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

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.

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. SERVO MOUNTING PANEL (For Aileron) -- 1 pair
   HEAVY DUTY CLEVIS PL412200 -- 4 sets
   SOCKET HEAD SCREW M4x60mm -- 2 pcs
   SCREW PWA2.3x12mm -- 2 pcs
   M4 NYLON INSERT LOCK NUT -- 2 pcs
   HEAVY DUTY SERVO HORNS PL4120300 -- 2 sets
   SWIVEL CLEVIS HORNS FAIRING PL4610010 -- 2 sets
3. SOCKET HEAD SCREW M4x20mm -- 4 pcs
   SOCKET HEAD SCREW M3x20mm -- 8 pcs
   WIRE BRACKET PL5330040Y -- 8 pcs
   MAIN WING STRUTS -- 1 pair
   WING STRUT WIRE Ø4mm -- 2 pcs
   M3 NYLON INSERT LOCK NUT -- 4 pcs
   WASHER Ø4xØ12mm -- 2 pcs
4. FUSELAGE -- 1 pc.
   STABILIZER & ELEVATOR -- 1 set
   SCREW PWM2.5x12mm -- 4 pcs
   STABILIZER WIRE Ø4x200mm -- 2 pcs
5. VERTICAL FIN & RUDDER -- 1 set
6. TAIL GEAR ASSEMBLY (PL3410032) -- 1 set
   COPPER PLATE (For Stays on Tail Fueslage Bottom) 3x12x110mm -- 1 pc.
   SPRING Ø5.2x49mm -- 2 pcs
7. MAIN LANDING GEAR -- 1 set
   SCREW HM4x18mm -- 2 pcs
   SCREW PA4x20mm -- 2 pcs
   WASHER Ø4xØ12mm -- 2 pcs
   WASHER Ø4xØ9mm -- 2 pcs
   MOUNTING PLATE 15x20mm PL414020 -- 6 pcs
   ALUMINUM PLATE 3x15x77mm -- 2 pcs
8. SCREW PA1.7x8mm -- 6 pcs
   SCREW PM3x12mm -- 8 pcs
   WASHER Ø3xØ7mm -- 16 pcs
   M3 NUT -- 8 pcs
   COLLAR Ø6.1mm w/ set screw -- 4 sets
   LARGE SCALE CAPTIVE AIR WHEELS Ø140mm -- 2 sets
   WING BRACKET PL5330060Y -- 8 pcs
9. BLIND NUT M6 -- 4 pcs
   WASHER Ø6xØ15mm -- 4 pcs
   SOCKET HEAD SCREW M6x30mm -- 4 pcs
10. COWLNG -- 1 pc.
    TRANSPARENT 3D TEMPLATE -- 1 pc.
    SCREW PA3x12mm -- 4 pcs
    WASHER Ø3xØ7mm -- 4 pcs
    SILICON GROMMET Ø2.5xØ8.5mm -- 4 pcs
    DUMMY ENGINE COVER -- 1 pair
11. FUEL TANK 1500cc PL12121500G -- 1 set
    CABLE TIE 1.5x8x500mm -- 1 pc.
    DOUBLE-SIDED TAPE 40x180mm -- 1 pc.
12. PUSHROD Ø2.3x215mm w/ Threads (For Elevator) -- 2 pcs
    SOCKET HEAD SCREW M4x40mm -- 2 pcs
    M4 NYLON INSERT LOCK NUT -- 2 pcs
    SWIVEL CLEVIS HORNS FAIRING PL4610010 -- 2 sets
    HEAVY DUTY HORN BRACKETS PL4112400 -- 2 sets
    HEAVY DUTY SERVO HORNS PL4120300 -- 2 sets
    HEAVY DUTY CLEVIS PL4112200 -- 4 sets
13. PUSHROD Ø2.3x170mm w/ Threads (For Rudder) -- 1 pc.
    SOCKET HEAD SCREW M4x60mm -- 1 pc.
    M4 NYLON INSERT LOCK NUT -- 2 pcs
    SWIVEL CLEVIS HORNS FAIRING PL4610010 -- 1 set
    HEAVY DUTY HORN BRACKETS PL4112400 -- 1 set
    HEAVY DUTY SERVO HORNS PL4120300 -- 1 set
    HEAVY DUTY CLEVIS PL4112200 -- 2 set
14. SCREW PM2x18mm -- 12 pcs
    WASHER Ø2xØ5mm -- 24 pcs
    M2 NYLON INSERT LOCK NUT -- 12 pcs
    CLEVIS -- 12 pcs
    WIRE Ø1x4200mm -- 1 pc.
    FLYING WIRE BRACKET -- 12 pcs
    CLIP PIN Ø0.8x23mm -- 6 pcs
    EYE SCREW -- 12 pcs
    COPPER TUBE d2.5xØ3.2x8mm (For Rudder) -- 16 pcs
15. SIDE WINDOWS -- 1 pair
16. LINKAGE CONNECTOR Ø2.1mm w/ set screw -- 1 set
17. PLYWOOD 3x196x304mm (For Fuselage Servos) -- 1 pc.
    PLYWOOD 3x10x160mm (For Fuselage Servo Stand) -- 2 pcs
    BALSA 10x10x288mm (For Fuselage Servo Stand) -- 2 pcs
    SPONGE 10x80x200mm -- 2 pcs
    THROTTLE PUSHWIRE Ø1.8x480mm -- 1 pc.
    PLASTIC TUBE d2.5xØ3.2x300mm -- 1 pc.
18. PILOT PC101110A -- 1 set
    SCREW PWA2x12mm -- 4 pcs
    COCKPIT BASE PANEL 3x196x444mm -- 1 pc.
    WOOD 10x10x443mm (For Cockpit Base Panel) -- 2 pcs
19. WIND SHIELD -- 1 pc.
    M2 NYLON INSERT LOCK NUT -- 2 pcs
    SCREW PM2x14mm -- 2 pcs
    WASHER Ø2xØ5mm -- 4 pcs
    MOUNTING PLATE 5x15mm PL4114015 -- 2 pcs
20. WING TUBE Ø22x976mm -- 2 pcs
    SELF-TIGHTENING LATCHING PIN PL9120010 -- 4 pcs
    WIRE Ø0.8mm -- 2 pair
    M3x8mm SET SCREW -- 4 pcs
    SCREW HM4x15mm -- 2 pcs
    WASHER Ø4xØ12mm -- 2 pcs
    M4 NYLON INSERT LOCK NUT -- 2 pcs
22. DECALS A186RDEC -- 1 set

COVERING:
TOUGHLON STL 331 CUB YELLOW
LIGHTEX SGX 201 BLACK
1. Main Wing

- Aileron Servo Lead

2. Aileron Servo

- M4x60mm Socket Head Screw: 2
- M4 Nylon Insert Lock Nut: 2
- PWA2.3x8mm Screw: 8

- Heavy Duty Horn Bracket
- M2 Nylon Insert Lock Nut
- Heavy Duty Clevis
- Pushrod: ø2.3x129mm
- M4x60mm
- PA1.7x8mm
- PWA2.3x8mm

Bottom View
3 Wing Struts

- PWM2.5x12mm Screw
  - M4x20mm Socket Head Screw: 2
  - M3x20mm Socket Head Screw: 8
  - d4xD12mm Washer: 4
  - d3xD7mm Washer: 12
  - M3 Nylon Insert Lock Nut: 4

4 Stabilizer & Elevator

- PWM2.5x12mm Screw: 2

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

5 Vertical Fin & Rudder

- Remove coverings for all surfaces in contact before applying A/B epoxy glue.
9 Engine

- M6x30 SOCKET HEAD SCREW x 4
- d6xD15mm Washer x 4
- M6 Blind Nut x 4

10 Cowling

- PA3x12mm Screw x 4
- d2.5x8.5mm Silicon Grommet x 4
- d3xD7mm Washer x 16

Please refer to the attached sheet for usage of the transparent 3D template.

First insert the grommet to the cowling then apply screw.

Completed
11 Fuel Tank

- Cable Tie 1.5x8x500mm
- Double-sided Tape 40x160mm
- Fuel Tank 1500cc

12 Elevator Pushrod

- M4x40 SOCKET HEAD SCREW 2
- M4 NYLON INSERT LOCK NUT 2
- M2x8mm Socket Head Screw PL4120300
- M2 Nut
- L/R
- Bottom View

13 Rudder Pushrod

- M4x60 SOCKET HEAD SCREW 1
- M4 NYLON INSERT LOCK NUT 1
- M2x8mm Socket Head Screw PL4120300
- M2 Nut
- Bottom View
14 Flying Wire

- PM2x18mm Screw x12
- M2 NYLON INSERT LOCK NUT x12
- d2xD5mm Washer x24
- M2 NYLON INSERT LOCK NUT

- PM2x18mm
- d2xD5mm Washer
- d2.5xD3.2x8mm

15 Windows

Window A

- Completed

Securely glue the windows to the fuselage.

16 Servo Set

- 3x3mm Set Screw x1
- Linkage Connector x1
- M2 Nut x1
- 2mm Washer x2

Throttle Pushwire

- Washer 2mm
- M2 Nut

Please refer to the attached sheet for linkage connector installation.
17 Radio Equipment

- Install and arrange the servo as shown in the diagram.

18 Pilot

- PWA 2x12mm Screw
  - 4

19 Wind Shield

- M2 NYLON INSERT LOCK NUT
  - 2
- PM 2x14mm Screw
  - 2
- d2 x D5mm Washer
  - 4
20 Main Wing

- **Wing Tube Ø22x976mm**
- Lead to Aileron Servo
- **Set Screw M3 x 8mm**
- **Wire Ø0.8mm**
- **Self Tightening Wing Latch**
- **Set Screw M3x8mm**
- Wing Tube PWA2.3x12mm
- Completed

21 Wing Struts

- **HM4x15mm Screw**
- **d4x D12mm Washer**
- **M4 NYLON INSERT LOCK NUT**
- **HM4x15mm**
- **Washer d4x D12mm**
- **M4 NYLON INSERT LOCK NUT**
Wing Setting

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

A = A'  B = B'  C = C'

A186RPO27761212
23 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: 65mm x 65mm
- Elevator: 50mm x 50mm
- Aileron: 40mm x 40mm

24 C.G.

The ideal C.G. position is 150mm (5.9in.) 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.

If you are converting this model to electric, please move the C.G. forward 10% of current C.G. distance from leading edge to compensate for weight of fuel.

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.
# 1/3 PIPER J-3 CUB is specially designed to be powered by 80c.c. engine, using a more powerful engine does not mean better performance. In fact, over powered engine may cause structural damage and injuries.
# 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. Don't use hot iron near the seams or edges, hot iron will melt the glue and shrink the covering at the same time, causing the seams to pull away.
# Check and re-tighten up all factory assembled screws, use thread locker if necessary.
Product Registration Form (US Customers)

We would like to share with you any relevant information regarding your model, including product news and free upgrade parts when applicable. Please fill in the following and send to AirBorne Models, 4749-K, Bennett Drive, Livermore, CA 94551 USA.

1. Name: ________________________________________________
2. Address: ______________________________________________
3. Phone #:____________________ E-mail:__________________
4. Model:______________________________________________
   Wing QC#__________ Fuselage QC# _______________________
   (QC numbers are stamped on wing and fuselage)
5. Date of Purchase:_____________________________________
6. Store Name: _________________________________________

Please call AirBorne Models at 925 371 0922 for any assistance in filling this form. Thank you very much for purchasing our product.
Usage of the transparent 3D template

This transparent 3D template is used for position guidance of the actual cutting of the pre-painted cowling.

Simply cut the transparent 3D template to fit your engine and exhaust pipe, then slide onto the actual cowling and use as template to mark the openings required for final cutting.