**FUN WORLD 40**

Requires: (Engine powered) 2-stroke 0.40 - 0.46 engine
4-channel radio w/ 5 standard or mini servos
(Electric powered) 450W motor system
4-channel radio w/ 4 standard or mini servos
40A ESC, 4 cells 14.8V 3200 mAh Li-Po battery & charger

### Specifications

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</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 lbs / 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/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.
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.)
- **L/R**: Assemble left and right sides the same way.
- **N.I.**: Must be purchased separately!
- **3mm**: Drill holes with the specified diameter (here: 3mm).
- **Peel off shaded portion covering film.**
- **Cut off shaded portion.**
- **Pierce the shaded portion covering film.**
- **Pay close attention here!**
- **Warning!** Do not overlook this symbol!
# Parts List

1. **MAIN WING** -- 1 pair  
   - SCREW PB2x12mm -- 4 pcs  
   - CLEVIS -- 2 pcs  
   - STRAPER -- 2 pcs  
   - FUEL TUBE Ø6x5mm -- 2 pcs  
   - HORN -- 2 sets  
   - PUSHROD Ø1.8x560mm w/ Threads (For Elevator) -- 2 pcs  
   - PUSHROD Ø1.8x645mm w/ Threads (For Rudder) -- 1 pc.

2. **SCREW PB2x12mm** -- 4 pcs  
   - CLEVIS -- 2 pcs  
   - HORN -- 2 sets  
   - FUEL TUBE Ø6x5mm -- 2 pcs  
   - PUSHROD Ø1.8x560mm w/ Threads (For Elevator) -- 2 pcs  

3. **STABILIZER & ELEVATOR** -- 1 set  
   - SCREW PB2x10mm -- 2 pcs  
   - COPPER TUBE d2.5xD3.2x8mm -- 6 pcs  
   - EYE SCREW M1.8x8x19.5mm -- 4 pcs  
   - WIRE Ø1x600mm -- 1 pc.

4. **VERTICAL FIN & RUDDER** -- 1 set  
   - SCREW PB2x12mm -- 4 pcs  
   - CLEVIS -- 2 pcs  
   - HORN -- 2 sets  
   - STRAPER -- 2 pcs  
   - FUEL TUBE Ø6x5mm -- 2 pcs  
   - PUSHROD Ø1.8x560mm w/ Threads (For Elevator) -- 2 pcs  
   - PUSHROD Ø1.8x645mm w/ Threads (For Rudder) -- 1 pc.

5. **SCREW PM2x24mm** -- 4 pcs  
   - SCREW PM2x10mm -- 1 pc.  
   - SCREW PM2x12mm -- 2 pcs  
   - SCREW PM2x10mm -- 1 pc.  
   - M2 NUT -- 6 pcs  
   - FLYING WIRE BRACKET -- 6 pcs  
   - FLYING WIRE BRACKET CLEVIS -- 4 pcs  
   - WIRE Ø1x600mm -- 1 pc.  
   - COPPER TUBE d2.5xD3.2x8mm -- 6 pcs  

6. **TAIL LANDING GEAR** -- 1 set  
   - SCREW PA2.6x12mm -- 2 pcs  
   - SCREW PB2x10mm -- 2 pcs  
   - M2 NUT -- 1 pc.  
   - COLLAR Ø2.1mm w/ set screw -- 1 set  
   - PLATE 0.3mm -- 1 pc.

7. **SCREW PB2x10mm** -- 2 pcs  
   - CLEVIS -- 1 pc.  
   - HORN -- 1 set  
   - FUEL TUBE Ø6xD6mm -- 1 pc.  
   - PUSHROD Ø1.8x645mm w/ Threads (For Rudder) -- 1 pc.

8. **SCREW PB2x10mm** -- 2 pcs  
   - CLEVIS -- 1 pc.  
   - HORN -- 1 set  
   - FUEL TUBE d5xD6mm -- 1 pc.  
   - PUSHROD Ø1.8x645mm w/ Threads (For Rudder) -- 1 pc.

9. **COWLING** -- 1 pc.  
   - TRANSPARENT DUMMY COWLING -- 1 pc.  
   - SCREW PWA2.6x12mm -- 4 pcs  
   - SILICON GROMMET d1.5xD6.5mm -- 4 pcs  
   - SPINNER Ø52mm -- 1 pc.

10. **MAIN LANDING GEAR** -- 1 pc.  
    - WHEEL Ø50mm -- 2 pcs  
    - SCREW PA2x10mm -- 6 pcs  
    - COLLAR Ø3.1mm w/ set screw -- 4 sets  
    - LANDING WIRE STRAPS (PL4114030) -- 3 pcs

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

12. **EYE SCREW PA2.5x10x23mm** -- 2 pcs  
    - WING TUBE Ø14.5x324mm -- 1 pc.  
    - RUBBER BAND D30x1mm -- 2 pcs  
    - PLYWOOD 2x24x46mm (For mini servo stand) -- 2 pcs

13. **SPRAY TUBE Ø6x5mm** -- 2 pcs  
    - HORN -- 2 sets  
    - PLYWOOD 2x24x46mm (For mini servo stand) -- 2 pcs

14. **SCREW PB2x8mm** -- 4 pcs  
    - SCREW PB2x12mm -- 4 pcs  
    - SCREW PB2x10mm -- 2 pcs  
    - M2 NUT -- 1 pc.  
    - COLLAR Ø2.1mm w/ set screw -- 1 set  
    - PLATE 0.3mm -- 1 pc.

15. **DECALS-A262SDEC** -- 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 horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.

A. **Aileron Servo Lead**

B. **Aileron Servo Lead**

- If you choose mini servo, please follow this step.
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.

4 Vertical Fin & Rudder

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

5 Flying Wire

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

L/R

Completed
6 Tail Landing Gear

- **PA2.6x12mm Screw**
  - 2
- **PM2x10mm Screw**
  - 1
- **2.1mm Collar**
  - 1
- **M2 Nut**
  - 1

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.

- **PB2x12mm Screw**
  - 4

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.

- **PB2x10mm Screw**
  - 2
9 A Engine

- This step is for engine powered. Please follow step 9B if your model is electric powered.

- To complete your Fun world 40 (nitro powered), you need to purchase The World Models A262SGPTS.

- Apply thread locker to screws.

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

Optional parts for nitro powered Fun world 40, A262SGPTS.

Apply thread locker to screws.

To complete your Fun world 40 (nitro powered), you need to purchase The World Models A262SGPTS.

Apply thread locker to screws.

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

Optional parts for nitro powered Fun world 40, A262SGPTS.
If Fun world 40 is electric powered, please follow this step.

To Complete your Fun world 40 (electric powered), you need to purchase The World Models A262SEPTS.
10 Canopy

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

11 Main Landing Gear

- First insert the grommet to the cowling then apply screw.

12 Canopy

- First insert the grommet to the canopy then apply screw.
14 Radio Equipment

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

If you choose mini servo, please add this step.

- Bottom View

J1 (Pushrod Ø1.8x80mm)
J2 (Pushrod Ø1.8x560mm)
PUSHROD CONNECTOR
Elevator Pushrod Ø1.8x80mm
M2 Nut
KM2x8mm

Elevator Servo

Sponge

10x80x200mm

Receiver

Fuel Tube Ø6x5mm

Rudder Servo

Rudder Pushrod Ø1.8x645mm

B Electric Powered

A Nitro Powered

Front

Sponge

10x80x200mm

Receiver

Fuel Tube Ø6x5mm

Rudder Servo

Rudder Pushrod Ø1.8x645mm

Straper

- Bottom View

Throttle Pushwire Ø1.2x400mm

Throttle Servo

Elevator Servo

Elevator Pushrod Ø1.8x560mm

Completed

PWA2x8mm

Plywood 2x72x260.2mm

Completed

Completed

P.10
15 Wing Setting

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

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

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

The ideal C.G. position is 100mm (3.94 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.

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 specially designed to be powered by 2C 0.40 - 0.46 engine or 450W motor system. Using a more powerful engine does not mean better performance. In fact, over powered propulsion system 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. 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.
- Check and re-tighten up all factory assembled screws, use thread locker if necessary.
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, 2403 Research Drive, Livermore, CA 94550 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

2

3

4

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.
# Optional Parts

## ACCESSORIES

### 3 - Pin EZ Connector

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP0011310</td>
<td>40A Max. Current</td>
<td>1 set</td>
</tr>
</tbody>
</table>

-ideal for electric models

### 2 - Pin EZ Connector

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP0011210</td>
<td>40A Max. Current</td>
<td>1 set</td>
</tr>
</tbody>
</table>

-ideal for electric models

### Clevis Wrench

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL8210010</td>
<td></td>
<td>1 set</td>
</tr>
</tbody>
</table>

Special tool for clevis installation. Suitable for standard and small (EP) clevis.

### Radial Mount Adaptor Set

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW2340300</td>
<td></td>
<td>1 set</td>
</tr>
</tbody>
</table>

### Outrunner 37 / 48 Deluxe

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM0374810</td>
<td>1 pc</td>
</tr>
</tbody>
</table>

- Max speed: 13860 rpm
- Kv (rpm / V): 770
- Operating Power: 450 W
- Operating Voltage: 8.5 - 18 V
- Operating Current: 30 A
- Peak Current: 30A (max. 15 sec.)
- Internal Resistance: 34 m ohms
- Diameter: 37.2 mm
- Length: 48.5 mm
- Weight: 172 g
- Shaft Diameter: 5 mm
- Shaft Length: 21 mm
- Mounting Screw:
  - M3 (Front) and M2.5 (Back)
- Distance of Mounting Holes:
  - 25mm (Front) and 15.5mm (Back)

### Brushless ESC

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KC2040A02</td>
<td>55x28x12mm</td>
<td>1 pc.</td>
</tr>
</tbody>
</table>

-Voltage Range: /
- Current: 40A continuous
- Burst current (<10 seconds): 55A
- Weight: 33g (with wires)
- BEC output: 3A
- Input:
  - Li-ion / Li-poly 2-5 cells;
  - Nimh / Nicd 5-15 cells operation

### Propeller Adaptor Wrench

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW3112400</td>
<td></td>
<td>1 pc.</td>
</tr>
</tbody>
</table>

- Voltage Range: /
- Current: 40A continuous
- Burst current (<10 seconds): 55A
- Weight: 33g (with wires)
- BEC output: 3A
- Input:
  - Li-ion / Li-poly 2-5 cells;
  - Nimh / Nicd 5-15 cells operation