PAULISTINHA P-56

Requires:  0.40-0.46 cu. in. displacement 2-stroke
          0.52-0.56 cu. in. displacement 4-stroke
          4 - channel radio w/ 5 standard servos

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Span</td>
<td>71.0 in / 1800 mm</td>
</tr>
<tr>
<td>Wing Area</td>
<td>698 sq in / 45.0 sq dm</td>
</tr>
<tr>
<td>Flying Weight</td>
<td>5.5 lbs / 2500 g</td>
</tr>
<tr>
<td>Fuselage Length</td>
<td>47.0 in / 1200 mm</td>
</tr>
</tbody>
</table>

* Specifications are subject to change without notice.*

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.

The World Models Manufacturing Co., Ltd.
www.theworldmodels.com

A321PO26781107
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!**
- **Warning! Do not overlook this symbol!**
### Parts List

1. **MAIN WING** -- 1 pair
   - SCREW PWA2x8mm -- 8 pcs
   - PLYWOOD 2x52x80mm (For Aileron Servo) -- 1 pair
   - Balsa 8x18x21mm (For Aileron Servo) -- 4 pcs

2. **SCREW PB2x18mm** -- 6 pcs
   - FUEL TUBE Ø6x5mm -- 4 pcs
   - CLEVIS PL4112103 -- 2 pcs
   - STRAPERP PL4112102 -- 2 pcs
   - TRI-HORN M3x14mm (S) -- 2 sets
   - PUSHROD Ø1.8x100mm w/ Threads (For Aileron) -- 2 pcs

3. **SOCKET HEAD SCREW M3x18mm** -- 4 pcs
   - SCREW PWA2x8mm -- 4 pcs
   - SCREW PM2x12mm -- 4 pcs
   - M2 NUT -- 4 pcs
   - COPPER CLIPPER 0.5x8x10mm -- 8 pcs
   - WASHER d2x8mm -- 8 pcs
   - MAIN WING STRUTS -- 1 pair
   - WING STRUT WIRE Ø1.8x104mm -- 2 pcs

4. **FUSELAGE** -- 1 pc.
   - TAIL LANDING GEAR -- 1 set
   - TAIL WING Ø25mm -- 1 pc.
   - SCREW PWA2x8mm -- 4 pcs
   - SCREW PB2x12mm -- 9 pcs
   - FUEL TUBE Ø6x5mm -- 3 pcs
   - CLEAR PL4112103 -- 3 pcs
   - TRI-HORN M3x14mm (S) -- 3 sets
   - PUSHROD Ø1.8x735mm w/ Threads (For Rudder) -- 1 pc.
   - PUSHROD Ø1.8x640mm w/ Threads (For Elevator) -- 2 pcs

5. **SOCKET HEAD SCREW M3x25mm** -- 4 pcs
   - WASHER d3xD7mm -- 8 pcs
   - M3 NUT -- 8 pcs
   - WASHER d3xD7mm -- 2 pcs
   - THROTTLE PUSH WIRE Ø1.2x340mm -- 1 pc.
   - PLASTIC TUBE 2x3x250mm -- 1 pc.

6. **ENGINE MOUNT PL5111050** -- 1 set
   - SOCKET HEAD SCREW M4x26mm -- 4 pcs
   - WASHER d4.5xD9mm -- 4 pcs
   - M4 NUT -- 4 pcs
   - PLASTIC PLATE 0.5mm -- 1 mm

7. **LINKAGE CONNECTOR Ø2.1mm HW7111060** -- 1 set
   - PUSHROD Ø1.8x115mm (For Elevator) -- 1 pc.
   - PUSHROD CONNECTOR PL4410010 -- 1 set
   - SPONGE 60x70x105mm -- 1 pc.
   - Balsa 6x8x108mm (For Fuselage Servos Stand) -- 2 pcs
   - STRAPERP PL4112102 -- 2 pcs
   - FUEL TUBE Ø6x5mm -- 2 pcs

8. **BALSA 3x45x112mm (For Pilot)** -- 1 pc.
   - BALSA 6x8x45mm (For Pilot Stand) -- 2 pcs
   - SCREW PWA2x8mm -- 4 pcs
   - SCREW PB2x12mm -- 9 pcs
   - FUEL TUBE Ø6x5mm -- 3 pcs
   - CLEAR PL4112103 -- 3 pcs
   - M3 NYLON INSERT LOCK NUT -- 2 pcs

9. **ALUMINUM PLATE 2mm -- 2 pcs
   - SCREW PWA2x8mm -- 4 pcs
   - SCREW PB2x12mm -- 9 pcs
   - FUEL TUBE Ø6x5mm -- 3 pcs
   - CLEAR PL4112103 -- 3 pcs
   - PLASTIC TUBE 2x3x250mm -- 1 pc.

10. **CABLE TIE (For Fuel Tank)** 1.5x5x400mm -- 1 pc.
    - DOUBLE-SIDED TAPE 40x100mm -- 1 pc.

11. **SOCKET HEAD SCREW M3x16mm** -- 2 pcs
    - SCREW PA3x8mm -- 6 pcs
    - WASHER d3xD7mm -- 2 pcs
    - M3 NUT -- 2 pcs
    - ALUMINUM PLATE 2mm -- 2 pcs

12. **SCREW PA1.7x8mm** -- 6 pcs
    - MAIN WHEEL PL3112080 -- 2 sets
    - COLAR Ø3.3mm w/ set screw -- 4 sets
    - SCREW PM2x8mm -- 6 pcs
    - WASHER d2x5mm -- 6 pcs
    - M2 NUT -- 6 pcs
    - COPPER PLATE 0.5mm -- 6 pcs
    - BALSA 2x102x113mm (Main Landing Gear Cover) -- 2 pcs

13. **SCREW PWA2.3x8mm** -- 4 pcs
    - WIND SHIELD -- 1 pc.
    - SILICON GROMMET d1.5x6.5mm -- 4 pcs
    - SIDE WINDOWS -- 1 pair

14. **COWLING** -- 1 pc.
    - TRANSPARENT DUMMY COWLING -- 1 pc.
    - SCREW PWA2.6x12mm -- 4 pcs
    - SILICON GROMMET d1.5x6.5mm -- 4 pcs

15. **STABILIZER & ELEVATOR** -- 1 set
    - SCREW PA3x12mm -- 2 pcs
    - TAIL LANDING GEAR WIRE Ø1.8x110mm -- 2 pcs
    - TAIL LANDING GEAR WIRE Ø1.8x110mm -- 2 pcs
    - WASHER d2xD5mm -- 6 pcs
    - M2 NUT -- 6 pcs
    - COPPER PLATE 0.5mm -- 6 pcs
    - BALSA 2x102x113mm (Main Landing Gear Cover) -- 2 pcs

16. **LINKAGE CONNECTOR Ø2.1mm HW7111060** -- 1 set
    - PUSHROD Ø1.8x115mm (For Elevator) -- 1 pc.
    - PUSHROD CONNECTOR PL4410010 -- 1 set
    - SPONGE 60x70x105mm -- 1 pc.
    - Balsa 6x8x108mm (For Fuselage Servos Stand) -- 2 pcs
    - STRAPERP PL4112102 -- 2 pcs
    - FUEL TUBE Ø6x5mm -- 2 pcs

17. **SCREW PB2x12mm -- 9 pcs
    - FUEL TUBE Ø6x5mm -- 3 pcs
    - CLEAR PL4112103 -- 3 pcs
    - TRI-HORN M3x14mm (S) -- 3 sets
    - PUSHROD Ø1.8x735mm w/ Threads (For Rudder) -- 1 pc.
    - PUSHROD Ø1.8x640mm w/ Threads (For Elevator) -- 2 pcs

18. **BALSA 3x45x112mm (For Pilot)** -- 1 pc.
    - Balsa 6x8x45mm (For Pilot Stand) -- 2 pcs
    - SCREW PWA2x8mm -- 4 pcs
    - SCREW PB2x12mm -- 9 pcs
    - COPPER PLATE 0.5mm -- 6 pcs
    - MAIN WING STRUTS -- 1 pair
    - WING STRUT WIRE Ø1.8x104mm -- 2 pcs

19. **SOCKET HEAD SCREW M4x30mm** -- 2 pcs
    - WASHER d4xD15mm -- 2 pcs
    - SOCKET HEAD SCREW M3x10mm -- 2 pcs
    - M3 NYLON INSERT LOCK NUT -- 2 pcs

20. **DECALS A321DEC** -- 1 set

### COVERING:

- LIGHTEX SGX 310 RED
- TOUGHLON STL 204 CREAM
1 Main Wing

- Aileron Servo Lead

Bottom View

2 Aileron Servo

- PWA2x8mm Screw
- Plywood 2x52x80mm
- Balsa 8x18x21mm

Bottom View

3 Aileron Servo

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

Bottom View

A321PO26781107 P.3
4 Main Wing

Join the wing halves by using the aluminium tube supplied. Strengthen both holes for the screws with a piece of plywood.

5 Wing Struts

M3x18mm Socket Head Screw 4
PM2x12mm Screw 4
PWA2x8mm Screw 4
D2xD5mm Washer 8
M2 Nut 4

Bottom View

L/R

6 Vertical Fin / Horizontal Stabilizer

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

Make sure vertical fin and stabilizer are at right angles.
Lead the 1.2mm throttle rod through the plastic tube and attach the throttle rod to the throttle lever on the engine.
10 Fuel Tank

- Cable Tie (For Fuel Tank) 1.5x5x400mm
- Double-sided Tape 40x100mm

1. Cable Tie (For Fuel Tank) 1.5x5x400mm
   - Double-sided Tape 40x100mm
   - Completed

11 Main Landing Gear

- M3x16mm Socket Head Screw: 2
- PA3x8mm Screw: 6
- d3xD7mm Washer: 2
- M3 NUT: 2
- Aluminum Plate 2mm
- M3 NUT
- d3xD7mm 2mm
- PA3x8mm
12 Main Landing Gear

- Securely glue the windows to the fuselage.
- Please refer to the attached sheet for usage of the transparent 3D template.
- First insert the grommet to the cowling then apply screw.

13 Canopy

- Securely glue the windows to the fuselage.

14 Cowling

- Trim the cowling for the engine head to project.
15 Servo Set

- 3x3mm Set Screw: 1
- Linkage Connector: 1
- M2 Nut: 1
- 2mm Washer: 2

Please refer to the attached sheet for linkage connector installation.

16 Radio Equipment

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

17 Rudder & Elevator Pushrod

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

Set the pushrods as shown in the diagram.
18 Cockpit

PWA2x8mm Screw 4

HM4x30mm
Socket Head Screw 2

d4xD15mm Washer 2

HM3x10mm
Socket Head Screw 2

Balsa 3x45x112mm

M3 Nylon Insert Lock Nut 2

19 Main Wing / Wing Struts

HM4x30mm
Socket Head Screw 2

M3 Nylon Insert Lock Nut 2

d4xD15mm Washer 2

HM3x10mm
Socket Head Screw 2

Balsa 6x8x45mm

PC001063B

1.5mm
Securely attach the main wing

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

The ideal C.G. position is 70mm (2.76 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.

# PAULISTINHA P-56 is specially designed to be powered by 2C 0.40-0.46 or 4C 0.52-0.56 engine, using a more powerful engine does not mean better performance. In fact, over powered engine may cause severe 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.
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.
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.

Drill 2mm hole at servo horn.

Insert linkage connector into servo horn.

Make sure shoulder of screw is cleared from servo horn.
Add washer to reduce play if necessary.

Shoulder

Tighten up the round nut against the shoulder. Apply CA or permanent thread locker.

After fastening the round nut, make sure that the linkage connector can rotate freely.
Optional Parts
(ACCESSORIES)

180mm Extension

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
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</thead>
<tbody>
<tr>
<td>KW0011800</td>
<td>180mm</td>
<td>1 set</td>
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180mm Y-Cord

<table>
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<tr>
<td>KW0021800</td>
<td>180mm</td>
<td>1 pc</td>
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Fuel Filter

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<tbody>
<tr>
<td>PL8110030</td>
<td>15 x 22 x 49mm</td>
<td>1 x 1 pc</td>
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Clevis Wrench

<table>
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<tr>
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<tr>
<td>PL8210010</td>
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<td>1 set</td>
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Charge Receptacles

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<td>KP0041300</td>
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Field Stand

<table>
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<tr>
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<tbody>
<tr>
<td>MS9111450</td>
<td>600 x 240 x 350mm</td>
<td>1 pc</td>
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Special tool for clevis installation. Suitable for standard and small (EP)clevis.

Standard Servo

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
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<tr>
<td>SV4031</td>
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Speed : 0.17 sec / 60° @4.8V
0.14 sec / 60° @6.0V
Torque : 3.2kg.cm / 44.8 oz - in @4.8V
4.1kg.cm / 57.4 oz - in @6.0V
Size : 40.6 x 20 x 37mm /
1.60 x 0.79 x 1.46 in
Weight : 39.4 g / 1.39 oz
Ducted Fan  Pattern

Warbirds  Funfly

Scale  Electric

Sports  Glider

Trainer  Boat

Accessories

Covering
(Lightex / Toughlon)