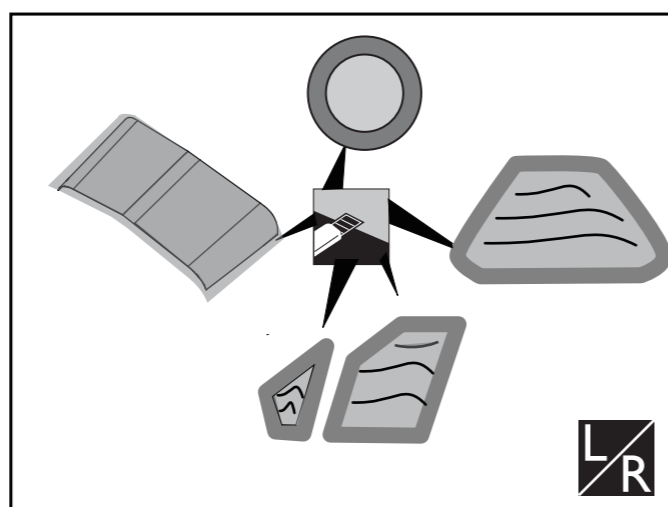
63 Epoxy the decoration part in the slot.



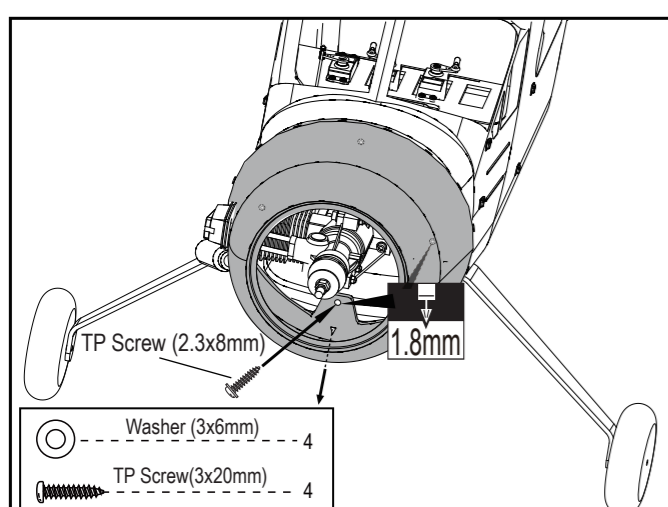
61 Epoxy the formet to appropriate position in the cowling.



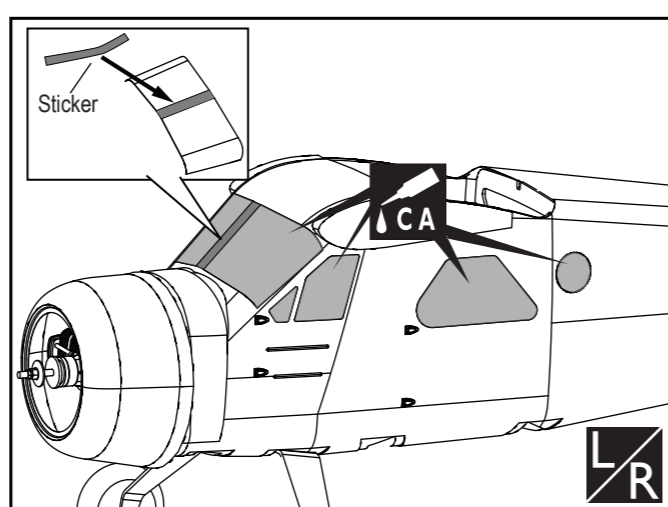
64 Cut away the surplus parts of canopy carefully along the shade line.



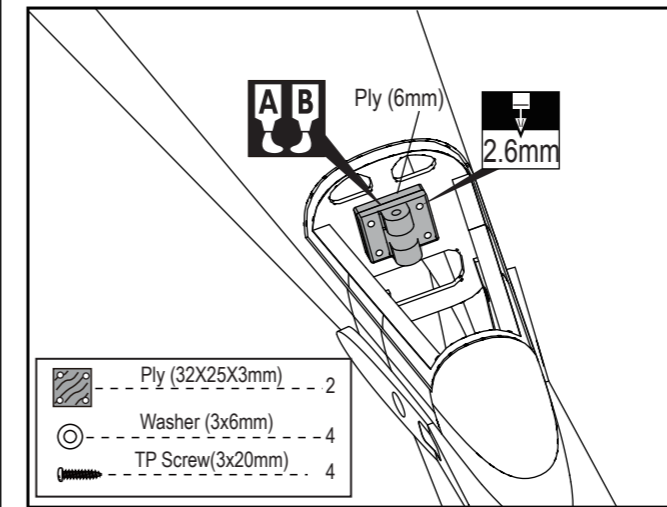
62 Assemble the cowling to fuselage with screw.



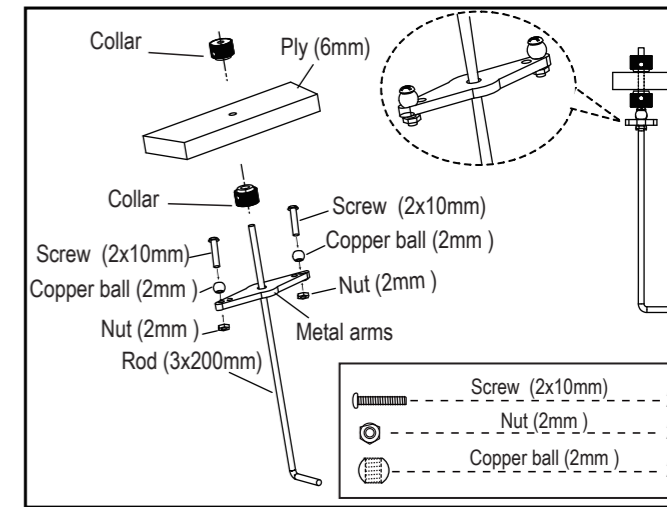
65 Epoxy the canopy to the fuselage.



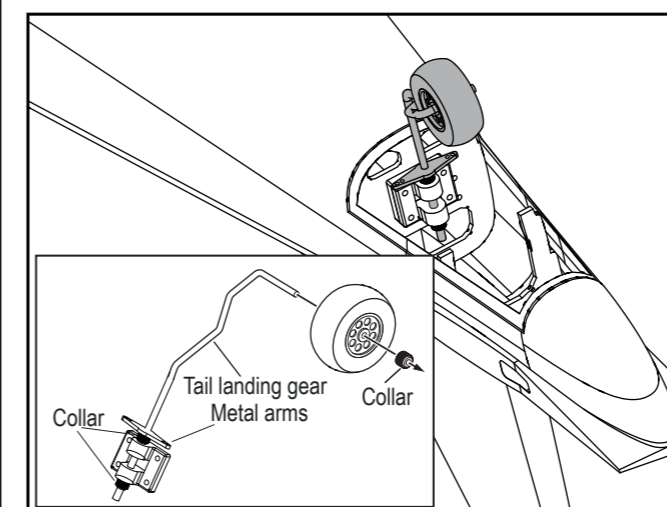
21 Assemble the tail wheel steering mounts.



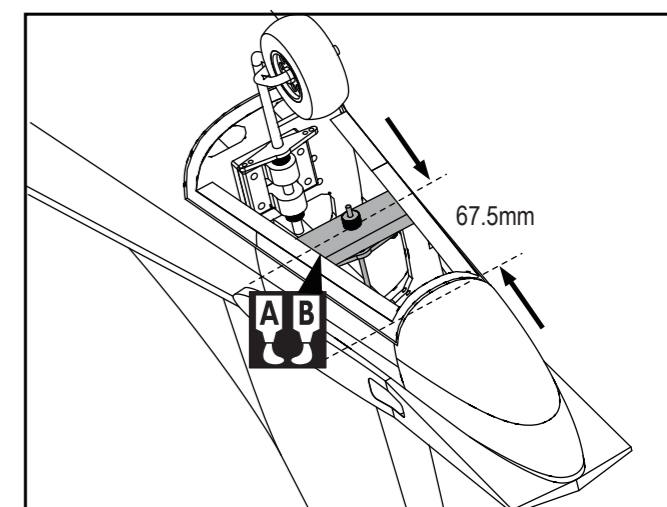
24 Assemble the ball joint to the metal arms.



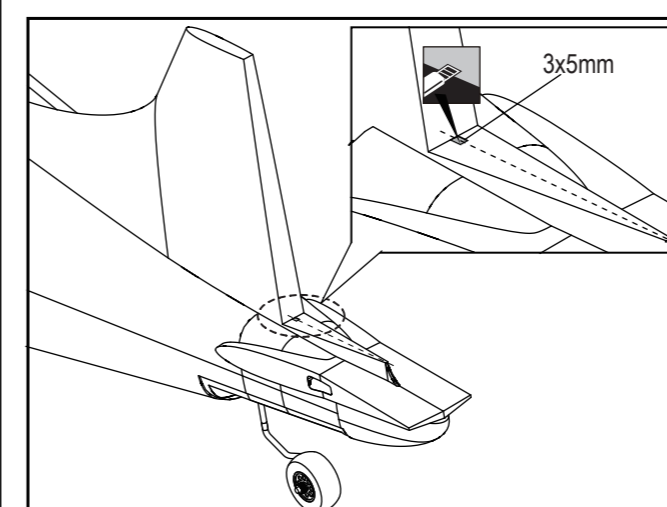
22 Assemble the tail landing gear



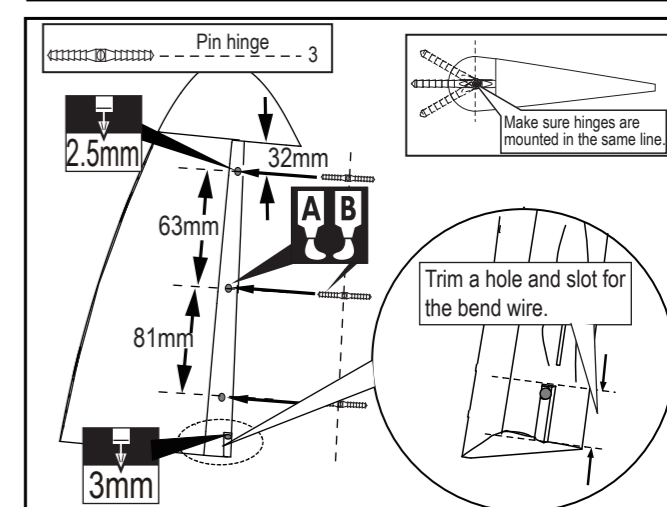
25 Epoxy a wooden block at appropriate position in fuselage, and drill hole in the centre.



23 Trim a hole at the relevant position in the tail of fuselage as below.



26 Drill holes to appropriate position in the rudder and epoxy the pin hinge to them.



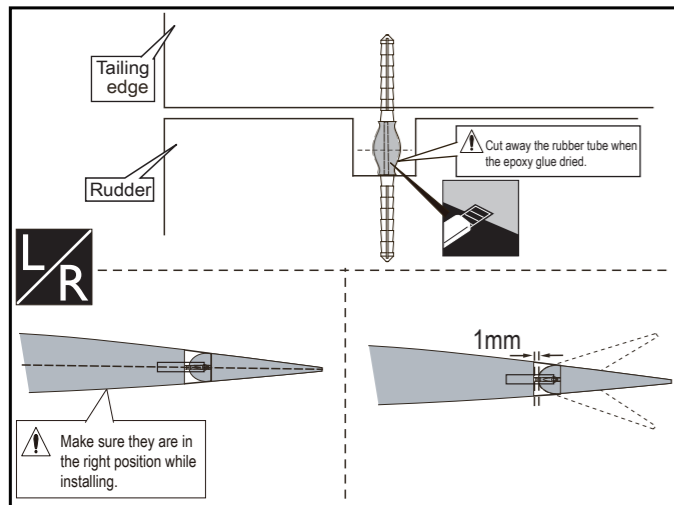
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

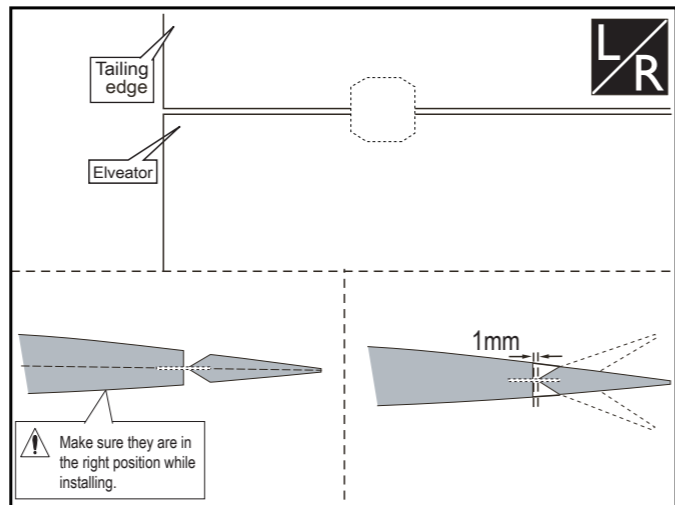
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.
 Must be purchased separately!

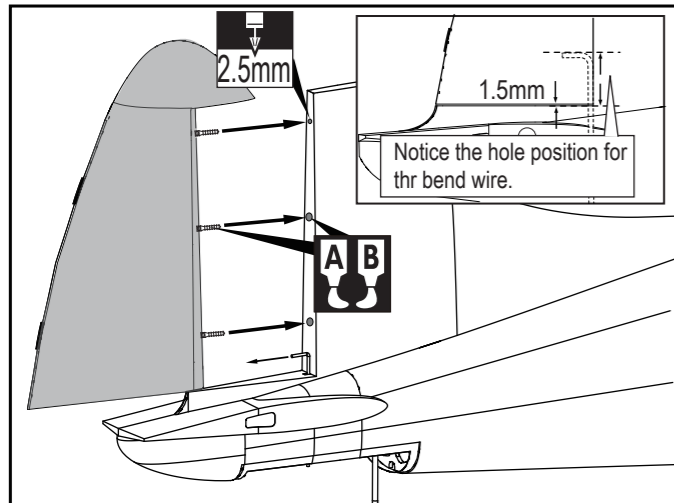
27 Keep some space with 1mm width between the tailing edge and rudder.



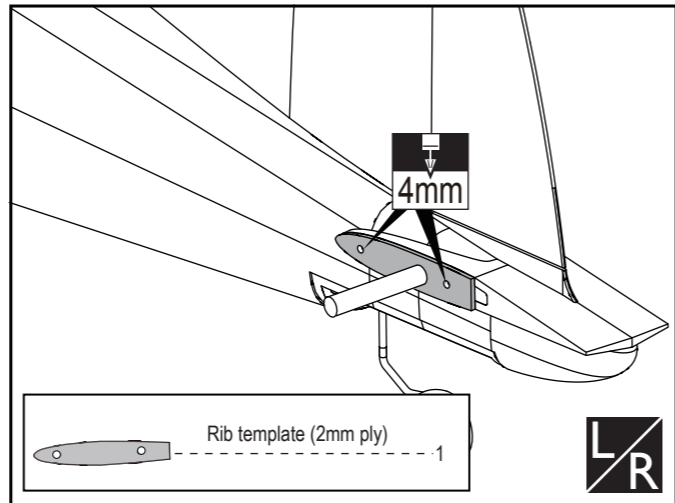
30 Keep some space with about 1mm width between tailing edge and elevator.



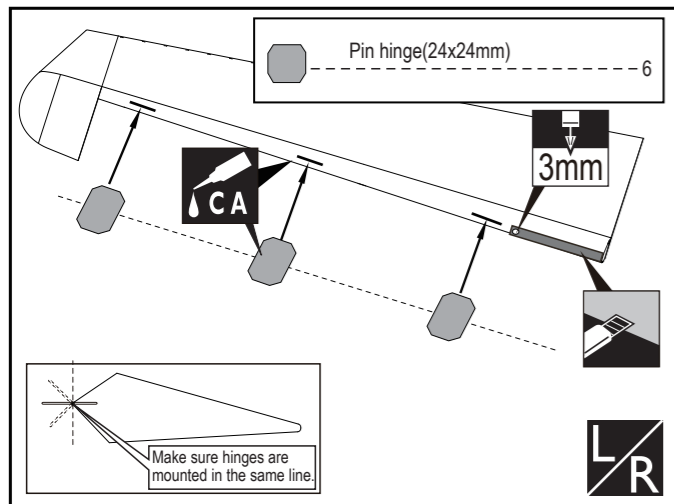
28 Epoxy the rudder to the vertical tail edge.



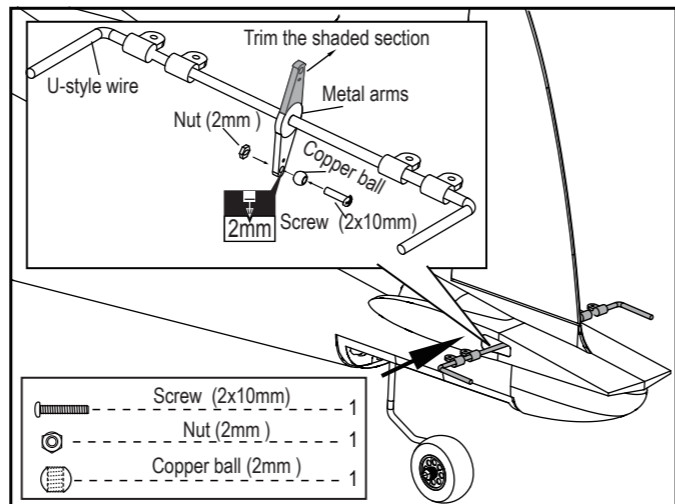
31 According to the rib template drill holes to the tail of fuselage as below.



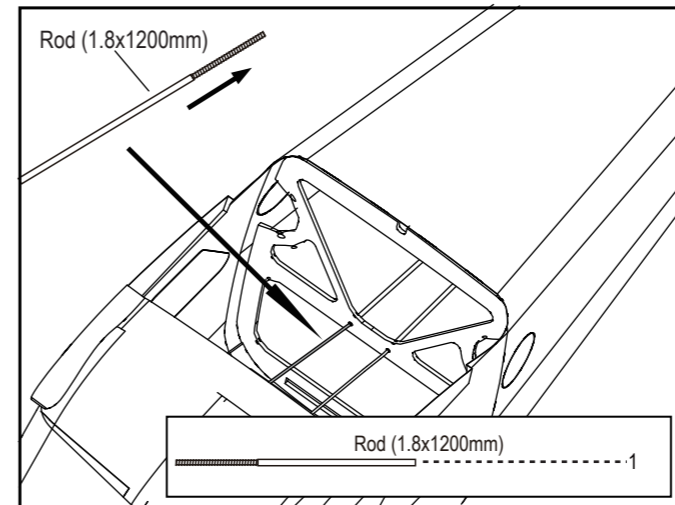
29 Apply instant type CA glue to elevator and pin hinge.



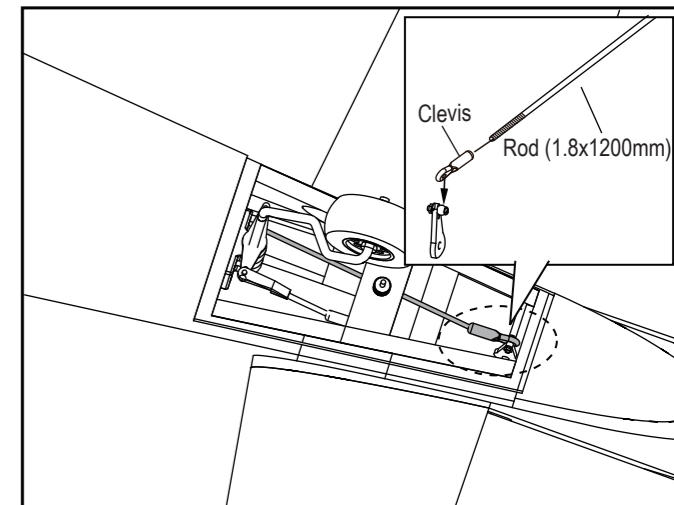
32 Set the U-style wire through the tail of fuselage as below.



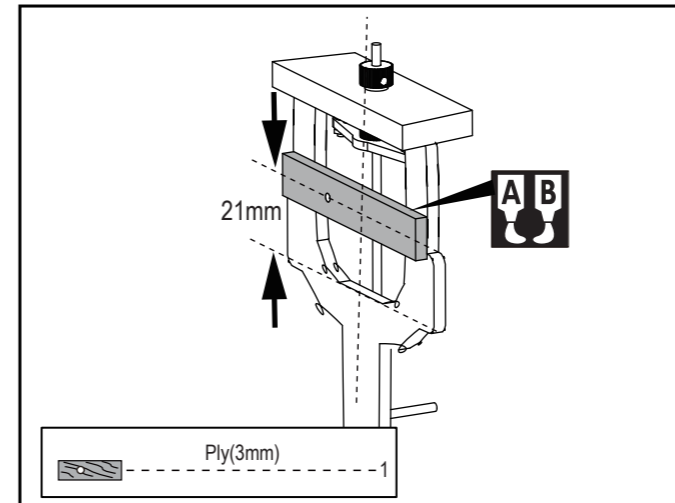
55 Put the elevator rod through the tube in the fuselage as below.



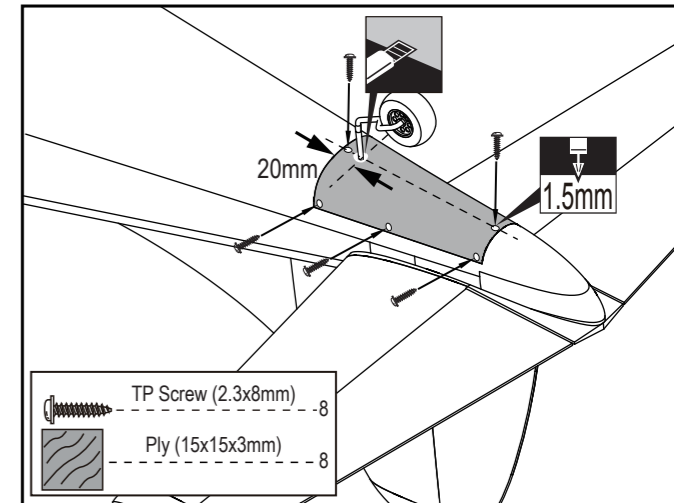
58 Connect the elevator rod and the arm of elevator as below.



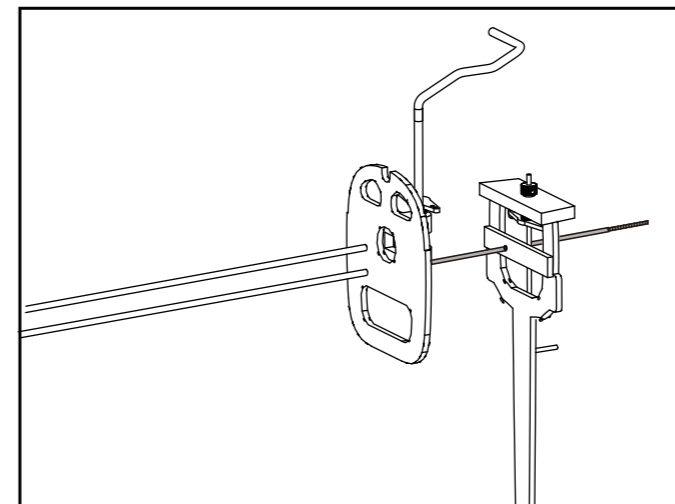
56 Epoxy a ply to the right place.



59 Drill holes to appropriate position and assemble the tail landing gear cover with screw.



57 Put the elevator rod through the hole as below.



Warning! Accessory list for the coming installation steps.

	Pvc part	2
	Pvc part	2
	Pvc part	2
	Pvc part	2
	TP Screw (3x20mm)	4
	Washer (3x6mm)	4
	Ply (15x15x3mm)	5
	Former(3mm)	1
	Sticker	1

AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Pay close attention here!** Do not overlook this symbol!

CA Apply instant glue (CA glue, super glue). **Ensure smooth non-binding movement while assembling.** **Warning!**

Cut off shaded portion. **Must be purchased separately!**

AB Apply epoxy glue. **LR** Assemble left and right sides the same way. **Pay close attention here!** Do not overlook this symbol!

CA Apply instant glue (CA glue, super glue). **Ensure smooth non-binding movement while assembling.** **Warning!**

Cut off shaded portion. **Must be purchased separately!**

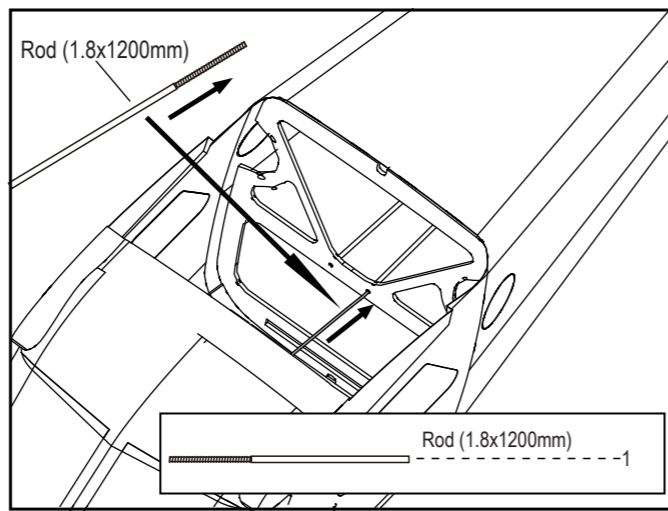


Accessory list for the coming installation steps.

- Retainer ----- 1
- Rod (2x300mm) ----- 1
- Clevis ----- 3
- Ply (15x15x3mm) ----- 8
- TP Screw (2.3x8mm) ----- 8
- Rod (1.8x1200mm) ----- 2
- Pyl(3mm) ----- 1

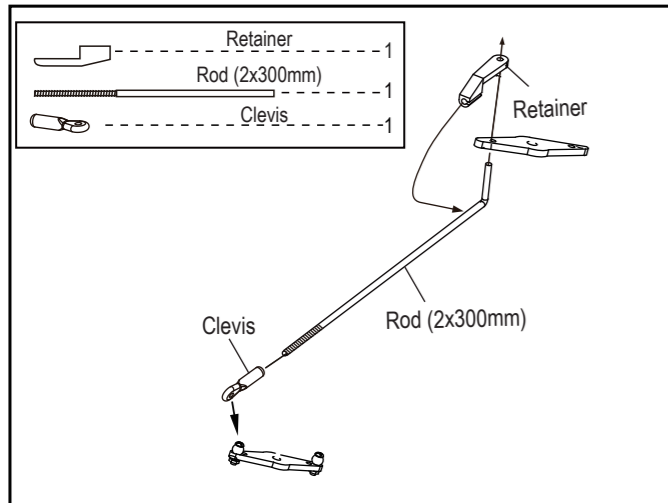
52

Put the rudder rod through the tube in the fuselage as below.



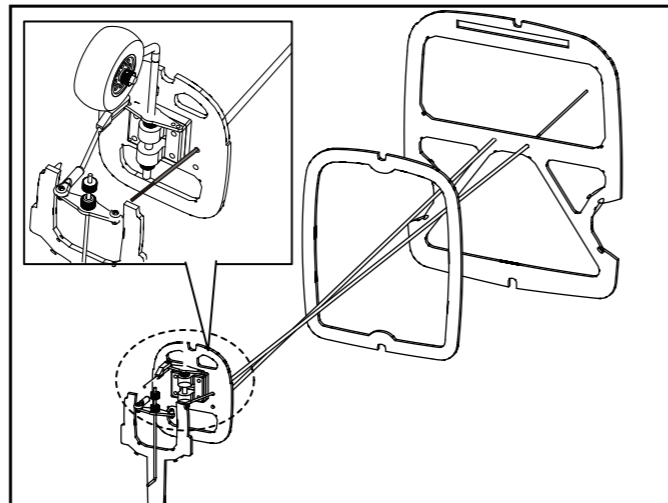
50

The sketch map of connecting the rod and arms.



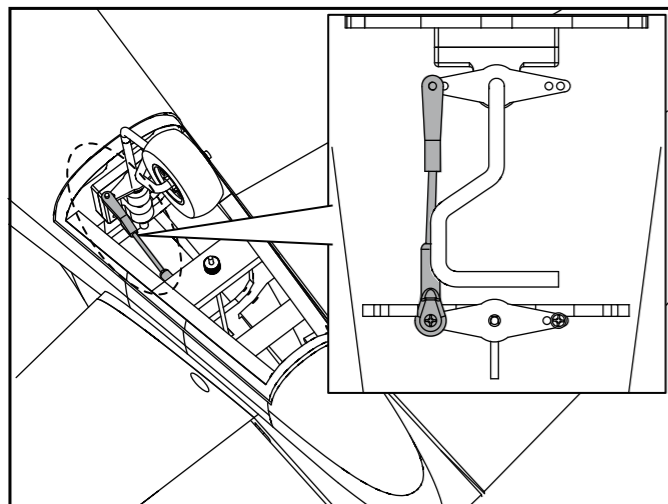
53

Put the rudder rod through the hole as below.



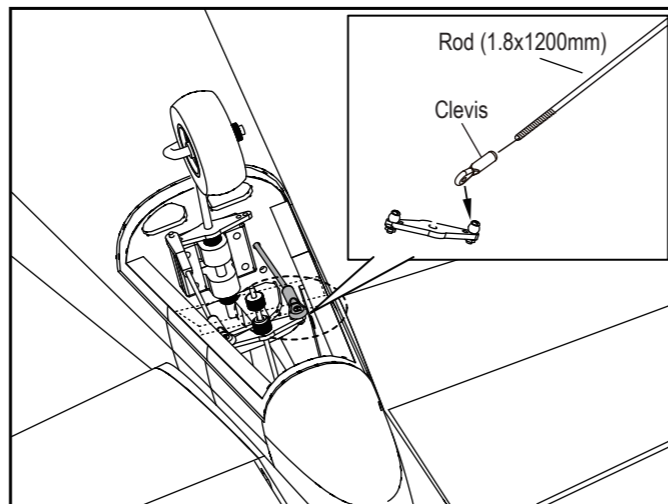
51

Connect the tail landing gear horn and the rudder horn as step 50.



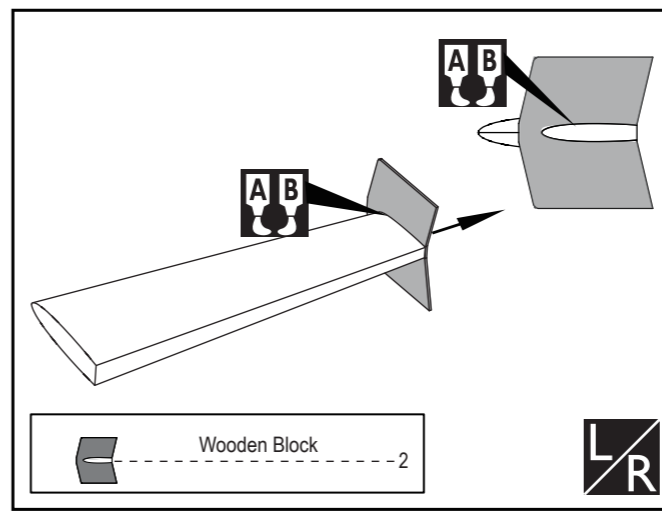
54

Connect the rudder rod and the arm of rudder as below.



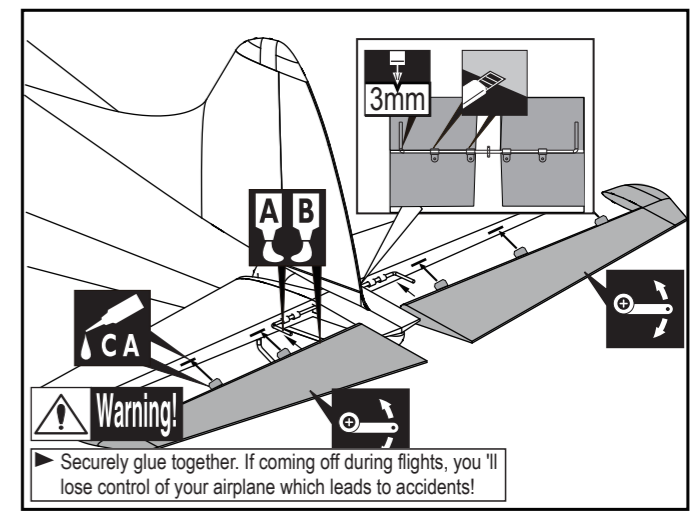
33

Epoxy the wooden block to appropriate position of the stabilizer. This step only for beaver with float.



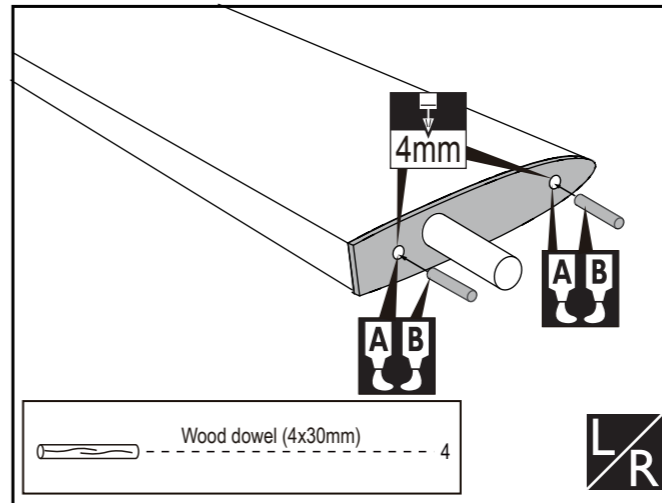
36

Glue the elevator to the stabilizer by CA and epoxy.



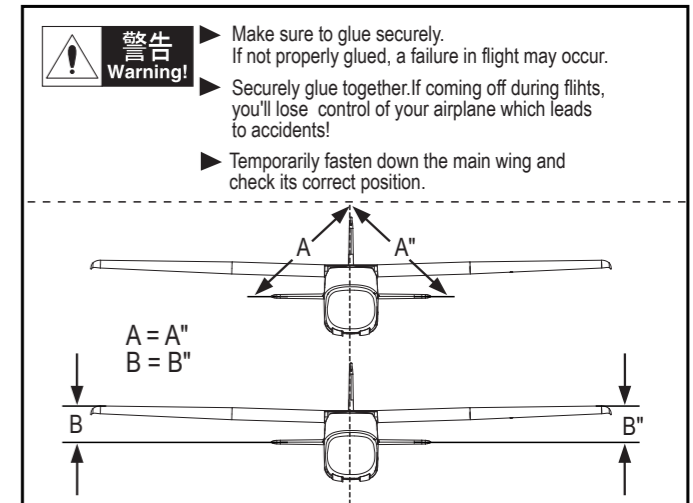
34

Drill two holes at the stabilizer root base on rib template and epoxy the metal dowel in them.



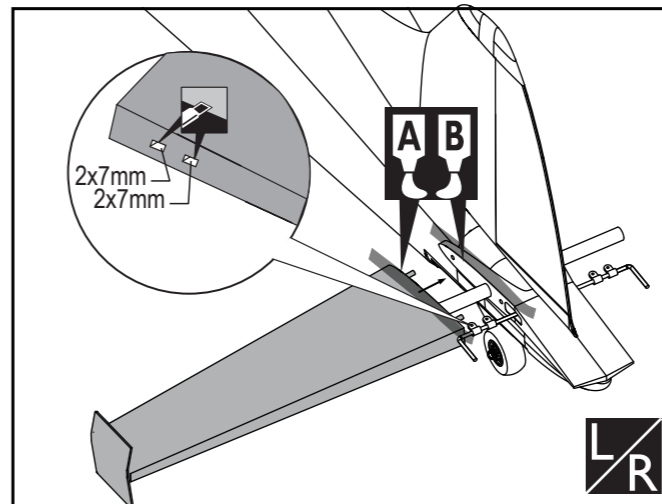
37

The horizontal installation finished standard sketch map.



35

Drill holes to appropriate position in the stabilizer and epoxy it to the fuselage as below.



Warning!

Accessory list for the coming installation steps.

- Screw (4x35mm) ----- 4
- Screw (4x25mm) ----- 4
- Washer(4x8mm) ----- 12
- Spring Washer (4mm) ----- 4
- Nut (4mm) ----- 4
- Linkage Stopper ----- 2
- Plastic tube (2x430mm) ----- 1
- Engine mount (68x105mm) ----- 2
- Blind Nut (4mm) ----- 4
- Main landing gear ----- 1
- Blind Nut (4mm) ----- 3
- Washer(4x8mm) ----- 2
- Nut (4mm) ----- 4
- Screw (4x25mm) ----- 3
- Screw (4x50mm) ----- 2
- Washer (4x13mm) ----- 7
- Wheel (100 mm) ----- 2
- Fuel tank (550ml) ----- 2



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!

Do not overlook this symbol!



Apply instant glue (CA glue, super glue).



Ensure smooth non-binding movement while assembling.



Cut off shaded portion.



Must be purchased separately!



Warning!



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!



Apply instant glue (CA glue, super glue).



Ensure smooth non-binding movement while assembling.



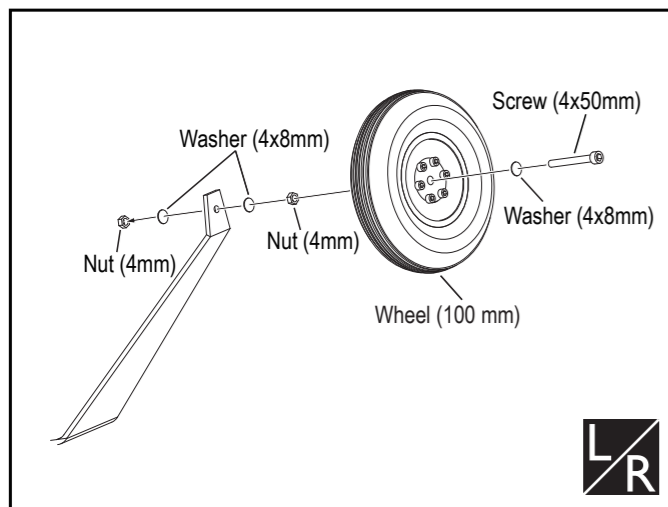
Cut off shaded portion.



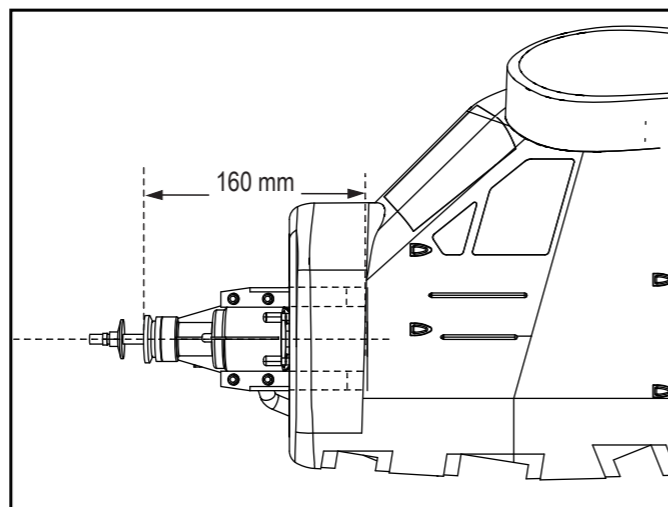
Do not overlook this symbol!

Warning!

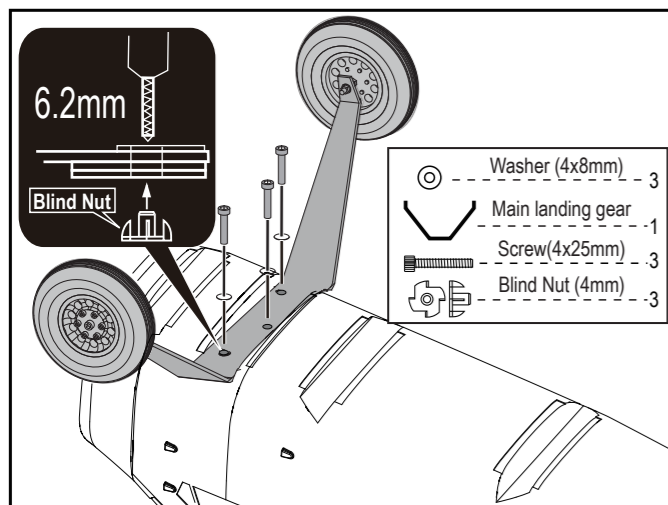
38 Assemble the wheels to the landing gear.



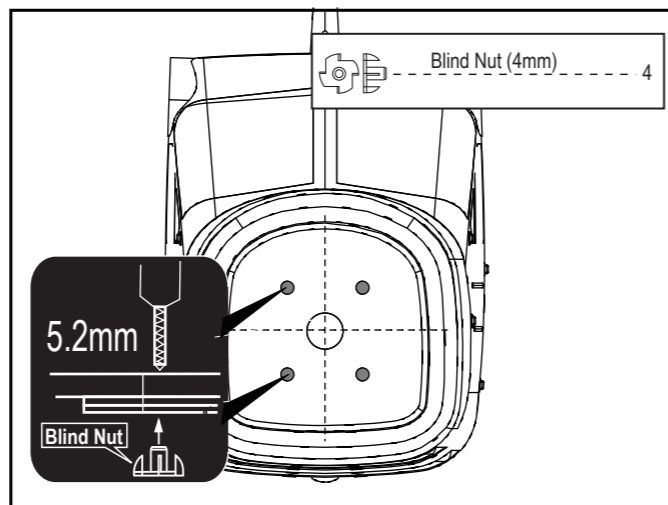
41 The side view of the engine install completion.



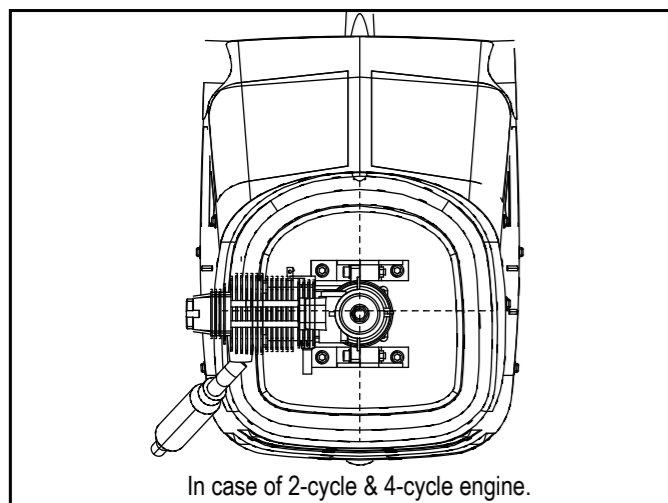
39 Drill holes and set blind nut in appropriate position and assemble the main landing gear.



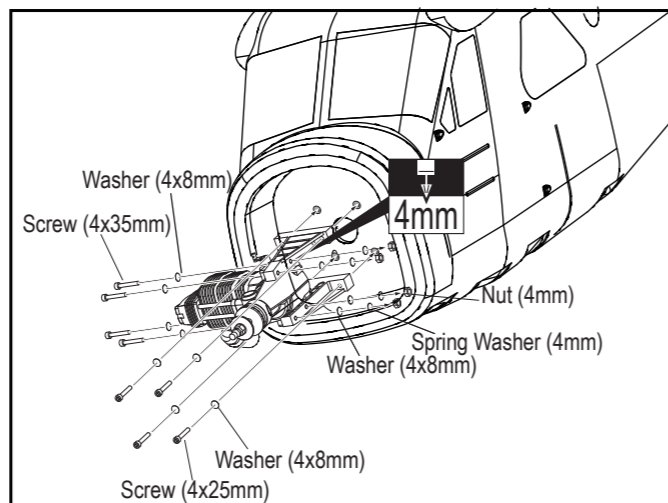
42 Drill holes and set blind nut in appropriate position in the firewall before install the engine.



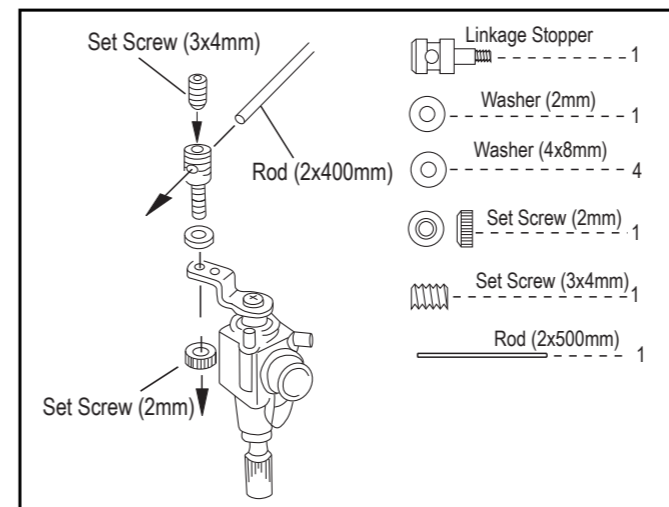
40 The front view of the engine install completion.



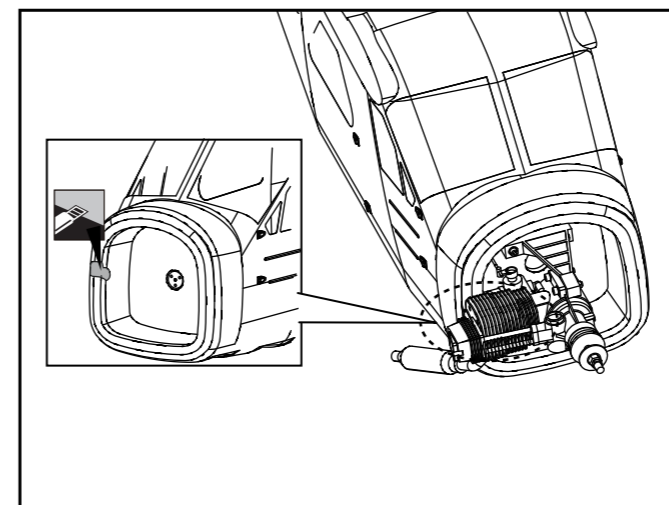
43 Read the detailed diagram and install the engine.



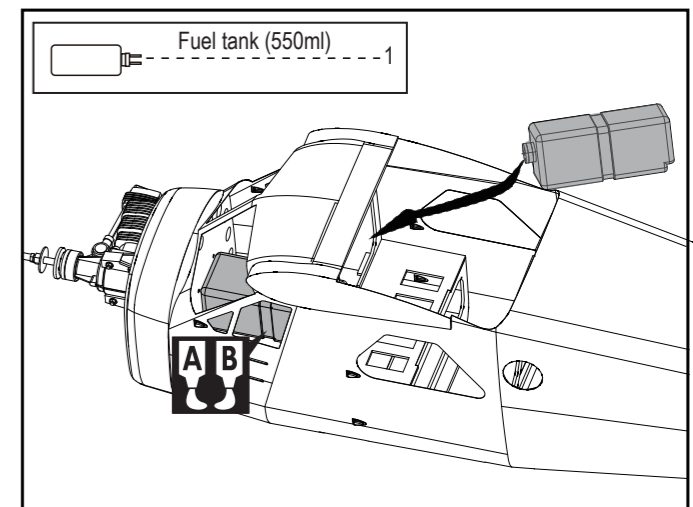
44 Assemble the accelerator push rod to the engine.



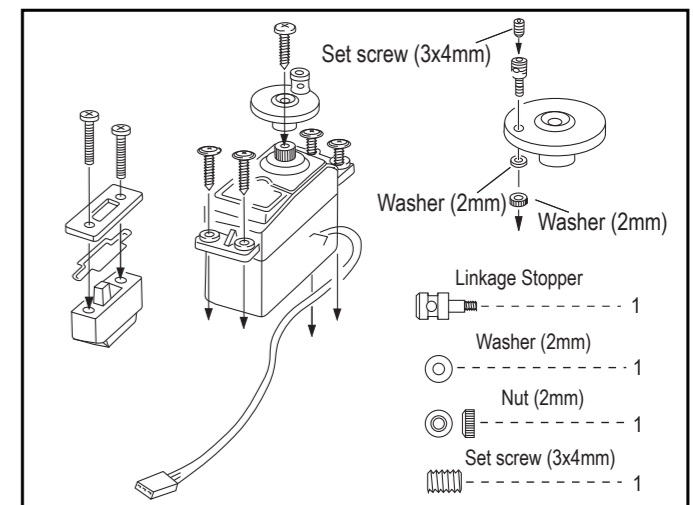
45 Engine installation finished sketch map.



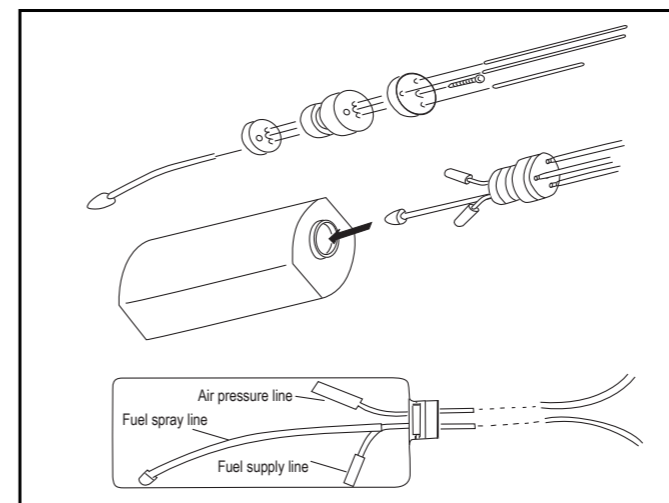
47 Mount the fuel tank to the fuselage.



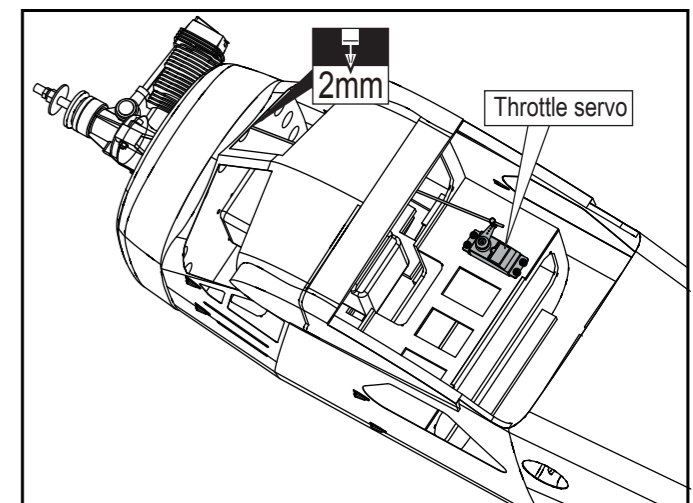
48 The detailed diagram of the fuel tank servo.



46 Assembly of the fuel tank.



49 Assemble the throttle servo to the fuselage.



Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.
 Warning!

Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.
 Must be purchased separately!
 Warning!