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.
PAULISTINHA P-56 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!
- Warning! Do not overlook this symbol!
Parts List

1. MAIN WING -- 1 pair

2. MICRO AILERON SERVO MOUNT (For Aileron) PL5310020 -- 1 pair
   CLEVIS PL4112105 -- 2 pcs
   STRAPER PL4112106 -- 2 pcs
   FUEL TUBE d2xD4x4mm -- 4 pcs
   SCREW PB2x14mm -- 4 pcs
   SCREW PA1.7x8mm -- 8 pcs
   PUSHROD Ø1.4x69mm w/ Threads (For Aileron) -- 2 pcs
   HORN PL4113102 -- 2 sets
   WING JOINER 5x13x82mm -- 1 pc.

3. STABILIZER & ELEVATOR -- 1 set
   FUSELAGE -- 1 pc.
   ELEVATOR LINK PL4510010 -- 1 set
   SCREW PB2x8mm -- 2 pcs
   BALSA 3.5x6x7.5mm -- 1 pc.

4. VERTICAL FIN & RUDDER -- 1 set

5. TAIL LANDING GEAR PL3410030 -- 1 set
   TAIL WHEEL Ø23mm -- 1 pc.
   PLASTIC COLLAR Ø1.1mm w/ set screw -- 2 pcs
   SCREW PA2x8mm -- 2 pcs
   SCREW PM2x8mm -- 1 pc.
   M2 NUT -- 1 pc.
   ALUMINUM PLATE 0.3mm -- 1 pc.

6. SCREW PB2x8mm -- 2 pcs
   CLEVIS PL4112105 -- 1 pc.
   FUEL TUBE d2xD4x4mm -- 1 pc.
   HORN PL4113102 -- 1 set
   PUSHROD Ø1.4x413mm w/ Threads (For Rudder) -- 1 pc.

7. CLEVIS PL4112105 -- 1 pc.
   FUEL TUBE d2xD4x4mm -- 1 pc.
   PUSHROD Ø1.4x403mm w/ Threads (For Elevator) -- 1 pc.

8. SOCKET HEAD SCREW M3x6mm -- 4 pcs
   WASHER d3xD7mm -- 4 pcs
   SPINNER Ø28mm -- 1 set
   9x6 FOLDING PROPELLER SET PL6313031 -- 2 pcs
   COWLING -- 1 pc.
   SCREW PW2A2x8mm -- 4 pcs

9. WINDOWS -- 1 set
   SCREW PW2A2x8mm -- 4 pcs

10. SPONGE 10x50x150mm -- 2 pcs
    DOUBLE-SIDED TAPE 30x35mm -- 1 pc.
    FUEL TUBE d2xD4x4mm -- 2 pcs
    BATTERY TIE 200mm-- 1 pc.
    STRAPER PL4112106 -- 2 pcs

11. MAIN LANDING GEAR Ø2.5mm -- 1 set
    MAIN WHEEL Ø50mm -- 2 pcs
    LANDING WIRE STRAPS PL4114030 -- 3 pcs
    PVC PLATE 32x6mm (For Main Landing Gear) -- 2 pcs
    BALSA 2x73x80mm (Main Landing Gear Cover) -- 2 pcs
    SCREW PA2.6x10mm -- 6 pcs
    COLLAR Ø2.6mm w/ Set Screw -- 4 sets
    SCREW PM2x6mm -- 4 pcs
    WASHER d2x05mm -- 5 pcs
    M2 NUT -- 4 pcs
    TRANSPARENT DECALS 20x70mm -- 4 pcs
    SCREW PM2x10mm -- 1 pc.
    M2 NYLON INSERT LOCK NUT -- 1 pc.
    MOUNTING PLATE PL4114015 -- 1 pc.
    PLYWOOD 2x60.7x62.7mm -- 1 pc.

12. SCREW PM2.5x25mm -- 2 pcs
    WASHER d2.5xD8mm -- 2 pcs
    WING PROTECTION PLATE 6x25x82mm -- 1 pc.

13. SCREW PA2.3x8mm -- 6 pcs
    WING STRUTS -- 1 pair

14. DECALS: E326DEC -- 1 set

COVERING:
LIGHTEX SGX 201 BLACK
LIGHTEX SGX 310 RED
LIGHTEX SGX 204 CREAM

E326PO28761301 P.2
1 Main Wing

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

2 Aileron Servos

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

- 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.

- Please choose either (02L&02R) or (03L&03R) or (04L&04R) that suits your servo.
3 Stabilizer & Elevator

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

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

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

4 Vertical Fin & Rudder

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

- Remove coverings for all surfaces in contact before applying A/B epoxy glue.
5 Tail Landing Gear

- PA2x8mm Screw: 2
- PM2x8mm Screw: 1
- M2 Nut: 1

Bottom View

6 Rudder Pushrod

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

- PB2x8mm Screw: 2

Bottom View

7 Elevator Pushrod

Bottom View
Outrunner Motor / Cowling

- Make sure rotating motor casing is not in contact with wirings or anything.
- Don't over-tighten the PM2 screws, let the propeller blades align themselves when spinning.
- Don't over-tighten the M3 screws, too much stress on the screws could split the firewall.

Optional Parts:
- Outrunner Motor 28/30 KM0283011
- Propeller Adaptor (d3xD5) HW2340100
- Propeller Adaptor Wrench TWM HW3111400

Completed
9 Windows

- Securely glue the windows to the fuselage.

10 Radio Equipment

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

---

- Elevator Servo
- Rudder Servo
- Elevator Pushrod
- Rudder Pushrod
- Battery Tie
- Battery
- Sponge
- Receiver
- Straper
- Fuel Tube d2xD4x4mm
- Brushless ESC
- Double Sided Tape
- PWA2x8mm Screw
- Sponge
11 Main Landing Gear

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM2x10mm Screw</td>
<td>1</td>
</tr>
<tr>
<td>PM2x6mm Screw</td>
<td>4</td>
</tr>
<tr>
<td>PA2.6x10mm Screw</td>
<td>6</td>
</tr>
<tr>
<td>M2 Nut</td>
<td>4</td>
</tr>
<tr>
<td>d2x05mm Washer</td>
<td></td>
</tr>
<tr>
<td>D2.6mm Collar</td>
<td>5</td>
</tr>
<tr>
<td>M2 Nylon Insert Lock Nut</td>
<td>1</td>
</tr>
</tbody>
</table>

12 Main Wing

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM2.5x25mm Screw</td>
<td>2</td>
</tr>
<tr>
<td>d2.5xD8mm Washer</td>
<td>2</td>
</tr>
</tbody>
</table>

13 Wing Struts

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA2.3x8mm Screw</td>
<td>6</td>
</tr>
</tbody>
</table>
14 Wing Setting

- Adjust the wing and fuselage configuration as shown in the diagrams.
**15 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

---

**16 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.

- **C.G.**: 50 mm 2.0 in.

---

**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 EP** is specially designed to be powered by KM0283011 Outrunner 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. Extreme caution should be exercised when working with electric powered models. Make sure the propeller is cleared of all objects, especially your hands before connecting the battery to the model. Make sure you understand the operation of the ESC (Electronic Speed Control) by studying the ESC manual. Once you plug in the battery for electric powered model, always treat the propeller as a rotating one, as accidental movement of the throttle stick will spin the propeller and could cause injuries.
- # 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.

### Optional Parts

**ACCESSORIES**

<table>
<thead>
<tr>
<th>Item</th>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - Pin EZ Connector</td>
<td>KP0011310</td>
<td>40A Max. Current</td>
<td>1 set</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ideal for electric models</td>
<td></td>
</tr>
<tr>
<td>Clevis Wrench</td>
<td>PIB210010</td>
<td>1 set</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Special tool for clevis installation. Suitable for standard and small (EP) clevis.</td>
<td></td>
</tr>
<tr>
<td>Brushless ESC</td>
<td>KC2025A02A</td>
<td>24x45x11mm</td>
<td>1 pc</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Voltage Range: 5.6 ~ 16.8V</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Current: 25A continuous</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Current (Burst, &gt;10 seconds): 35A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Weight: 24 g (with wires and connector)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- BEC: 5V / 2A</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Low Voltage Cut-off : /</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Light weight with low internal resistance for high current operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- BEC function for Li-ion / Li-poly</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 ~ 4 cells; Nimh / Nicd 5 ~ 12 cells operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Low battery voltage auto cut off to reserve power to the servos</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Safe start up motor</td>
<td></td>
</tr>
<tr>
<td>Outrunner 28/ 30</td>
<td>KM0283011</td>
<td>1 pc</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Max speed: 12000 rpm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Kv (rpm/V): 1015</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Operating Power: 180W</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Operating Voltage: 6-12V</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Operating Current: 15A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Peak Current: 20A (max. 15 sec.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Internal Resistance: 95 m ohms</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Diameter: 28mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Length: 30mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Weight: 60g</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Shaft Diameter: 3mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Shaft Length: 14.8 mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Mounting Screw: M3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Distance of Mounting Holes: Front (16mm and 19mm)</td>
<td></td>
</tr>
<tr>
<td>Propeller Adaptor Wrench</td>
<td>HW3111400</td>
<td>1 pc</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propeller Adaptor Wrench</td>
<td>HW3111400</td>
<td>1 pc</td>
<td></td>
</tr>
</tbody>
</table>
Ducted Fan

Pattern

Warbirds

Funfly

Scale

Electric

Sports

Glider

Trainer

Boat

Accessories

Covering

{Lightex / Toughlon}