Before commencing assembly, please read these instructions thoroughly.

**PIPER J-3 CUB EP**

**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.*
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 :-

- **AB**
  - Apply epoxy glue.

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

- **N.I.**
  - Must be purchased separately!

- **L/R**
  - Assemble left and right sides the same way.

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

- **!**
  - Pay close attention here!

- **Warning!**
  - 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.
   - AI 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 (PL4144015) -- 1 pc.
   - SCREW PWA2x8mm -- 4 pcs
   - WASHER d2xD5mm -- 1 pc.
   - M2 NUT -- 4 pcs
   - 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 (PL4144030) -- 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 PM2×6mm -- 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

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.

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

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

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

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

Bottom View

Completed

PM2x8mm Screw 2
PM2x8mm Screw 1
2.6mm Collar 2
M2 Nut 1
7 Elevator Pushrod

- Pushrod Ø1.4x415mm

8 Rudder Pushrod

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

- Clevis
- Fuel Tube d2xD4x4mm

PM2 x 8mm Screw
To allow for backlash of matching gear, put a piece of thin paper between the gears and then tighten the M2.6 x 7mm screws. Remove the paper before flying.

Don't over-tighten the PM2 screws, let the propeller blades align themselves when spinning.
10 Canopy

PWA2 X 8mm Screw

L/R

11 Radio Equipment

- Rudder Pushrod Ø1.4x420mm
- Elevator Pushrod Ø1.4x415mm
- 15A Speed Controller N.I.
- Battery N.I.
- Double-Sided Tape
- Fuel Tube d2xD4x4mm
- Elevator Servo N.I.
- Battery Tie
- Rudder Servo N.I.
- Straper
- Receiver wrapped up in sponge
12 Main Landing Gear

- **PA2.6x10mm Screw**: 6
- **2.6mm Collar**: 4
- **PM2x6mm Screw**: 4
- **d2xD5mm Washer**: 4
- **M2 NUT**: 4

13 Main Wing

- **PM2.5x25mm Screw**: 2
- **d2.6xD7mm Washer**: 2

14 Wing Struts

- **PA2.3x8mm Screw**: 6
Adjust the wing and fuselage configuration as shown in the diagrams.
**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.

- **Rudder**: 25mm/25mm
- **Elevator**: 15mm/15mm
- **Aileron**: 10mm/10mm

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**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.

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**Important Safety Precautions**

- **Warning!**
  - 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.