

Before commencing assembly, please read these instructions thoroughly.

PIPER J-3 CUB EP



ARF  **Almost Ready to Fly**

Specifications

Wing Span: 48.5 in / 1230 mm

Wing Area: 330 sq in / 21.3 sq dm

Flying Weight: 26 oz / 740 g

Fuselage Length: 30.5 in / 760 mm

Requires : Speed 400 motor, 4- channel radio
w/ 4 micro servos, 15A speed controller
and 7- 8 cells 1000 mAh battery



Warning ! This model is not a toy.

It is designed for maximum performance. Please seek advice if one is not familiar with this kind of electric powered precision model. Operating this model without prior preparation may cause injuries. Remember, safety is the most important thing. Always keep this instruction manual at hand for quick reference.

*** Specifications are subject to change without notice.***



THE WINGS MAKER
FACTORY PRE-FABRICATED
ALMOST-READY-TO-FLY (ARF) SERIES
MADE IN CHINA
www.thewingsmaker.com

GE016

PIPER J-3 CUB EP

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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. Please **DRY FIT** and check for defects for all parts that will require CA or Epoxy for final assembly. Any parts you find to be defective after the gluing process may be difficult to remove for warranty replacement. The manufacturer will replace any defective parts, but will not extend to the parts that are good before gluing to defective parts during assembly. Warranty will not cover any parts modified by customer.
- 3** Symbols used throughout this instruction manual comprise of the following :-



Apply epoxy glue.



Apply instant glue
(C.A.glue, super glue.)



Apply thread locker



Must be purchased separately!



Assemble left and right
sides the same way.



Ensure smooth non-binding
movement while assembling.



Peel off shaded portion
covering film.



Cut off shaded portion.



Drill holes with the specified
diameter (here: 3mm).



Pierce the shaded portion
covering film.



Pay close attention here!



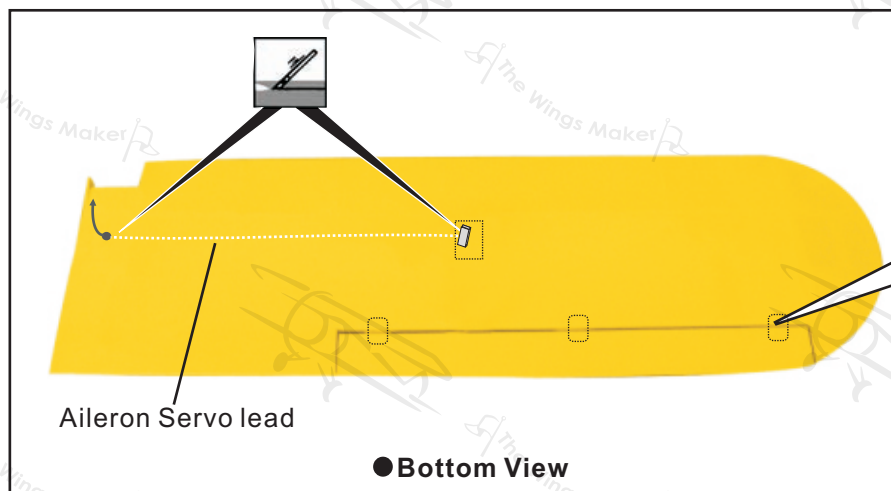
Do not overlook this symbol!



Parts List

1. MAIN WING -- 1 pair
 2. PUSHROD Ø1.4x70mm w/ Threads (For Aileron) -- 2 pcs
HORN -- 2 sets
CLEVIS -- 2 pcs
STRAPER -- 2 pcs
FUEL TUBE Ø4x4mm -- 4 pcs
SCREW PM2x18mm -- 4 pcs
 3. PLYWOOD 5x13x82mm(Wing Joiner) -- 1 pc.
 4. STABILIZER & ELEVATOR -- 1 set
FUSELAGE -- 1 pc.
ELEVATOR LINK PL4510010 -- 1 pc.
SCREW PM2x8mm -- 2 pcs
 5. VERTICAL FIN & RUDDER -- 1 set
 6. TAIL LANDING GEAR -- 1 set
SCREW PA2x8mm -- 2 pcs
BALSA 3x6x7mm -- 1 pc.
SCREW PM2x8mm -- 1 pc.
M2 NUT -- 1 pc.
AIR REINFORCEMENT PLATE -- 1 pc.
 7. FUEL TUBE Ø4x4mm -- 1 pc.
CLEVIS -- 1 pc.
PUSHROD Ø1.4x415mm w/ Threads(For Elevator) -- 1 pc.
 8. PUSHROD Ø1.4x420mm w/ Threads(For Rudder) -- 1 pc.
FUEL TUBE Ø4x4mm -- 1 pc.
CLEVIS -- 1 pc.
HORN -- 1 set
SCREW PM2x8mm -- 2 pcs
 9. SPEED 400 MOTOR -- 1 set
GEAR BOX -- 1 set
PROPELLER -- 1 pair
SPINNER Ø36mm -- 1 set
COWLING -- 1 pc.
DUMMY ENGINE COVER -- 1 pair
MOUNT PLATE (PL4114015) -- 1 pc.
SCREW PWA2x8mm -- 4 pcs
WASHER d2xD5mm -- 1 pc.
M2 NYLON INSERT LOCK NUT -- 1 pc.
SCREW PM2x10mm -- 1 pc.
 10. WIND SHIELD & SIDE WINDOWS -- 1 set
SCREW PWA2x8mm -- 4 pcs
 11. SPONGE 10x50x150mm -- 1 pc.
DOUBLE-SIDED TAPE 30x35mm --1 pc.
FUEL TUBE Ø4x4mm -- 2 pcs
BATTERY TIE -- 1 pc.
STRAPER -- 2 pcs
 12. MAIN LANDING GEAR --1 set
MAIN WHEEL Ø50mm-- 2 pcs
LANDING WIRE STRAPS (PL4114030) -- 3 pcs
PVC PLATE 0.5x6x32mm (For Main Landing Gear) -- 2 pcs
BALSA 22x73x80mm (Main Landing Gear Cover) -- 2 pcs
SCREW PA2.6x10mm -- 6 pcs
COLLAR Ø2.6mm w/ set screw -- 4 sets
SCREW PM2x6mm -- 4 pcs
WASHER d2xD5mm -- 4 pcs
M2 NUT -- 4 pcs
TRANSPARENT DECALS 20x70mm -- 4 pcs
 13. SCREW PM2.5x25mm -- 2 pcs
WASHER d2.6xD7mm -- 2 pcs
BALSA 6x25x82mm (Wing Protection) -- 1 pc.
 14. SCREW PA2.3x8mm -- 6 pcs
MAIN WING STRUTS -- 1 pair
 15. DECALS -- 1 set
- **COVERING:--**
LIGHTEX SGX 331 CUB YELLOW

1 Main Wing



Aileron Servo lead

● Bottom View

L/R

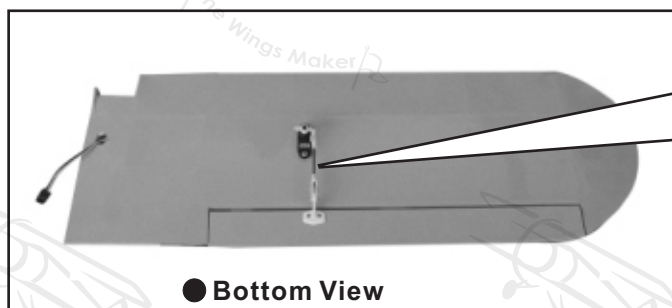
- Apply instant type CA glue to both sides of each hinge.

2 Aileron Servo

- Ø1mm pilot holes for The Wings Maker tri-horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.

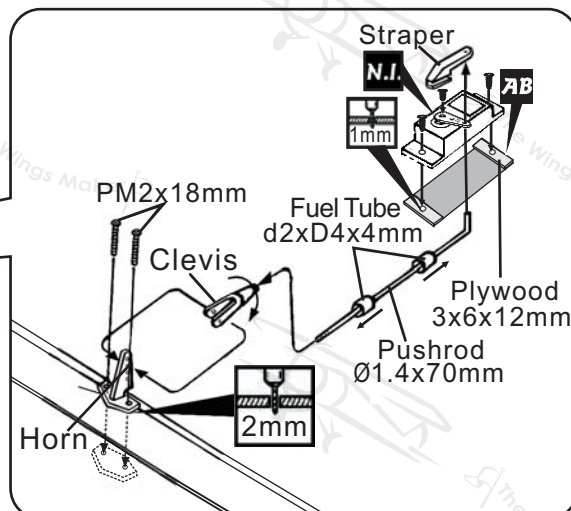
PM2x18mm Screw

4



● Bottom View

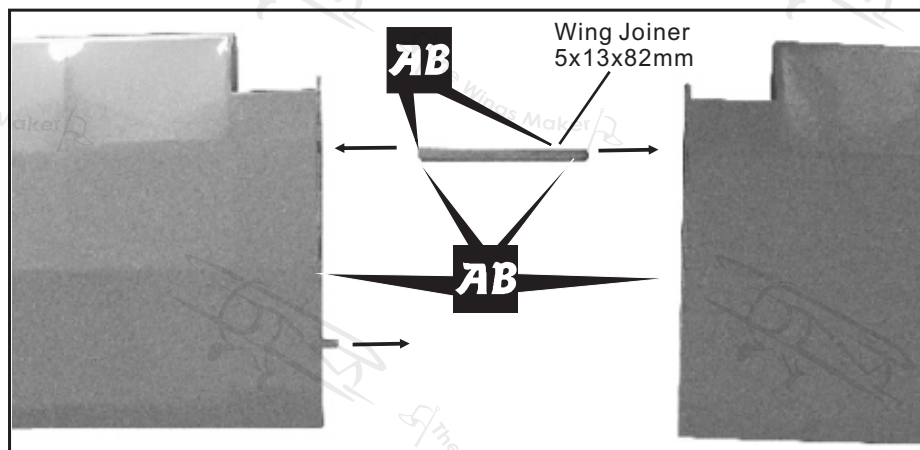
L/R



3 Main Wing



Please dry fit wing joiner into left and right wing to make sure they fit with the proper dihedral angle, mark the wing joiner if necessary. Apply epoxy glue to both sides of all surfaces in contact. Use a stick to apply the glue to inner side of wing joiner sleeve, and apply the glue to wing joiner before putting them together. Wing joiner not glued properly will lead to wing failure and plane crash.

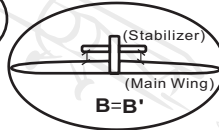


4 Stabilizer & Elevator

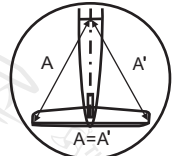
PM2x8mm Screw



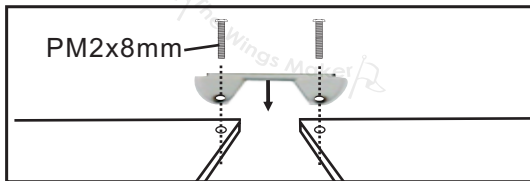
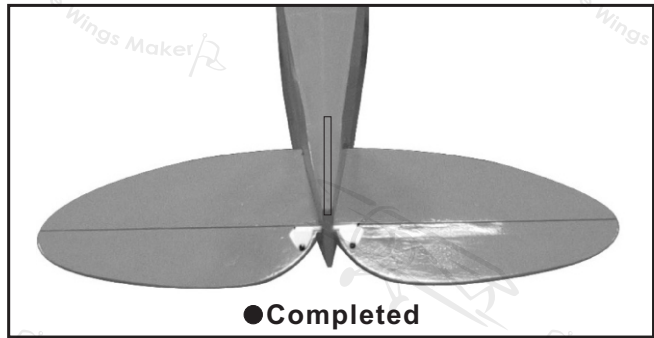
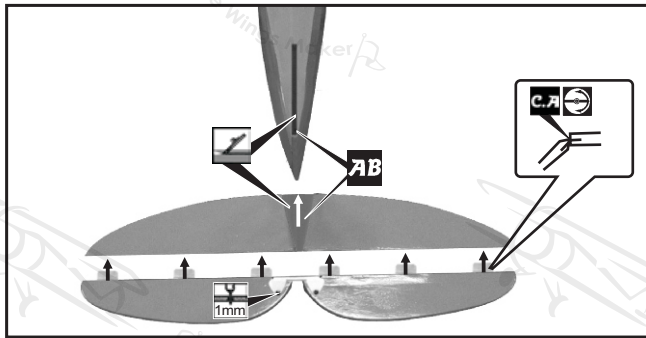
2



Temporary install the main wing, adjust leveling of the stabilizer to make it as parallel to the main wing as possible.



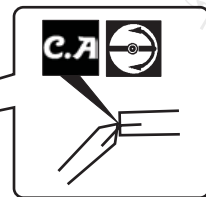
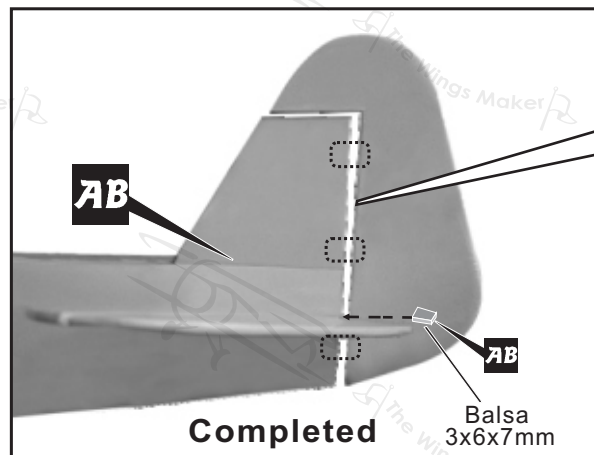
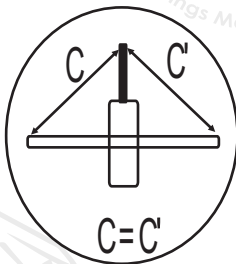
*Also refer to step 15 Wing Setting



● Ø1mm pilot holes for Wings Maker tri-horn are pre-drilled. Please load for pin-hole marks at under side of control surfaces.

● Apply instant type CA glue to both sides of each hinge.

5 Vertical Fin & Rudder



● Apply instant type CA glue to both sides of each hinge.

6 Tail Landing Gear

PA2 x 8mm Screw



2

PM2 x 8mm Screw



1

2.6mm Collar

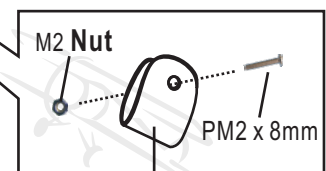
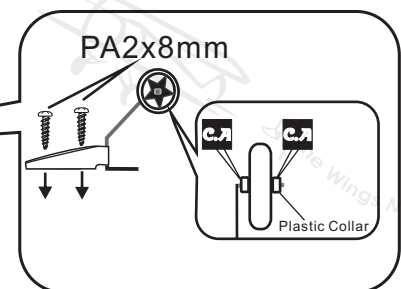
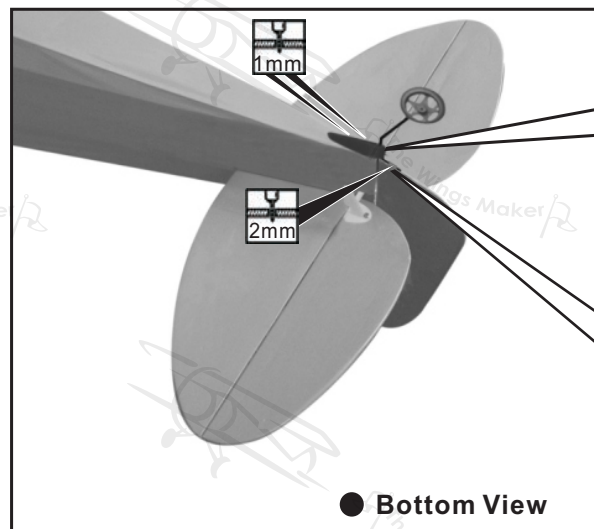


2

M2 Nut

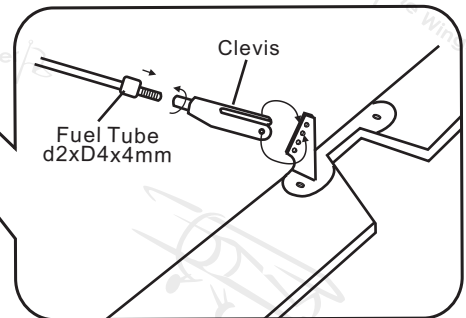
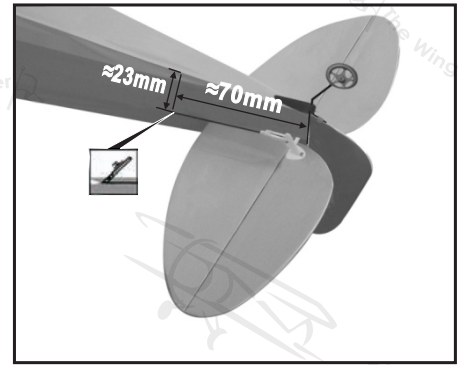
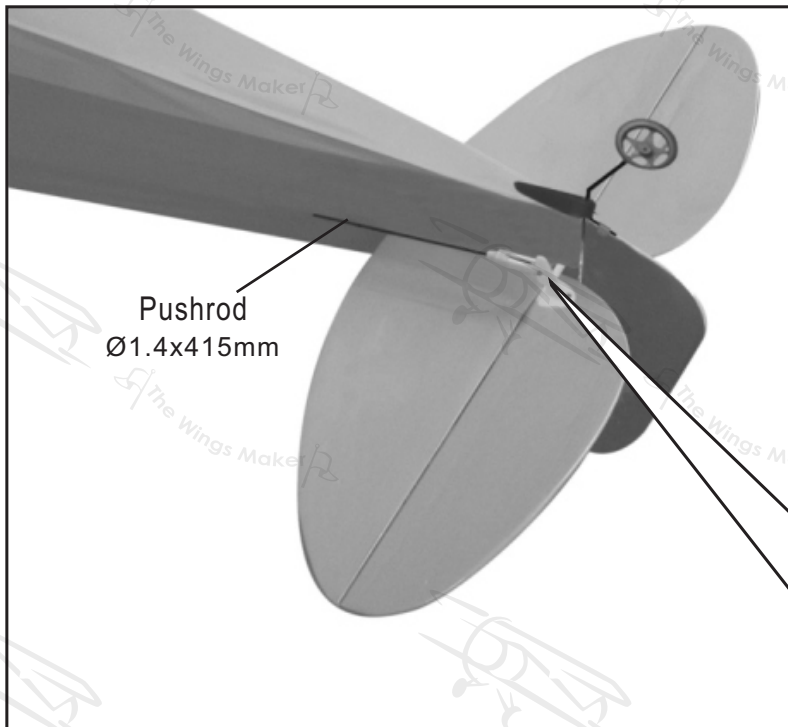


1



Al Reinforcement Plate

7 Elevator Pushrod



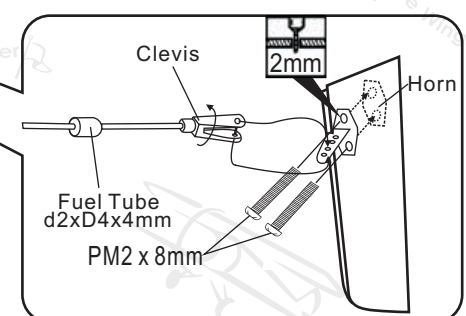
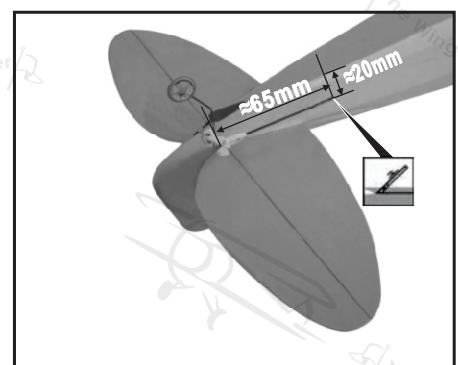
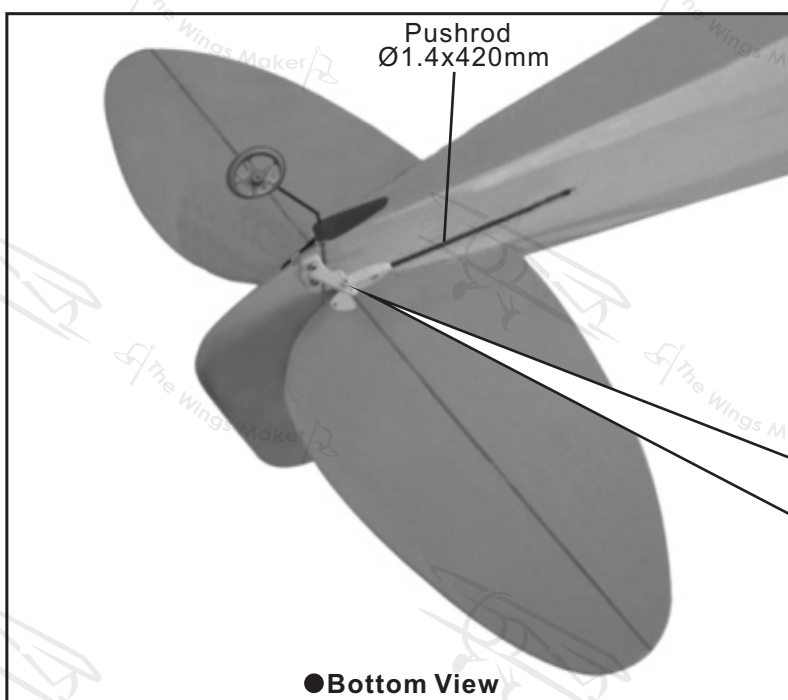
● Bottom View

8 Rudder Pushrod

PM2 x 8mm Screw

2

- Ø1mm pilot holes for The Wings Maker tri-horn are pre-drilled. Please look for pin-hole marks at side of control surfaces.

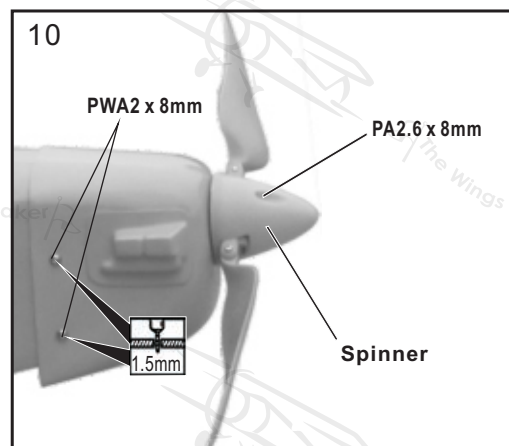
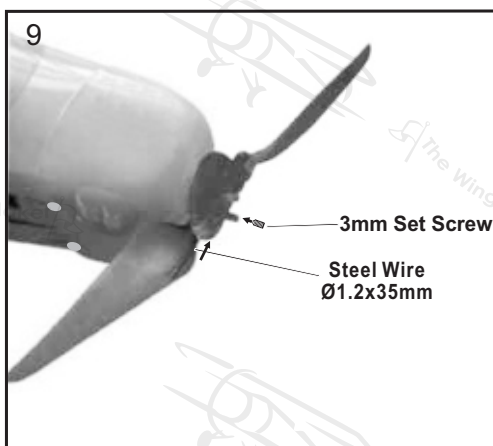
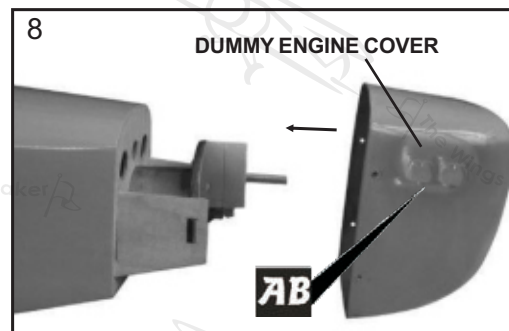
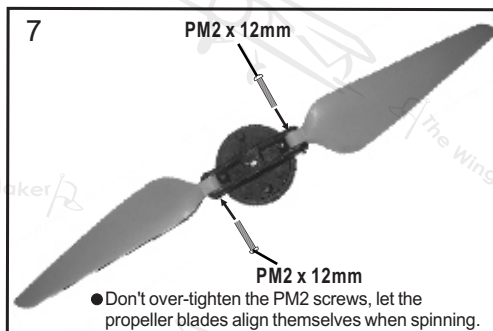
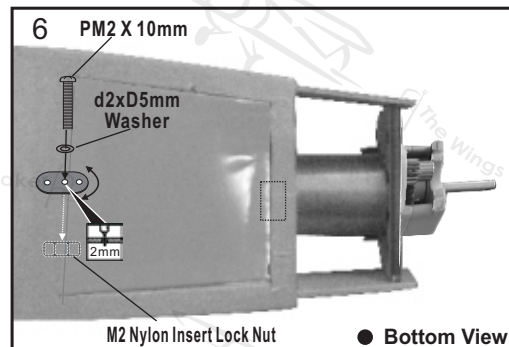
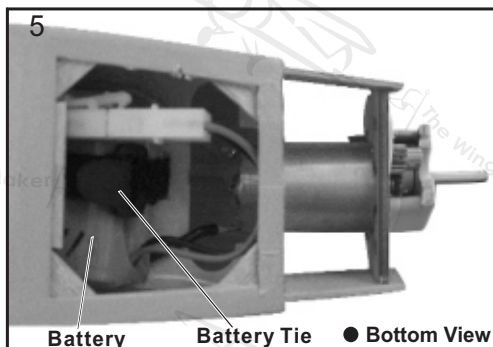
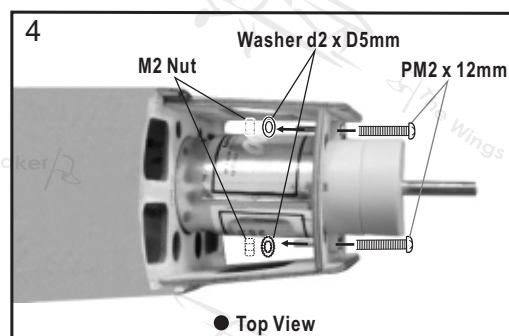
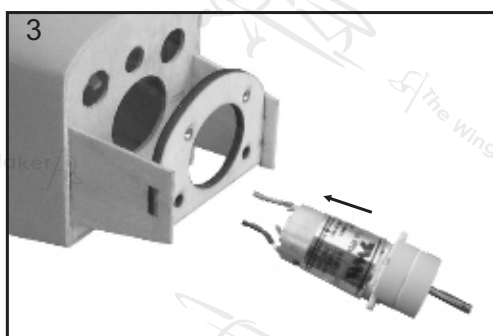
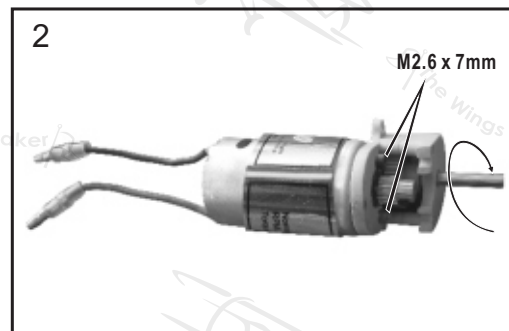
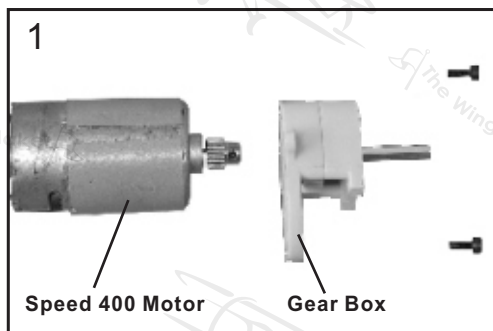
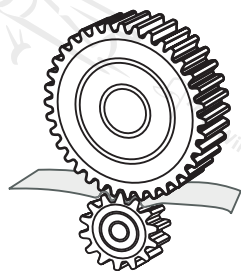


● Bottom View

9 Motor / Cowling Setting

M2.6 x 7mm Socket Head Screw	2
PM2 x 12mm Screw	4
PM2 x 10mm Screw	1
PWA2 x 8mm Screw	4
PA2.6 x 8mm Screw	2
3mm Set Screw	1
d2 x D5mm Washer	3
M2 Nylon Insert Lock Nut	1
M2 NUT	2

- TO ALLOW FOR BACKLASH OF MATCHING GEAR, PUT A PIECE OF THIN PAPER BETWEEN THE GEARS AND THEN TIGHTEN THE M2.6X7mm SCREWS. REMOVE THE PAPER BEFORE FLYING.

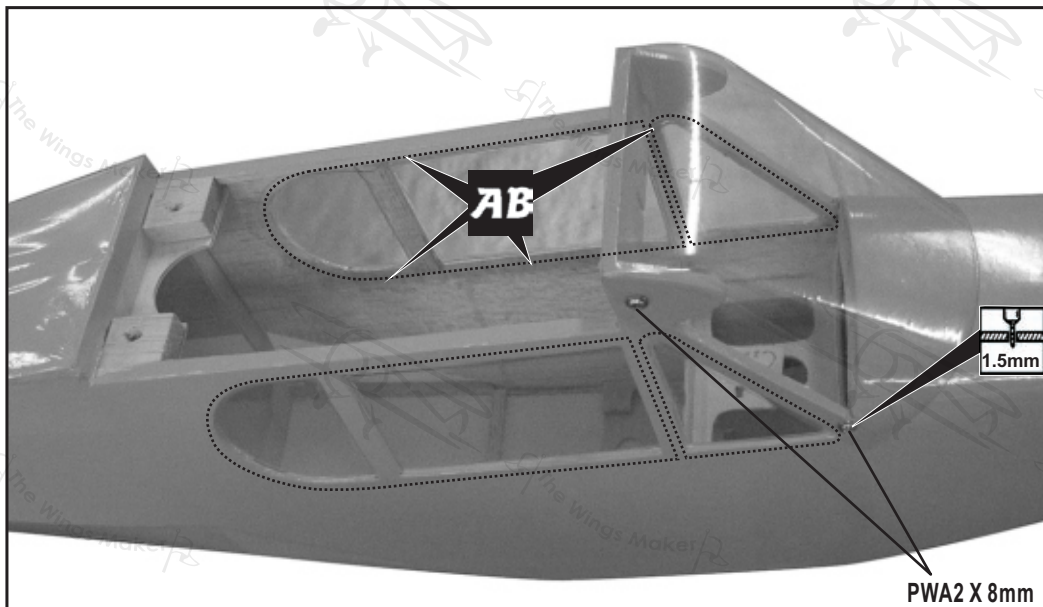
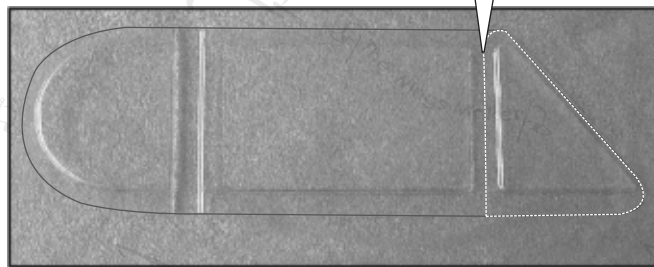


10 Canopy

PWA2 X 8mm Screw

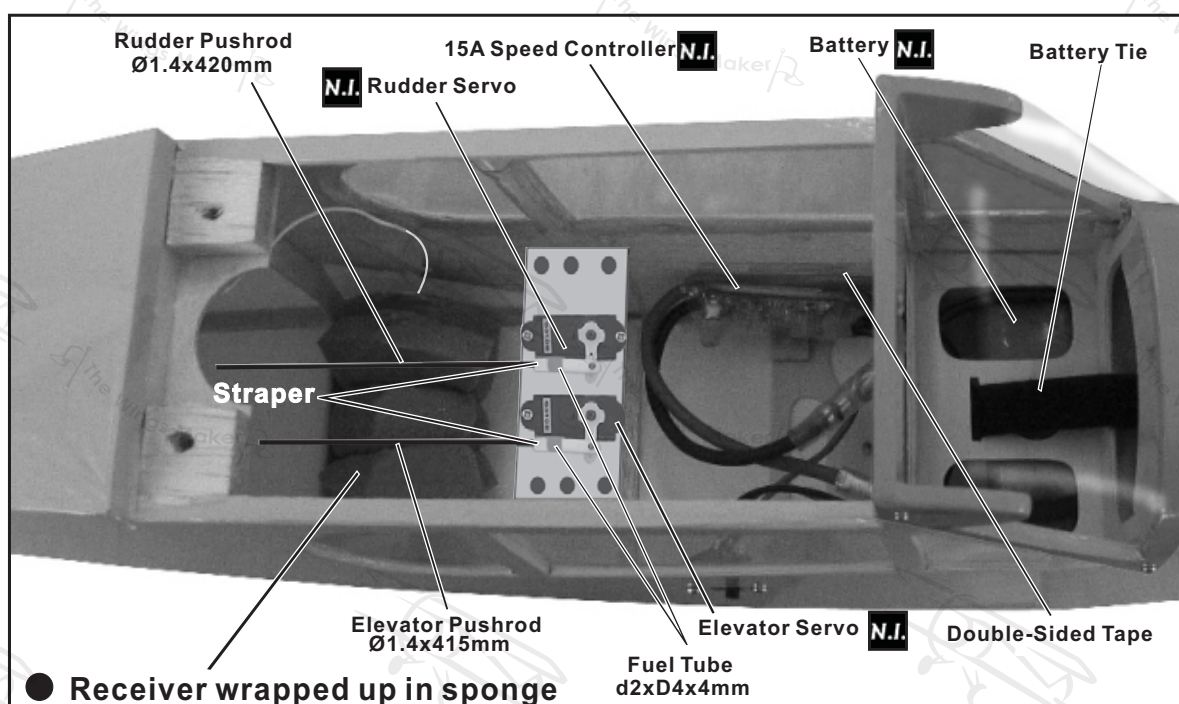


4



L/R

11 Radio Equipment



12 Main Landing Gear

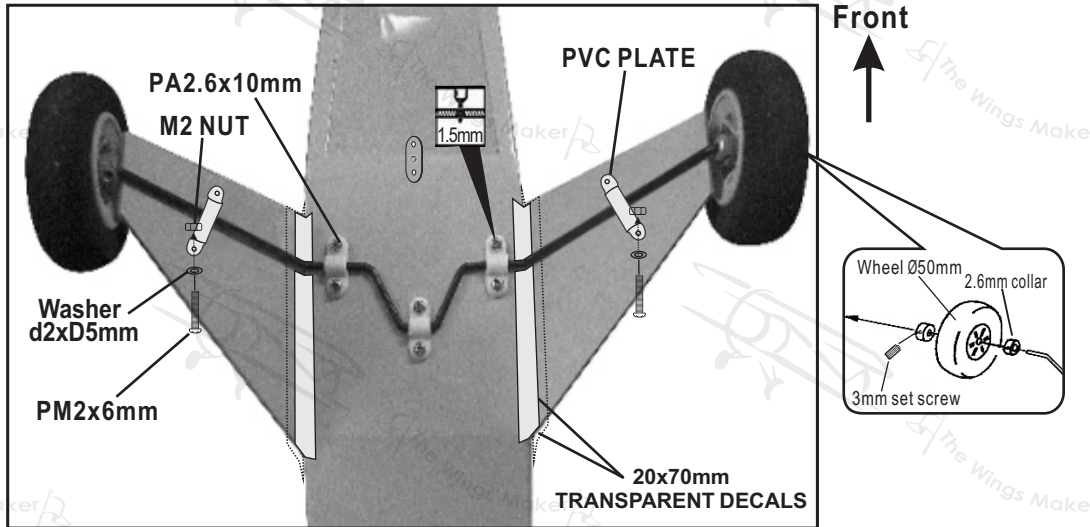
PA2.6x10mm **Screw**

2.6mm Collar

PM2x6mm Screw

d2xD5mm Washer

M2 NUT

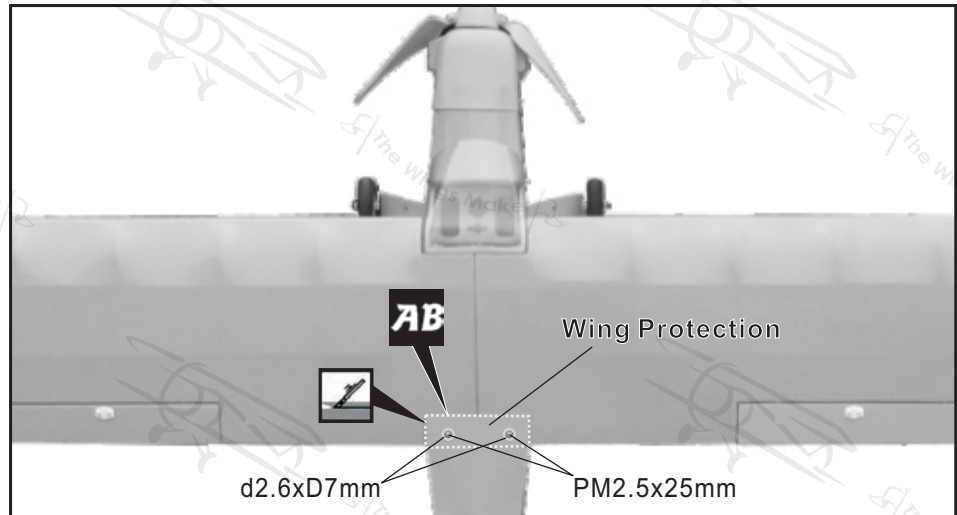
**L/R**

13 Main Wing

PM2.5x25mm **Screw**

d2.6xD7mm **Washer**

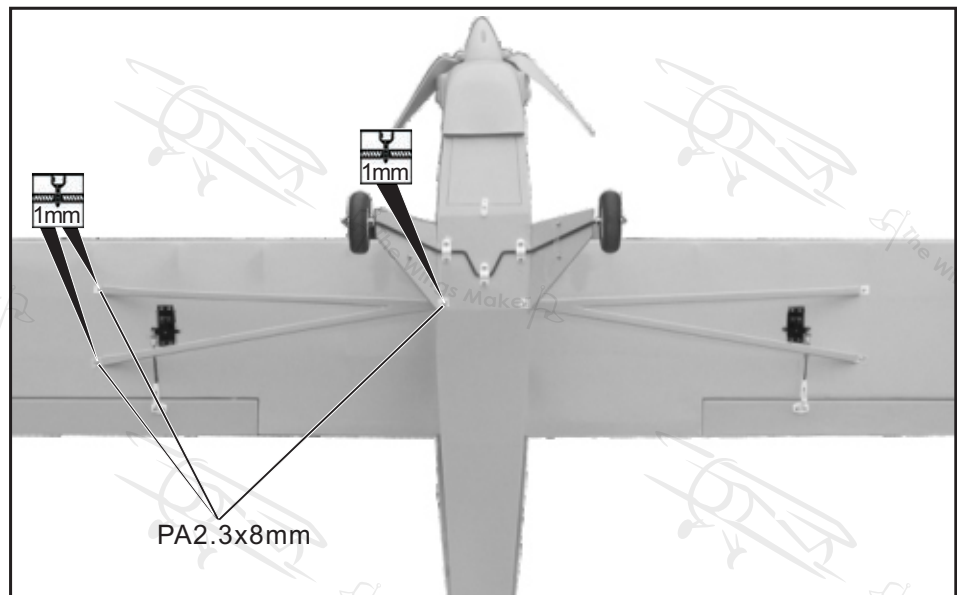
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14 Wing Struts

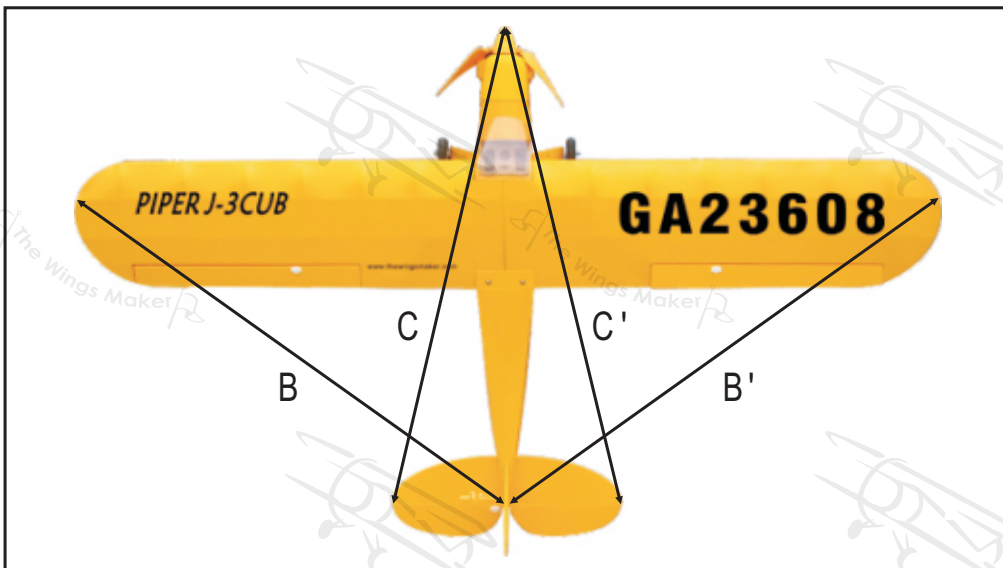
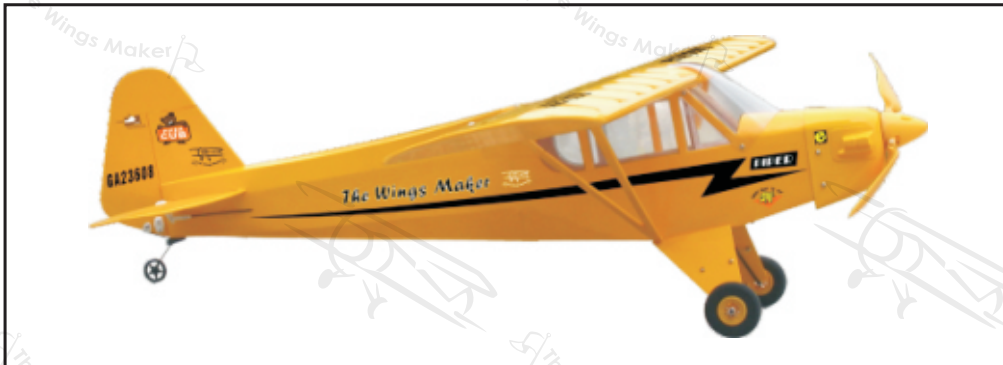
PA2.3x8mm **Screw**

6



15 Wing Setting

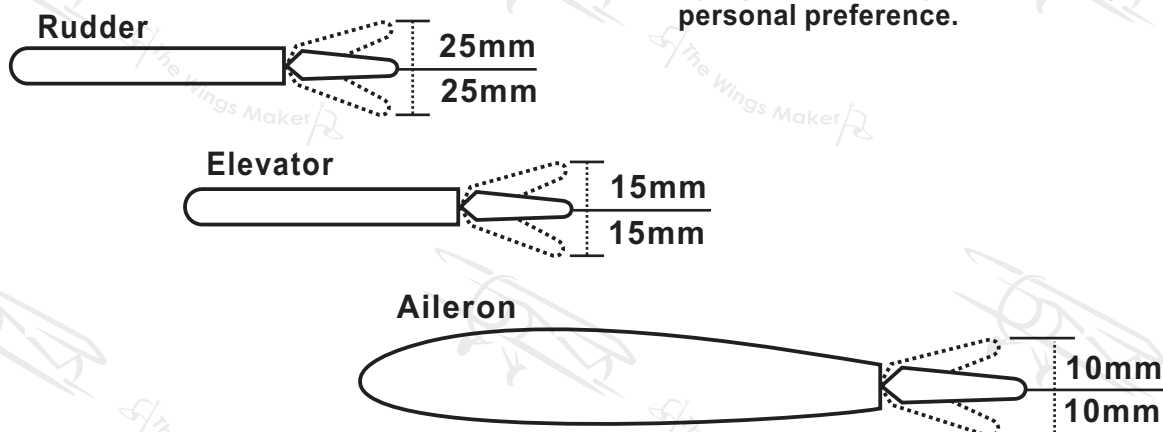
- Adjust the wing and fuselage configuration as shown in the diagrams.



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

16 Control Throws

Adjust the control throws as shown in the diagram. These throws are good for general flying. You can adjust according to your personal preference.



17 C.G.

The ideal C.G. position is 50mm (2.0 in.) behind the leading edge measured at where the wing meets the fuselage. In order to obtain the C.G. specified, add weight to the fuselage or move the battery position. Check the C.G. before flying.



! Warning!

Important Safety Precautions

- #First time flyer should never fly by himself / herself. Assistance from experienced flyer is absolutely necessary.
- #Pre-flight adjustment must be done before flying, it is very dangerous to fly a badly pre-adjusted aircraft.
- #**PIPER J-3 CUB EP** is specially designed to be powered by **Speed 400 geared motor**.
- #Make sure the air field is spacious, never fly the plane too close to people and never get too close to a running propeller.
- #If you find wrinkles on the covering as a result of weather changes, you can use hot iron to remove the wrinkles. Please begin with lower temperature setting and gradually raise the temperature until the wrinkles are gone. Too hot an iron may damage the covering.
- #Check and re-tighten up all factory assembled screws, use thread locker if necessary.

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