1.20 cubic inch displacement 4 stroke (glow)
Radio required: 8 channels, 8 servos airplane radio

**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Span</td>
<td>70.5 in / 1790 mm</td>
</tr>
<tr>
<td>Wing Area</td>
<td>1392 sq in / 89.8 sq dm</td>
</tr>
<tr>
<td>Flying Weight</td>
<td>9.5 lbs / 4300 g</td>
</tr>
<tr>
<td>Fuselage Length</td>
<td>70.0 in / 1780 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.

THE WORLD MODELS MANUFACTURING CO. LTD.
FACTORY PRE-FABRICATED ALMOST-READY-TO-FLY (ARF) SERIES MADE IN CHINA
www.theworldmodels.com
FUN WORLD 3D

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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 manufacturer will replace any defective parts, but will be difficult to extend to the good parts that are good before gluing to defective parts during assembly.

3. Symbols used throughout this instruction manual comprise of the following.

- **AB**: Apply epoxy glue.
- **L/R**: Assemble left and right sides the same way.
- **3mm**: Drill holes with the specified diameter (here: 3 mm).
- **!**: Pay close attention here!
- **C.A**: Apply Instant glue. (C.A. glue, super glue.)
- **N.I.**: Must be purchased separately!
- **! Warning!**: Do not overlook this symbol.
- **!**: Pierce the shaded portion covering film.
- **!**: Ensure smooth non-binding movement while assembling.
- **!**: Cut off shaded portion.
**Parts List**

1. **FUSELAGE** -- 1 pc.
2. **MAIN WING** -- 1 pair
3. **STABILIZER & ELEVATOR** -- 1 set
4. **VERTICAL FIN & RUDDER** -- 1 set
5. **PILOT ( # PC001063 B )** -- 1 pc.
6. **CANOPY** -- 1 set
7. **ENGINE MOUNT PL5911120** -- 1 set
8. **FUEL TANK 450cc** -- 1 set
9. **COWLNG** -- 1 pc.
10. **TRANSPARENT 3D TEMPLATE** -- 1 pc.
11. **SPINNER Ø70mm** -- 1 pc.
12. **SPONGE 10 x 80 x 200mm (For Radio Equipment)** -- 2 pcs
13. **MAIN LANDING GEAR -- 2 pcs**
14. **MAIN WHEEL Ø 70mm** -- 1 pair
15. **WHEEL COVER** -- 1 pair
16. **TAIL WHEEL Ø 30mm** -- 1 pc.
17. **METAL ROD, PUSHROD & PULLWIRE:**
   - **METAL ROD Ø1.8 x 100mm w/Threads (For Elevator & Fuselage)** -- 2 pcs
   - **METAL ROD Ø1.8 x 240mm w/Threads (For Elevator & Vertical Fin)** -- 2 pcs
   - **RIGGING COUPLER Ø1.8 x 27mm w/Threads (For Rudder)** -- 2 pcs
   - **RIGGING 2 BEND Ø1.8 x 27mm (For Rudder)** -- 2 pcs
   - **METAL ROD Ø1.8 x 170mm w/Threads (For Elevator)** -- 5 pcs
   - **METAL ROD Ø1.8 x 100mm w/Threads (For Elevator)** -- 1 pc.
   - **WIRE Ø0.8 x 850mm (For Rudder)** -- 2 pcs
   - **COPPER TUBE d2 x D2.4 x 8mm (For Rudder)** -- 4 pcs
18. **THROTTLE PUSHWIRE Ø1.2 x 300mm** w/Plastic tube d2 x D3 x 160mm -- 1 set
19. **WOODEN PARTS:**
   - **BALSAX 5 x 5 x 50 (For Throttle Servo)** -- 2 pcs
   - **BALSAX 5 x 5 x 100 (For Rudder Servo)** -- 2 pcs
   - **BALSAX 10 x 10 x 100mm (For Fixing Fuel Tank)** -- 1 pc.
   - **PLYWOOD 3 x 10 x 21mm (For Throttle Servo)** -- 1 pc.
   - **PLYWOOD 3 x 10 x 100mm (For Rudder Servo)** -- 2 pcs
   - **PLYWOOD 3 x 10 x 41mm (For Throttle Servo)** -- 1 pc.
   - **PLYWOOD 3 x 10 x 96mm (For Rudder Servo)** -- 2 pcs
20. **PLASTIC PARTS:**
   - **CLEVIS** -- 3 pcs
   - **SILICON GROMMET Ø1.5 x Ø6.5mm (For Canopy & Cowling)** -- 9 pcs
   - **STRAPER** -- 6 pcs
   - **TRI-HORN M3 x 14mm (L)** -- 6 sets
   - **TRI-HORN M3 x 14mm (L) w/o Base For Rudder** -- 2 sets
   - **PLATE (Main Landing Gear & Wheel Cover)** -- 4 pcs
21. **METAL PARTS:**
   - **LINKAGE CONNECTOR** -- 1 set
   - **COLLAR 2.6mm** -- 1 set
   - **COLLAR 4.6mm** -- 4 sets
   - **ALUMINUM PLATE 2 x 12 x 75mm (For Engine Mount)** -- 1 pc.
   - **WING TUBE Ø25 x 784mm** -- 1 pc.
   - **NUT 2mm** -- 6 pcs
   - **NUT 3mm** -- 4 pcs
   - **SCREW PA3 x 12mm** -- 10 pcs
   - **SCREW PA3 x 12mm** -- 1 pc.
   - **SCREW PA3 x 40mm** -- 1 pc.
   - **SCREW PM2 x 16mm** -- 6 pcs
   - **SCREW PM2 x 20mm** -- 15 pcs
   - **SCREW PM2 x 16mm** -- 9 pcs
   - **SCREW PM2 x 25mm** -- 3 pcs
   - **SCREW PM3 x 20mm** -- 2 pcs
   - **SCREW PM3 x 25mm** -- 1 pc.
   - **SCREW PM3 x 40mm** -- 1 pc.
   - **SCREW PWA2.3 x 8mm** -- 5 pcs
   - **SCREW PWA2.6 x 12mm** -- 4 pcs
   - **Screw HEAD SCREW M6 x 30mm** -- 4 pcs
   - **WASHER d3 x 0.7mm** -- 4 pcs
   - **WASHER d6 x D18mm** -- 4 pcs
22. **ANTI-VIBRATION MOUNT 4C -120 -- 1 set**
   - **(INCLUDE: SOCKET HEAD SCREW M3 x 35mm** -- 4 pcs
   - **SCREW KM3 x 20mm** -- 8 pcs
   - **WASHER d3 x Ø12mm** -- 6 pcs
   - **NYLON INSERT LOCK NUT 3mm** -- 12 pcs
23. **FUEL TUBE Ø6 x 5mm** -- 14 pcs
24. **DECALS** -- 1 set
3 Landing Gear

- PA3 x 12 mm Screw: 8
- 3 mm Set Screw: 4
- 4.6 mm Collar: 4

4 Engine Mount

- M6 x 30 mm Screw: 4
- d6 x D12 mm Washer: 4

Apply thread locker to screws.

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

Install Balsa 10 x 10 x 100mm (For fixing fuel tank)

Fuel Tank 450cc

Bottom View

6 Stabilizer & Elevator

AB AB

A A'
7 Vertical Fin & Rudder

- AB

8 Tail Landing Gear

- PA3 x 12 mm Screw
  - 2
- 3mm Set Screw
  - 1
- 2.6mm Wheel Collar
  - 1

9 Rudder Pullwire

- PM2 x 20mm Screw
  - 3
- PM2 x 25mm Screw
  - 3
- 2mm Nut
  - 4
- Wire Ø 0.8 x 850mm
  - 11
- Metal Rod Ø1.8 x 240mm
  - 1
- Copper Tube
- Clevis
- Fuel Tube Ø6 x 5mm
- Rigging Coupler Ø1.8 x 37mm w/Threads
- PM 2 x 20mm
- 2mm Nut
- PM2 x 25mm
11 Servo Set

Please refer to attached sheet for linkage connector installation.

12 Servos

Install and arrange the servo as shown in the diagram.
13 Engine

ANTI-VIBRATION MOUNT INSTALLATION

Make sure the rounded edges are facing the shock absorbing SILICON PAD.

Install Engine position

14 Cowling

First insert the grommet to the cowling then apply screw.
Step 1. Insert the aluminum wing tube with the pre-drilled hole end into the right wing. Align the lines marked at the wing root and wing tube and apply the PM3 x 40 machine screw through the pre-drilled hole on top of the wing. (please confirm the alignment of the hole by putting a 2.5mm diameter rod through the pre-drilled wing hole before applying the screw) The hole on the wing tube is pre-threaded, do not over tighten the PM3 screw, the setup is for future removal of the wing.

Step 2. Install the right wing to the fuselage by inserting the wing tube (now attached to the right wing) through the fuselage, then install the left wing.

Step 3. Make sure the wings are resting against the fuselage tightly. Locate the pre-drilled 2.5 mm hole at top of left wing, and drill along with 2.5mm drill bit until it passes through the wing tube. Apply the PA3 x 40 self-tapping screw.

Note: It is recommended that the wing tube stays with the left wing. Removal of the wings could be achieved by removing the right wing machine screw, the right wing then the left with wing tube. If removal of wing tube from left wing is also required, it is recommended that instead of applying self-tapping screw in step 3, you pre-tap with M3 thread cutter and apply M3 machine screw.
16 Canopy

- PM3 x 16mm Screw: 2
- d3 x d7mm Washer: 2
- PWA2.3 x 8mm Screw: 5
- d1.5 x d6.5mm Silicon Grommet: 5

Apply double-sided tape

First insert the grommet to the canopy then apply screw.

---

17 Wing Setting

Adjust the wing and fuselage configuration as in the diagrams.

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

---

P.11
18 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.

Elevator

Rudder

Ailerons (near fuselage)

Ailerons (away from fuselage)

19 C.G.

The ideal C.G. Position is 135mm (5.3 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.

# FUN WORLD 3D is specially designed to be powered by 1.20 4 stroke glow 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.

# Check and re-tighten up all factory assembled screws, use thread locker if applicable.