Before commencing assembly, please read these instructions thoroughly.

**SPITFIRE EP**

Specifications

Wing Span: 39.5 in / 1000 mm
Wing Area: 257 sq in / 16.6 sq dm
Flying Weight: 26 oz / 740 g
Fuselage Length: 32.5 in / 830 mm
Requires: 4- channel radio w/ 4 micro servos, 15A speed controller and 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.*

THE WINGS MAKER
FACTORY PRE-FABRICATED
ALMOST-READY-TO-FLY (ARF) SERIES
MADE IN CHINA
www.thewingsmaker.com
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.
- **CA**: Apply instant glue (C.A. glue, super glue.)
- **L/R**: Assemble left and right sides the same way.
- **Peel off shaded portion covering film.**
- **Drill holes with the specified diameter (here: 3mm)**
- **Pay close attention here!**
- **Pierce the shaded portion covering film.**
- **Ensure smooth non-binding movement while assembling.**
- **Cut off shaded portion.**
- **Must be purchased separately!**
- **Warning!** Do not overlook this symbol!
Parts List

1. MAIN WING -- 1 pair

2. CLEVIS -- 2 pcs
   STRAPER -- 2 pcs
   FUEL TUBE d2xD4x4mm -- 4 pcs
   HORN(S) -- 2 sets
   SCREW PM2x16mm -- 4 pcs
   PUSHROD Ø1.4x95mm
   w/ Threads(For Aileron) -- 2 pcs

3. FUSELAGE -- 1 pc.
   STABILIZER & ELEVATOR -- 1 set
   ELEVATOR LINK PL4510010 -- 1 pc.
   SCREW PM2x8mm--2 pcs

4. VERTICAL FIN & RUDDER -- 1 set

5. TAIL LANDING GEAR -- 1 set
   TAIL WHEEL Ø23mm -- 1 pc.
   SCREW PA2x8mm -- 2 pcs
   ALUMINUM PLATE 0.3mm--1 pc.
   SCREW PM2x6mm--1 pc.
   M2 NUT--1 pc.

6. HORN(S) -- 1 set
   FUEL TUBE d2xD4x4mm -- 1 pc.
   CLEVIS -- 1 pc.
   SCREW PM2x8mm -- 2 pcs
   PUSHROD Ø1.4x430mm
   w/ Threads(For Rudder) -- 1 pc.

7. FUEL TUBE d2xD4x4mm -- 1 pc.
   PUSHROD Ø1.4x423mm
   w/ Threads(For Elevator) -- 1 pc.
   CLEVIS -- 1 pc.

8. SPEED 400 MOTOR -- 1 set
   400 GEARBOX -- 1 set
   FOLDING PROPELLER -- 1 set
   COWLING -- 1 pc.
   SPINNER Ø45mm -- 1 pc.
   SCREW PWA2x8mm -- 4 pcs

9. STRAPER -- 2 pcs
   FUEL TUBE d2xD4x4mm -- 2 pcs
   SPONGE 10x50x150mm -- 1 pc.
   BATTERY TIE -- 1 pc.
   DOUBLE-SIDED TAPE -- 1 pc.

10. PLYWOOD 2x20x55mm -- 1 pc.
    NYLON BOLT M2.5x20mm -- 2 pcs
    NYLON WASHER d.6xD9mm -- 2 pcs

11. MAIN LANDING GEAR -- 1 pc.
    MAIN WHEEL Ø40mm -- 2 pcs
    MOUNTING PLATE PL4114030
    (For Main Landing Gear) -- 2 pcs
    SCREW PA2.3x12mm -- 4 pcs
    COLLAR Ø2.6mm w/ Set Screw -- 2 pcs

12. CANOPY -- 1 pc.
    SCREW PWA2x8mm -- 4 pcs
    PILOT -- 1 pc.

13. DECALS -- 1 set

● COVERING:
   LIGHTEX SGX203 LIGHT GRAY
   LIGHTEX SGX340 OLIVE DRAB
1. **Main Wing**

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

2. **Aileron Servos**

- PM2x16mm Screw
- Ø1mm pilot holes for The Wings Maker horn are pre-drilled.
- Please look for pin-hole marks at under side of control surfaces.
3 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.
- *Also refer to step 13 Wing Setting

4 Vertical Fin & Rudder

- Ø1mm pilot holes for The Wings Maker tri-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.

P.4
5 Tail Landing Gear

PA2x8mm Screw
PM2x6mm Screw
2.6mm Collar
M2mm Nut

6 Rudder Pushrod

PM2 x 8mm Screw

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

7 Elevator Pushrod

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P.5
8 Motor / Cowling

- TO ALLOW FOR BACKLASH OF MATCHING GEAR, PUT A PIECE OF THIN PAPER BETWEEN THE GEARS AND THEN TIGHTEN THE M2.6x7mm SCREWS. REMOVE THE PAPER BEFORE FLYING.

9 Radio Equipment

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

- Bottom View
10 Main Wing

- M2.5x20mm Nylon Bolt: 2
- d2.6x D9mm Nylon Washer: 2

- Plywood 2x20x55mm

11 Main Landing Gear

- PA2.3x12mm Screw: 4
- 2.6mm Collar: 2

- 2.6mm Collar
- 3mm Set Screw

12 Canopy

- PWA2 x 8mm Screw: 4

- PWA2 x 8mm
- 1mm
Adjust the wing and fuselage configuration as shown in the diagrams.
14 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

- 20mm
- 20mm

Elevator

- 10mm
- 10mm

Aileron

- 8mm
- 8mm

15 C.G.

The ideal C.G. position is 60mm (2.36 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.

- 60mm
- 2.36 in.

1 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.

# SPITFIRE 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 applicable.