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.

Specifications

- Wing Span: 67 in / 1700mm
- Wing Area: 733 sq in / 47.3 sq dm
- Flying Weight: 5.5-6.2 lbs / 2500-2800g
- Fuselage Length: 53 in / 1350mm

* Specifications are subject to change without notice.*

4-channel radio w/ 5 standard servos

0.40-0.46 cu.in. displacement 2-stroke
0.52 cu.in. displacement 4-stroke
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 instant glue (C.A. glue, super glue.).**
- **Apply thread locker**
- **Must be purchased separately!**
- **Assemble left and right sides the same way.**
- **Ensure smooth non-binding movement while assembling.**
- **Peel off shaded portion covering film.**
- **Cut off shaded portion.**
- **Drill holes with the specified diameter (here: 3mm).**
- **Pierce the shaded portion covering film.**
- **Pay close attention here!**
- **Warning! Do not overlook this symbol!**
## Parts List

1. MAIN WING -- 1 pair
2. WING TUBE Ø16x296mm -- 1 pc.
3. SCREW PB2x16mm -- 4 pcs
   - RING Ø2.6mm -- 2 pcs
   - CLEVIS (L) PL4112103 -- 4 pcs
   - STRAPER (L) PL4112102 -- 3 pcs
   - FUEL TUBE Ø6x5mm -- 7 pcs
   - HORN (L) PL4113101 -- 2 sets
   - PUSHROD Ø1.8x105mm w/ Threads (For Aller) -- 2 pcs
   - PUSHROD Ø1.8x100mm (For Flap) -- 1 set
   - PLYWOOD 3x10x21mm (For Aller Servo) -- 2 pcs

4. FUSELAGE -- 1 pc.
   - STABILIZER & ELEVATOR -- 1 set
5. SCREW PM3x50mm -- 1 pc.
   - SCREW PM3x45mm -- 1 pc.
   - WASHER d3xD7mm -- 2 pcs
   - VERTICAL FIN & RUDDER -- 1 set
6. TAIL LANDING GEAR -- 1 set
   - SCREW PWA2.3x12mm -- 2 pcs
   - PLATE 5x15mm -- 1 pc.
7. FUEL TANK 380cc -- 1 set
   - CABLE TIE (For Fuel Tank) 1.5x5x400mm -- 1 pc.
   - DOUBLE-SIDED TAPE 40x100mm -- 1 pc.
8. ENGINE MOUNT PL5111030 -- 1 set
   - SOCKET HEAD SCREW M3x25 -- 4 pcs
   - WASHER d3xD7mm -- 4 pcs
9. FRONT LANDING GEAR -- 1 set
   - FRONT WHEEL Ø65mm -- 1 pc.
   - STEERING ARM Ø4.1mm -- 1 set
   - WOOD 6x6x18mm (For Front Landing Gear) -- 1 pc.
   - COLLAR Ø4.1mm w/ set screw -- 4 sets
10. MAIN LANDING GEAR -- 1 set
    - SCREW PA3x12mm -- 4 pcs
    - PLATE 12x20mm -- 2 pcs
11. MAIN WHEEL Ø65mm -- 2 pcs
    - COLLAR Ø4.1mm w/ set screw -- 4 sets
12. SOCKET HEAD SCREW M3x25mm -- 4 pcs
    - WASHER d3xD7mm -- 8 pcs
    - M3 NUT -- 8 pcs
    - SPINNER Ø57mm PL2111057 -- 1 set
    - ALUMINUM PLATE 1mm -- 1 pc.
    - SCREW PM2x10mm -- 4 pcs
    - WASHER d2xD5mm -- 4 pcs
    - M2 NUT -- 4 pcs
    - THROTTLE PUSHWIRE Ø1.2x500mm -- 1 pc.
    - PLASTIC TUBE d2xD3x350mm -- 1 pc.
13. SCREW PB2x12mm -- 2 pcs
    - HORN (L) PL4113101 -- 1 set
    - CLEVIS (L) PL4112103 -- 1 pc.
    - FUEL TUBE Ø6x5mm -- 1 pc.
    - PUSHROD Ø1.8x755mm w/ Threads (For Rudder) -- 1 pc.
14. SCREW PB2x12mm -- 2 pcs
    - HORN (L) PL4113101 -- 1 set
    - CLEVIS (L) PL4112103 -- 1 pc.
    - FUEL TUBE Ø6x5mm -- 1 pc.
    - PUSHROD Ø1.8x755mm w/ Threads (For Elevator) -- 1 pc.
15. LINKAGE CONNECTOR Ø2.1mm -- 2 sets
16. PLYWOOD 3x40x87mm (For Throttle) -- 1 pc.
    - BALSA 7x7x40mm (For Throttle) -- 1 pc.
    - FUEL TUBE Ø6x5mm -- 2 pcs
    - STRAPER (L) PL4111202 -- 2 pcs
    - FRONT WHEEL PUSHWIRE Ø1.2x450mm -- 1 pc.
    - PLASTIC TUBE d2xD3x380mm -- 1 pc.
    - PLYWOOD 3x85.4x95mm (For Fuselage) -- 1 pc.
17. SPONGE 60x70x90mm -- 1 pc.
18. SCREW HM4x30mm -- 2 pcs
    - WASHER d4xD15mm -- 2 pcs
    - PLYWOOD 3x40x87mm (For Fuselage Servo Stand) -- 1 pc.
19. CANOPY -- 1 pc.
    - SILICON GROMMET d1.5xD6.5mm -- 4 pcs
    - SCREW PWA2.3x8mm -- 4 pcs
20. DECALS: A113FDEC -- 1 set

### COVERING:

- TOUGHLON STL100 WHITE
- TOUGHLON STL331 CUB YELLOW
- LIGHTEX SGX201 BLACK
- LIGHTEX SGX251 SKY BLUE
- LIGHTEX SGX312 BRIGHTE RED
- LIGHTEX SGX331 CUB YELLOW
- LIGHTEX SGX350 CORSAIR BLUE
1 Main Wing

- Please apply glue to all surfaces for wing joiner

2 Main Wing

- This step is for one-piece aileron. You may follow step 3a if you want to use flaps.

3 Aileron Servo

- Completed
If you want to use flaps, please follow this step.

1. Peel off shaded portion covering film.

2. PB2x16mm Screw

3. PB 2x16mm
Fuel Tube Ø6x5mm
Clevis Ø1.8x105mm
Horn

4. Completed

Completed

5. Straper
Fuel Tube Ø6x5mm
Clevis
Ring

Completed

PB2x16mm Screw

Fuel Tube Ø6x5mm
Clevis
Horn

Completed
4 Stabilizer & Elevator

- Bottom View

5 Vertical Fin & Rudder

- Use thread locker when tightening screws. Don't use excessive force as you are dealing with balsa.

6 Tail Landing Gear

- If you want a tail dragger landing gear, follow this step and 10B.
7 Fuel Tank

8 Engine Mount

- Apply thread locker to screws.
- Blind nuts are off-centered to keep the spinner at the fuselage axis.

9 Front Landing Gear

- If you want a tricycle landing gear, follow this step and 10A.
10 Main Landing Gear

PA3x12mm Screw 4

10A (Tricycle landing gear)

10B (Tail dragger landing gear)

11 Main Wheels

4.1mm Collar 4

3mm Set Screw

12 Engine

PM2x10mm Screw 4

d2xD5mm Washer 4

M3x25mm Socket Head Screw 4

d3xD7mm Washer 8

M2 Nut 4

M3 Nut 8

Throttle Pushwire
Plastic tube

Installed Engine Position

Spinner Ø57mm

104mm 4.1in.

M3x25mm

d3xD7mm Washer

M3 Nut

d3xD7mm Washer

Aluminum Plate 1mm

N.I.

Completed

Front

PA3x12mm

PM2x10mm

2mm

L/R

A113FPO25541103
13 Rudder Pushrod

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

14 Elevator Pushrod

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

15 Servo Set

- 3x3mm Set Screw 1
- Linkage Connector 1
- M2 Nut 1
- 2mm Washer 2

N.I. Included with the radio Set.

Please refer to attached sheet for linkage connector installation.
16 Servos

Throttle Pushwire Ø1.2x500mm
Plastic Tube d2xD3x380mm

17 Radio Equipment

Install Sponge for inserting Battery and Receiver.

18 Main Wing

HM4x30mm Screw
2

d4x15mm Washer
2
19 Canopy

- PWA2.3x8mm Screw
- d1.5xD6.5mm Silicon Grommet

20 Wing Setting

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

A = A'
B = B'
C = C

21 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 90mm (3.54 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.

# **WorldStar 40F** is specially designed to be powered by **2c 0.40-0.46 or 4c 0.52** 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. 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.
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.
### Optional Parts

**ACCESSORIES**

<table>
<thead>
<tr>
<th>180mm Extension For Park Flyer</th>
<th>Code No.</th>
<th>Size</th>
<th>Package</th>
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<tbody>
<tr>
<td>KW0011800</td>
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For park flyers of small electric models

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<tr>
<th>Charge Receptacles</th>
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<th>Field Stand</th>
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<tr>
<td>MS9111430</td>
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<tr>
<td>PL8110030</td>
<td>15 x 22 x 49mm</td>
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<th>Clevis Wrench</th>
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Special tool for clevis installation. Suitable for standard and small (EP) clevis.

<table>
<thead>
<tr>
<th>Standard Servo</th>
<th>Code No. SV4031</th>
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<tr>
<td>Speed</td>
<td>0.17 sec / 60° @4.8V</td>
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<tr>
<td></td>
<td>0.14 sec / 60° @6.0V</td>
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<tr>
<td>Torque</td>
<td>3.2kg.cm / 44.8 oz - in @4.8V</td>
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<tr>
<td></td>
<td>4.1kg.cm / 57.4 oz - in @6.0V</td>
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<tr>
<td>Size</td>
<td>40.6 x 20 x 37mm /</td>
</tr>
<tr>
<td></td>
<td>1.60 x 0.79 x 1.46 in</td>
</tr>
<tr>
<td>Weight</td>
<td>39.4 g / 1.39 oz</td>
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</table>
Ducted Fan  Pattern

Warbirds  Funfly

Scale  Electric

Sports  Glider

Trainer  Boat

Accessories  Covering
(Lightex / Toughlon)