Zero Fighter 60S (A064S)

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.

0.60-0.75 cu. in. displacement 2-stroke
Requires : 6-channel radio w/ 6 standard servos and 1 low profile retract servo

Specifications

<table>
<thead>
<tr>
<th>Wing Span</th>
<th>60.0 in / 1520 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Area</td>
<td>635 sq in / 41.0 sq dm</td>
</tr>
<tr>
<td>Flying Weight</td>
<td>7.5 lbs / 3400 g</td>
</tr>
<tr>
<td>Fuselage Length</td>
<td>45.5 in / 1150 mm</td>
</tr>
</tbody>
</table>

* Specifications are subject to change without notice.*
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 threadlocker**
- **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
   - SCREW KA3x14mm -- 8 pcs
   - RIGHT ANGLE WHEEL SPACER PL4121040 -- 2 sets
   - COLLAR 4.1mm w/ Set Screw -- 2 sets
   - MAIN WHEEL Ø58mm -- 2 pcs
   - RETRACTABLE LANGING GEAR COVER -- 2 sets

2. **RETRACTABLE LANDING GEAR**  -- 1 set
   - SCREW KA3x12mm -- 4 pcs
   - SCREW PA3x12mm -- 4 pcs
   - SCREW PB2x12mm -- 3 pcs
   - SCREW PB2x16mm -- 6 pcs
   - FUEL TUBE Ø6x5mm -- 2 pcs
   - FUEL TUBE Ø6x5mm -- 2 pcs

3. **SERVO MOUNTING PANEL**  -- 1 pair
   - SCREW WWA2x8mm -- 8 pcs
   - SCREW WWA2x8mm -- 8 pcs
   - SCREW PB2x12mm -- 3 pcs
   - SCREW PB2x16mm -- 6 pcs
   - FUEL TUBE Ø6x5mm -- 2 pcs
   - PULL ROPE Ø1.8mm Y-style w/ Threads (For Elevator) -- 1 pc.

4. **TRI-HORN M3x14mm (L)**  -- 2 sets
   - STRAP -- 2 pcs
   - CLEVIS -- 2 pcs
   - FUEL TUBE Ø6x5mm -- 4 pcs
   - FUEL TUBE Ø6x5mm -- 4 pcs
   - PUSHROD Ø1.8mm Y-style w/ Threads (For Flap Servo) -- 1 pc

5. **PLYWOOD 9x29x90mm (Wing Joiner)**  -- 1 pc.
   - PLYWOOD 9x30x90mm -- 1 pc.
   - RING Ø2.3mm -- 2 pcs
   - RING Ø2.3mm -- 2 pcs

6. **LINKAGE CONNECTOR Ø2.1mm w/ Set Screw**  -- 2 sets
   - PLYWOOD 3x32x62mm -- 1 pc
   - STRAP -- 1 pc
   - STRAP -- 1 pc
   - CLEVIS -- 2 pcs
   - CLEVIS -- 2 pcs
   - PUSHROD Ø1.8mm Y-style w/ Threads (For Flap Servo) -- 1 pc

7. **DROP TANK**  -- 1 pc
   - SOCKET HED SCREW M3x14mm -- 2 pcs
   - WASHER d3xD7mm -- 4 pcs

8. **STABILIZER & ELEVATOR**  -- 1 set
   - M3 NUT -- 2 pcs
   - M3 NUT -- 2 pcs

9. **VERTICAL FIN & RUDDER**  -- 1 set
   - TAIL LANDING GEAR -- 1 set
   - TAIL WHEEL Ø25mm -- 1 pc
   - SCREW PA3x12mm -- 2 pcs
   - SCREW PA3x12mm -- 2 pcs
   - COLLAR Ø2.1 w/ Set Screw -- 1 set

10. **FUEL TANK 380cc**  -- 1 set
    - CABLE TIE 1.5x5x4000mm -- 1 pc
    - CABLE TIE 40x100mm -- 1 pc
    - CABLE TIE 40x100mm -- 1 pc

11. **ENGINE MOUNT TL5111070**  -- 1 set
    - SOCKET HEAD SCREW M4x25mm -- 4 pcs
    - WASHER d4x9mm -- 4 pcs

12. **DECALS: A064SDEC**  -- 1 set
    - COVERING FILM -- 2 pcs

13. **COVERING: TOUGHLON STL 202 GRAY**
    - TOUGHLON STL 330 CADMIUM YELLOW
    - TOUGHLON STL 340 OLIVE DRAD
1 Main Wing

- Peel off shaded portion covering film

2 Retractable Landing Gear

- 3mm Set Screw (2)
- 4.1mm Collar (2)
- KA3x14mm Screw (8)

3 Aileron Servo

- PWA2x8mm Screw (8)
4 Aileron Servo

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

5 Main Wing

- Please apply glue to all surfaces of wing Joiner.

6 Retractable Landing Gear Servo
7 **Flap Servo**

- Plywood 2x8x20mm
- Ring Ø2.3mm
- Fuel Tube Ø 6x5mm
- Peel off shaded portion covering film.

8 **Drop Tank Setup**

- M3x14mm Socket Head Screw 2
- d3xD7mm Washer 4
- M2 Nut 2

- Main Wing
- Drop Tank

- Completed

- Bottom View
9 Stabilizer/ Elevator

Temporary install the main wing, adjust leveling of the stabilizer to make it as parallel to the main wing as possible.

10 Vertical Fin / Rudder

11 Fuel Tank

Double-side Tape 40x100mm
Cable Tie 1.5x5x400mm
Completed
12 Engine Mount

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

13 Engine

Illustration is for side mounting. You can mount the engine upright or inverted simply by rotating the engine mount. Thrust angles will not be affected.

14 Cowling

Fuel Filler

PA3x12 Screw
PM3x8mm Screw
d3xD7mm Washer
M3 Nylon Insert Lock Nut
15 Canopy

- First insert the grommet to the canopy then apply screw.
- Apply double-sided tape

16 Rudder Pushrod

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

17 Elevator Pushrod

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

- Bottom View
19 Radio Equipment

- Fix the throttle servo tray either to the right or left side of the fuselage according to your throttle pushrod location.

! Please refer to the attached sheet for linkage connector installation.

Balsa 7x7x40mm

Install Sponge for inserting Battery and Receiver.

Plywood 3x44x121mm

 Charger Receptacles KP0041300

Receiver / Battery

Sponge Sheet 10 x 80 x 200mm

3 x 3mm Set Screw

Linkage Connector

M2 Nut

2 mm Washer

2 mm Washer

1.5 mm

Throttle Pushwire

N.I.

2 mm Washer

M2 Nut

N.I.

Throttle Servo
20 Main Wing

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

21 Wing Setting

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

22 Control Trows

Adjust the control throws as shown in the diagram. These throws are good for general flying. You can adjust according to your personal preference.
# Important Safety Precautions

## Warning!

The ideal C.G. position is **100mm (3.94in.)** 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.

If you are converting this model to electric, please move the C.G. forward 10% of current C.G. distance from leading edge to compensate for weight of fuel.


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# 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.

**Zero Fighter 60S** is specially designed to be powered by 2-stroke 0.60-0.75 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. 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.

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.

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.
Usage of the transparent 3D template

This transparent 3D template is used for position guidance of the actual cutting of the pre-painted cowling.

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

180mm Extension

<table>
<thead>
<tr>
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<th>Size</th>
<th>Package</th>
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<tbody>
<tr>
<td>KW0011800</td>
<td>180mm</td>
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180mm Y-Cord

<table>
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<tbody>
<tr>
<td>KW0021800</td>
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Fuel Filler

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<tbody>
<tr>
<td>PL8110030</td>
<td>15 x 22 x 49mm</td>
<td>1 x 1 pc</td>
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Clevis Wrench

<table>
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<tbody>
<tr>
<td>PL8210010</td>
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<td>1 set</td>
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Charge Receptacles

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<tr>
<td>KP0041300</td>
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Field Stand

<table>
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<tbody>
<tr>
<td>MS9111430</td>
<td>600 x 240 x 310mm</td>
<td>1 pc</td>
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</tbody>
</table>

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

Standard Servo

<table>
<thead>
<tr>
<th>Code No</th>
<th>Size</th>
<th>Package</th>
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</thead>
<tbody>
<tr>
<td>SV4031</td>
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</table>

Speed: 0.17 sec / 60° @4.8V
0.14 sec / 60° @6.0V
Torque: 3.2kg.cm / 44.8 oz - in @4.8V
4.1kg.cm / 57.4 oz - in @6.0V
Size: 40.6 x 20 x 37mm / 1.60 x 0.79 x 1.46 in
Weight: 39.4 g / 1.39 oz