P-51 MUSTANG EP (40)

450W Motor System

Requires: 5-channel radio w/ 5 mini servos, Outrunner Motor KM0374810, w/ Propeller Adaptor HW2340300, 40A Brushless ESC with 11x8E propeller, 4 cells 14.8V 3200 mAh Li - Po battery & charger.

<table>
<thead>
<tr>
<th>Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Span</td>
<td>49 in / 1250 mm</td>
</tr>
<tr>
<td>Wing Area</td>
<td>434 sq in / 28 sq dm</td>
</tr>
<tr>
<td>Flying Weight</td>
<td>3.6 lb / 1650 g</td>
</tr>
<tr>
<td>Fuselage Length</td>
<td>43 in / 1090 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

FACTORY PRE-FABRICATED
ALMOST-READY-TO-FLY(ARF)SERIES
MADE IN CHINA

E287XMP017530807
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.
- **L**: Ensure smooth non-binding movement while assembling.
- **N/A**: Drill holes with the specified diameter (here: 3mm).
- **L**: Cut off shaded portion.
- **N/A**: Pierce the shaded portion covering film.
- **L**: Pay close attention here!
- **N/A**: Warning! Do not overlook this symbol!
### Parts List

1. **MAIN WING** -- 1 pair
2. **RETRACT GEAR COVER** -- 1 pair
3. **WING JOINER 6x16x126** -- 1 pc.
4. **LINKAGE CONNECTOR Ø2.1mm w/ set screw** -- 2 sets
5. **SCREW PA1.7x8mm** -- 8 pcs
   **SCREW PB2x12mm** -- 4 pcs
6. **STABILIZER & ELEVATOR** -- 1 set
7. **VERTICAL FIN & RUDDER** -- 1 set
8. **TAIL LANDING GEAR** -- 1 set
   **TAIL WHEEL Ø23mm** -- 1 pc.
   **SCREW PA2.6x12mm** -- 2 pcs
   **SCREW PM2x10mm** -- 1 pc.
   **M2 NUT** -- 1 pc.
   **COLLAR Ø1.7mm w/ set screw** -- 1 set
   **STEERING BRACKET 0.3x8x22mm** -- 1 pc.
9. **HORN** -- 2 sets
   **CLEVIS** -- 2 pcs
   **FUEL TUBE d2xD4x4mm** -- 2 pcs
   **SCREW PB2x10mm** -- 4 pcs
   **PUSHROD Ø1.4x452mm w/ Threads (For Elevator)** -- 2 pcs
10. **HORN** -- 1 set
    **CLEVIS** -- 1 pc.
    **FUEL TUBE d2xD4x4mm** -- 1 pc.
    **SCREW PB2x10mm** -- 2 pcs
    **PUSHROD Ø1.4x558mm w/ Threads (For Rudder)** -- 1 pc.
11. **SOCKET HEAD SCREW M3x12mm** -- 4 pcs
    **WASHER d3xD7mm** -- 4 pcs
    **COWLING** -- 1 pc.
    **SPINNER Ø78mm** -- 1 set
    **SCREW PWA2.3x8mm** -- 4 pcs
12. **STRAPER** -- 2 pcs
    **FUEL TUBE d2xD4x4mm** -- 2 pcs
    **SPONGE 10x50x150mm** -- 1 pc.
    **DOUBLE-SIDED TAPE 30x35mm** -- 1 pc.
    **PUSHROD Ø1.4x65mm (For Elevator)** -- 1 pc.
    **PUSHROD CONNECTOR PL4410020** -- 1 set
13. **AIR SCOOP** -- 1 pc.
    **SCREW PM2.5x25mm** -- 2 pcs
    **SCREW PWA2x8mm** -- 1 pcs
    **WASHER d2.5xD8mm** -- 2 pcs
    **PVC PLATE 1x16x62mm (Wing Protection)** -- 1 pc.
14. **PILOT** -- 1 pc.
    **CANOPY** -- 1 pc.
    **SCREW PWA2x8mm** -- 4 pcs
15. **DECALS:**
    **E287XMDEC** -- 2 pcs
    **COVERING:**
    **LIGHTEX SGX 100 WHITE**
    **LIGHTEX SGX 201 BLACK**
    **LIGHTEX SGX 312 BRIGHT RED**
    **LIGHTEX SGX 331 CUB YELLOW**
    **LIGHTEX SGX 340 OLIVE DRAB**
    **LIGHTEX SGX 570 BRIGHT SILVER**
1 Main Wing

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

2 Retractable Landing Gear

- 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.

3 Main Wing

- Completed
4 Retract Servo

Please refer to attached sheet for linkage connector installation.

5 Aileron Servo

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

PA1.7x8mm Screw 8
PB2x 12mm Screw 4

PA1.7x8mm Screw

Completed
Bottom View
6 Stabilizer & Elevator

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

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

7 Vertical Fin & Rudder

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

Completed
8 Tail Landing Gear

- PA2.6x12mm Screw 2
- PM2x10mm Screw 1
- M2 Nut 1
- 1.7mm Collar 1

Bottom View

9 Elevator Pushrod

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

Bottom View

10 Rudder Pushrod

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

Bottom View
**Outrunner Motor / Cowling / Spinner**

- Make sure the rotating motor casing is not in contact with wirings or anything.

Optional Parts:
- Completed
  - PWA2.3x8mm Screw
  - Cowling
    - Ø78mm
  - Spinner
    - Ø78mm
  - PWA2.3x8mm Screw

- Motor Mount
  - PL5404000
- Outrunner 37/48 Deluxe
  - KM0374810
- Radial Mount Adaptor Set
  - HW2340300
- Propeller Set (11x8E)
  - PL6211108

- M3x12mm Socket Head Screw
- M2.5x12mm Washer
- M3x8mm Washer
- M2.5x12mm Washer
- d3xD7mm Washer
- d3xD7mm Washer
- 40A Brushless ESC

Completed
Install and arrange the servo as shown in the diagram.
13 Main Wing

PM2.5x25mm Screw
2
d2.5xD8mm Washer
2
PWA2x8mm Screw
1

PVC Plate
1x16x62mm

Air Scoop

PWA2x8mm

Bottom View

14 Canopy

PWA2x8mm Screw
4

Pilot

PWA2x8mm

Completed

L/R
15 Wing Setting

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

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

P.10
### 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**: 15 mm, 15 mm
- **Elevator**: 10 mm, 10 mm
- **Aileron**: 6 mm, 6 mm

### C.G.

The ideal C.G. position is **105 mm (4.13 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.
- **MUSTANG EP (40)** is specially designed to be powered by **450W Motor System**.
- 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.
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.
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.

1. 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.

2. 

3. 

4. 

E287XMPO17530807
Ducted Fan  
Warbirds  
Scale  
Sports  
Trainer  
Boat  
Pattern  
Funfly  
Electric  
Glider  
Accessories  
Covering  
(Lightex / Toughlon)