FUN WORLD 40

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

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Span</td>
<td>50 in / 1270 mm</td>
</tr>
<tr>
<td>Wing Area</td>
<td>700 sq in / 45.2 sq dm</td>
</tr>
<tr>
<td>Flying Weight</td>
<td>3.6 bs / 1650 g</td>
</tr>
<tr>
<td>Fuselage Length</td>
<td>50.5 in / 1290 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 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.
FUN WORLD 40

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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 thread locker
- 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!
- Apply instant glue (C.A.glue, super glue.)
- Must be purchased separately!
- Ensure smooth non-binding movement while assembling.
- Cut off shaded portion.
- Pierce the shaded portion covering film.
- Warning! Do not overlook this symbol!
Parts List

1. MAIN WING -- 1 pair
   - SCREW PM2x12mm -- 4 pcs
   - CLEVIS -- 2 pcs
   - STRAPER -- 2 pcs
   - FUEL TUBE Ø6x5mm -- 2 pcs
   - HORN -- 2 sets
   - PUSHROD Ø1.8x650mm w/ Threads (For Elevator) -- 1 pcs

2. SCREW PM2x12mm -- 6 pcs
   - WASHER d2xD5mm -- 6 pcs
   - M2 NUT -- 6 pcs
   - FLYING WIRE BRACKET -- 6 pcs
   - FLYING WIRE BRACKET CLEVIS -- 4 pcs
   - EYE SCREW M1.8x8x19.5mm -- 4 pcs
   - WIRE Ø1x600mm -- 1 pcs
   - COPPER TUBE d2.5xD3.2x8mm -- 6 pcs

3. TAIL LANDING GEAR -- 1 set
   - SCREW PA2.6x12mm -- 2 pcs
   - SCREW PM2x10mm -- 1 pc.
   - M2 NUT -- 1 pc.
   - COLLAR Ø2.1mm w/ set screw -- 1 set
   - PLATE 0.3mm -- 1 pc.

4. SCREW PM2x12mm -- 4 pcs
   - CLEVIS -- 2 pcs
   - HORN -- 2 sets
   - FUEL TUBE Ø6x5mm -- 2 pcs
   - PUSHROD Ø1.8x650mm w/ Threads (For Elevator) -- 2 pcs

5. SCREW PM2x10mm -- 2 pcs
   - CLEVIS -- 1 pc.
   - HORN -- 1 set
   - FUEL TUBE d5xD6mm -- 1 pc.
   - PUSHROD Ø1.8x650mm w/ Threads (For Rudder) -- 1 pc.

6. SCREW M3x20mm -- 4 pcs
   - WASHER d3xD7mm -- 4 pcs

7. ENGINE MOUNT PL5111030 -- 1 set
   - SOCKET HEAD SCREW M3x20mm -- 4 pcs
   - WASHER d3xD7mm -- 4 pcs

8. MAIN WING -- 2 pcs
   - SCREW PM2x12mm -- 4 pcs
   - CLEVIS -- 2 pcs
   - FUEL TUBE Ø6x5mm -- 2 pcs
   - PUSHROD Ø1.8x650mm w/ Threads (For Elevator) -- 2 pcs

9. MAIN WING -- 1 pair
   - SCREW PM2x12mm -- 4 pcs
   - CLEVIS -- 2 pcs
   - FUEL TUBE Ø6x5mm -- 2 pcs
   - PUSHROD Ø1.8x650mm w/ Threads (For Elevator) -- 1 pcs

10. FUEL TANK 200cc -- 1 set
    - BALSA 72x6x6mm (For Fuel Tank Position Fixing) -- 1 pc.

11. SCREW PM2x25mm -- 4 pcs
    - WASHER d3xD7mm -- 8 pcs
    - M3 NUT -- 8 pcs
    - THROTTLE PUSHWIRE Ø1.2x400mm -- 1 pc
    - Plastic tube d2xD3x220mm -- 1 pc.

12. MAIN LANDING GEAR -- 1 pc.
    - WHEEL Ø50mm -- 2 pcs
    - SCREW PA2.10mm -- 6 pcs
    - COLLAR Ø3.1mm w/ set screw -- 4 sets
    - LANDING WIRE STRAPS (PL4114030) -- 3 pcs

13. CANOPY -- 1 pc.
    - SCREW PWA2.3x8mm -- 4 pcs
    - SILICON GROMMET d1.5xD6.5mm -- 4 pcs
    - DOUBLE-SIDED TAPE 6x620mm -- 1 pc

14. COWLING -- 1 pc.
    - TRANSPARENT DUMMY COWLING -- 1 pc.
    - SCREW PWA2.6x12mm -- 4 pcs
    - SILICON GROMMET Ø1.5xD6.5mm -- 4 pcs
    - SPINNER Ø52mm -- 1 set

15. EYE SCREW PWA2.5x10x23mm -- 2 pcs
    - WING TUBE Ø14.5x324mm -- 1 pc.
    - RUBBER BAND D30x111mm -- 2 pcs

16. LINKAGE CONNECTOR Ø2.1mm -- 1 set
    - SCREW PWA2.5x8mm -- 4 pcs
    - CLEVIS -- 2 pcs
    - HORN -- 2 sets
    - FUEL TUBE d5xD6mm -- 2 pcs
    - PUSHROD Ø1.8x80mm (For Elevator) -- 2 pcs

17. SCREW PWA2x8mm -- 6 pcs
    - STRAPER -- 2 pcs
    - FUEL TUBE Ø6x5mm -- 2 pcs
    - PLYWOOD 2x72x260.2mm -- 1 pc.
    - SPONGE 70x75x60mm -- 1 pc.
    - PUSHROD Ø1.8x80mm (For Elevator) -- 1 pc.
    - PUSHROD CONNECTOR (For Elevator) -- 1 set

18. DECALS -- 1 set

COVERING:
- LIGHTEX SGX 250 BLUE
- LIGHTEX SGX 030 TRANSPARENT YELLOW
- LIGHTEX SGX 330 CADMIUM YELLOW
- LIGHTEX SGX 571 RICH GOLD
1 Main Wing

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

2 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.

3 Stabilizer & Elevator

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 18 Wing Setting.

- 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.

5 Flying Wire

6 Tail Landing Gear
7 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.

8 Rudder Pushrod

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

9 Engine Mount

- Blind nuts are off-centered to keep the spinner at the fuselage axis.
10 Fuel Tank

Install Balsa 72x6x6mm (For Fuel Tank Position Fixing)

Fuel Tank 200cc

11 Engine

PM3x25mm Screw 4
M3 Nut 8
d3xD7mm Washer 8

N.I.
PM3x25mm

d3xD7mm Washer

M3 Nut

Throttle Pushrod Ø1.2x400mm

Plastic Tube d2x33x220mm

Installed Engine Position

105 mm 4.13in.
**12 Main Landing Gear**

First insert the grommet to the canopy then apply screw.

**13 Canopy**

First insert the grommet to the canopy then apply screw. Please refer to the attached sheet for usage of the transparent 3D template.

**14 Cowling & Spinner**

First insert the grommet to the cowling then apply screw. Please refer to the attached sheet for usage of the transparent 3D template.
15 Main Wing

- Wing Tube D14.5x324mm
- Eye Screw PA2.5x10x23mm
- Aileron Servo Lead
- Rubber Band

Bottom View:
- L/R
- Completed

**Specifications:**
- 1.5mm

**Assembly Notes:**
- Ensure all components are correctly aligned and secured.
- Check the fit of the Eye Screw and Aileron Servo Lead.
- Use the Rubber Band to add durability and flexibility to the design.

**Important:**
- Double-check all measurements and alignment to prevent errors.
- Test the functionality of the main wing setup before final assembly.

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**Diagram Details:**
- Illustrates the main wing structure and its components.
- Shows the placement of the Eye Screw and Aileron Servo Lead.
- A visual guide for the assembly process.

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**Additional Tips:**
- Use a stable surface for the assembly process.
- Keep a clean workspace to minimize errors.
- Use tools as needed for precise assembly.

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**Conclusion:**
- Completing the main wing will enhance the overall performance of the model.
- Ensure all parts are tightly secured to maintain structural integrity.

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**Further Information:**
- Refer to the manual for detailed instructions on each component.
- Contact customer support for assistance with assembly issues.

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**Note:**
- This page is an excerpt from a larger manual or guide.
- Additional pages may provide more detailed information on the assembly process.

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**Author:**
- The World Models Manufacturing Co. Ltd.
16 **Servo Set**

- **Linkage Connector**
  - 3x3 mm Set Screw 1
  - Linkage Connector 1
  - M2 Nut 1
  - 2 mm Washer 2

- **Diagram**: Throttle Pushwire, Throttle Servo, Rudder Servo

- **Note**: Please refer to the attached sheet for linkage connector installation.

17 **Radio Equipment**

- **Diagram**: Pushrod Connector, Elevator Servo, Throttle Servo

- **Text**: Install and arrange the servo as shown in the diagram.

- **Completed**

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18 Wing Setting

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

A=A'
B=B'
C=C'
D=D'
19 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.

   [Diagram showing control throws: Rudder 40mm, Elevator 25mm, Aileron 20mm]

20 C.G.

- The ideal C.G. position is **100mm (3.9 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.

   ![Diagram showing C.G. position]

**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.

- FUN WORLD 40 is specifically designed to be powered by 2C 0.40 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.

- Check and re-tighten up all factory assembled screws, use thread locker if necessary.
**LINKAGE CONNECTOR**

**HW7111050 & HW7111060**

After fastening the round nut, make sure that the linkage connector can rotate freely.

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.

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.

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**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, 2403 Research Drive, Livermore, CA 94550 USA.

1. Name: ____________________________________________________________
2. Address: __________________________________________________________
3. Phone #: __________________ E-mail: _____________________________
4. Model: ___________________________________________________________
5. Wing QC# __________ Fuselage QC# _________________________
   (QC numbers are stamped on wing and fuselage)
6. Date of Purchase: _________________________________________________
7. 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.
2. Then slide onto the actual cowling and use as template to mark the openings required for final cutting.
The World Models

Ducted Fan  Pattern
Warbirds  Funfly
Scale  Electric
Sports  Glider
Trainer  Boat
Accessories

Covering
(Lightex / Toughlon)

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